

Industrial Automation

Product Catalogue

www.norgren.com

ELECTRIC MOTION



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INDUSTRIAL COMMUNICATION



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Breakthrough Engineering for a Better World

Norgren is part of global engineering organisation IMI plc. IMI is at the forefront of delivering the solutions we need in a changing world and is focused on **creating tremendous value by solving key industry problems** in attractive markets and employing the best.

Norgren has a proud history of creating innovative engineering solutions in precise motion control and fluid technology, and we collaborate with our customers across more than 50 countries in critical areas such as Factory Automation, Material Handling, Rail, Food & Beverage, Process Control, Life Science and Commercial Vehicles.

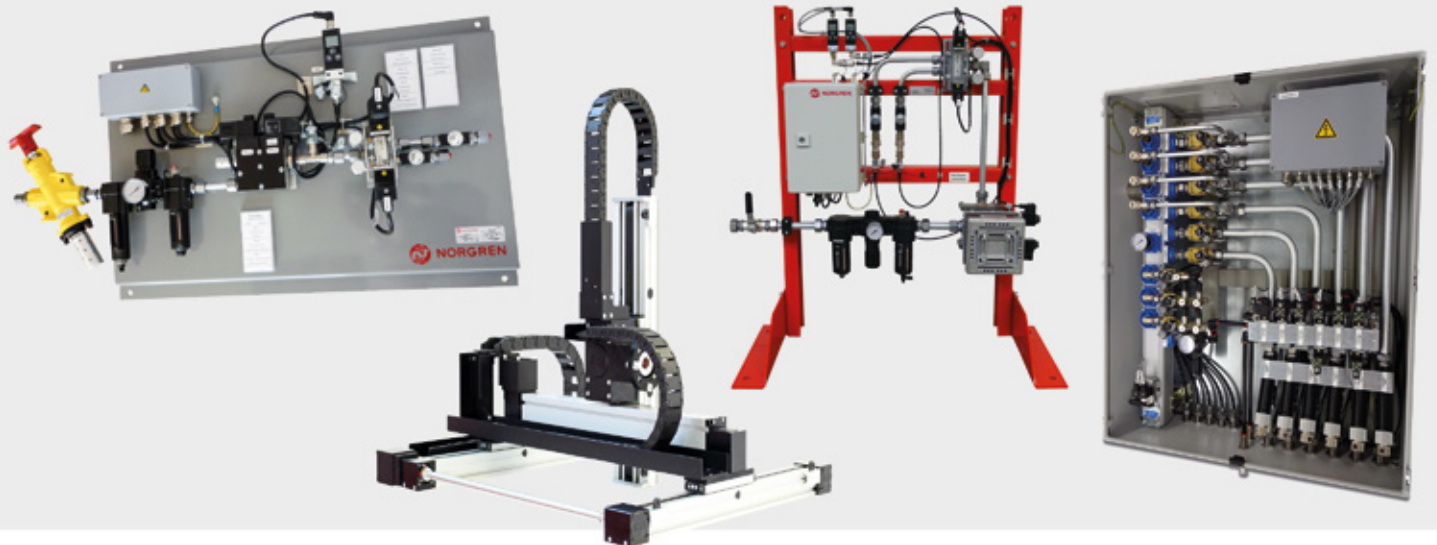
From improving speed, productivity, reliability and efficiency of equipment, to generating significant energy and cost savings, or lowering total cost of ownership across many industries, Norgren's high-quality solutions are designed to help customers pursue progress, achieve new goals and overcome problems.

With market-leading industry expertise, we offer the capability, resources, engineering intelligence and global support infrastructure to tackle the largest project demands.

Our world-class portfolio of fluid and motion control products include Norgren, Bimba, Buschjost, FAS, Herion, Kloehe and Maxseal. Supplied either individually or combined into powerful customised solutions to meet customer needs.

Breakthrough Engineering you can count on.





Experts in Customised Control Solutions

Our highly experienced engineering and production teams design and manufacture custom control solutions, incorporating the latest techniques and technologies to ensure the best design for your application. Whether you need a cabinet, panel or manifold solution, we have the technical competence and products available to meet your needs.

- » Excellent technical support
- » Proven quality products
- » Reduced inventory costs
- » Plug-and-play installation on site





Industrial Automation Expertise

Our high performance products are used across a wide range of sectors including Factory Automation, Food & Beverage and Material Handling.

With over 30 years' experience, we use our deep understanding of the technical challenges and legislative framework to develop pioneering platform products to answer specific needs. Our products improve efficiency and performance, reduce downtime and save energy by simplifying supply chains and reducing machine complexity.

Safety Technology

When it comes to safety, nothing can be left to chance. We offer safety products to help you fully comply with the requirements of ISO 13849.

- » Over 50 years experience in safety applications
 - » Safety applications EN ISO 13849
 - » Competent and professional consulting and system design of safety controls
 - » Very high B₁₀ levels
 - » DGUV certified self-monitored safety valves
- » Important safety features such as:
 - Safe exhaust
 - Safe position
 - Safe stop
 - Reliable reversing
 - Safely limited speed and more





Industrial Internet of Things

As the digital transformation of industry gains pace, we offer high performance, futureproofed product solutions with enhanced, digital capability and connectivity.

IO-Link Switches / Sensors



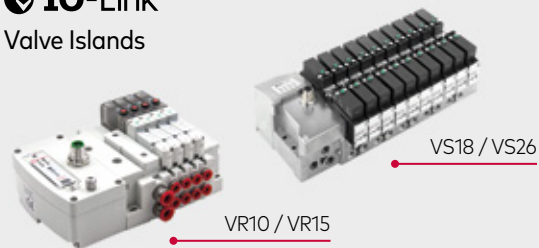
* for all Norgren actuators

IO-Link Master

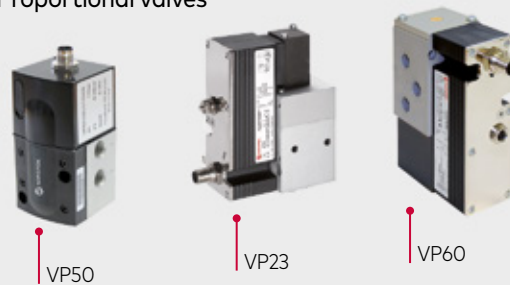
IO-Link
Device
I/O Module

Simple Input / Output Products

IO-Link Valve Islands



IO-Link Proportional valves





Industrial Automation

Our range of solutions pushes factory automation forward, from food and beverage, packaging to textiles.

We apply our expertise to create the precise and innovative components that keep industry moving safely and efficiently.





Key Product Brands



Key Applications

- » Packaging
- » Paper & Print
- » Metal Production
- » Compressed Air
- » Textiles and Machine Automation

Products



» Pneumatic Valves



» Fluid Control Valves



» Rodless Actuators



» Pneumatic Actuators



» Electric Motion



» Air Preparation



» Vacuum Products



» Pneumatic Fittings



For further information,
scan this QR code or visit
www.norgren.com





Material Handling

From robotics, pick and place, conveying, right through to assembly and packaging; material handling sits at the heart of how many industrial organisations operate daily.

With the drive to upscale productivity, cut energy consumption, meet regulations, and drive a more sustainable future, overcoming the challenges of how essential materials and components are handled and transported through production cycles is essential to improve operational efficiency, long-term competitiveness, business resilience and commercial success.





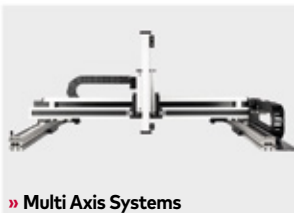
Key Product Brands



Key Applications

- » Pick & Place
- » Sorting
- » Packing
- » Filling
- » Conveying
- » Palletising

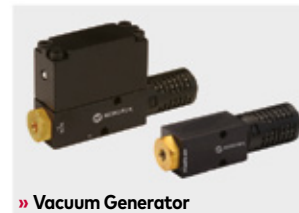
Products



» **Multi Axis Systems**



» **Precision Linear Axis**



» **Vacuum Generator**



» **Vacuum Cups**



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Food & Beverage

We have dedicated over 25 years to meeting the unique needs of the global food and beverage industry, delivering pioneering products and bespoke solutions.

Close collaboration with customers, and a search for innovation that offers real advantage, has resulted in millions of hours of reliable service from our PET bottling, inkjet, processing & packaging, dispense and food service equipment.





Key Product Brands



Key Applications

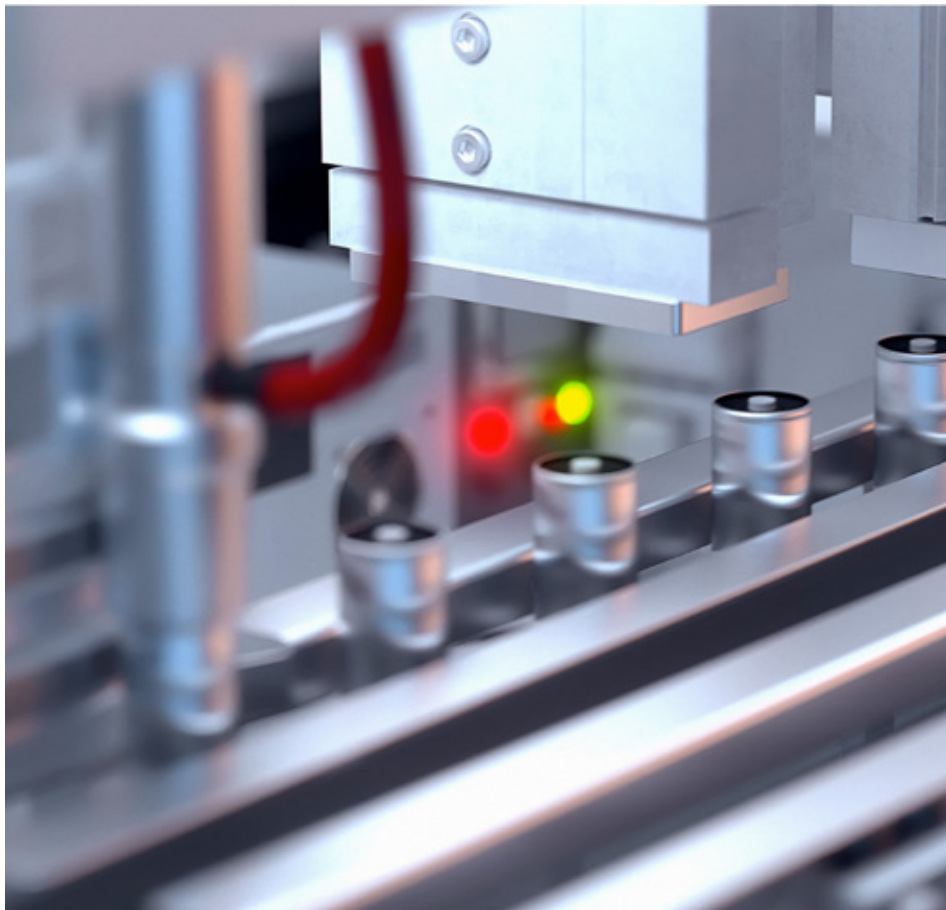
- » Sorting
- » Protein Processing
- » Adhesive Dispensing
- » Packaging
- » PET Bottling
- » Wine Producing
- » Herd Management
- » Milking Parlours

Products



For further information,
scan this QR code or visit
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Battery Manufacture

We work in an intriguing world where every industry brings its own challenges. We solve industry problems with bespoke technology – from cell production to module assembly and testing – we'll be with you every step of the way.

With a true understanding of the daily issues faced by the lithium-ion batteries manufacturers, we deliver a comprehensive range of reliable, safe and high performing pneumatic and electric motion products.

We address the precise needs of the OEMs designing machinery for battery manufacturing process with:

- » Pneumatic products suited to Clean room Class 7 & 8 according to ISO 14644-1
- » Electric Motion solutions for ISO Cleanroom Classes 1-6. Independently certified by Fraunhofer/IPA.
- » Customisation to meet copper & nickel content requirements based on customer specification
- » Environments:
 - Corrosion-resistant products
 - ATEX approvals
 - Extreme temperature -40°C to +80°C
 - Applicable in dry room temperature environment up to -60° C dewpoint





Key Product Brands



Key Applications

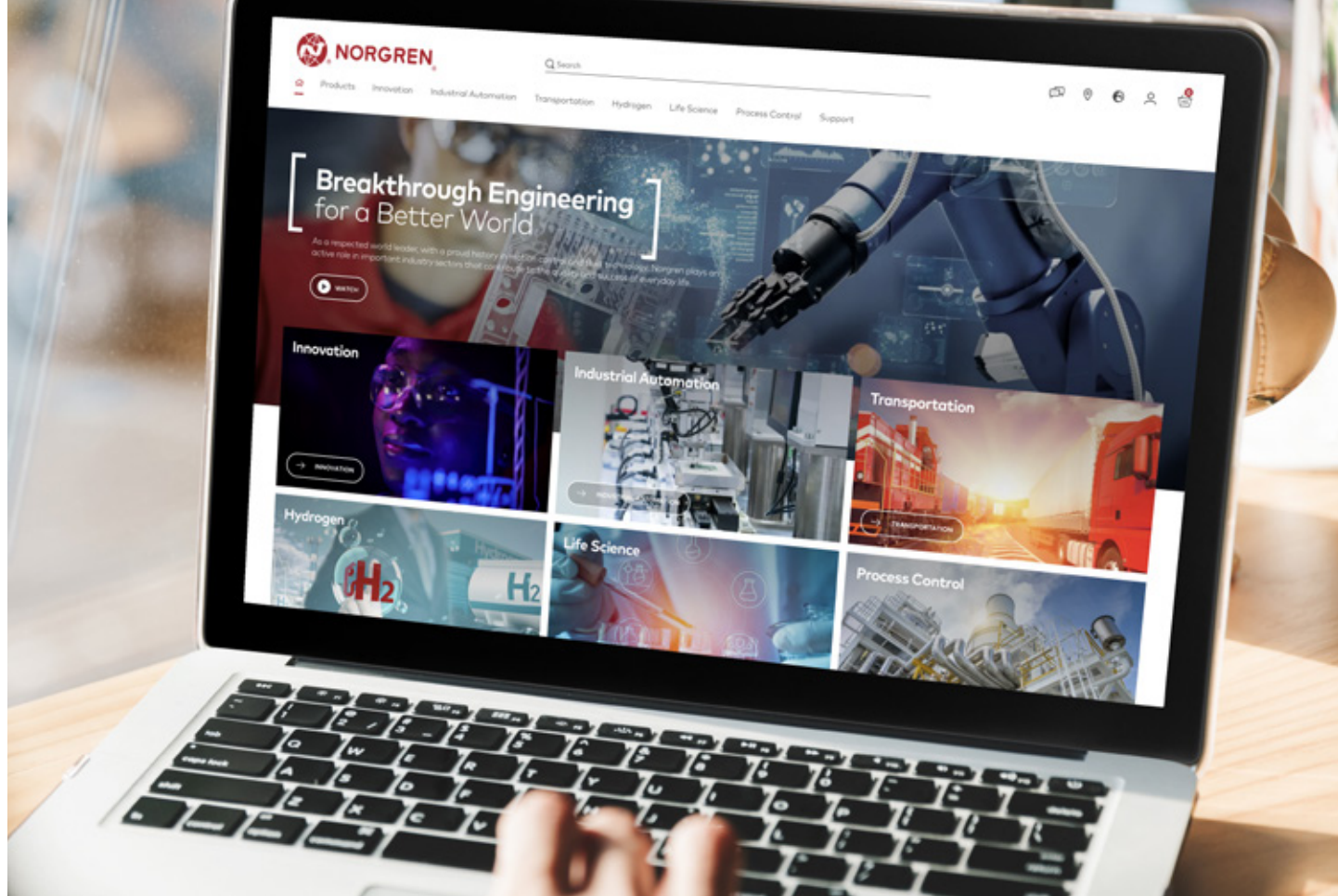
- » Mixing
- » Coating & Drying
- » Calendaring
- » Winding & Stacking
- » Formation & Aging

Products



For further information,
scan this QR code or visit
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World-class products. Technical Excellence. Breakthrough engineering you can count on.

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From configuring a product, to ordering a much-needed part 24/7, or discussing a project with a technical expert, we encourage you to use the wide range of digital solutions we provide to save your time and money.



FAST



RELIABLE



100% SECURE



Sustainability

We take our responsibilities to the environment and the communities in which we operate very seriously as it resonates with our Breakthrough Engineering for a Better World purpose. Our behaviour is driven by ESG considerations and principles and our ambition to deliver a better world.





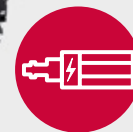
[Electric Motion]

1

Designed to meet our customers' requirements, we now offer an expanded range of high-performance Electric Motion solutions suited to a variety of industrial applications across Material Handling, Pharmaceuticals, Food & Beverage, Battery Production and Factory Automation sectors.

Our Electric Motion solutions include Electric Cylinders, Linear Axes and custom built cartesian and gantry systems for Multi-Axis applications. Our wide range of drive, guide and profile options (with over 100,000,000 possible configurations) allow us to individually design solutions that offer customers complete flexibility.

The requirements for modern industrial automation applications are becoming increasingly complex, and whether its precise control, accurate positioning, repeatability or wear-free operation - our Electric Motion products are built on over 30 years of extensive application experience, to deliver Breakthrough Engineering you can count on.





Electric Motion

Norgren's Electric Motion solutions are designed to meet the most demanding performance requirements. We offer an unparalleled engineering service including Application Engineering support, complete 3D CAD models & drawings, and life & cycle time calculations.

To ensure we meet your exact specifications and to guide you in choosing the right solution for your application, our experienced technical team provide comprehensive needs assessment, advice, and technical support from design through to delivery.

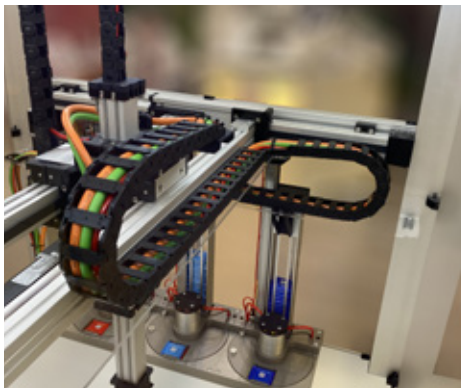
- » Technical consultation and needs assessment
- » Complete offer within 48-hours with 3D model, drawings, life and cycle time calculation
- » Gearbox and motor dimensioning on request
- » Structural analysis for critical applications on request
- » Guidance on specialist applications such as ATEX/Ex-Proof, Cleanroom etc.
- » Design of project-specific special components and accessories such as energy chains and support frames
- » Repair, maintenance and spare parts for any system



**Fast response
to queries**



Application Engineering



**After Sales Service
& Support**



NORGREN®

For further information, visit www.norgren.com and use the new improved search function. If you cannot see the option you require please contact us.





[We offer a one-stop shop for your Electric Motion needs]

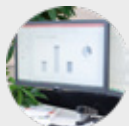
Customised
Accessories



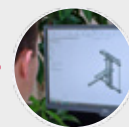
Custom-built
configurations
and
manufacturing



Technical
consultation



CAD
simulation
and analysis



Calculations
and FEA
analysis



Best-In-Class
Service





Fast Find Guide

Please note: These products represent only part of the Norgren electric motion range. If you can't see the option you require please contact us.

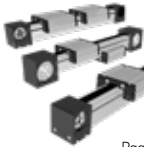
Electric Cylinders

E/809000 Series



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Linear Axis

E Series  Page 1-012	D Series  Page 1-020	Q Series  Page 1-030	L Series  Page 1-034
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Multi Axis Systems

ELZI Series  Page 1-037	ELZU Series  Page 1-038	Multi Axis Systems  Page 1-040
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*"Have a project enquiry?
Contact us now!"*



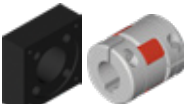
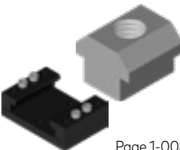
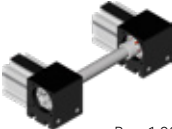




Fast Find Guide

Please note: These products represent only part of the Norgren electric motion range. If you can't see the option you require please contact us.

Accessories

AC Servo Motors  Page 1-008	Servo Drives & Protocols  Page 1-008	Switches and Cables  Page 1-008	Motor Adaptor Plates and Couplings  Page 1-008	Mountings, Blocks and Nuts  Page 1-008
Gearboxes  Page 1-040	Cable Chains  Page 1-040	Parallel Transfer Units  Page 1-008		

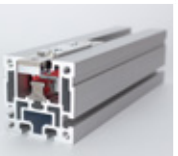




		Guide options			Drive options				
									
		Sliding Guide	Roller Guide	Rail Guide	Spindle	Belt	Rack	LinearMotor	
Electric Cylinder	 E/809000 Series	●	○	○	●	○	○	○	» Based on ISO 15552 standard » Suited for applications with high force & repeatable positioning requirements » IP65 rated options for operation in wet and dusty environments
	 E Series	●	●	○	●	●	●	○	» Robust in harsh environments » Long traverse path » Suited for use in potentially explosive areas » Easy maintenance » Dynamic
Linear Axis	 D Series	○	●	●	●	●	●	●	» Twin integrated internal guides for heavy-duty applications » Robust in harsh environments » Suited for use in cleanroom environments
	 Q Series	○	●	●	●	●	○	○	» Suited for use in cleanroom environments » Flexible mounting position » Long traverse path » Dynamic
	 L Series	○	●	●	○	●	○	○	» Compact, lightweight design » Flexible mounting position » Long traverse path » Dynamic » Suited for use in cleanroom environments
	 ELZI Series	○	●	○	○	●	○	○	» Dynamic X/Z portal » Compact, lightweight design » Suited to pick and place applications requiring high acceleration
Multi-Axis Systems	 ELZU Series	○	●	○	○	●	○	○	» Surface portal with 2 Y-axis and a single X-axis » Compact, lightweight design » Suited for pick and place applications requiring high acceleration





Drive options				Guide options		
						
Spindle Drive	Tooth Belt Drive	Rack & Pinion Drive	Linear Motor Drive	Roller	Rail	Slider
Dynamic (v, a)						
Stroke						
Axial Force						
Vertical Load						
Repeatability						
Maintenance						
Lifetime						



Accessories

■ Electric Cylinders

■ Linear Axis

AC Servo Motor



- » Axially or parallel assembly in four positions
- » Wide torque range
- » IP65 (motor only)
- » Low inertia for high dynamic performance
- » UL/CUL, CE and RoHS Compliant

Servo Drive & Protocols



- » Supports range of machine control options
- » Advanced motion controller on board
- » Small footprint, just 40 mm wide
- » Protocols: Ethernet/IP, PROFINET, PROFIBUS, EtherCAT, CANopen and DeviceNet

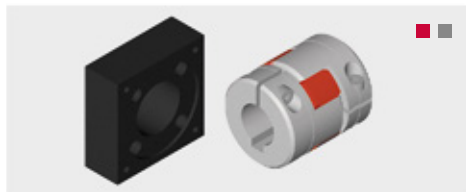
Switches and Cables



Wide range of:

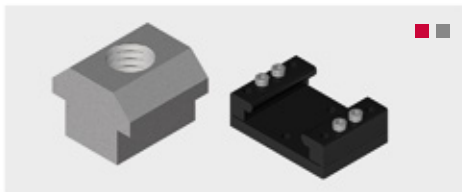
- » Switches
- » Cables
- » Magnetic strips
- » Holders for sensors

Motor Adaptor Plates & Couplings



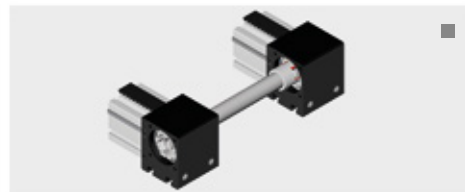
- » Adaptor plates for mounting a wide range of motors
- » Wide range of couplings for connecting motor shafts to drive shafts

Mountings, Blocks and Nuts



- » Cylinder foot mounts
- » Mounting nuts and blocks for assembling Linear Axes to machine framework
- » Joining blocks for unlimited stroke
- » Angular bracket for robust gantry system combination

Parallel Transfer Units



- » Belt transfer units for Spindle driven Linear Axes
- » Connection shafts for Tooth belt driven Linear Axes





Application Examples

We develop customized solutions for every requirements profile, from individual parts to serial production, and we offer the right Electric Motion technology for every industry segment.



Mechanical and Systems Engineering

- » Coating, painting, welding, measuring and forming plants
- » Glass, stone and wood working machinery



Automation and Electrical Engineering

- » Assembly lines and storage systems
- » Assembly and handling systems
- » Measuring and inspection equipment



Lifting and Materials Handling Technology

- » Bottling and dosing systems
- » Electromechanical lifting systems
- » Lift systems



Food Industry

- » Food and animal food production



Chemical and Pharmaceutical Industry

- » Mixing, testing and dosing equipment
- » Laboratory applications
- » Clean-room conditions



Pharmacy Automation

- » Automatic picking system



Packaging Technology

- » Labelling and packaging equipment
- » Systems for cartoners, loaders, packers and deliverers



3D Printing

- » Rapid prototyping
- » Industrial 3D printing
- » Sintered metal process
- » Architectural projects





Electric Cylinder - E/809000 Series

A range of ISO standard rod-style, ball screw electromechanical linear cylinders available with or without servo motors, in 6 bore sizes with 2 motor mounting options.

» Accurate and Repeatable

Ball screw and servo motor provides accurate and repeatable positioning

» Long Life

Ball screw and bearing mechanisms enable high cycle life

» Ease of Installation

Based on ISO 15552 standard with universal mounting options

» Environment

IP65 options for both axial and parallel mounted motors ensure cylinders will continue to operate in dusty and wet environments

» Performance Monitoring

Integral sensors and external switches monitor cylinder performance and enable planned maintenance

» Energy Saving

Electromechanical components efficiently convert electricity to mechanical power, only energised when movement is required, reducing energy consumption and the cost of ownership

» Safety in Service

Servo motor with optional integrated holding brake enables cylinders to self-lock when the power is isolated

» Industries

Carefully selected materials and product specifications suitable for a variety of applications

» Smart Configurations

Our online configurator enables quick and easy product selection based on customer application input

» Flexible Service

Customised motor interfaces allow customers to fit their own preferred motors

» One-Stop Shop

Motors, drives and accessories are available

Technical Specifications:

- » Ball screw cylinders with or without servo motor
- » 6 bore sizes
- » 2 motor mounting options
- » Robust construction
- » Based on ISO 15552
- » Maintenance free
- » IP65 protection (optional)
- » Built on reliable & long-life Norgren technology
- » Wide range of motors, drives & accessories

Optional

- » Piston rod extension
- » Internally threaded piston rod
- » Piston rod bellows



» 32, 40, 50, 63, 80, 100 mm



» Max. 1.6 m/s



» 100 mm - 1500 mm stroke



» Operating temperature
Cylinder: 0°C to +80°C
» Ambient temperature
Motor: 0°C to +40°C

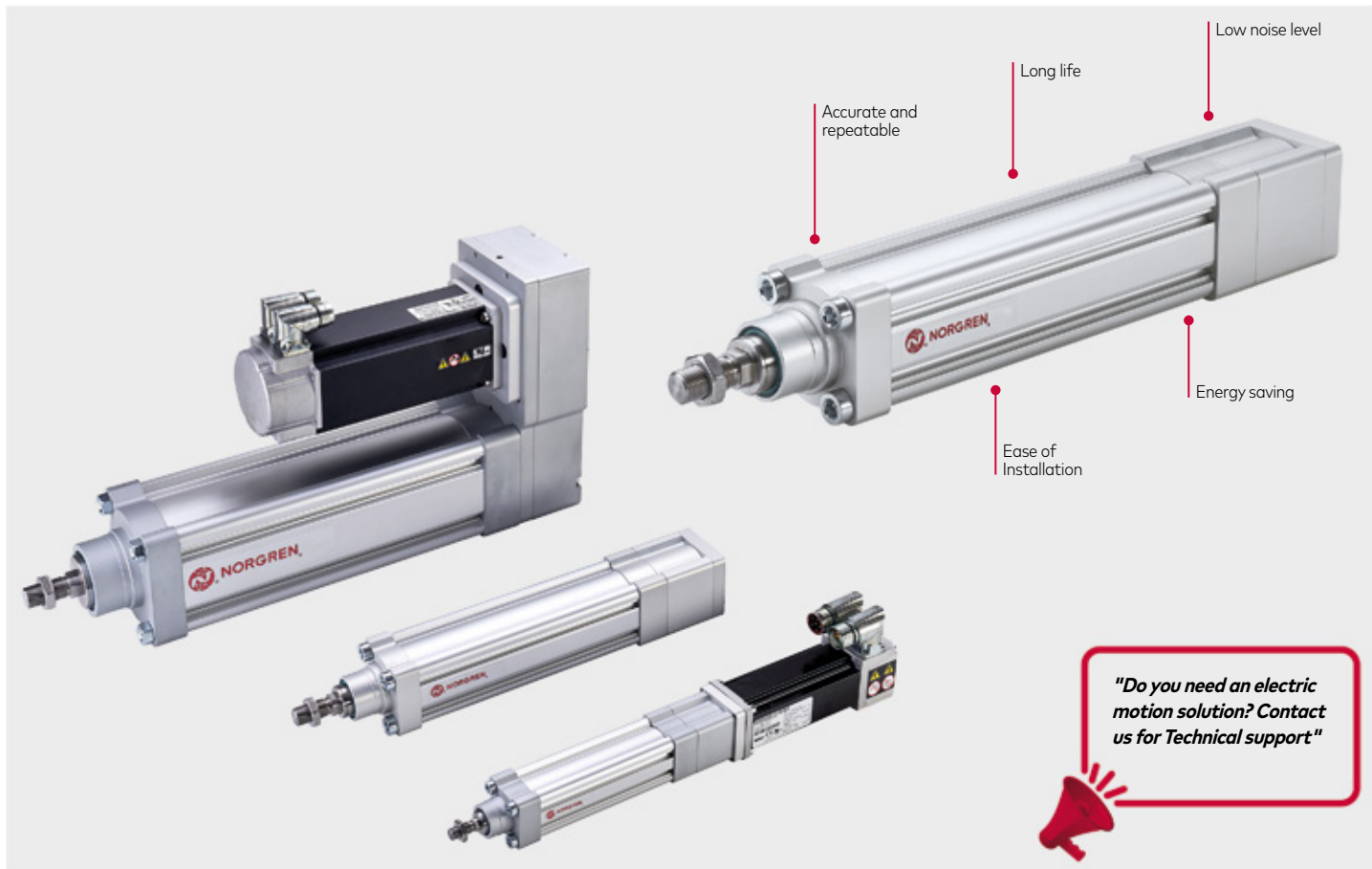


» Up to 30.4 kN



» Protection Class IP40 or IP65





Linear Axis - E Series - ELZ range

For Standard Industrial Applications

Tooth belt driven Linear Axis range with a square, Aluminium profile and integrated hardened Steel guide rods.

- » The carriage runs on internal linear ball bearings that can be adjusted free of play
- » The pulleys have maintenance-free ball bearings
- » Belt tension is adjusted via simple screw adjustment device in carriage
- » Multiple units can be assembled in series to achieve extended strokes
- » Carriage can be customised to include extensions and accessories mounted within the profile
- » NORDKAP certified and ATEX rated versions available



Tooth Belt Drive



Double Roller - Single Guided



» 30 - 40 - 60 - 80 - 100 - 125 mm



» Up to 5750 N



» Up to 6 m (standard)
» Up to 20 m (with axes joined in series)



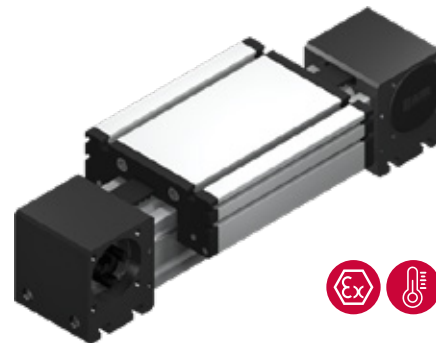
» $\pm 0,1$ mm



» 10 m/s
» ATEX: 1 m/s



» Low maintenance



Linear Axis - E Series - ELSZ range

For Standard Industrial Applications

Toothbelt driven Linear Axis range with a square, Aluminium profile and hardened Steel guide rods.

- » Omega belt system provides flexibility with mounting, making this range ideally suited for vertical installations
- » The carriage runs on internal linear ball bearings that can be adjusted free of play
- » The pulleys have maintenance-free ball bearings
- » Belt tension is adjusted via simple screw adjustment device in carriage
- » Alternative versions available with widened belt for higher load capacity



Omega Tooth Belt Drive



Double Roller - Single Guided



» 30 - 40 - 60 - 80 - 100 - 125 mm



» Up to 5750 N



» Up to 6 m (standard)
» Up to 20 m and longer
(with axes joined in series)



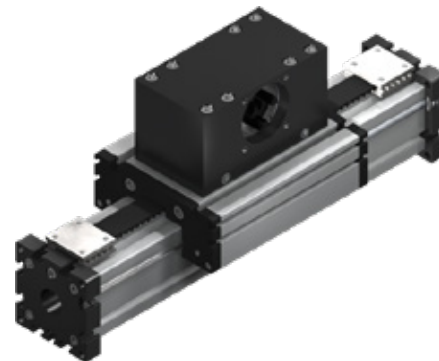
» $\pm 0,1$ mm



» 10 m/s



» Low maintenance



Linear Axis - E Series - ELT / ELK range

For Standard Industrial Applications

Spindle driven Linear Axis range with a square, Aluminium hollow section with integrated, parallel, ground and hardened Steel guide rods.

- » The carriage is driven by a rotating trapezoidal/ball screw threaded spindle connected to the carriage by a ball nut
- » The carriage has play-adjustable ball-bearing rollers which engage with the guide rods
- » The connecting slot between carriage and ball nut is covered by a stainless steel strip providing protection against splash water and dust ingress
- » Lateral adjustment of movement for parallel units, or where twin carriages are mounted, is provided by the ball nut mounting



Spindle Drive



Double Roller - Single Guided



» 30 - 40 - 60 - 80 - 100 - 125 mm



» 12000 N



» 3000 mm



» $\pm 0,025$ mm (K)

» $\pm 0,2$ mm (T)



» ± 1 m/s (K)

» $\pm 0,4$ m/s (T)



» Low maintenance



Linear Axis - E Series - EGT / EGK range

For Standard Industrial Applications

Spindle driven Linear Axis range with a square, Aluminium profile and sliding guides.

- » The carriage is driven by means of a trapezoidal/ball screw threaded spindle with lead screw
- » Guided by lateral V-slides that are adjustable free of play
- » The linear opening of the unit is sealed with a stainless steel strip providing protection against splash water and dust ingress
- » The leading-nut receiver can be used to adjust the symmetry of the carriages where two linear units are used in parallel or where twin carriages are mounted



Spindle Drive



Sliding Guide



» 30 - 40 - 60 - 80 mm



» 3500 N



» 3000 mm



» $\pm 0,025$ mm (K)
» $\pm 0,2$ mm (T)



» ± 1 m/s (K)
» $\pm 0,4$ m/s (T)



» Low maintenance



Linear Axis - E Series - ELZA/ELDZA range

For Standard Industrial Applications

Rack and Pinion driven Linear Axis range with a square, Aluminium profile and integrated hardened steel guide rods.

- » The carriage runs on internal linear ball bearings that can be adjusted free of play
- » The pinion is equipped with maintenance-free ball bearings
- » The ELDZA range includes our innovative guiding profile which can be used effectively in combination with standardized toothed racks
- » Multiple units can be assembled in series to achieve extended strokes



Rack and Pinion Drive



Double Roller - Single Guided



» 40 - 60 - 80 - 100 mm



» 2500 N



» Up to 6 m (standard)
» Up to 20 m and longer
(with axes joined in series)



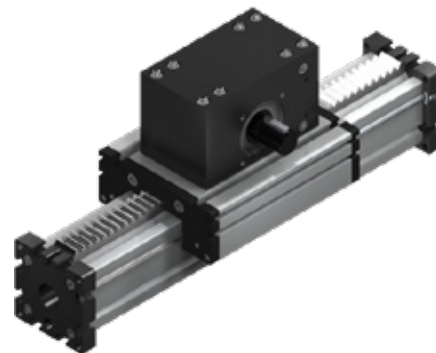
» $\pm 0,1$ mm



» 3 m/s



» Low maintenance





Linear Axis - E Series - Additional ranges

Linear Axis with Tooth Belt Drive



ELFZ



- » Belt drive
- » Pulley principle
- » Vertical installation position
- » Omega system

ELFZ EX



- » Belt drive
- » Ex guide
- » Pulley principle
- » Vertical installation position
- » Omega system

ELHZ



- » Internal belt drive
- » Clean room
- » Horizontal Tooth belt
- » High dynamics

ELSD



- » Belt drive with rotary shaft
- » Omega system
- » Vertical installation position
- » Gripper adaptation
- » Rotational movement

ELVZ



- » Internal belt drive
- » Clean room
- » Vertical Tooth belt
- » High dynamics
- » Additionally with two carriages moving in opposite directions

ELZ-NK NORDKAP



- » Belt drive
- » Deep-freeze conditions
- » Long service life
- » Food industry
- » Reliability



Linear Axis - E Series - Additional ranges

Linear Axis with Tooth Belt Drive



ELZ-W



- » Higher profile stability
- » Higher force fixture
- » Long traverse path

ELZD-W



- » Belt drive
- » Higher profile stability
- » Independent carriages
- » Higher force fixture

ELZ EX



- » Belt drive
- » Universal system
- » Ex-guide
- » High speed

ELZG



- » Tooth belt drive with revolving tooth belt
- » Universal system
- » Carriage to move in opposite directions from each other

ELZT



- » Telescopic belt drive
- » Omega system
- » Vertical installation position
- » Cantilever axis

ELZZ



- » Belt drive
- » Two separately driven carriages
- » Universal system
- » Higher force fixture
- » Compact design





Linear Axis - E Series - Additional ranges

Linear Axis with Rack And Pinion Drive



ELZQ



- » Rack and pinion drive
- » High load capacity
- » High rigidity
- » Lifting system
- » High operational reliability

Linear Axis without Drive



E



- » Combination unit for use with single axis systems

ELR



- » Combination unit for use with EL spindle multi axis systems

ELRZ



- » Combination unit for use with EL belt multi axis systems





Linear Axis - D Series - DLZ range

For Heavy Duty Industrial Applications

Toothbelt driven Linear Axis range with a rectangular, Aluminium profile.

- » Twin integrated roller guides ensure this range is suitable for heavy duty applications with heavy loads and high moments
- » Each standard pulley has got one coupling claw on one side
- » Belt tension can be readjusted by a simple screw adjustment device in the carriage
- » Openings in the guide body are sealed with stainless steel cover bands providing protection against splash water and dust ingress (cover bands are optional)
- » Multiple units can be assembled in series to achieve extended strokes (without cover bands)
- » Certified for use in Clean room applications (ISO-5)



Tooth Belt Drive



Double Roller - Double Guided



» 120 - 160 - 200 mm



» 3800 N



» Up to 6 m (standard)
» Up to 20 m (with axes joined in series)



» $\pm 0,1$ mm



» 8 m/s



» Low maintenance



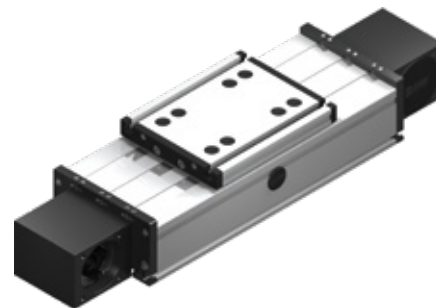


Linear Axis - D Series - DSZ range

For Heavy Duty Industrial Applications

Tooth belt driven Linear Axis range with a rectangular, Aluminium profile.

- » Twin integrated rail guides ensure this range is suitable for applications handling exceptionally heavy loads
- » Each standard pulley has got one coupling claw on one side
- » Belt tension can be readjusted by a simple screw adjustment device in the carriage
- » Openings in the guide body are sealed with stainless steel cover bands providing protection against splash water and dust ingress (cover bands are optional)
- » Multiple units can be assembled in series to achieve extended strokes (without cover bands)



Tooth Belt Drive



Twin Rail Guides



» 120 - 160 - 200 mm



» 3800 N



» Up to 6 m (standard)
» Up to 15 m (with axes joined in series)



» $\pm 0,1$ mm



» 4 m/s



» Low maintenance





Linear Axis - D Series - DLT / DLK range

For Heavy Duty Industrial Applications

Spindle driven Linear Axis range with a rectangular, Aluminium profile.

- » Twin integrated roller guides ensure this range is suitable for applications handling exceptionally heavy loads
- » The carriage is driven by means of a rotating spindle with leading nut
- » The leading-nut receiver can be used to adjust the symmetry of the carriages where two linear units are used in parallel or where twin carriages are mounted
- » Openings in the guide body are sealed with stainless steel cover bands providing protection against splash water and dust ingress



Spindle Drive



Double Roller - Double Guided



» 120 - 160 - 200 mm



» 8000 N



» 3000 mm



» $\pm 0,025$ mm (K)
» $\pm 0,2$ mm (T)



» ± 1 m/s (K)
» $\pm 0,4$ m/s (T)



» Low maintenance

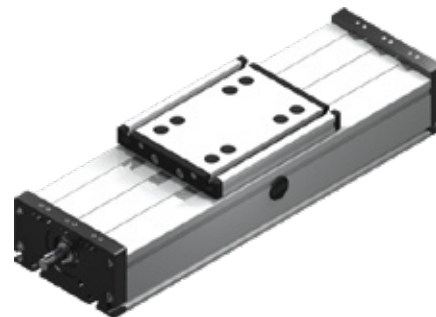


Linear Axis - D Series - DST / DSK range

For Heavy Duty Industrial Applications

Spindle driven Linear Axis with a rectangular, Aluminium profile.

- » Twin integrated rail guides ensure this range is suitable for applications handling exceptionally heavy loads
- » The carriage is driven by means of a rotating spindle with leading nut
- » The leading-nut receiver can be used to adjust the symmetry of the carriages where two linear units are used in parallel or where twin carriages are mounted
- » The openings of the guide body are sealed with stainless steel cover bands providing protection against splash water and dust ingress (cover bands are optional)



Spindle Drive



Twin Rail Guides



» 120 - 160 - 200 mm



» 8000 N



» 3000 mm



» $\pm 0,025$ mm (K)
» $\pm 0,2$ mm (T)



» ± 1 m/s (K)
» $\pm 0,4$ m/s (T)



» Low maintenance



Linear Axis - D Series - DLZA range

For Heavy Duty Industrial Applications

Rack and Pinion driven Linear Axis range with a rectangular Aluminium profile.

- » Twin integrated roller guides ensure this range is suited to heavy duty applications with heavy loads
- » The carriage runs on internal linear ball bearings that can be adjusted free of play and is driven along the guide rods by a high precision rack
- » The pinion is equipped with maintenance-free ball bearings
- » The rack and pinion system is suitable for highly dynamic servo operation and ideal for lifting applications
- » Multiple units can be assembled in series to achieve extended strokes



Rack and Pinion Drive



Double Roller - Double Guided



» 160 - 200 mm



» 3800 N



» Up to 6 m (standard)
» Up to 20 m and longer
(with axes joined in series)



» $\pm 0,1$ mm



» 5 m/s



» Low maintenance



Linear Axis - D Series - DSZA range

For Heavy Duty Industrial Applications

Rack and Pinion driven Linear Axis range with a rectangular Aluminium profile.

- » Twin integrated rail guides ensure this range is suited to heavy duty applications with heavy loads
- » The carriage is driven by a pinion on a high precision rack
- » The pinion is equipped with maintenance-free ball bearings
- » The rack and pinion system is suitable for highly dynamic servo operation and ideal for lifting applications
- » Multiple units can be assembled in series to achieve extended strokes



Rack and Pinion Drive



Twin Rail Guides



» 160 - 200 mm



» 3800 N



» Up to 6 m (standard)
» Up to 20 m and longer
(with axes joined in series)



» $\pm 0,1$ mm



» 5 m/s



» Low maintenance





Linear Axis - D Series - Additional ranges

Linear Axis with Tooth Belt Drive



DLSZ



- » Belt drive
- » Omega system
- » Horizontal installation position
- » Off-center loads

DLVZ



- » Belt drive
- » Independent installation position
- » Special drive version
- » Space saving

DLZPVI



- » Belt drive
- » Planetary gearbox
- » Available with angular planetary gearbox
- » Cover profile

DLZS



- » Belt drive
- » Omega system
- » Independent installation position
- » Lifting system

DLZS-P



- » Belt drive
- » Omega system
- » Independent installation position
- » Lifting system
- » Cover profile

DLZZ



- » Belt drive
- » With two separately driven carriages
- » Independent carriages
- » Horizontal installation position





Linear Axis - D Series - Additional ranges

Linear Axis with Tooth Belt Drive



DSSZ



- » Belt drive
- » Omega system
- » Horizontal installation position
- » Off-center loads

DSZPVI



- » Belt drive
- » Optional with two driven carriages
- » Cover profile

DSZS



- » Belt drive
- » Independent installation position
- » Omega system
- » Lifting system

DSZS-P



- » Belt drive
- » Omega system
- » Independent installation position
- » Lifting system
- » Cover profile

DSZZ



- » Belt drive
- » With two separately driven carriages
- » Independent carriages
- » Horizontal installation position



Linear Axis - D Series - Additional ranges

Linear Axis with Spindle Drive



DLT-P / DLK-P



- » Spindle drive
- » Independent installation position
- » Precision
- » Cover profile



DST-P / DSK-P



- » Spindle drives
- » Precision
- » Independent installation position
- » Universal system
- » Cover profile





Linear Axis - D Series - Additional ranges

Linear Axis with Linear Motor Drive



DLM



- » Linear motor drive
- » Roller guide
- » High dynamics
- » High repeat accuracy
- » Long traverse path
- » Independent carriages

DSM



- » Linear motor drive
- » Rail guide
- » High dynamics
- » High repeat accuracy
- » Long traverse path
- » Independent carriages

DSM-P



- » Linear motor drive
- » Rail guide
- » High dynamics
- » High repeat accuracy
- » Long traverse path
- » Clean room

Linear Axis without Drive

DLR



- » Combination unit for use with DL multi-axis systems

DSR



- » Combination unit for use with DS multi-axis systems





Linear Axis - Q Series - QLZ range

For High Spec Industrial Applications

Tooth belt driven Linear Axis range with a square, Aluminium profile and integrated hardened Steel guide rods.

- » The carriage is driven by a timing belt and runs on an integrated roller guide
- » Each standard pulley includes one coupling claw on one side
- » Belt tension can be readjusted by a simple screw adjustment device in the carriage.
This can also be used for symmetrical adjustment of two or more linear units running parallel.
- » This linear unit is suitable for application in clean rooms of clean-room classification 1.000 (corresponding to US Fed. Standard 209 E)
- » Certified for use in Clean room applications (ISO-6)



Tooth Belt Drive



Double Roller - Single Guided



» 60 - 80 - 100 mm



» 3800 N



» Up to 6 m (standard)
» Up to 20 m (with axes joined in series)



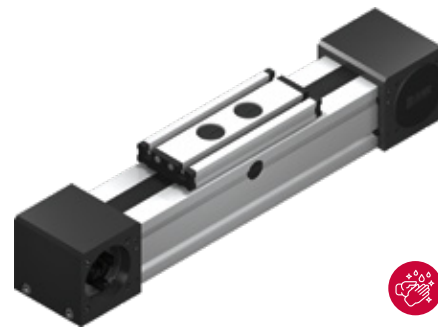
» $\pm 0,1$ mm



» 7 m/s



» Low maintenance





Linear Axis - Q Series - QSZ range

For High Spec Industrial Applications

Toothbelt driven Linear Axis range with a square, Aluminium profile.

- » The carriage is moved by a belt drive and runs on an integrated ball rail
- » Each standard pulley includes one coupling claw on one side
- » Belt tension can be readjusted by a simple screw adjustment device in the carriage.
This can also be used for symmetrical adjustment of two or more linear units running parallel.
- » Certified for use in Clean room applications (ISO-1)



Tooth Belt Drive



Rail Guide



» 60 - 80 - 100 -125 mm



» 5750 N



» Up to 6 m (standard)
» Up to 15 m (with axes joined in series)



» $\pm 0,1$ mm



» 5 m/s



» Low maintenance



Linear Axis - Q Series - QST / QSK range

For High Spec Industrial Applications

Spindle driven Linear Axis range with a square, Aluminium profile.

- » The carriage is driven by a rotating spindle with leading nut on an integrated ball rail
- » High positioning accuracy and repeatability
- » Can be used as a vertical axis in a gantry system for applications with restricted installation space
- » Certified for use in Clean room applications (ISO-3)



Spindle Drive



Rail Guide



» 60 - 80 - 100 mm



» 4000 N



» 3000 mm



» $\pm 0,025$ mm (K)
» $\pm 0,2$ mm (T)



» ± 1 m/s (K)
» $\pm 0,4$ m/s (T)



» Low maintenance



Linear Axis - Q Series - Additional ranges

Linear Axis with Tooth Belt Drive



QSSZ



- » Belt drive
- » Omega system
- » Clean room

QSZT



- » Belt drive
- » Horizontal telescopic system
- » High rigidity

Linear Axis without Drive

QLR



- » Combination unit for use with QL multi-axis systems

QSR



- » Combination unit for use with QS multi-axis systems

QSRZ



- » Combination unit for use with QS belt multi-axis systems

QSSR



- » Combination unit for use with QS multi-axis systems





Linear Axis - L Series - LLZ range

For Light Duty Industrial Applications

Tooth belt driven Linear Axis range with a square, Aluminium profile.

- » The carriage is moved by means of an internal rotating tooth belt on an integrated roller guide
- » The carriage runs on 5 roller guides which can adjusted and serviced
- » The pulley block contains coupling claws on both sides (standard version)
- » Re-tensioning device for the tooth belt integrated into end cap
- » Independent installation position



Tooth Belt Drive



Double Roller - Single Guided



» 40 - 60 - 80 - 100 mm



» 3800 N



» Up to 6 m (standard)
» Up to 20 m (with axes joined in series)



» $\pm 0,1$ mm



» 10 m/s



» Low maintenance





Linear Axis - L Series - LSZ range

For Light Duty Industrial Applications

Tooth belt driven Linear Axis range with a square, Aluminium profile.

- » The carriage is moved by means of an internal rotating tooth belt on an integrated rail guide
- » Includes timing belt deflection unit with integrated coupling claws integrated on two sides
- » Re-tensioning device for the tooth belt integrated into end cap
- » Independent installation position
- » Multiple units can be assembled in series to achieve extended strokes
- » Certified for use in Clean room applications (ISO-1)



Tooth Belt Drive



Rail Guide



» 60 - 80 - 100 mm



» 3800 N



» Up to 6 m (standard)
» Up to 15 m (with axes joined in series)



» $\pm 0,1$ mm



» 5 m/s



» Low maintenance



Linear Axis - L Series - Additional ranges

Linear Axis with Tooth Belt Drive



LLN



- » Belt drive
- » Low operating volume
- » Independent installation position
- » Nubbed belt
- » Low-vibration run

LLZS



- » Belt drive
- » Independent installation position
- » Omega system
- » Variable drive block

LSN



- » Nubbed belt drive
- » Low operating volume
- » Independent installation position
- » Low-vibration run
- » For 3D printing applications

Linear Axis with Tooth Belt Drive

LLR



- » Combination unit for use with LL multi-axis systems

LSR



- » Combination unit for use with LS multi-axis systems



Multi Axis - Twin Axis - ELZI range

Standard Multi Axis Systems

Tooth belt driven X/Z gantry consisting of a double guide in the horizontal X level and vertical Z axis.

- » The unit is driven by a rotating belt, which remains connected through various deflection points. The belt is fixed and tensioned at the load end.
- » The movement is realised by two motors. The coordinate lies diagonal to the deflection points of the X axes and the Z axis.
- » Suited for pick and place applications requiring high acceleration



Tooth Belt Drive



Double Roller - Single Guided



» 30 - 40 - 60 mm



» 1800 N



» X-Axis: 2000 mm
» Z-Axis: 1000 mm



» $\pm 0,1$ mm



» 5 m/s



» Low maintenance





Multi Axis - Twin Axis - ELZU range

Standard Multi Axis Systems

Tooth belt driven surface portal, consisting of 2 Y-axes and 1 X-axis.

- » Driven by one rotating belt, which remains connected through various deflection points
- » Positioning is achieved by two motors with coordinates diagonal to the deflection points of the Y-axis
- » Suited to applications requiring high accelerations



Tooth Belt Drive



Double Roller - Single Guided



» 30 - 40 - 60 - 80 - 100 mm



» 3800 N



» X-Axis: 3000 mm

» Y-Axis: 3000 mm



» $\pm 0,1$ mm



» 8 m/s



» Low maintenance





Multi Axis - Twin Axis - Additional ranges

Linear Axis with Tooth Belt Drive



ELZI-W



- » X/Z-Portal - reinforced version
- » Belt drive
- » Compact design
- » Gripper adaptation
- » High speed

ELZU-W



- » Surface portal
- » Strengthened construction
- » Belt drive
- » Roller guide

DSZU



- » Belt drive
- » Rail guide
- » Surface portal
- » Stable design

DLZU



- » Belt drive
- » Roller guide
- » Surface portal
- » Stable design

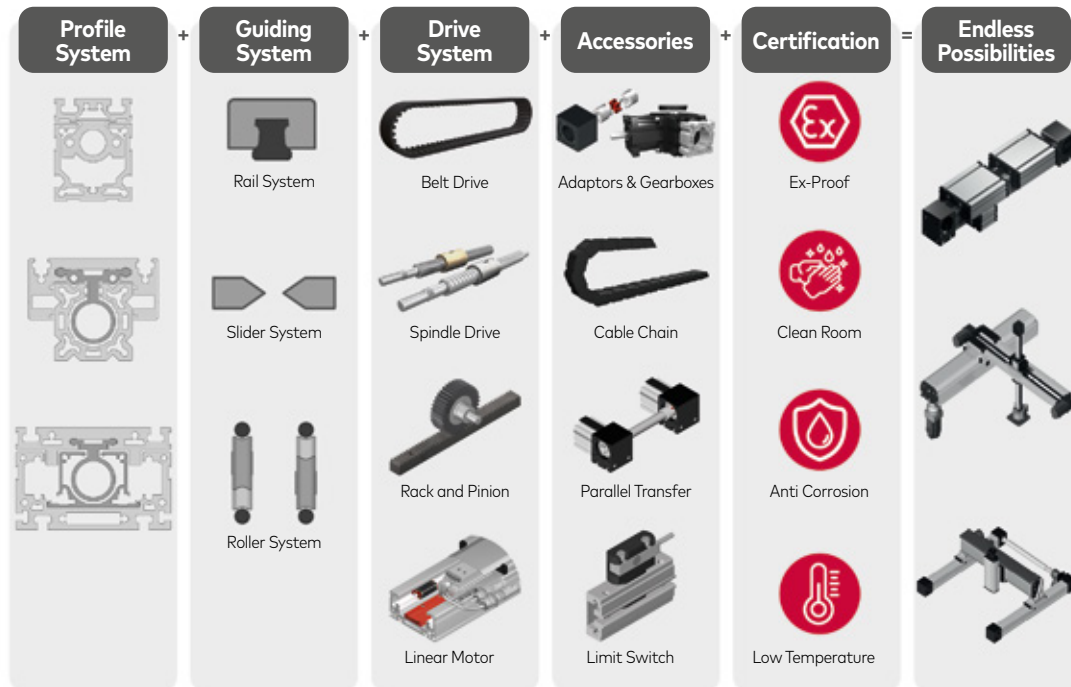


Endless Combination Possibilities

Complex multi axis systems are essential in today's industrial world, and they play an increasingly significant role in machine construction. To ensure we meet our customers' exact specifications, our experienced technical team are on hand to provide comprehensive needs assessment, advice and technical support from design through to delivery.

Extensive product portfolio with more than 200 structural profiles, drive and guide systems and sophisticated accessories all enable endless configuration possibilities for single and multi axis systems.

- » Comprehensive requirement assessment and advice
- » Fast quote: 48 hours with CAD models.
- » Standard project fulfilment target: 4 to 6 weeks
- » Unlimited configuration
- » On-site training and support
- » Continuous customer service



Configurator and Technical Support

The Norgren Electric Motion range is built to meet industry's most demanding standards. To ensure you make the correct decision, our dedicated technical team are available to help you specify the correct product for your application and provide full support throughout purchase and delivery.

Application Configurator

Our intuitive, easy to use online configuration tool gives you the flexibility to specify the correct actuator for your requirements. You are able to configure using application attributes such as distance, load and time.

CAD Configurator

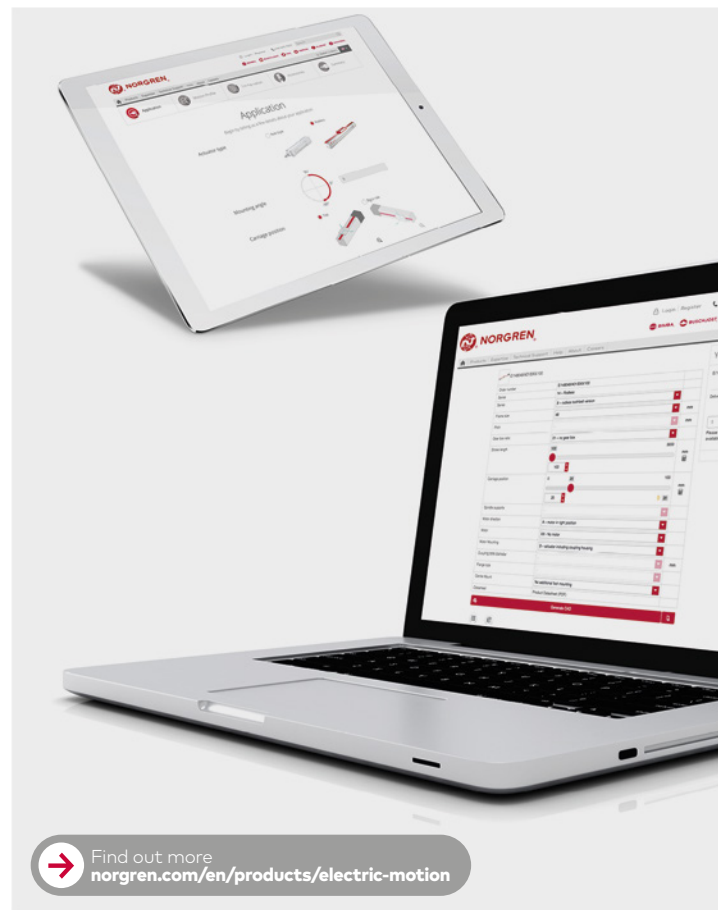
If you know the product you need, then our CAD Configurator allows you to configure using product attributes, add mountings and accessories and download your configuration in your native CAD format.

We support 60+ native CAD formats including AutoCAD, SolidWorks, Pro/Engineer, NX and Catia.

We are committed to offering our customers a complete service - not only off the shelf standard products, but also tailored custom solutions, panels and complete systems, designed and built according to your exact specifications.



**"Have an electric motion application?
Contact us for Technical support"**



Find out more
norgren.com/en/products/electric-motion





For further information, visit www.norgren.com and use the new improved search function. If you cannot see the option you require please contact us.



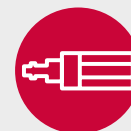


[Pneumatic Actuators]

2

A vast array of actuators – from ISO/VDMA profile to compact short stroke, rodless and roundline cylinders to rotary actuators, a range of shock absorbers and our more traditional actuator ranges. In this catalogue we have listed the part numbers of hundreds of ex-stock configurations, available off the shelf for rapid delivery.

A whole selection of simple and complex specifications are just a phone call or email away contact the Team for rapid, expert advice on the right product for your application. Each item is clearly listed to help ensure you get everything you need to get the job done.





Fast Find Guide

Please note: These products represent only part of the Norgren pneumatic actuator range. If you can't see the option you require please contact us.

Roundline Cylinders

■ **RM/8000/M**
ISO 6432
Ø10 ... 25 mm



Page 2-007

■ **RT/57200/M**
Ø10 ... 63 mm



Page 2-011

Compact Cylinders

■ **RA/192000/MX**
ISO 21287
Ø20 ... 50 mm



Page 2-017

■ **RM/92000/M**
Ø12 ... 100 mm



Page 2-021

Profile Cylinders

■ **PRA/802000/M,
RA/802000/M,
RA/8000/M**
ISO 15552
Ø32 ... 320 mm



Page 2-027

■ **PRA/882000/M
IVAC Clean Line**
Ø32 ... 100 mm



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Cylinders with Guiding

■ **M/60100/M**
Ø10 ... 40 mm



Page 2-039

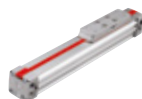
■ **M/61000/M,
M/61000/MR**
Ø32 ... 100 mm



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Lintra® Rodless Cylinders

■ **M/146000
Internal Guide**
Ø16 ... 80 mm



Page 2-046

■ **M/146100
External Guide**
Ø16 ... 80 mm



Page 2-052

■ **M/146200
Precision Roller Guide**
Ø16 ... 63 mm



Page 2-056

■ **Other Lintra® Rodless
Cylinders
Pneumatic & Electric**



Page 2-060

■ Single Acting
■ Double Acting





Fast Find Guide

Please note: These products represent only part of the Norgren pneumatic actuator range. If you can't see the option you require please contact us.

Rotary Actuators

M/60280
Rotation angles
30° ... 270°



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M/162000/MI
Ø32 ... 125 mm



Page 2-066

Stainless Steel

KM/8000/M
ISO 6432
Ø12 ... 25 mm



Page 2-070

KA/802000/M
Ø32 ... 200 mm



Page 2-074

KM/31000
Ø8 ... 14 1/2"



Page 2-078

KM/55001/M
Ø32 ... 125 mm



Page 2-080

Air Bellows

M/31000
Ø6 ... 16"



Page 2-083

PM/31000
Ø2 3/4 ... 12"



Page 2-085

■ Single Acting
■ Double Acting





Fast Find Guide

Please note: These products represent only part of the Norgren pneumatic actuator range. If you can't see the option you require please contact us.

Shock Absorbers

ACE Shock Absorbers
MC Series
Self-compensating



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ACE Shock Absorbers
MA Series
Adjustable



Page 2-091

Switches

M/50
(Reed and solid state)



Page 2-093

Mountings

Series		Page
Roundline cylinders	RM/8000/M (ISO cylinders)	2-010
	RT/57200/M	2-015
Compact cylinders	RA/192000/MX (ISO cylinders)	2-020
	RM/92000/M	2-025
Profile cylinders	PRA/802000/M, RA/802000/M, RA/8000/M (ISO cylinders)	2-032
	PRA/882000/M (IVAC cylinder)	2-038
Stainless Steel Cylinders	KM/8000/M	2-073
	KA/802000/M	2-077
	KM/55001/M	2-082

- Single Acting
- Double Acting

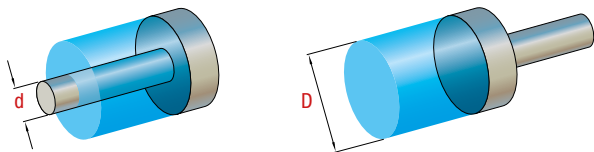


Cylinder Sizing And Speed Control

Cylinder sizing for thrust

The theoretical thrust (outstroke) or pull (instroke) of a cylinder is calculated by multiplying the effective area of the piston by the working pressure. The effective area for thrust is the full area of the cylinder bore. The effective area for pull is reduced by the cross section area of the piston rod.

Current practice specifies bore (D) and piston rod diameter (d) in millimetres and working pressure (P) in bar gauge. In the formula, P is divided by 10 to express pressure in Newtons (N).



The theoretical force (F) is given by

$$\text{Thrust } F = \frac{\pi D^2 P}{40} = N$$

$$\text{Pull } F = \frac{\pi (D^2 - d^2) P}{40} = N$$

Where

D = Cylinder bore in millimetres

d = Piston rod diameter in millimetres

P = Pressure in bar

F = Thrust or Pull in Newtons

Example: Find the theoretical thrust and pull of a 50 mm bore cylinder supplied with a pressure of 8 bar

$$\text{Thrust } F = \frac{\pi 50^2 \cdot 8}{40} = 1571 \text{ N}$$

$$\text{Pull } F = \frac{\pi (50^2 - 20^2) \cdot 8}{40} = 1319 \text{ N}$$

Correct sizing of pneumatic actuators is based upon knowledge of the required force and the applied air pressure. Theoretical thrust and pull of both single and double acting cylinders is shown on the accompanying tables and is calculated by multiplying the effective piston area by the working pressure. Units are generally shown in Newtons ($\text{kg} \times 9.81 = \text{N}$).

Note the difference in thrust and pull figures on double acting rodless cylinders due to the reduction made by the piston rod area. These figures are purely theoretical, and make no allowance for frictional losses, pressure differences, leakage, or a 'safety factor'.

It is strongly recommended that a factor of safety be included in all sizing calculations – on all dynamic applications this should be 50%, and on static applications 5%.

Pneumatic actuators generally work best and can be better controlled when well within their load capacity, and this safety factor should always be considered to reduce potential issues during operation. In addition, when working at ultra slow speeds, control will be improved if the cylinder is oversized and working well within its total capacity. All figures shown represent theoretical thrust at 6 bar (gauge). For working pressures other than this figure, simply divide the figure shown by 6 and multiply by the desired pressure to arrive at new values.

Table of consumption

Bore Ø (mm)	Rod Ø (mm)	Push stroke consumption dm ³ /mm of stroke at 6 bar	Pull stroke consumption dm ³ /mm of stroke at 6 bar	Combined consumption dm ³ /mm of stroke/cycle
10	4	0,00054	0,00046	0,00100
12	6	0,00079	0,00065	0,00144
16	6	0,00141	0,00121	0,00262
20	8	0,00220	0,00185	0,00405
25	10	0,00344	0,00289	0,00633
32	12	0,00563	0,00484	0,01047
40	16	0,00880	0,00739	0,01619
50	20	0,01374	0,01155	0,02529
63	20	0,02182	0,01962	0,04144
80	25	0,03519	0,03175	0,06694
100	25	0,05498	0,05154	0,10652
125	32	0,08590	0,08027	0,16617
160	40	0,14074	0,13195	0,27269
200	40	0,21991	0,21112	0,43103
250	50	0,34361	0,32987	0,67348





Cylinder Sizing And Speed Control

Cylinder sizing for thrust

Table of thrust and pulls, double acting cylinders

Cylinder bore mm (inches)	Piston rod diameter mm (inches)	Thrust N at 6 bar	Pull N at 6 bar
8	3	30	25
10	4	47	39
12	6	67	50
16	6	120	103
20	8	188	158
25	10	294	246
32	12	482	414
40	16	753	633
44,45 (1,75)	16	931	810
50	20	1178	989
63	20	1870	1681
76,2 (3)	25	2736	2441
80	25	3015	2721
100	25	4712	4418
125	32	7363	6881
152,4 (6)	(1,5)	10944	10260
160	40	12063	11309
200	40	18849	18095
250	50	29452	28274
304,8 (12)	(2,25)	43779	42240
320	63	48254	46384
355,6 (14)	(2,25)	59588	58049

Table of thrust and pulls, single acting cylinders

Cylinder bore mm (inches)	Thrust N at 6 bar	Pull N at 6 bar
10	37	3
12	59	4
16	105	7
20	165	14
25	258	23
32	438	27
40	699	39
50	1102	48
63	1760	67
80	2892	86
100	4583	99





ISO Roundline Cylinders

RM/8000/M Double acting, ISO 6432 – Ø10 ... 25 mm

- » Perfect for small to medium force applications
- » Low friction 'Z' seals offer both high and low speed working and extremely long life
- » Unit is fully non corrosible reducing the need for costly protection in more aggressive environments
- » Choice of three end cap styles, and other technical variants, allows a wider use of standard products

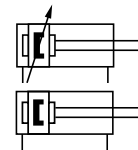
Technical Data

Medium:
Compressed air, filtered,
lubricated or non-lubricated

Operation:
Double acting, magnetic
piston with buffer cushioning

Operating pressure:
1 ... 10 bar

Ambient temperature:
-10°C ... +80°C max.
Air supply must be dry enough
to avoid ice formation at
temperatures below +2°C



Models

Accessories

Buffer Cushioning Model	Dia. Ø	Stroke length	Port size	Piston rod Ø	Reed switch with integral 5 m cable	Switch mounting ≥15 mm stroke	Banjo flow control	Straight fitting	Elbow fitting
									
RM/8010/M/10	10	10	M5	4	M/50/LSU/SV	–	COK510405	C02250405	C02470405
RM/8010/M/25	10	25	M5	4	M/50/LSU/SV	GM/33/010/22	COK510405	C02250405	C02470405
RM/8010/M/40	10	40	M5	4	M/50/LSU/SV	GM/33/010/22	COK510405	C02250405	C02470405
RM/8010/M/50	10	50	M5	4	M/50/LSU/SV	GM/33/010/22	COK510405	C02250405	C02470405
RM/8010/M/80	10	80	M5	4	M/50/LSU/SV	GM/33/010/22	COK510405	C02250405	C02470405
RM/8010/M/100	10	100	M5	4	M/50/LSU/SV	GM/33/010/22	COK510405	C02250405	C02470405
RM/8012/M/10	12	10	M5	6	M/50/LSU/SV	–	COK510405	C02250405	C02470405
RM/8012/M/25	12	25	M5	6	M/50/LSU/SV	GM/33/012/22	COK510405	C02250405	C02470405
RM/8012/M/40	12	40	M5	6	M/50/LSU/SV	GM/33/012/22	COK510405	C02250405	C02470405
RM/8012/M/50	12	50	M5	6	M/50/LSU/SV	GM/33/012/22	COK510405	C02250405	C02470405
RM/8012/M/80	12	80	M5	6	M/50/LSU/SV	GM/33/012/22	COK510405	C02250405	C02470405
RM/8012/M/100	12	100	M5	6	M/50/LSU/SV	GM/33/012/22	COK510405	C02250405	C02470405





ISO Roundline Cylinders

RM/8000/M Double acting, ISO 6432 – Ø10 ... 25 mm

Models

Accessories

Buffer Cushioning Model	Dia. Ø	Stroke length	Port size	Piston rod Ø	Reed switch with integral 5 m cable	Switch mounting ≥15 mm stroke	Banjo flow control	Straight fitting	Elbow fitting
RM/8016/M/10	16	10	M5	6	M/50/LSU/SV	–	COK510405	C02250405	C02470405
RM/8016/M/25	16	25	M5	6	M/50/LSU/SV	QM/33/016/22	COK510405	C02250405	C02470405
RM/8016/M/40	16	40	M5	6	M/50/LSU/SV	QM/33/016/22	COK510405	C02250405	C02470405
RM/8016/M/50	16	50	M5	6	M/50/LSU/SV	QM/33/016/22	COK510405	C02250405	C02470405
RM/8016/M/80	16	80	M5	6	M/50/LSU/SV	QM/33/016/22	COK510405	C02250405	C02470405
RM/8016/M/100	16	100	M5	6	M/50/LSU/SV	QM/33/016/22	COK510405	C02250405	C02470405
RM/8016/M/125	16	125	M5	6	M/50/LSU/SV	QM/33/016/22	COK510405	C02250405	C02470405
RM/8016/M/160	16	160	M5	6	M/50/LSU/SV	QM/33/016/22	COK510405	C02250405	C02470405
RM/8016/M/200	16	200	M5	6	M/50/LSU/SV	QM/33/016/22	COK510405	C02250405	C02470405
RM/8020/M/10	20	10	G1/8	8	M/50/LSU/SV	–	COK510618	C02250618	C02470618
RM/8020/M/25	20	25	G1/8	8	M/50/LSU/SV	QM/33/020/22	COK510618	C02250618	C02470618
RM/8020/M/40	20	40	G1/8	8	M/50/LSU/SV	QM/33/020/22	COK510618	C02250618	C02470618
RM/8020/M/50	20	50	G1/8	8	M/50/LSU/SV	QM/33/020/22	COK510618	C02250618	C02470618
RM/8020/M/80	20	80	G1/8	8	M/50/LSU/SV	QM/33/020/22	COK510618	C02250618	C02470618
RM/8020/M/100	20	100	G1/8	8	M/50/LSU/SV	QM/33/020/22	COK510618	C02250618	C02470618
RM/8020/M/125	20	125	G1/8	8	M/50/LSU/SV	QM/33/020/22	COK510618	C02250618	C02470618
RM/8020/M/160	20	160	G1/8	8	M/50/LSU/SV	QM/33/020/22	COK510618	C02250618	C02470618
RM/8020/M/200	20	200	G1/8	8	M/50/LSU/SV	QM/33/020/22	COK510618	C02250618	C02470618
RM/8020/M/250	20	250	G1/8	8	M/50/LSU/SV	QM/33/020/22	COK510618	C02250618	C02470618
RM/8025/M/10	25	10	G1/8	10	M/50/LSU/SV	–	COK510618	C02250618	C02470618
RM/8025/M/25	25	25	G1/8	10	M/50/LSU/SV	QM/33/025/22	COK510618	C02250618	C02470618
RM/8025/M/40	25	40	G1/8	10	M/50/LSU/SV	QM/33/025/22	COK510618	C02250618	C02470618
RM/8025/M/50	25	50	G1/8	10	M/50/LSU/SV	QM/33/025/22	COK510618	C02250618	C02470618
RM/8025/M/80	25	80	G1/8	10	M/50/LSU/SV	QM/33/025/22	COK510618	C02250618	C02470618
RM/8025/M/100	25	100	G1/8	10	M/50/LSU/SV	QM/33/025/22	COK510618	C02250618	C02470618
RM/8025/M/125	25	125	G1/8	10	M/50/LSU/SV	QM/33/025/22	COK510618	C02250618	C02470618
RM/8025/M/160	25	160	G1/8	10	M/50/LSU/SV	QM/33/025/22	COK510618	C02250618	C02470618
RM/8025/M/200	25	200	G1/8	10	M/50/LSU/SV	QM/33/025/22	COK510618	C02250618	C02470618
RM/8025/M/250	25	250	G1/8	10	M/50/LSU/SV	QM/33/025/22	COK510618	C02250618	C02470618

Other stroke lengths available up to 500 mm maximum, please contact us.

Service kits are not available for this range of cylinders.

For information on alternative magnetic switches, please contact us.

For alternative fitting types, shapes or sizes, refer to our fittings section.

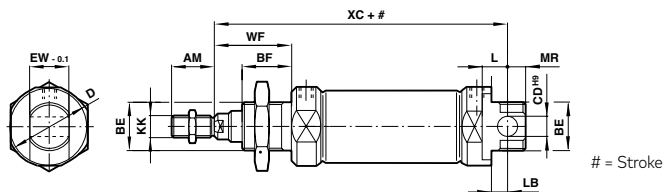




ISO Roundline Cylinders

RM/8000/M Double acting, ISO 6432 – Ø10 ... 25 mm

Dimensions



Dia. Ø	AM	BE	BF	ØCD _{H9}	ØD	EW _{-0,1}	KK	L	LB	MR	WF	XC
10	12	M12x1,25	12	4	16,5	7,9	M4	6	2	8	16	64
12	16	M16x1,5	17	6	21	11,9	M6	9	3	8	22	75
16	16	M16x1,5	17	6	21	11,9	M6	9	4	7	22	82
20	20	M22x1,5	20	8	30	15,9	M8	12	3	11	24	95
25	22	M22x1,5	22	8	30	15,9	M10x1,25	12	7	9	28	104

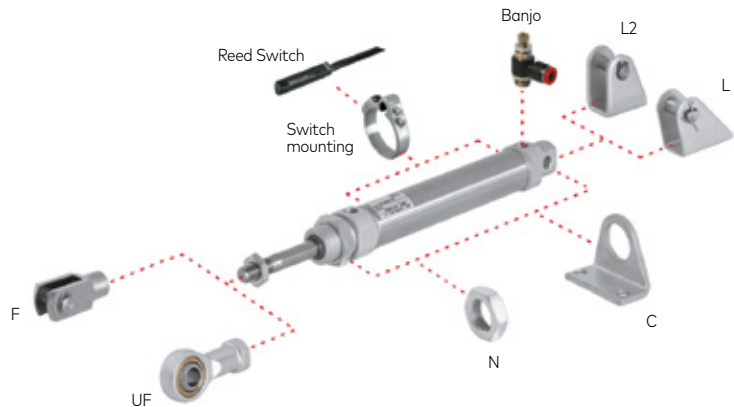




ISO Roundline Cylinders

RM/8000/M Double acting, ISO 6432 – Ø10 ... 25 mm

Mountings



Dia. Ø	C	F	L	L2	N	UF
10	M/P19369	QM/8010/25	QM/947	QM/8010/44	M/P1501/90	QM/8010/32
12	M/P19389	QM/8012/25	QM/8012/24	QM/8012/44	M/P13834	QM/8012/32
16	M/P19389	QM/8012/25	QM/8012/24	QM/8012/44	M/P13834	QM/8012/32
20	M/P19406	QM/8020/25	QM/8020/24	QM/8020/44	M/P13615	QM/8020/32
25	M/P19406	QM/8025/25	QM/8020/24	QM/8020/44	M/P13615	QM/8025/32

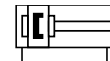
Note: This actuator is supplied with one nose nut, an additional lock nut style 'N' is required when ordering mountings 'C' to connect to the rear end cap.





Roundline Cylinders

RT/57200/M Double acting – Ø10 ... 63 mm



- » Saves 20% space over the basic length of a corresponding ISO/VDMA cylinder
- » Low friction, long life seals
- » High strength, double crimped end cap design
- » Standard magnetic piston for full control system versatility

Technical Data

Medium:
Compressed air, filtered,
lubricated or non-lubricated

Operation:
Double acting, buffer
cushioning

Mounting:
Side port, integral eye
mounting
(Ø10 ... 40 mm), fixing
holes in the end cover
(Ø50 and 63 mm)

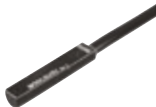
Operating pressure:
1 ... 10 bar

Ambient temperature:
-10°C ... +80°C
Air supply must be dry enough
to avoid ice formation at
temperatures below +2°C



Models

Accessories

Model	Dia. Ø	Stroke length	Port size	Piston rod Ø	Reed switch with integral 5 m cable	Switch mounting ≥15 mm stroke	Banjo flow control	Straight fitting	Elbow fitting
									
RT/57210/M/10	10	10	M5	4	M/50/LSU/5V	–	COK510405	CO2250405	CO2470405
RT/57210/M/25	10	25	M5	4	M/50/LSU/5V	GM/33/010/22	COK510405	CO2250405	CO2470405
RT/57210/M/40	10	40	M5	4	M/50/LSU/5V	GM/33/010/22	COK510405	CO2250405	CO2470405
RT/57210/M/50	10	50	M5	4	M/50/LSU/5V	GM/33/010/22	COK510405	CO2250405	CO2470405
RT/57212/M/10	12	10	M5	4	M/50/LSU/5V	–	COK510405	CO2250405	CO2470405
RT/57212/M/25	12	25	M5	4	M/50/LSU/5V	GM/33/012/22	COK510405	CO2250405	CO2470405
RT/57212/M/40	12	40	M5	4	M/50/LSU/5V	GM/33/012/22	COK510405	CO2250405	CO2470405
RT/57212/M/50	12	50	M5	4	M/50/LSU/5V	GM/33/012/22	COK510405	CO2250405	CO2470405





Roundline Cylinders

RT/57200/M Double acting – Ø10 ... 63 mm

Models

Accessories

Model	Dia. Ø	Stroke length	Port size	Piston rod Ø	Reed switch with integral 5 m cable	Switch mounting ≥15 mm stroke	Banjo flow control	Straight fitting	Elbow fitting
RT/57216/M/10	16	10	M5	6	M/50/LSU/SV	–	COK510405	C02250405	C02470405
RT/57216/M/25	16	25	M5	6	M/50/LSU/SV	QM/33/016/22	COK510405	C02250405	C02470405
RT/57216/M/40	16	40	M5	6	M/50/LSU/SV	QM/33/016/22	COK510405	C02250405	C02470405
RT/57216/M/50	16	50	M5	6	M/50/LSU/SV	QM/33/016/22	COK510405	C02250405	C02470405
RT/57216/M/80	16	80	M5	6	M/50/LSU/SV	QM/33/016/22	COK510405	C02250405	C02470405
RT/57220/M/10	20	10	Rc 1/8	8	M/50/LSU/SV	–	COTA00618	C01250618	C01470618
RT/57220/M/25	20	25	Rc 1/8	8	M/50/LSU/SV	QM/33/020/22	COTA00618	C01250618	C01470618
RT/57220/M/40	20	40	Rc 1/8	8	M/50/LSU/SV	QM/33/020/22	COTA00618	C01250618	C01470618
RT/57220/M/50	20	50	Rc 1/8	8	M/50/LSU/SV	QM/33/020/22	COTA00618	C01250618	C01470618
RT/57220/M/80	20	80	Rc 1/8	8	M/50/LSU/SV	QM/33/020/22	COTA00618	C01250618	C01470618
RT/57220/M/100	20	100	Rc 1/8	8	M/50/LSU/SV	QM/33/020/22	COTA00618	C01250618	C01470618
RT/57225/M/10	25	10	Rc 1/8	10	M/50/LSU/SV	–	COTA00618	C01250618	C01470618
RT/57225/M/25	25	25	Rc 1/8	10	M/50/LSU/SV	QM/33/025/22	COTA00618	C01250618	C01470618
RT/57225/M/40	25	40	Rc 1/8	10	M/50/LSU/SV	QM/33/025/22	COTA00618	C01250618	C01470618
RT/57225/M/50	25	50	Rc 1/8	10	M/50/LSU/SV	QM/33/025/22	COTA00618	C01250618	C01470618
RT/57225/M/80	25	80	Rc 1/8	10	M/50/LSU/SV	QM/33/025/22	COTA00618	C01250618	C01470618
RT/57225/M/100	25	100	Rc 1/8	10	M/50/LSU/SV	QM/33/025/22	COTA00618	C01250618	C01470618
RT/57225/M/125	25	125	Rc 1/8	10	M/50/LSU/SV	QM/33/025/22	COTA00618	C01250618	C01470618
RT/57225/M/160	25	160	Rc 1/8	10	M/50/LSU/SV	QM/33/025/22	COTA00618	C01250618	C01470618
RT/57225/M/200	25	200	Rc 1/8	10	M/50/LSU/SV	QM/33/025/22	COTA00618	C01250618	C01470618
RT/57232/M/10	32	10	Rc 1/8	12	M/50/LSU/SV	QM/33/032/22	COTA00618	C01250618	C01470618
RT/57232/M/25	32	25	Rc 1/8	12	M/50/LSU/SV	QM/33/032/22	COTA00618	C01250618	C01470618
RT/57232/M/40	32	40	Rc 1/8	12	M/50/LSU/SV	QM/33/032/22	COTA00618	C01250618	C01470618
RT/57232/M/50	32	50	Rc 1/8	12	M/50/LSU/SV	QM/33/032/22	COTA00618	C01250618	C01470618
RT/57232/M/80	32	80	Rc 1/8	12	M/50/LSU/SV	QM/33/032/22	COTA00618	C01250618	C01470618
RT/57232/M/100	32	100	Rc 1/8	12	M/50/LSU/SV	QM/33/032/22	COTA00618	C01250618	C01470618
RT/57232/M/125	32	125	Rc 1/8	12	M/50/LSU/SV	QM/33/032/22	COTA00618	C01250618	C01470618
RT/57232/M/160	32	160	Rc 1/8	12	M/50/LSU/SV	QM/33/032/22	COTA00618	C01250618	C01470618
RT/57232/M/200	32	200	Rc 1/8	12	M/50/LSU/SV	QM/33/032/22	COTA00618	C01250618	C01470618
RT/57232/M/250	32	250	Rc 1/8	12	M/50/LSU/SV	QM/33/032/22	COTA00618	C01250618	C01470618





Roundline Cylinders

RT/57200/M Double acting – Ø10 ... 63 mm

Models

Accessories

Model	Dia. Ø	Stroke length	Port size	Piston rod Ø	Reed switch with integral 5 m cable	Switch mounting ≥15 mm stroke	Banjo flow control	Straight fitting	Elbow fitting
RT/57240/M/25	40	25	Rc 1/8	14	M/50/LSU/SV	QM/33/040/22	COTA00618	C01250618	C01470618
RT/57240/M/40	40	40	Rc 1/8	14	M/50/LSU/SV	QM/33/040/22	COTA00618	C01250618	C01470618
RT/57240/M/50	40	50	Rc 1/8	14	M/50/LSU/SV	QM/33/040/22	COTA00618	C01250618	C01470618
RT/57240/M/80	40	80	Rc 1/8	14	M/50/LSU/SV	QM/33/040/22	COTA00618	C01250618	C01470618
RT/57240/M/100	40	100	Rc 1/8	14	M/50/LSU/SV	QM/33/040/22	COTA00618	C01250618	C01470618
RT/57240/M/125	40	125	Rc 1/8	14	M/50/LSU/SV	QM/33/040/22	COTA00618	C01250618	C01470618
RT/57240/M/160	40	160	Rc 1/8	14	M/50/LSU/SV	QM/33/040/22	COTA00618	C01250618	C01470618
RT/57240/M/200	40	200	Rc 1/8	14	M/50/LSU/SV	QM/33/040/22	COTA00618	C01250618	C01470618
RT/57240/M/320	40	320	Rc 1/8	14	M/50/LSU/SV	QM/33/040/22	COTA00618	C01250618	C01470618
RT/57250/M/50	50	50	Rc 1/4	16	M/50/LSU/SV	QM/33/050/22	COTA00828	C01250828	C01470828
RT/57250/M/80	50	80	Rc 1/4	16	M/50/LSU/SV	QM/33/050/22	COTA00828	C01250828	C01470828
RT/57250/M/100	50	100	Rc 1/4	16	M/50/LSU/SV	QM/33/050/22	COTA00828	C01250828	C01470828
RT/57250/M/125	50	125	Rc 1/4	16	M/50/LSU/SV	QM/33/050/22	COTA00828	C01250828	C01470828
RT/57250/M/160	50	160	Rc 1/4	16	M/50/LSU/SV	QM/33/050/22	COTA00828	C01250828	C01470828
RT/57250/M/200	50	200	Rc 1/4	16	M/50/LSU/SV	QM/33/050/22	COTA00828	C01250828	C01470828
RT/57250/M/250	50	250	Rc 1/4	16	M/50/LSU/SV	QM/33/050/22	COTA00828	C01250828	C01470828
RT/57263/M/50	63	50	Rc 1/4	20	M/50/LSU/SV	QM/33/063/22	COTA00828	C01250828	C01470828
RT/57263/M/80	63	80	Rc 1/4	20	M/50/LSU/SV	QM/33/063/22	COTA00828	C01250828	C01470828
RT/57263/M/100	63	100	Rc 1/4	20	M/50/LSU/SV	QM/33/063/22	COTA00828	C01250828	C01470828
RT/57263/M/125	63	125	Rc 1/4	20	M/50/LSU/SV	QM/33/063/22	COTA00828	C01250828	C01470828
RT/57263/M/160	63	160	Rc 1/4	20	M/50/LSU/SV	QM/33/063/22	COTA00828	C01250828	C01470828

Other bore sizes and stroke lengths available up to 500 mm maximum, please contact us.

Service kits are not available for this range of cylinders.

For alternative fitting types, shapes or sizes, refer to our fittings section.

For information on alternative magnetic switches, please contact us.



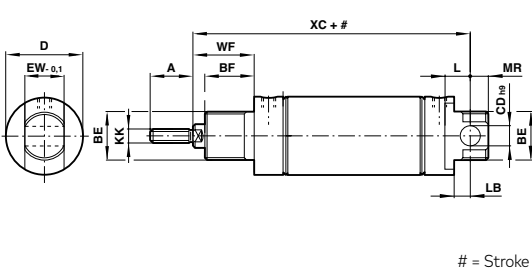


Roundline Cylinders

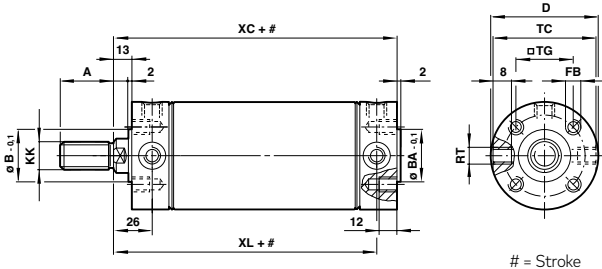
RT/57200/M Double acting – Ø10 ... 63 mm

Dimensions

Ø10 ... 40 mm



Ø50 and 63 mm



Ø10 ... 40 mm

Dia. Ø	A	BE	BF	ØCD _{h9}	ØD	EW _{-0.1}	KK	L	LB	MR	WF	XC
10	9	M10 x 1	8	4	15	8	M4	–	5	4	10	54
12	9	M10 x 1	8	4	15	8	M4	–	5	4	10	54
16	12	M12 x 1,25	10	5	17,5	10	M6	–	7	5	13,5	64,5
20	14	M16 x 1,5	12	6	22	12	M8	–	7	6	15,5	75,5
25	16	M18 x 1,5	12	8	26,5	14	M10 x 1,25	–	9	8	16,5	78,5
32	22	M22 x 1,5	15	8	33,5	16	M10 x 1,25	12	7	8	23	93
40	23	M30 x 1,5	15	10	41,5	20	M12 x 1,25	14	5	10	24	96

Ø50 and 63 mm

Dia. Ø	A	ØB/BA _{-0.1}	ØD	FB	KK	RT	TC	TG	XC	XL
50	23	28	52,5	M 6	M 12 x 1,25	M 10 x 1	49	28,5	97	84
63	30	35	65,5	M 8	M 16 x 1,5	M 12 x 1,5	62	35,5	99	86



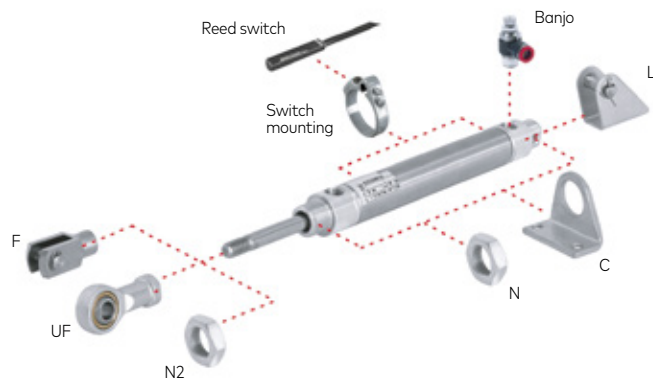


Roundline Cylinders

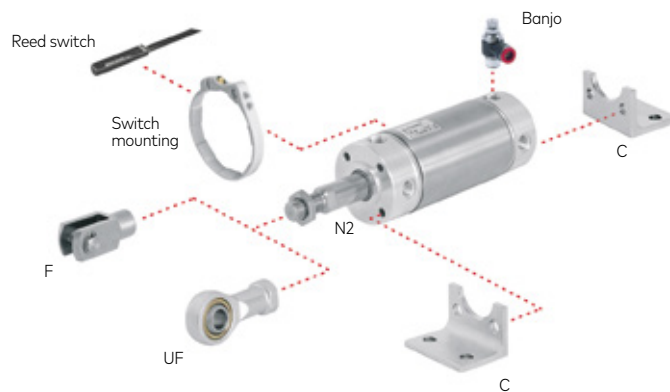
RT/57200/M Double acting – Ø10 ... 63 mm

Mountings

Ø10 ... 40 mm



Ø50 ... 63 mm



Dia. Ø	C	F	N	N2	UF
10	M/P71273/2	QM/8010/25	M/P71364	M/P1501/80	QM/8010/32
12	M/P71273/2	QM/8010/25	M/P71364	M/P1501/80	QM/8010/32
16	M/P19369	QM/57016/25	M/P1501/90	M/P1501/79	QM/8012/32
20	M/P19389	QM/57020/25	M/P13834	M/P1501/60	QM/8020/32
25	M/P40381	QM/57025/25	M/P13607	M/P1501/89	QM/8025/32
32	M/P19406	QM/57032/25	M/P13615	M/P1501/89	QM/8025/32
40	M/P71273/3	QM/57040/25	M/P29254	M/P1501/90	QM/8040/32
50	QM/57050/21	QM/57040/25	–	M/P1501/90	QM/8040/32
63	QM/57063/21	QM/57063/25	–	M/P1501/91	QM/8050/32

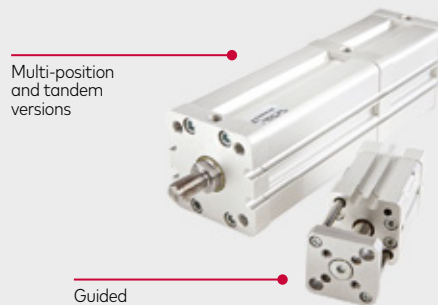


ISO Compact Cylinders

ISO 21287 is the most recently-added actuator standard.

These compact cylinders are perfect for high force/short stroke applications where space is at a premium. Not just meeting the standard for compliance, but exceeding it, this range of actuators includes many unique technical variants:

- » Sleek, anodised aluminium profile barrel housing switch mounting grooves (standard Norgren M/50 switch) coupled with pressure die cast end caps for pleasing appearance
- » Wide range of standard bore and stroke combinations from stock with male or female piston rod thread, plus non-standard stroke length units on fast availability
- » Accepts standard ISO/VDMA mounting brackets, and is also available in non-rotating versions, linear slide version, with heavy duty wiper seal, tandem and multi-position versions, and also can accept guide block assembly



Find out more
[norgren.com](https://www.norgren.com)



NORGREN®

IMI



ISO Compact Cylinders

RA/192000/MX Double acting, ISO 21287 – Ø20 ... 50 mm

- » Conforms to ISO 21287
- » Up to 30% shorter than full ISO/VDMA actuators
- » Uses standard ISO/VDMA mountings

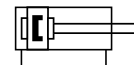
Technical Data

Medium:
Compressed air, filtered,
lubricated or non-lubricated

Operation:
RA/192000/MX
Double acting, magnetic
piston, female piston rod
thread, buffer cushioning

Operating pressure:
1 ... 10 bar

Ambient temperature:
-5°C ... +80°C max.
Air supply must be dry enough
to avoid ice formation at
temperatures below +2°C



Models

Accessories

Female thread	Dia. Ø	Stroke length	Port size	Piston rod Ø	Reed switch with integral 5 m cable	Banjo flow control	Straight fitting	Elbow fitting	Service Kit
									
RA/192020/MX/10	20	10	M5	10	M/50/LSU/5V	COK510405	C02250405	C02470405	QM/192020/00
RA/192020/MX/15	20	15	M5	10	M/50/LSU/5V	COK510405	C02250405	C02470405	QM/192020/00
RA/192020/MX/20	20	20	M5	10	M/50/LSU/5V	COK510405	C02250405	C02470405	QM/192020/00
RA/192020/MX/25	20	25	M5	10	M/50/LSU/5V	COK510405	C02250405	C02470405	QM/192020/00
RA/192020/MX/30	20	30	M5	10	M/50/LSU/5V	COK510405	C02250405	C02470405	QM/192020/00
RA/192020/MX/40	20	40	M5	10	M/50/LSU/5V	COK510405	C02250405	C02470405	QM/192020/00
RA/192020/MX/50	20	50	M5	10	M/50/LSU/5V	COK510405	C02250405	C02470405	QM/192020/00
RA/192025/MX/10	25	10	M5	10	M/50/LSU/5V	COK510405	C02250405	C02470405	QM/192025/00
RA/192025/MX/15	25	15	M5	10	M/50/LSU/5V	COK510405	C02250405	C02470405	QM/192025/00
RA/192025/MX/20	25	20	M5	10	M/50/LSU/5V	COK510405	C02250405	C02470405	QM/192025/00
RA/192025/MX/25	25	25	M5	10	M/50/LSU/5V	COK510405	C02250405	C02470405	QM/192025/00
RA/192025/MX/30	25	30	M5	10	M/50/LSU/5V	COK510405	C02250405	C02470405	QM/192025/00
RA/192025/MX/40	25	40	M5	10	M/50/LSU/5V	COK510405	C02250405	C02470405	QM/192025/00
RA/192025/MX/50	25	50	M5	10	M/50/LSU/5V	COK510405	C02250405	C02470405	QM/192025/00





ISO Compact Cylinders

RA/192000/MX Double acting, ISO 21287 – Ø20 ... 50 mm

Models

Accessories

Female thread	Dia. Ø	Stroke length	Port size	Piston rod Ø	Reed switch with integral 5 m cable	Banjo flow control	Straight fitting	Elbow fitting	Service Kit
RA/192032/MX/10	32	10	G1/8	12	M/50/LSU/5V	COK510618	C02250618	C02470618	QM/192032/00
RA/192032/MX/15	32	15	G1/8	12	M/50/LSU/5V	COK510618	C02250618	C02470618	QM/192032/00
RA/192032/MX/20	32	20	G1/8	12	M/50/LSU/5V	COK510618	C02250618	C02470618	QM/192032/00
RA/192032/MX/25	32	25	G1/8	12	M/50/LSU/5V	COK510618	C02250618	C02470618	QM/192032/00
RA/192032/MX/30	32	30	G1/8	12	M/50/LSU/5V	COK510618	C02250618	C02470618	QM/192032/00
RA/192032/MX/40	32	40	G1/8	12	M/50/LSU/5V	COK510618	C02250618	C02470618	QM/192032/00
RA/192032/MX/50	32	50	G1/8	12	M/50/LSU/5V	COK510618	C02250618	C02470618	QM/192032/00
RA/192032/MX/60	32	60	G1/8	12	M/50/LSU/5V	COK510618	C02250618	C02470618	QM/192032/00
RA/192032/MX/80	32	80	G1/8	12	M/50/LSU/5V	COK510618	C02250618	C02470618	QM/192032/00
RA/192032/MX/100	32	100	G1/8	12	M/50/LSU/5V	COK510618	C02250618	C02470618	QM/192032/00
RA/192040/MX/10	40	10	G1/8	16	M/50/LSU/5V	COK510618	C02250618	C02470618	QM/192040/00
RA/192040/MX/15	40	15	G1/8	16	M/50/LSU/5V	COK510618	C02250618	C02470618	QM/192040/00
RA/192040/MX/20	40	20	G1/8	16	M/50/LSU/5V	COK510618	C02250618	C02470618	QM/192040/00
RA/192040/MX/25	40	25	G1/8	16	M/50/LSU/5V	COK510618	C02250618	C02470618	QM/192040/00
RA/192040/MX/30	40	30	G1/8	16	M/50/LSU/5V	COK510618	C02250618	C02470618	QM/192040/00
RA/192040/MX/40	40	40	G1/8	16	M/50/LSU/5V	COK510618	C02250618	C02470618	QM/192040/00
RA/192040/MX/50	40	50	G1/8	16	M/50/LSU/5V	COK510618	C02250618	C02470618	QM/192040/00
RA/192040/MX/60	40	60	G1/8	16	M/50/LSU/5V	COK510618	C02250618	C02470618	QM/192040/00
RA/192040/MX/80	40	80	G1/8	16	M/50/LSU/5V	COK510618	C02250618	C02470618	QM/192040/00
RA/192040/MX/100	40	100	G1/8	16	M/50/LSU/5V	COK510618	C02250618	C02470618	QM/192040/00
RA/192050/MX/10	50	10	G1/8	20	M/50/LSU/5V	COK510618	C02250618	C02470618	QM/192050/00
RA/192050/MX/15	50	15	G1/8	20	M/50/LSU/5V	COK510618	C02250618	C02470618	QM/192050/00
RA/192050/MX/20	50	20	G1/8	20	M/50/LSU/5V	COK510618	C02250618	C02470618	QM/192050/00
RA/192050/MX/25	50	25	G1/8	20	M/50/LSU/5V	COK510618	C02250618	C02470618	QM/192050/00
RA/192050/MX/30	50	30	G1/8	20	M/50/LSU/5V	COK510618	C02250618	C02470618	QM/192050/00
RA/192050/MX/40	50	40	G1/8	20	M/50/LSU/5V	COK510618	C02250618	C02470618	QM/192050/00
RA/192050/MX/50	50	50	G1/8	20	M/50/LSU/5V	COK510618	C02250618	C02470618	QM/192050/00
RA/192050/MX/60	50	60	G1/8	20	M/50/LSU/5V	COK510618	C02250618	C02470618	QM/192050/00
RA/192050/MX/80	50	80	G1/8	20	M/50/LSU/5V	COK510618	C02250618	C02470618	QM/192050/00
RA/192050/MX/100	50	100	G1/8	20	M/50/LSU/5V	COK510618	C02250618	C02470618	QM/192050/00

Other stroke lengths available up to 500 mm maximum, depending upon bore size, please contact us.
For information on alternative magnetic switches, please contact us.

For alternative fitting types, shapes or sizes, refer to our fittings section.

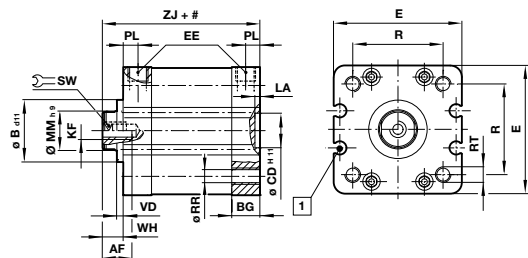


ISO Compact Cylinders

RA/192000/MX Double acting, ISO 21287 – Ø20 ... 50 mm

Dimensions

RA/192000/MX Standard cylinder
With female piston rod thread



Stroke

□ M/50 switches can be mounted flush with the profile

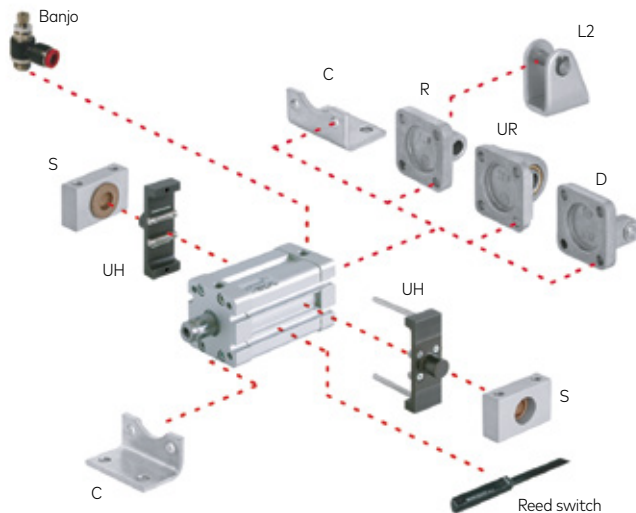
Model	Ø	AF	ØB _{d11}	BG	ØCD _{H11}	□ E	EE	KF	LA	ØMM _{h9}
RA/192020/MX	20	10	–	12	10	37	M 5	M6	2,5	10
RA/192025/MX	25	10	–	13	10	41	M 5	M6	2,5	10
RA/192032/MX	32	12	–	14,5	14	48	G1/8	M8	2,5	12
RA/192040/MX	40	12	–	14,5	14	54,5	G1/8	M8	2,5	16
RA/192050/MX	50	16	–	14	18	66	G1/8	M10	2,5	20
Model	Ø	PL	□ R	ØRR	RT	SW	WH	ZJ	kg at 0 mm	kg at 5 mm
RA/192020/MX	20	7	22	4,3	M5	8	6	43	0,12	0,01
RA/192025/MX	25	7	26	4,3	M5	8	6	45	0,15	0,01
RA/192032/MX	32	7,5	32,5	5,3	M6	10	7	51	0,23	0,02
RA/192040/MX	40	7,5	38	5,3	M6	13	7	52	0,3	0,02
RA/192050/MX	50	7,5	46,5	6,8	M8	17	8	53	0,46	0,03



ISO Compact Cylinders

RA/192000/MX Double acting, ISO 21287 – Ø20 ... 50 mm

Mountings



Dia. Ø	B, G	C	D	L2	R	S	UH	UR
20	QA/192020/22	QM/192020/21	–	QM/8020/44	QM/192020/27	–	–	–
25	QA/192025/22	QM/192025/21	–	QM/8020/44	QM/192025/27	–	–	–
32	QA/8032/22	QA/192032/21	QA/8032/23	–	QA/8032/27	QA/8032/41	PQA/182032/40	QA/8032/33
40	QA/8040/22	QA/192040/21	QA/8040/23	–	QA/8040/27	QA/8040/41	PQA/182040/40	QA/8040/33
50	QA/8050/22	QA/192050/21	QA/8050/23	–	QA/8050/27	QA/8040/41	PQA/182050/40	QA/8050/33





Compact Cylinders

RM/92000/M Double acting – Ø12 ... 100 mm



- » One third the basic length of a corresponding ISO/VDMA model
- » Low friction, long life seal design
- » Fully non-corrodible specification
- » Standard magnetic piston for full control system versatility

Technical Data

Medium:
Compressed air, filtered,
lubricated or non-lubricated

Operation:
Double acting, magnetic
piston non-cushioned

Operating pressure:
1 ... 10 bar

Ambient temperature:
-5°C ... +80°C
Air supply must be dry enough
to avoid ice formation at
temperatures below +2°C



Models

Model	Dia. Ø	Stroke length	Port size	Piston rod Ø	Reed switch with integral 5 m cable	Switch mounting	Banjo flow control	Straight fitting	Elbow fitting	Service kit
										
RM/92012/M/10	12	10	M5	6	M/50/LSU/SV	M/P72487	COK510405	C02250405	C02470405	–
RM/92012/M/15	12	15	M5	6	M/50/LSU/SV	M/P72487	COK510405	C02250405	C02470405	–
RM/92012/M/20	12	20	M5	6	M/50/LSU/SV	M/P72487	COK510405	C02250405	C02470405	–
RM/92012/M/25	12	25	M5	6	M/50/LSU/SV	M/P72487	COK510405	C02250405	C02470405	–
RM/92016/M/10	16	10	M5	8	M/50/LSU/SV	M/P72487	COK510405	C02250405	C02470405	–
RM/92016/M/15	16	15	M5	8	M/50/LSU/SV	M/P72487	COK510405	C02250405	C02470405	–
RM/92016/M/20	16	20	M5	8	M/50/LSU/SV	M/P72487	COK510405	C02250405	C02470405	–
RM/92016/M/25	16	25	M5	8	M/50/LSU/SV	M/P72487	COK510405	C02250405	C02470405	–
RM/92016/M/30	16	30	M5	8	M/50/LSU/SV	M/P72487	COK510405	C02250405	C02470405	–





Compact Cylinders

RM/92000/M Double acting – Ø12 ... 100 mm

Models

Accessories

Model	Dia. Ø	Stroke length	Port size	Piston rod Ø	Reed switch with integral 5 m cable	Switch mounting	Banjo flow control	Straight fitting	Elbow fitting	Service kit
RM/92020/M/10	20	10	M5	10	M/50/LSU/SV	M/P72487	COK510405	C02250405	C02470405	–
RM/92020/M/15	20	15	M5	10	M/50/LSU/SV	M/P72487	COK510405	C02250405	C02470405	–
RM/92020/M/20	20	20	M5	10	M/50/LSU/SV	M/P72487	COK510405	C02250405	C02470405	–
RM/92020/M/25	20	25	M5	10	M/50/LSU/SV	M/P72487	COK510405	C02250405	C02470405	–
RM/92020/M/30	20	30	M5	10	M/50/LSU/SV	M/P72487	COK510405	C02250405	C02470405	–
RM/92020/M/40	20	40	M5	10	M/50/LSU/SV	M/P72487	COK510405	C02250405	C02470405	–
RM/92020/M/50	20	50	M5	10	M/50/LSU/SV	M/P72487	COK510405	C02250405	C02470405	–
RM/92025/M/10	25	10	M5	12	M/50/LSU/SV	M/P72487	COK510405	C02250405	C02470405	–
RM/92025/M/15	25	15	M5	12	M/50/LSU/SV	M/P72487	COK510405	C02250405	C02470405	–
RM/92025/M/20	25	20	M5	12	M/50/LSU/SV	M/P72487	COK510405	C02250405	C02470405	–
RM/92025/M/25	25	25	M5	12	M/50/LSU/SV	M/P72487	COK510405	C02250405	C02470405	–
RM/92025/M/30	25	30	M5	12	M/50/LSU/SV	M/P72487	COK510405	C02250405	C02470405	–
RM/92025/M/40	25	40	M5	12	M/50/LSU/SV	M/P72487	COK510405	C02250405	C02470405	–
RM/92025/M/50	25	50	M5	12	M/50/LSU/SV	M/P72487	COK510405	C02250405	C02470405	–
RM/92032/M/10	32	10	G1/8	16	M/50/LSU/SV	M/P72487	COK510618	C02250618	C02470618	–
RM/92032/M/15	32	15	G1/8	16	M/50/LSU/SV	M/P72487	COK510618	C02250618	C02470618	–
RM/92032/M/20	32	20	G1/8	16	M/50/LSU/SV	M/P72487	COK510618	C02250618	C02470618	–
RM/92032/M/25	32	25	G1/8	16	M/50/LSU/SV	M/P72487	COK510618	C02250618	C02470618	–
RM/92032/M/30	32	30	G1/8	16	M/50/LSU/SV	M/P72487	COK510618	C02250618	C02470618	–
RM/92032/M/40	32	40	G1/8	16	M/50/LSU/SV	M/P72487	COK510618	C02250618	C02470618	–
RM/92032/M/50	32	50	G1/8	16	M/50/LSU/SV	M/P72487	COK510618	C02250618	C02470618	–
RM/92032/M/80	32	80	G1/8	16	M/50/LSU/SV	M/P72487	COK510618	C02250618	C02470618	–
RM/92040/M/10	40	10	G1/8	16	M/50/LSU/SV	M/P72487	COK510618	C02250618	C02470618	–
RM/92040/M/15	40	15	G1/8	16	M/50/LSU/SV	M/P72487	COK510618	C02250618	C02470618	–
RM/92040/M/20	40	20	G1/8	16	M/50/LSU/SV	M/P72487	COK510618	C02250618	C02470618	–
RM/92040/M/25	40	25	G1/8	16	M/50/LSU/SV	M/P72487	COK510618	C02250618	C02470618	–
RM/92040/M/30	40	30	G1/8	16	M/50/LSU/SV	M/P72487	COK510618	C02250618	C02470618	–
RM/92040/M/40	40	40	G1/8	16	M/50/LSU/SV	M/P72487	COK510618	C02250618	C02470618	–
RM/92040/M/50	40	50	G1/8	16	M/50/LSU/SV	M/P72487	COK510618	C02250618	C02470618	–
RM/92040/M/80	40	80	G1/8	16	M/50/LSU/SV	M/P72487	COK510618	C02250618	C02470618	–





Compact Cylinders

RM/92000/M Double acting – Ø12 ... 100 mm

Models

Accessories

Model	Dia. Ø	Stroke length	Port size	Piston rod Ø	Reed switch with integral 5 m cable	Switch mounting	Banjo flow control	Straight fitting	Elbow fitting	Service kit
RM/92050/M/10	50	10	G1/8	20	M/50/LSU/SV	M/P72487	COK510618	C02250618	C02470618	QM/92050/00
RM/92050/M/15	50	15	G1/8	20	M/50/LSU/SV	M/P72487	COK510618	C02250618	C02470618	QM/92050/00
RM/92050/M/20	50	20	G1/8	20	M/50/LSU/SV	M/P72487	COK510618	C02250618	C02470618	QM/92050/00
RM/92050/M/25	50	25	G1/8	20	M/50/LSU/SV	M/P72487	COK510618	C02250618	C02470618	QM/92050/00
RM/92050/M/30	50	30	G1/8	20	M/50/LSU/SV	M/P72487	COK510618	C02250618	C02470618	QM/92050/00
RM/92050/M/40	50	40	G1/8	20	M/50/LSU/SV	M/P72487	COK510618	C02250618	C02470618	QM/92050/00
RM/92050/M/50	50	50	G1/8	20	M/50/LSU/SV	M/P72487	COK510618	C02250618	C02470618	QM/92050/00
RM/92050/M/80	50	80	G1/8	20	M/50/LSU/SV	M/P72487	COK510618	C02250618	C02470618	QM/92050/00
RM/92050/M/100	50	100	G1/8	20	M/50/LSU/SV	M/P72487	COK510618	C02250618	C02470618	QM/92050/00
RM/92063/M/10	63	10	G1/4	20	M/50/LSU/SV	M/P72487	COK510628	C02250628	C02470628	QM/92063/00
RM/92063/M/25	63	25	G1/4	20	M/50/LSU/SV	M/P72487	COK510628	C02250628	C02470628	QM/92063/00
RM/92063/M/30	63	30	G1/4	20	M/50/LSU/SV	M/P72487	COK510628	C02250628	C02470628	QM/92063/00
RM/92063/M/40	63	40	G1/4	20	M/50/LSU/SV	M/P72487	COK510628	C02250628	C02470628	QM/92063/00
RM/92063/M/50	63	50	G1/4	20	M/50/LSU/SV	M/P72487	COK510628	C02250628	C02470628	QM/92063/00
RM/92063/M/80	63	80	G1/4	20	M/50/LSU/SV	M/P72487	COK510628	C02250628	C02470628	QM/92063/00
RM/92063/M/100	63	100	G1/4	20	M/50/LSU/SV	M/P72487	COK510628	C02250628	C02470628	QM/92063/00
RM/92080/M/25	80	25	G1/4	25	M/50/LSU/SV	M/P72487	COK510628	C02250628	C02470628	QM/92080/00
RM/92080/M/30	80	30	G1/4	25	M/50/LSU/SV	M/P72487	COK510628	C02250628	C02470628	QM/92080/00
RM/92080/M/40	80	40	G1/4	25	M/50/LSU/SV	M/P72487	COK510628	C02250628	C02470628	QM/92080/00
RM/92080/M/50	80	50	G1/4	25	M/50/LSU/SV	M/P72487	COK510628	C02250628	C02470628	QM/92080/00
RM/92080/M/80	80	80	G1/4	25	M/50/LSU/SV	M/P72487	COK510628	C02250628	C02470628	QM/92080/00
RM/92080/M/100	80	100	G1/4	25	M/50/LSU/SV	M/P72487	COK510628	C02250628	C02470628	QM/92080/00
RM/92100/M/25	100	25	G1/4	25	M/50/LSU/SV	M/P72487	COK510628	C02250628	C02470628	QM/92100/00
RM/92100/M/30	100	30	G1/4	25	M/50/LSU/SV	M/P72487	COK510628	C02250628	C02470628	QM/92100/00
RM/92100/M/40	100	40	G1/4	25	M/50/LSU/SV	M/P72487	COK510628	C02250628	C02470628	QM/92100/00
RM/92100/M/50	100	50	G1/4	25	M/50/LSU/SV	M/P72487	COK510628	C02250628	C02470628	QM/92100/00
RM/92100/M/80	100	80	G1/4	25	M/50/LSU/SV	M/P72487	COK510628	C02250628	C02470628	QM/92100/00
RM/92100/M/100	100	100	G1/4	25	M/50/LSU/SV	M/P72487	COK510628	C02250628	C02470628	QM/92100/00

Other stroke lengths available up to 300 mm maximum, please contact us.

For information on additional magnetic switches, please contact us.

For alternative fitting types, shapes or sizes, refer to our fittings section.

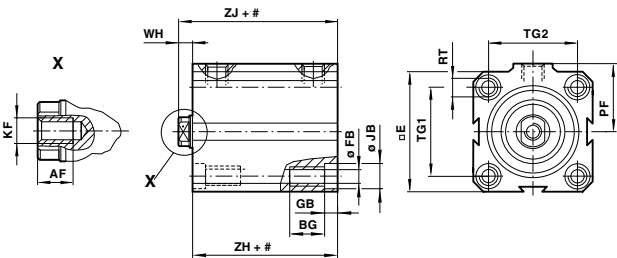




Compact Cylinders

RM/92000/M Double acting – Ø12 ... 100 mm

Dimensions



Dia. Ø	AF	BG	E	ØFB	GB	ØJB	KF	PF	RT	TG1	TG2	WH	ZH	ZJ
12	6	9	25	3,3	3,5	6	M 3	15	M 4	17	13	4,5	24	28,5
16	7	9	28	3,3	3,5	6	M 4	17	M 4	20	20	5,5	24,5	30
20	8	9	32	3,3	3,5	6	M 5	19,5	M 4	23	23	6	26	32
25	9	12	37	4,2	4,5	7,5	M 6	22	M 5	27	27	6,5	28,5	35
32	12	12	45	4,2	4,5	7,5	M 8	27,5	M 5	33	33	6,5	29	35,5
40	12	16	55	6,8	6,5	10,5	M 8	31,5	M 8	41	41	6,5	31,5	38
50	14	16	63	6,8	6,5	10,5	M 10	37	M 8	48	48	8	35	43
63	16	20	80	8,5	8,5	13,5	M 12	48	M 10	61	61	8	42,5	50,5
80	22	20	94	8,5	8,5	13,5	M 16	57	M 10	73	73	9	47	56
100	22	25	116,5	10,2	10,5	16,5	M 16	67	M 12	90,5	90,5	10	48,5	58,5

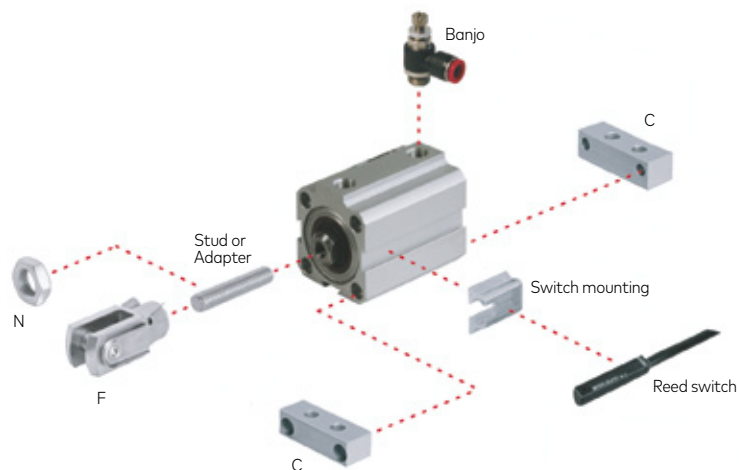




Compact Cylinders

RM/92000/M Double acting – Ø12 ... 100 mm

Mountings



Dia. Ø	C	F	N	Stud or adaptor*
12	QM/90012/21	QM/57008/25	M/P1500/111	M/P1710/18
16	QM/90016/21	QM/8010/25	M/P1501/80	M/P1710/19
20	QM/90020/21	QM/92020/25	M/P1501/109	M/P1710/20
25	QM/90025/21	QM/57016/25	M/P1501/79	M/P1710/21
32	QM/90032/21	QM/57020/25	M/P1501/60	M/P1710/22
40	QM/90040/21	QM/57020/25	M/P1501/60	M/P1710/22
50	QM/90050/21	QM/57025/25	–	M/P71470/1
63	QM/90063/21	QM/57040/25	–	M/P71470/2
80	QM/90080/21	QM/57063/25	–	M/P71470/3
100	QM/90100/21	QM/57063/25	–	M/P71470/3

* For attaching F mounting to female piston rod thread.



ISO/VDMA range

Not all 'ISO/VDMA' actuators look alike and perform to a similar standard.

The range covers standard and specific use products, up to 320 mm bore and 2800 mm stroke length and up to 125 mm bore features our new ACS - Adaptive Cushioning System. What's more, Norgren were the first to utilise a flush-mounted switch system, now standard for almost ten years, which ensures that switches are fully protected from all kinds of mechanical damage.

» Very low static and dynamic friction characteristics allow low pressure working at speeds down to 3 mm/sec and for ultra-low friction applications a special version is available. Running costs can be optimised for maximum efficiency without use of special products, reducing cost of ownership and inventory holding

» The vast Norgren range includes both profile and traditional round barrel versions, a stainless steel version, heavy duty wiper and low friction options, non or extended cushion, integrated valve and actuator combined on one unit (IVAC), piston rod lock, guide block and unit complete with position sensor



Find out more
norgren.com



ISOLine™ Cylinder

PRA/802000/M, RA/802000/M, RA/8000/M Double acting - Ø32 ... 320 mm



- » Cylinder conforms to ISO 15552
- » High performance adaptive cushioning system "ACS"
- » 16 bar version available
- » Flush mounted switch system with profile barrel

Technical Data

Medium:
Compressed air, filtered,
lubricated or non-lubricated

Standard:
ISO 15552

Operation:
Double acting, magnetic
piston with
Ø32 ... 125 mm ACS
Cushioning system,
Ø160 ... 320 mm with
adjustable cushioning

Operating pressure:
Ø32 ... 125 mm (Profile barrel)
1 ... 12 bar
Ø32 ... 200 mm (Round barrel)
1 ... 16 bar
Ø250 & 320 mm (Round barrel)
1 ... 10 bar



Models

Accessories

Model Profile barrel	Model Round barrel	Dia. Ø	Port size	Banjo flow control	Straight fitting	Elbow fitting	Reed switch with integral 5 m cable	Switch mounting**	Service Kit
PRA/802032/M/*	RA/802032/M/*	32	G1/8	COK510618	C02250618	C02470618	M/50/LSU/5V	QM/27/2/1	QA/8032/00
PRA/802040/M/*	RA/802040/M/*	40	G1/4	COK510628	C02250628	C02470628	M/50/LSU/5V	QM/27/2/1	QA/8040/00
PRA/802050/M/*	RA/802050/M/*	50	G1/4	COK510828	C02250828	C02470828	M/50/LSU/5V	QM/27/2/1	QA/8050/00
PRA/802063/M/*	RA/802063/M/*	63	G3/8	COK510838	C02250838	C02470838	M/50/LSU/5V	QM/27/2/1	QA/8063/00
PRA/802080/M/*	RA/802080/M/*	80	G3/8	COK511038	C02251038	C02471038	M/50/LSU/5V	QM/27/2/1	QA/8080/00
PRA/802100/M/*	RA/802100/M/*	100	G1/2	COK511248	C02251248	C02471248	M/50/LSU/5V	QM/27/2/1	QA/8100/00
PRA/802125/M/*	RA/802125/M/*	125	G1/2	COK511248	C02251248	C02471248	M/50/LSU/5V	QM/27/2/1	QA/8125C/00
-	RA/8160/M/*	160	G3/4	M840 (Inline)	-	-	M/50/LSU/5V	QM/27/2/1	QA/8160D/00
-	RA/8200/M/*	200	G3/4	M840 (Inline)	-	-	M/50/LSU/5V	QM/27/2/1	QA/8200B/00
-	RA/8250/M/*	250	G1	M855 (Inline)	-	-	M/50/LSU/5V	QM/27/2/1	QA/8250/00
-	RA/8320/M/*	320	G1	M855 (Inline)	-	-	M/50/LSU/5V	QM/27/2/1	QA/8320/00

*Please insert stroke (see page 2-029).

** For use with round barrel.

For alternative fitting types, please contact our technical service.
Alternative magnetic switches available, please contact our technical service.



For further information, visit www.norgren.com and use the new improved search function. If you cannot see the option you require please contact us.

More Info



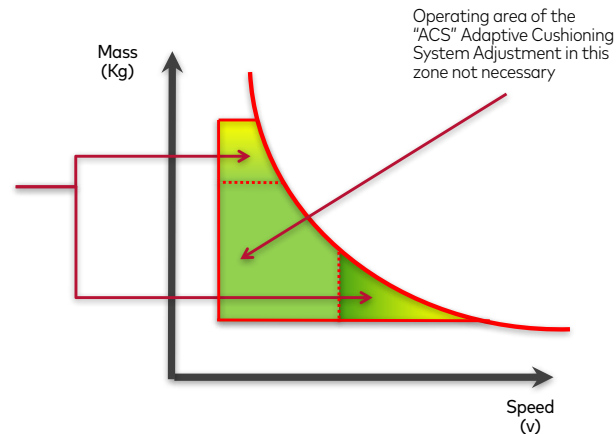
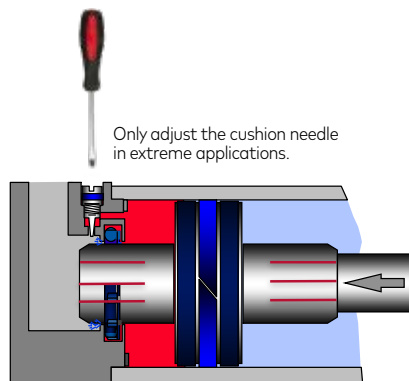
ISOLine™ Cylinder

PRA/802000/M, RA/802000/M, RA/8000/M Double acting - Ø32 ... 320 mm

Cylinder Ø (mm)	32	40	50	63	80	100	125	160	200	250	320
Profile barrel	•	•	•	•	•	•	•				
Round barrel	•	•	•	•	•	•	•	•	•	•	•
Port size	G1/8	G1/4	G1/4	G3/8	G3/8	G1/2	G1/2	G3/4	G3/4	G1	G1
Piston rod Ø (mm)	12	16	20	20	25	25	32	40	40	50	63
Piston rod thread	M10 x 1,25	M12 x 1,25	M16 x 1,5	M16 x 1,5	M20 x 1,5	M20 x 1,5	M27 x 2	M36 x 2	M36 x 2	M42 x 2	M48 x 2
Cushioning: Adaptive cushioning systems "ACS"	•	•	•	•	•	•	•				
Cushioning: Adjustable cushioning								•	•	•	•

The function

The new "ACS" Adaptive Cushioning System provides a high performance pneumatic damping function. The system will automatically cushion for a wide range of general applications as delivered. Manual adjustment is still possible for extreme applications





ISOLine™ Cylinder

PRA/802000/M, RA/802000/M, RA/8000/M Double acting - Ø32 ... 320 mm

Standard Strokes

Cylinder Ø (mm)	Stroke length (mm)										
	25	50	80	100	125	160	200	250	320	400	500
32	•	•	•	•	•	•	•	•	•	•	•
40	•	•	•	•	•	•	•	•	•	•	•
50	•	•	•	•	•	•	•	•	•	•	•
63	•	•	•	•	•	•	•	•	•	•	•
80	•	•	•	•	•	•	•	•	•	•	•
100	•	•	•	•	•	•	•	•	•	•	•
125	•	•	•	•	•	•	•	•	•	•	•
160	•	•	•	•	•	•	•	•	•	•	•
200	•	•	•	•	•	•	•	•	•	•	•
250	•	•	•	•	•	•	•	•	•	•	•
320	•	•	•	•	•	•	•	•	•	•	•

For special strokes up to 500mm or other variants, please contact our technical service.

Guide blocks

Cyl. Ø	Guide blocks - plain bearings	Guide blocks - roller bearings	Guide blocks - plain bearings, long coupling	Guide blocks - plain bearings, short coupling
				
32	QA/8032/51/*	QA/8032/61/*	QA/8032/81/*	QA/8032/85/*
40	QA/8040/51/*	QA/8040/61/*	QA/8040/81/*	QA/8040/85/*
50	QA/8050/51/*	QA/8050/61/*	QA/8050/81/*	QA/8050/85/*
63	QA/8063/51/*	QA/8063/61/*	QA/8063/81/*	QA/8063/85/*
80	QA/8080/51/*	QA/8080/61/*	QA/8080/81/*	QA/8080/85/*
100	QA/8100/51/*	QA/8100/61/*	QA/8100/81/*	QA/8100/85/*

*) Insert standard stroke length: 50, 100, 160, 200, 250, 320, 400 and 500 mm, use the next bigger standard stroke.



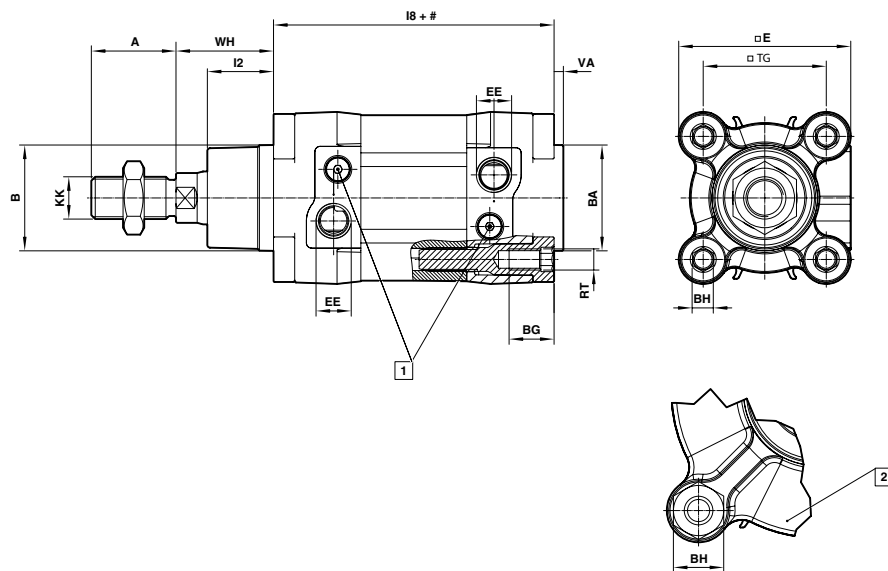


ISOLine™ Cylinder

PRA/802000/M, RA/802000/M, RA/8000/M Double acting - Ø32 ... 320 mm

Dimensions

PRA/802000/M, RA/802000/M, RA/8000/M



Stroke

1 Cushion screw

2 Ø80 ... 320 mm

3 M/50 switches can be mounted flush with the profile

For additional information please contact the technical service or <http://www.norgren.com>





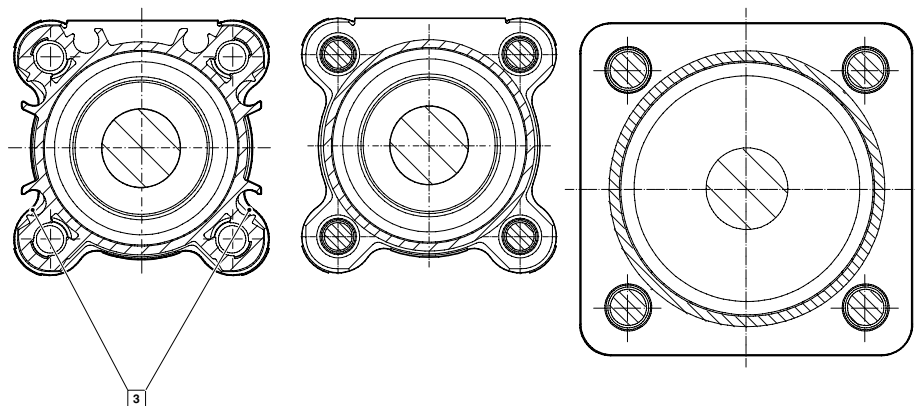
ISOLine™ Cylinder

PRA/802000/M, RA/802000/M, RA/8000/M Double acting - Ø32 ... 320 mm

Model Profile barrel
Ø32 ... 125 mm

Model Round barrel
Ø32 ... 125 mm

Model Round barrel
Ø160 ... 320 mm



Ø	A _{-0,5}	ØB _{d11}	ØBA _{d11}	BG min	BH	□E	EE	KK	L2	L8	TG	RT	VA	WH
32	22	30	30	16	6	47	G1/8	M10 x 1,25	19,5	94	32,5	M 6	3,5	26
40	24	35	35	16	6	53	G1/4	M12 x 1,25	22	105	38	M 6	3,5	30
50	32	40	40	16	8	65	G1/4	M16 x 1,5	25	106	46,5	M 8	3,5	37
63	32	45	45	16	8	75	G3/8	M16 x 1,5	25	121	56,5	M 8	3,5	37
80	40	45	45	17	19	95	G3/8	M20 x 1,5	33	128	72	M 10	3,5	46
100	40	55	55	17	19	113	G1/2	M20 x 1,5	35	138	89	M 10	3,5	51
125	54	60	60	20	24	140	G1/2	M27 x 2	44	160	110	M 12	5,5	65
160	72	65	65	28,5	32	183,5	G3/4	M36 x 2	58	180	140	M 16	4	80
200	72	75	75	28,5	32	224	G3/4	M36 x 2	67	180	175	M 16	5	95
250	84	90	90	35	36	280	G1	M42 x 2	80	200	220	M 20	7	105
320	96	110	110	30	46	350	G1	M48 x 2	90	220	270	M 24	7	120



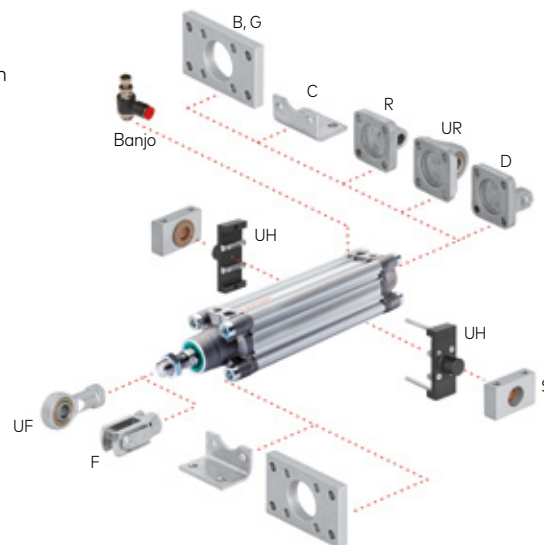


ISOLine™ Cylinder

PRA/802000/M, RA/802000/M, RA/8000/M Double acting - Ø32 ... 320 mm

Mountings

Cylinder with Profile barrel Ø32 ... 125 mm



Ø	B, G	C	R	UR	D	S	F	UF	UH
32	QA/8032/22	QA/8032/21	QA/8032/27	QA/8032/33	QA/8032/23	QA/8032/41	QM/8025/25	QM/8025/32	PQA/802032/40
40	QA/8040/22	QA/8040/21	QA/8040/27	QA/8040/33	QA/8040/23	QA/8040/41	QM/8040/25	QM/8040/32	PQA/802040/40
50	QA/8050/22	QA/8050/21	QA/8050/27	QA/8050/33	QA/8050/23	QA/8040/41	QM/8050/25	QM/8050/32	PQA/802050/40
63	QA/8063/22	QA/8063/21	QA/8063/27	QA/8063/33	QA/8063/23	QA/8063/41	QM/8050/25	QM/8050/32	PQA/802063/40
80	QA/8080/22	QA/8080/21	QA/8080/27	QA/8080/33	QA/8080/23	QA/8063/41	QM/8080/25	QM/8080/32	PQA/802080/40
100	QA/8100/22	QA/8100/21	QA/8100/27	QA/8100/33	QA/8100/23	QA/8100/41	QM/8080/25	QM/8080/32	PQA/802100/40
125	QM/8125/22	QM/8125/21	QM/8125/27	QM/8125/33	QM/8125/23	QA/8100/41	QM/8125/25	QM/8125/32	PQA/802125/40
160	QM/8160/22	QM/8160/21	QM/8160/27	QM/8160/33	QM/8160/23	QA/8160/41	QM/8160/25	QM/8160/32	-
200	QM/8200/22	QM/8200/21	QM/8200/27	QM/8200/33	QM/8200/23	QA/8160/41	QM/8160/25	QM/8160/32	-
250	QM/8250/22	QM/8250/21	-	QM/8250/33	QM/8250/23	-	QM/8250/25	QM/8250/32	-
320	QM/8320/22	QM/8320/21	-	QM/8320/33	QM/8320/23	-	QM/8320/25	QM/8320/32	-



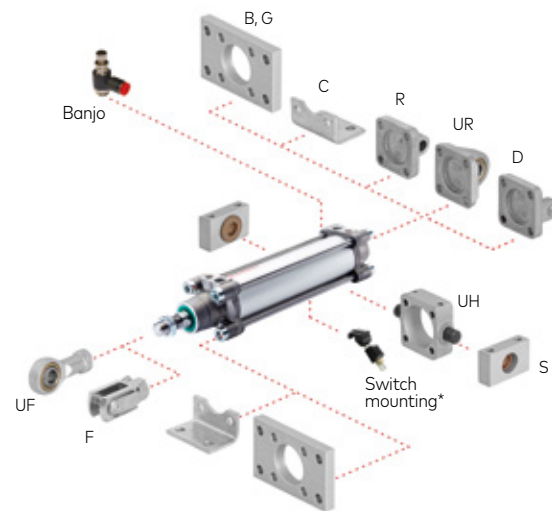


ISOLine™ Cylinder

PRA/802000/M, RA/802000/M, RA/8000/M Double acting - Ø32 ... 320 mm

Mountings

Cylinder with Round barrel Ø32 ... 320 mm



Ø	B, G	C	R	UR	D	S	F	UF	UH	Switch mounting*
32	QA/8032/22	QA/8032/21	QA/8032/27	QA/8032/33	QA/8032/23	QA/8032/41	QM/8025/25	QM/8025/32	QA/8032/40	QM/27/2/1
40	QA/8040/22	QA/8040/21	QA/8040/27	QA/8040/33	QA/8040/23	QA/8040/41	QM/8040/25	QM/8040/32	QA/8040/40	QM/27/2/1
50	QA/8050/22	QA/8050/21	QA/8050/27	QA/8050/33	QA/8050/23	QA/8050/41	QM/8050/25	QM/8050/32	QA/8050/40	QM/27/2/1
63	QA/8063/22	QA/8063/21	QA/8063/27	QA/8063/33	QA/8063/23	QA/8063/41	QM/8050/25	QM/8050/32	QA/8063/40	QM/27/2/1
80	QA/8080/22	QA/8080/21	QA/8080/27	QA/8080/33	QA/8080/23	QA/8063/41	QM/8080/25	QM/8080/32	QA/8080/40	QM/27/2/1
100	QA/8100/22	QA/8100/21	QA/8100/27	QA/8100/33	QA/8100/23	QA/8100/41	QM/8080/25	QM/8080/32	QA/8100/40	QM/27/2/1
125	QM/8125/22	QM/8125/21	QM/8125/27	QM/8125/33	QM/8125/23	QA/8100/41	QM/8125/25	QM/8125/32	QA/8125/40	QM/27/2/1
160	QM/8160/22	QM/8160/21	QM/8160/27	QM/8160/33	QM/8160/23	QA/8160/41	QM/8160/25	QM/8160/32	QA/8160/40	QM/27/2/1
200	QM/8200/22	QM/8200/21	QM/8200/27	QM/8200/33	QM/8200/23	QA/8160/41	QM/8160/25	QM/8160/32	QA/8200/40	QM/27/2/1
250	QM/8250/22	QM/8250/21	-	QM/8250/33	QM/8250/23	-	QM/8250/25	QM/8250/32	-	QM/27/2/1
320	QM/8320/22	QM/8320/21	-	QM/8320/33	QM/8320/23	-	QM/8320/25	QM/8320/32	-	QM/27/2/1

*For use with round barrel.



IVAC

Integrated Valve and Actuator Control PRA/882000 Series

32 to 100 mm bore – up to 1,000 mm stroke length. Norgren has worked closely with customers in key industry sectors to fully understand what improvements they wanted from their pneumatic controls. The response highlighted a widespread need for improved energy efficiency, reduced downtime and greater ease of use.

The IVAC from Norgren now answers these needs: A family of products incorporating proven technology, IVAC is a light weight, strong, actuator with integrated solenoid valve, cushion and speed control plus position sensors. The ISO/VDMA dimensions mean that it can be used to replace existing traditional systems, or used on new installations. Using IVAC rather than traditional components, energy consumption can be reduced by up to 50%. The unit has been rigorously tested in operational conditions by customers in a wide range of industries.

The unique patented design delivers significant benefits:

- » Faster response times
- » Fully modular design
- » Integrated sensor adjustment
- » Life expectancy of over 200 million cycles
- » Cleanline body offers simple washdown when used in critical applications
- » Integrated pressure protection



Find out more
norgren.com



NORGREN®

IMI



IVAC Clean Line Cylinder

PRA/882000/M Double acting – Ø32 ... 63 mm

- » Complete functional unit with LED display
- » Central electrical connector, polarity-safe
- » Integrated 5/2 or 5/3 valve
- » Additional output ports (2 & 4)
- » Integrated flow regulator for speed control
- » Integrated reed or solid state switches
- » Protection class IP67, suitable for food and beverage sector
- » Energy efficient

Technical Data

Medium:

Compressed air, filtered, lubricated or non-lubricated
Particles size: Class 7, ISO 8573 – 1 (dated 2001)

Humidity and water content: Air supply must be dry. Corresponding of the application and working conditions the air must be dry enough to avoid condensate. The pressure dewpoint must be minimum 15° under the application and working conditions.
Oil: Class 4, ISO 8573 – 1 (dated 2001)

Standard:

Based on ISO 15552 (length, mounting pitch and thread dimensions according to ISO 15552. Some outside dimensions different to ISO 15552)

Operation:

Double acting, magnetic piston, adjustable cushioning

Operating pressure:

2 ... 8 bar

Ambient temperature:

-2°C ... +70°C max.
Air supply must be dry enough to avoid ice formation at temperatures below +2°C

Supply voltage:

24 V d.c.

Multipole connection:

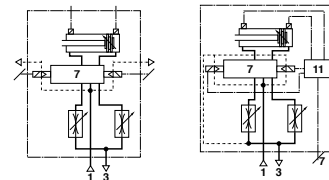
M12 x 1 male, 8 pin

Power consumption:

1 W max

Rating:

100% E.D





IVAC Clean Line Cylinder

PRA/882000/M Double acting – Ø32 ... 63 mm

Models - With glandless spool

Accessories

Model	Dia. Ø	Port size	Piston rod Ø	Stroke lenght mm	Valve function	Actuation	Cylinder function	Plug with 5m moulded cable	Elbow fitting	Silencer
										
PRA/882032/MIB/M4/50	32	G1/8	12	50	5/2 bistable	Sol/Sol	not defin	M/P74582/5	C02470618	M/S1
PRA/882032/MIB/M4/80	32	G1/8	12	80	5/2 bistable	Sol/Sol	not defin	M/P74582/5	C02470618	M/S1
PRA/882032/MIB/M4/100	32	G1/8	12	10	5/2 bistable	Sol/Sol	not defin	M/P74582/5	C02470618	M/S1
PRA/882032/MIB/M4/160	32	G1/8	12	160	5/2 bistable	Sol/Sol	not defin	M/P74582/5	C02470618	M/S1
PRA/882040/MIB/M4/50	40	G1/8	16	50	5/2 bistable	Sol/Sol	not defin	M/P74582/5	C02470618	M/S1
PRA/882040/MIB/M4/80	40	G1/8	16	80	5/2 bistable	Sol/Sol	not defin	M/P74582/5	C02470618	M/S1
PRA/882040/MIB/M4/100	40	G1/8	16	100	5/2 bistable	Sol/Sol	not defin	M/P74582/5	C02470618	M/S1
PRA/882040/MIB/M4/200	40	G1/8	16	200	5/2 bistable	Sol/Sol	not defin	M/P74582/5	C02470618	M/S1
PRA/882050/MIB/M4/50	50	G1/8	20	50	5/2 bistable	Sol/Sol	not defin	M/P74582/5	C02470618	M/S1
PRA/882050/MIB/M4/80	50	G1/8	20	80	5/2 bistable	Sol/Sol	not defin	M/P74582/5	C02470618	M/S1
PRA/882050/MIB/M4/100	50	G1/8	20	100	5/2 bistable	Sol/Sol	not defin	M/P74582/5	C02470618	M/S1
PRA/882050/MIB/M4/200	50	G1/8	20	200	5/2 bistable	Sol/Sol	not defin	M/P74582/5	C02470618	M/S1
PRA/882063/MIB/M4/100	63	G1/4	20	100	5/2 bistable	Sol/Sol	not defin	M/P74582/5	C02470828	M/S2
PRA/882063/MIB/M4/160	63	G1/4	20	160	5/2 bistable	Sol/Sol	not defin	M/P74582/5	C02470828	M/S2
PRA/882063/MIB/M4/200	63	G1/4	20	200	5/2 bistable	Sol/Sol	not defin	M/P74582/5	C02470828	M/S2

Other stroke length available up to 1000 mm maximum, other variants available, please call our Technical Service.

For alternative fittings types, shapes or sizes, refer to our fitting section.

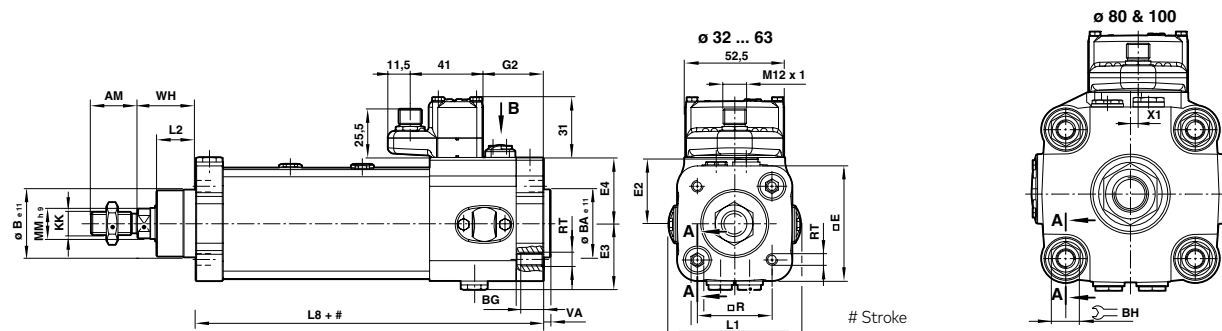




IVAC Clean Line Cylinder

PRA/882000/M Double acting – Ø32 ... 63 mm

Dimensions



Dia. Ø	AM	ØB _{e11}	ØBA _{e11}	BG	BH	□E	E2	E3	E4	G2	KK	L1	L2	L8	□R	RT	VA	WH	X1
32	22	30	30	16	6	53	31	30,5	32	30,5	M10x1,25	68,5	20	94	32,5	M 6	3	26	0
40	24	35	35	16	6	60	34,5	34	34	30,5	M12x1,25	68,5	21	105	38	M 6	3,5	30	0
50	32	40	40	16	8	71,5	40	39	39	34,5	M16x1,5	92,5	28	106	46,5	M 8	3,5	37	1,5
63	32	45	45	16	8	82	46	45,5	45,5	38	M16x1,5	91,5	28	121	56,5	M 8	4	37	0

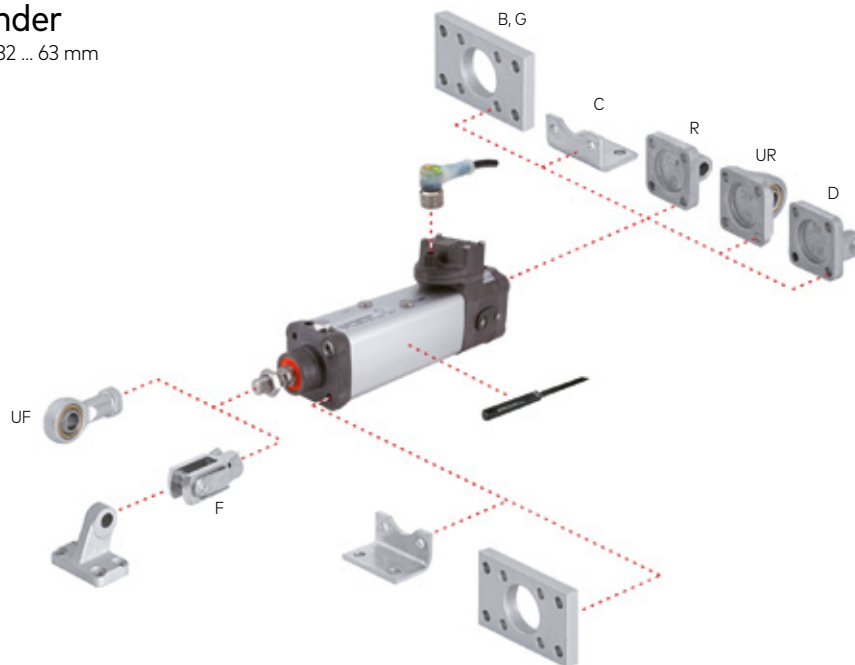




IVAC Clean Line Cylinder

PRA/882000/M Double acting – Ø32 ... 63 mm

Mountings



Cyl. Ø	B, G	C	D	F	R	UF	UR
32	QA/8032/22	QA/8032/21	QA/8032/23	QM/8025/25	QA/8032/27	QM/8025/32	QA/8032/33
40	QA/8040/22	QA/8040/21	QA/8040/23	QM/8040/25	QA/8040/27	QM/8040/32	QA/8040/33
50	QA/8050/22	QA/8050/21	QA/8050/23	QM/8050/25	QA/8050/27	QM/8050/32	QA/8050/33
63	QA/8063/22	QA/8063/21	QA/8063/23	QM/8050/25	QA/8063/27	QM/8050/32	QA/8063/33





Slide Units

M/60100/M Double acting – Ø10 ... 40 mm

- » High quality sliding bearings ensure long durable life and high guidance performance
- » Double piston rod provides high bending and torsional rigidity
- » Magnetic piston as standard
- » Easy to install – reduces costly design tim

Technical Data

Medium:

Compressed air, filtered, lubricated or non-lubricated

Operation:

Double acting with magnetic piston and buffer cushioning

Operating pressure:

1 ... 8 bar

Ambient temperature:

0°C ... +80°C

Air supply must be dry enough to avoid ice formation at temperatures below +2°C



Models

Accessories

Model	Dia. Ø	Stroke length	Port size	Guide Rod Ø (x2)	Reed switch with integral 5 m cable	Switch mounting	Banjo flow control	Straight fitting	Elbow fitting	Service kit
										
M/60111/M/25	10	25	M5	6	M/50/LSU/5V	M/P72487B	COK510405	C02250405	C02470405	QM/60111/M/00
M/60111/M/50	10	50	M5	6	M/50/LSU/5V	M/P72487B	COK510405	C02250405	C02470405	QM/60111/M/00
M/60111/M/75	10	75	M5	6	M/50/LSU/5V	M/P72487B	COK510405	C02250405	C02470405	QM/60111/M/00
M/60111/M/100	10	100	M5	6	M/50/LSU/5V	M/P72487B	COK510405	C02250405	C02470405	QM/60111/M/00
M/60116/M/25	16	25	M5	10	M/50/LSU/5V	M/P72487B	COK510405	C02250405	C02470405	QM/60116/M/00
M/60116/M/50	16	50	M5	10	M/50/LSU/5V	M/P72487B	COK510405	C02250405	C02470405	QM/60116/M/00
M/60116/M/75	16	75	M5	10	M/50/LSU/5V	M/P72487B	COK510405	C02250405	C02470405	QM/60116/M/00
M/60116/M/100	16	100	M5	10	M/50/LSU/5V	M/P72487B	COK510405	C02250405	C02470405	QM/60116/M/00
M/60116/M/125	16	125	M5	10	M/50/LSU/5V	M/P72487B	COK510405	C02250405	C02470405	QM/60116/M/00
M/60116/M/150	16	150	M5	10	M/50/LSU/5V	M/P72487B	COK510405	C02250405	C02470405	QM/60116/M/00





Slide Units

M/60100/M Double acting – Ø10 ... 40 mm

Models

Accessories

Model	Dia. Ø	Stroke length	Port size	Guide Rod Ø (x2)	Reed switch with integral 5 m cable	Switch mounting	Banjo flow control	Straight fitting	Elbow fitting	Service kit
M/60125/M/50	25	50	M5	16	M/50/LSU/5V	M/P72487B	COK510405	C02250405	C02470405	QM/60125/M/00
M/60125/M/75	25	75	M5	16	M/50/LSU/5V	M/P72487B	COK510405	C02250405	C02470405	QM/60125/M/00
M/60125/M/100	25	100	M5	16	M/50/LSU/5V	M/P72487B	COK510405	C02250405	C02470405	QM/60125/M/00
M/60125/M/125	25	125	M5	16	M/50/LSU/5V	M/P72487B	COK510405	C02250405	C02470405	QM/60125/M/00
M/60125/M/150	25	150	M5	16	M/50/LSU/5V	M/P72487B	COK510405	C02250405	C02470405	QM/60125/M/00
M/60125/M/175	25	175	M5	16	M/50/LSU/5V	M/P72487B	COK510405	C02250405	C02470405	QM/60125/M/00
M/60125/M/200	25	200	M5	16	M/50/LSU/5V	M/P72487B	COK510405	C02250405	C02470405	QM/60125/M/00
M/60132/M/75	32	75	G1/8	20	M/50/LSU/5V	M/P72487B	COK510618	C02250618	C02470618	QM/60132/M/00
M/60132/M/100	32	100	G1/8	20	M/50/LSU/5V	M/P72487B	COK510618	C02250618	C02470618	QM/60132/M/00
M/60132/M/125	32	125	G1/8	20	M/50/LSU/5V	M/P72487B	COK510618	C02250618	C02470618	QM/60132/M/00
M/60132/M/150	32	150	G1/8	20	M/50/LSU/5V	M/P72487B	COK510618	C02250618	C02470618	QM/60132/M/00
M/60132/M/175	32	175	G1/8	20	M/50/LSU/5V	M/P72487B	COK510618	C02250618	C02470618	QM/60132/M/00
M/60132/M/200	32	200	G1/8	20	M/50/LSU/5V	M/P72487B	COK510618	C02250618	C02470618	QM/60132/M/00
M/60140/M/125	40	125	G1/8	25	M/50/LSU/5V	M/P72487B	COK510618	C02250618	C02470618	QM/60140/M/00
M/60140/M/150	40	150	G1/8	25	M/50/LSU/5V	M/P72487B	COK510618	C02250618	C02470618	QM/60140/M/00
M/60140/M/175	40	175	G1/8	25	M/50/LSU/5V	M/P72487B	COK510618	C02250618	C02470618	QM/60140/M/00
M/60140/M/200	40	200	G1/8	25	M/50/LSU/5V	M/P72487B	COK510618	C02250618	C02470618	QM/60140/M/00
M/60140/M/225	40	225	G1/8	25	M/50/LSU/5V	M/P72487B	COK510618	C02250618	C02470618	QM/60140/M/00

For information on additional magnetic switches see page 2-093.

For alternative fitting types, shapes or sizes, refer to our fittings section.

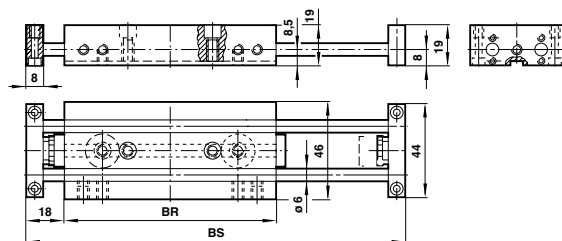


Slide Units

M/60100/M Double acting – Ø10 ... 40 mm

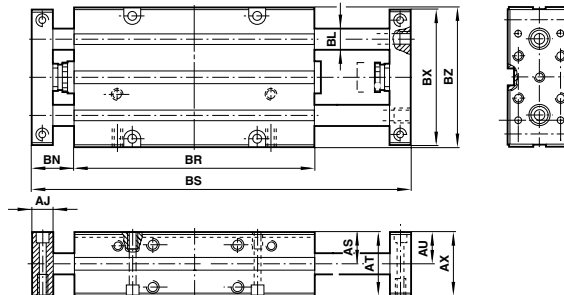
Dimensions

M/60111/M



Strokes (mm)	BR	BS
25	100	161
50	100	186
75	150	261
100	150	281

M/60116/M ... M/60140/M



Model	AJ	AS	AT	AU	AX	ØBL	BN	BX	BZ
M/60116	10	16	30	15	30	10	20	64	66
M/60125	12	21,5	40	20,5	40	16	22	90	92
M/60132	15	27,5	50	26,5	50	20	28	116	118
M/60140	20	32,5	60	31,5	60	25	31	144	146

Strokes (mm)		25	50	75	100	125	150	175	200	225
M/60116	BR	113,5	113,5	163,5	163,5	213,5	213,5	–	–	–
M/60116	BS	179	204	279	304	379	404	–	–	–
M/60125	BR	–	152	152	202	202	252	252	–	–
M/60125	BS	–	246	271	346	371	446	471	–	–
M/60132	BR	–	–	190	190	240	240	290	290	–
M/60132	BS	–	–	321	346	421	446	521	546	–
M/60140	BR	–	–	–	236,5	236,5	286,5	286,5	336,5	336,5
M/60140	BS	–	–	–	398	423	498	523	598	623

And use the new improved search function. If you cannot see the option you require contact us.





Guiding and Stopper Cylinder

M/61000/M and M/61000/MR Double acting – Ø32 ... 100 mm

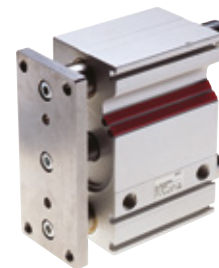
- » Guiding accuracy $\pm 0,02$ mm
- » Non-rotation accuracy $\pm 0,02^\circ$
- » Integrated heavy duty guide rods
- » Linear ball bearing option provides precision guiding for higher speeds
- » Plain bearing option offers higher side load capacity
- » Easy installation
- » Magnetic piston as standard
- » Buffer pad for noise reduction

Technical Data

Medium:
Compressed air, filtered,
lubricated or non-lubricated

Operating pressure:
1 ... 10 bar

Ambient temperature:
-10°C ... +80°C
Air supply must be dry enough
to avoid ice formation at
temperatures below +2°C.



Models

Accessories

Plain Bearings Model	Ball Bearings Model	Dia. Ø	Stroke length	Port size	Reed switch with integral 5 m cable	Banjo flow control	Straight fitting	Elbow Fitting	Service kit
									
M/61032/M/25	M/61032/MR/25	32	25	G1/8	M/50/LSU/5V	COK510618	C02250618	C02470618	QM/61032/00
M/61032/M/50	M/61032/MR/50	32	50	G1/8	M/50/LSU/5V	COK510618	C02250618	C02470618	QM/61032/00
M/61032/M/75	M/61032/MR/75	32	75	G1/8	M/50/LSU/5V	COK510618	C02250618	C02470618	QM/61032/00
M/61032/M/100	M/61032/MR/100	32	100	G1/8	M/50/LSU/5V	COK510618	C02250618	C02470618	QM/61032/00
M/61040/M/25	M/61040/MR/25	40	25	G1/8	M/50/LSU/5V	COK510618	C02250618	C02470618	QM/61040/00
M/61040/M/50	M/61040/MR/50	40	50	G1/8	M/50/LSU/5V	COK510618	C02250618	C02470618	QM/61040/00
M/61040/M/75	M/61040/MR/75	40	75	G1/8	M/50/LSU/5V	COK510618	C02250618	C02470618	QM/61040/00
M/61040/M/100	M/61040/MR/100	40	100	G1/8	M/50/LSU/5V	COK510618	C02250618	C02470618	QM/61040/00
M/61050/M/25	M/61050/MR/25	50	25	G1/4	M/50/LSU/5V	COK510628	C02250628	C02470628	QM/61050/00
M/61050/M/50	M/61050/MR/50	50	50	G1/4	M/50/LSU/5V	COK510628	C02250628	C02470628	QM/61050/00
M/61050/M/75	M/61050/MR/75	50	75	G1/4	M/50/LSU/5V	COK510628	C02250628	C02470628	QM/61050/00
M/61050/M/100	M/61050/MR/100	50	100	G1/4	M/50/LSU/5V	COK510628	C02250628	C02470628	QM/61050/00





Guiding and Stopper Cylinder

M/61000/M and M/61000/MR Double acting – Ø32 ... 100 mm

Models

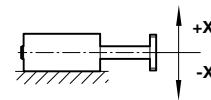
Accessories

Plain Bearings Model	Ball Bearings Model	Dia. Ø	Stroke length	Port size	Reed switch with integral 5 m cable	Banjo flow control	Straight fitting	Elbow Fitting	Service kit
M/61063/M/25	M/61063/MR/25	63	25	G1/4	M/50/LSU/5V	COK510628	C02250628	C02470628	QM/61063/00
M/61063/M/50	M/61063/MR/50	63	50	G1/4	M/50/LSU/5V	COK510628	C02250628	C02470628	QM/61063/00
M/61063/M/75	M/61063/MR/75	63	75	G1/4	M/50/LSU/5V	COK510628	C02250628	C02470628	QM/61063/00
M/61063/M/100	M/61063/MR/100	63	100	G1/4	M/50/LSU/5V	COK510628	C02250628	C02470628	QM/61063/00
M/61080/M/25	M/61080/MR/25	80	25	G1/4	M/50/LSU/5V	COK510628	C02250628	C02470628	QM/61080/00
M/61080/M/50	M/61080/MR/50	80	50	G1/4	M/50/LSU/5V	COK510628	C02250628	C02470628	QM/61080/00
M/61080/M/75	M/61080/MR/75	80	75	G1/4	M/50/LSU/5V	COK510628	C02250628	C02470628	QM/61080/00
M/61080/M/100	M/61080/MR/100	80	100	G1/4	M/50/LSU/5V	COK510628	C02250628	C02470628	QM/61080/00
	M/61100/MR/25	100	25	G1/4	M/50/LSU/5V	COK510628	C02250628	C02470628	QM/61100/00
	M/61100/MR/50	100	50	G1/4	M/50/LSU/5V	COK510628	C02250628	C02470628	QM/61100/00
	M/61100/MR/75	100	75	G1/4	M/50/LSU/5V	COK510628	C02250628	C02470628	QM/61100/00
	M/61100/MR/100	100	100	G1/4	M/50/LSU/5V	COK510628	C02250628	C02470628	QM/61100/00

For alternative fitting types, shapes or sizes, refer to our fittings section.

Guiding accuracy

Deflection of the mounting platem at instroke and outstroke position without load.



Cylinder Ø (mm)	32 Instroke	Outstroke	40 Instroke	Outstroke	50 Instroke	Outstroke	63 Instroke	Outstroke	80 Instroke	Outstroke	100 Instroke	Outstroke
Position												
Slidebearing	± 0,06	± 0,11	± 0,06	± 0,11	± 0,06	± 0,11	± 0,06	± 0,11	± 0,07	± 0,11	–	–
Rollerbearing	± 0,02	± 0,04	± 0,02	± 0,04	± 0,03	± 0,05	± 0,03	± 0,05	± 0,03	± 0,05	± 0,03	± 0,05



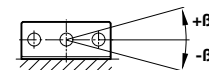
Guiding and Stopper Cylinder

M/61000/M and M/61000/MR Double acting – Ø32 ... 100 mm

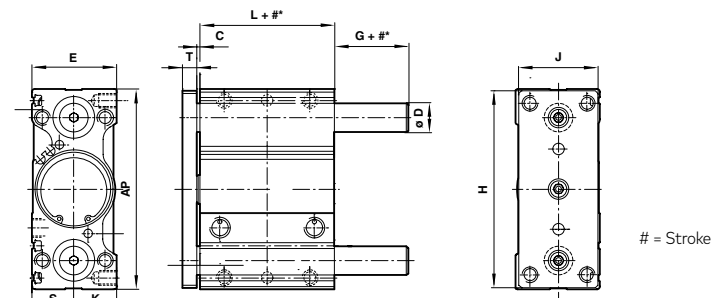
Non-rotation Accuracy

Deflection of the mounting plate β (°) at instroke position without load

Cylinder Ø (mm)	32	40	50	63	80	100
Slide bearing	± 0,06	± 0,06	± 0,05	± 0,05	± 0,04	-
Roller bearing	± 0,03	± 0,03	± 0,03	± 0,03	± 0,02	± 0,02



Dimensions



Options

- » Special Wiper seals on Ball Bearings version

Dia. Ø	AP	C	D*1	D*2	E	G	H	J	K	L	S	T
32	114	1,5	16	20	51	8,5	112	48	26	38	25	8
40	124	2	16	20	51	2	122	48	26	44	25	8
50	140	2	20	25	59	7	138	56	30	44	29	10
63	150	2	20	25	72	2	148	69	36,5	49	35,5	10
80	188	1,5	25	30	92	2	185	88	46,5	57	45,5	16
100	224	2	30	-	112	2	221	108	56,5	66	55,5	16

*1 = MR version - ball bearings. *2 = M version - plain bearings.





Lintra® Plus Range

**M/146000 Internal Guide,
M/146100 External Guide,
M/146200 Precision Roller Guide**

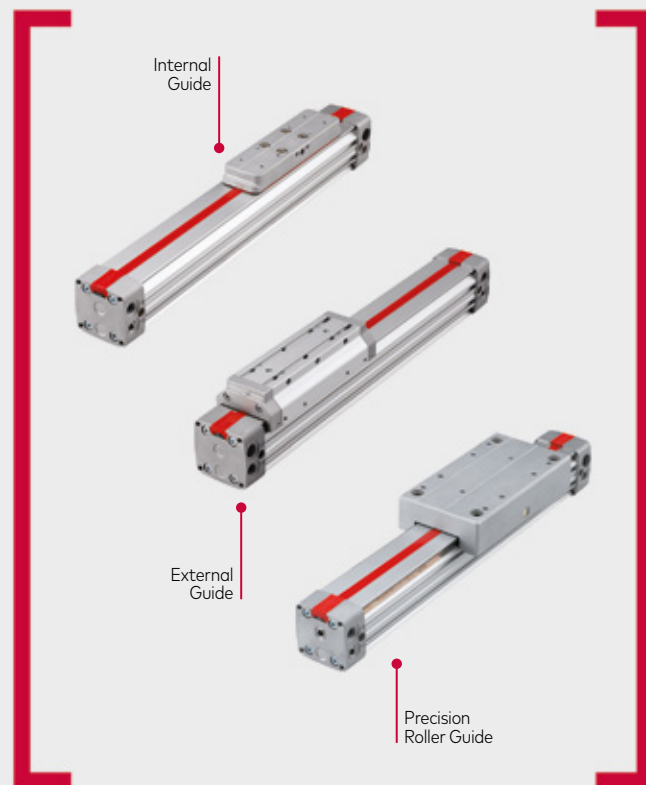
Double acting – Ø16 ... 80 mm

- » Widest rodless range covers all requirements from lighter to heavier duties
- » Unique integrated guides housed in the main extrusion
- » Unique zip action sealing system
- » Protection system preventing dust ingress
- » Reliable operation up to 6,000 Km of travel
- » Interchangeable with previous M/46*00 series units

Models

Internal guide	Piston Ø	Stroke length	Port size
M/146016/M/****	16	made to order	M5
M/146020/M/****	20	made to order	G1/8
M/146025/M/****	25	made to order	G1/8
M/146032/M/****	32	made to order	G1/4
M/146040/M/****	40	made to order	G1/4
M/146050/M/****	50	made to order	G3/8
M/146063/M/****	63	made to order	G1/2
M/146080/M/****	80	made to order	G1/2
External guide	Piston Ø	Stroke length	Port size
M/146116/M/****	16	made to order	M5
M/146120/M/****	20	made to order	G1/8
M/146125/M/****	25	made to order	G1/8
M/146132/M/****	32	made to order	G1/4
M/146140/M/****	40	made to order	G1/4
M/146150/M/****	50	made to order	G3/8
M/146163/M/****	63	made to order	G1/2
M/146180/M/****	80	made to order	G1/2
Precision roller guide	Piston Ø	Stroke length	Port size
M/146225/M/****	25	made to order	G1/8
M/146232/M/****	32	made to order	G1/4
M/146240/M/****	40	made to order	G1/4
M/146250/M/****	50	made to order	G3/8
M/146263/M/****	63	made to order	G1/2

**** Insert stroke length in mm – very best availability in multiples of 100 mm.



→ Find out more
[norgren.com](https://www.norgren.com)

Lintra® Plus Rodless Cylinders

M/146000 Internal Guide, M/146100 External Guide, M/146200 Precision Roller Guide Double acting – Ø16 ... 80 mm

- » Widest rodless range covers all requirements from lighter to heavier duties
- » Unique integrated guides housed in the main extrusion
- » Unique zip action sealing system
- » Protection system preventing dust ingress
- » Reliable operation up to 6,000 Km of travel
- » Interchangeable with previous M/46*00 series units

Technical Data

Medium:
Compressed air, filtered,
lubricated or non-lubricated

Operation:
Double acting, magnetic
piston, adjustable cushioning

Operating pressure:
1 ... 8 bar

Max strokes:
Ø16 ... 40 mm - 8500 mm
Ø50 & 63 mm - 8000 mm
Ø80 mm - 5500 mm

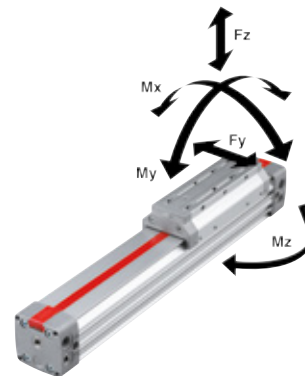
Ambient temperature:
-30°C ... +80°C max.
Air supply must be dry enough
to avoid ice formation at
temperatures below +2°C



Lintra® Plus moments

Ømm	Internal guide M/146000					External adjustable guide M/146100			Precision roller guide M/146200			
	F _y	F _z	M _x	M _y	M _z	F _y , F _z	M _x	M _y , M _z	F _y	F _z	M _x	M _y , M _z
	(N)	(N)	(Nm)	(Nm)	(Nm)	(N)	(Nm)	(Nm)	(N)	(N)	(Nm)	(Nm)
16	40	120	0,3	3,8	1,1	200	2	5,5	–	–	–	–
20	90	280	0,9	12	3,6	470	6	18	–	–	–	–
25	125	385	1,5	19	5,6	590	9	28	590	1180	13	42
32	165	500	3	33	10	780	17	43	780	1560	25	64
40	330	990	6,5	84	24	1600	39	110	1500	3000	58	160
50	440	1320	11	120	35	2000	65	160	2000	4000	97	240
63	690	2000	20	240	70	3200	120	350	3200	6400	180	520
80	780	2300	27	360	100	3900	180	520	–	–	–	–

M/146000, M/146100, M/146200





Lintra® Plus Rodless Cylinders

M/146000 Internal Guide, M/146100 External Guide, M/146200 Precision Roller Guide Double acting – Ø16 ... 80 mm

Loading values for Lintra® Plus cylinders

The values given in the table below show the single forces in the directions F_y and F_z and the maximum moments M_x , M_y and M_z .
All values are applicable only for speeds of max. 0,2 m/s.
A requirement for using these values is a constant movement (no jerking) of the mass over the whole stroke length of the cylinder.
The reference point from which the moments for all cylinders should be calculated is the centre line of the pistons.

For speeds up to 2 m/s please use our calculation programme Lintra® Pneucalc. It is available upon request.

When a Lintra® cylinder has to take several loads and moments, an additional calculation is necessary using this formula:

$$\frac{M_x}{M_{x \max}} + \frac{M_y}{M_{y \max}} + \frac{M_z}{M_{z \max}} + \frac{F_y}{F_{y \max}} + \frac{F_z}{F_{z \max}} \leq 1$$



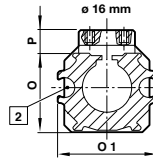
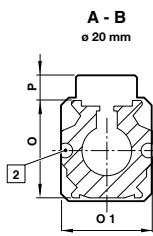
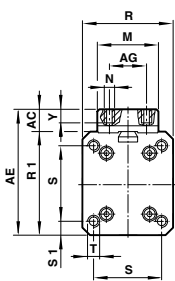
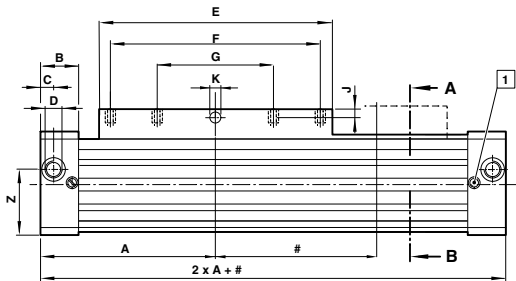


Lintra® Plus Rodless Cylinders

M/146000 Internal guide Double acting – Ø16 ... 80 mm

Dimensions – Internal guide

Ø16 ... 20 mm



Stroke
 1 Cushion screw
 2 M/50 – switches and groove key can be mounted flush with the profile

Ø	A	AC	AE	AG	B	C	D	E	F	G	J	ØK D7	M	N	O
16	62,5	24,5	38	8	17,5	8	M5	80	60	–	2,5	3	18	M3	25
20	85	34,5	54	20	23	8	G1/8	110	80	40	3,5	4,2	27	M5	32
Ø	O1	P	R	R1	S	S1	T	Y	Z						
16	32	12	27	31	16	5,5	M3 - 5 *1)	4	16,5						
20	38	18,5	40	40	32	4	M5 - 12 *)	12	20,5						

*) Deep.



For further information, visit www.norgren.com and use the new improved search function. If you cannot see the option you require please contact us.

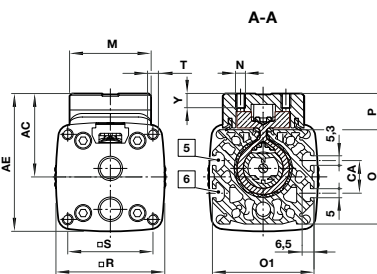
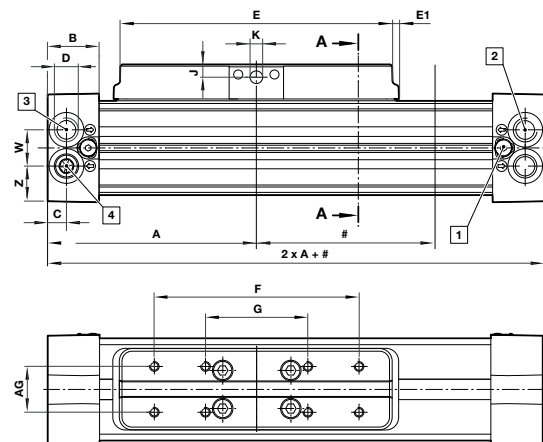
More Info



Lintra® Plus Rodless Cylinders

M/146000 Internal guide Double acting – Ø16 ... 80 mm

Ø25 ... 63 mm



Stroke

1 Cushion screw

2 Main port

3 Main port

4 One alternative port with plug inserted

5 M/50 – switches and groove key can be mounted flush with the profile

6 For groove key only

Ø	A	AC	AE	AG	B	C	CA	D	E	E1	F	G	J	ØK D7
25	100	36	60	20	23	8,5	–	G1/8	130	–	90	45	4,7	5
32	120	46	76	25	28,5	10,5	18	G1/4	160	3,5	120	60	7	7
40	150	52,5	90	25	28,5	11,5	18	G1/4	215	–	160	80	7	7
50	180	65,5	110	25	38	15	24	G3/8	250	–	190	95	9,5	9
63	215	82,5	125	25	38	17	24	G1/2	320	–	240	120	9,5	9
Ø	M	N	O	O1	P	R	S	T	W	Y	Z			
25	32	M5	40	46	16	48	37	M5 - 13*1)	16	7	16			
32	45	M5	52	56	20	60	47	M6 - 17*1)	20	8	20			
40	45	M6	65	68	20	74,5	58	M8 - 20*1)	25	8	25			
50	50	M8	80	84	25,5	89	70	M8 - 20*1)	30	11	29,5			
63	50	M8	95	97	25	105	84	M10 - 24*1)	35	11	35			

*1) Deep.

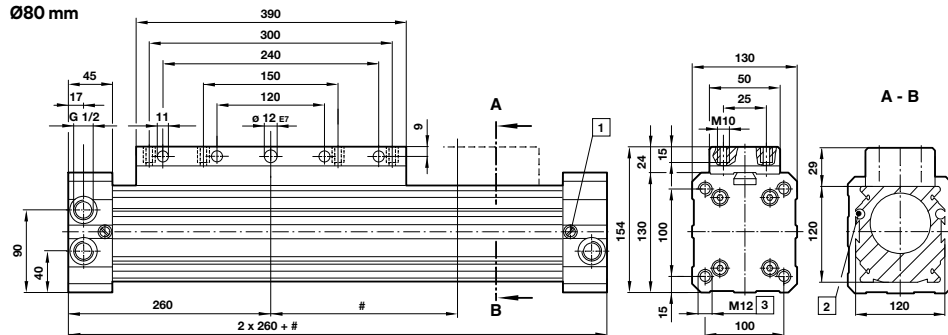




Lintra® Plus Rodless Cylinders

M/146000 Internal guide Double acting – Ø16 ... 80 mm

Ø80 mm



Stroke

① Cushion screw

② M/50 – switches and groove key can be mounted flush with the profile

③ 26 deep

Models – Internal guide

Model	Piston Ø	Stroke length	Port size	Reed switch with integral 5 m cable	Banjo flow control	Straight fitting	Elbow fitting
M/146016/M/****	16	made to order	M5	M/50/LSU/5V	COK510405	C02250405	C02470405
M/146020/M/****	20	made to order	G1/8	M/50/LSU/5V	COK510618	C02250618	C02470618
M/146025/M/****	25	made to order	G1/8	M/50/LSU/5V	COK510618	C02250618	C02470618
M/146032/M/****	32	made to order	G1/4	M/50/LSU/5V	COK510628	C02250628	C02470628
M/146040/M/****	40	made to order	G1/4	M/50/LSU/5V	COK510628	C02250628	C02470628
M/146050/M/****	50	made to order	G3/8	M/50/LSU/5V	COK510838	C02250838	C02470838
M/146063/M/****	63	made to order	G1/2	M/50/LSU/5V	COK510848	C02250848	C02470848
M/146080/M/****	80	made to order	G1/2	M/50/LSU/5V	COK511048	C02251048	C02471048

**** Insert stroke length in mm – very best availability in multiples of 100 mm.

For information on alternative magnetic switches see page 2-093.

Accessories



For alternative fitting types, shapes or sizes, refer to our fittings section.





Lintra® Plus Rodless Cylinders

M/146000 Internal guide Double acting – Ø16 ... 80 mm

Service kit

Model	Description
	
QA/1460**/88/1000	Up to 1000 mm stroke
QA/1460**/88/3000	From 1001 mm to 3000 mm stroke
QA/1460**/88/8500	From 3001 mm up to max. stroke

** Insert cylinder diameters for the service kit.

Options

- » Alternative port configuration
- » Brake
- » Double Carriage

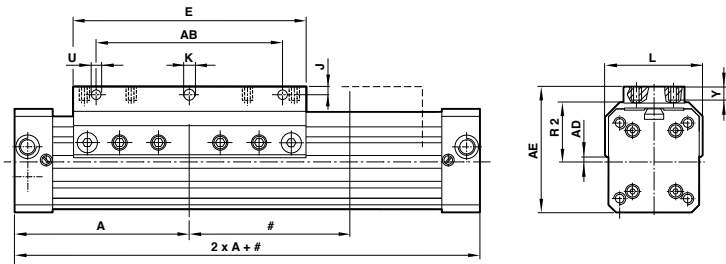




Lintra® Plus Rodless Cylinders

M/146100 External guide Double acting – Ø16 ... 80 mm

Dimensions – External guide
 Ø16 ... 20 mm



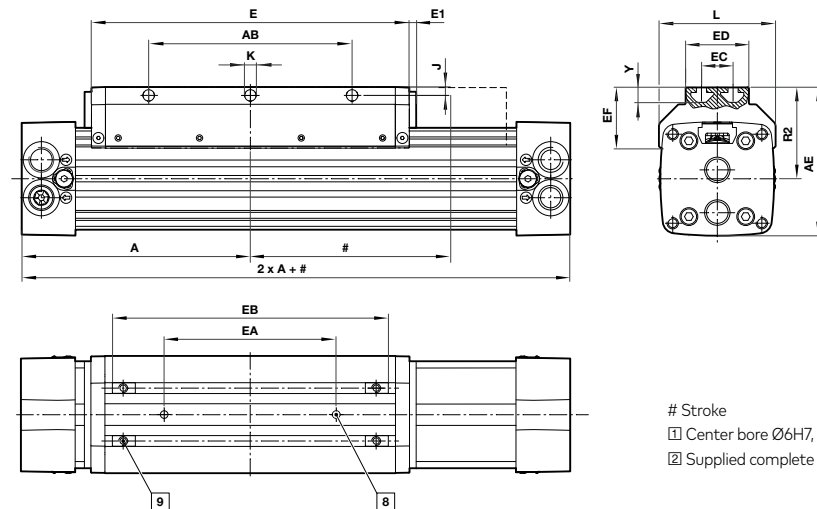
Ø	A	AB	AE	AO	E	ED	J	ØK	L	R2	U	Y
16	62,5	–	38	7,5	80	18	–	–	31	18,5	–	5
20	85	60	59	6,5	110	27	7,5	5,5	42	24	5,5	12



Lintra® Plus Rodless Cylinders

M/146100 External guide Double acting – Ø16 ... 80 mm

Ø25 ... 63 mm



Ø	A	AB	AE	E	E1	EA ±0,05	EB	ED	EC	EF	J	ØK	L	R 2	Y
25	100	70	67,5	130	–	50	102	32	20	34	5	5,5	52	–	-9,5
32	120	90	82	160	4	70	138	45	25	36,5	5	5,5	64	52	6,5
40	150	120	97,5	215	–	105	193	45	25	43	5	6,6	79	60	9,5
50	180	160	116,5	250	–	135	228	50	25	47,5	6,5	9	92	72	11,5
63	215	190	137	320	–	150	292	50	25	59	7,5	9	110	84,5	11,5

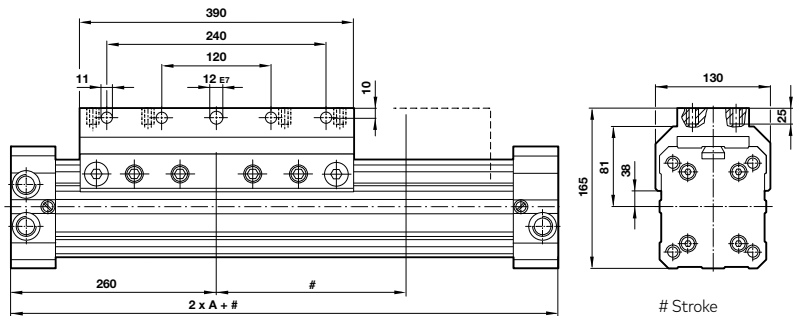




Lintra® Plus Rodless Cylinders

M/146100 External guide Double acting – Ø16 ... 80 mm

Ø80 mm



Models – External guide

Model	Piston Ø	Stroke length	Port size	Accessories			
				Reed switch with integral 5 m cable	Banjo flow control	Straight fitting	Elbow fitting
							
M/146116/M/****	16	made to order	M5	M/50/LSU/5V	COK510405	C02250405	C02470405
M/146120/M/****	20	made to order	G1/8	M/50/LSU/5V	COK510618	C02250618	C02470618
M/146125/M/****	25	made to order	G1/8	M/50/LSU/5V	COK510618	C02250618	C02470618
M/146132/M/****	32	made to order	G1/4	M/50/LSU/5V	COK510628	C02250628	C02470628
M/146140/M/****	40	made to order	G1/4	M/50/LSU/5V	COK510628	C02250628	C02470628
M/146150/M/****	50	made to order	G3/8	M/50/LSU/5V	COK510838	C02250838	C02470838
M/146163/M/****	63	made to order	G1/2	M/50/LSU/5V	COK510848	C02250848	C02470848
M/146180/M/****	80	made to order	G1/2	M/50/LSU/5V	COK511048	C02251048	C02471048

**** Insert stroke length in mm – very best availability in multiples of 100 mm.

For information on alternative magnetic switches see page 2-093.

For alternative fitting types, shapes or sizes, refer to our fittings section.





Lintra® Plus Rodless Cylinders

M/146100 External guide Double acting – Ø16 ... 80 mm

Service kit

Model	Description
	
QA/1460**/88/1000	Up to 1000 mm stroke
QA/1460**/88/3000	From 1001 mm to 3000 mm stroke
QA/1460**/88/8500	From 3001 mm up to max. stroke

** Insert cylinder diameters for the service kit.

Options

- » Alternative port configuration
- » Brake
- » Double Carriage



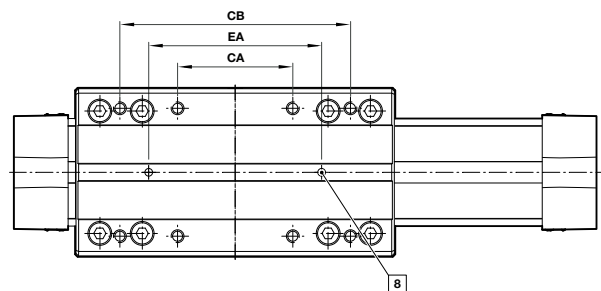
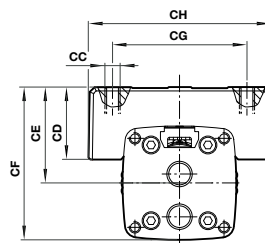
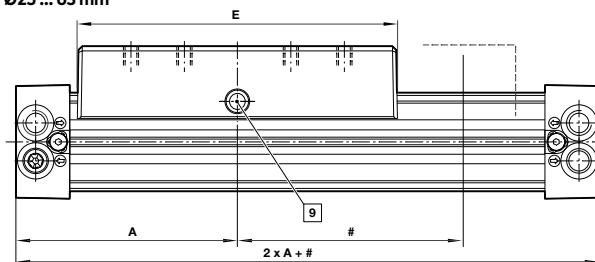


Lintra® Plus Rodless Cylinders

M/146200 Precision roller guide Double acting – Ø25 ... 63 mm

Dimensions – Precision roller guide

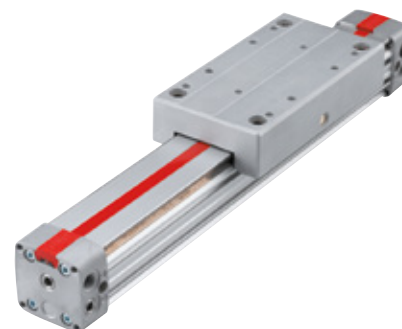
Ø25 ... 63 mm



Stroke

☐ Center bore Ø6H7,4 deep

☐ For lubrication



Ø	A	CA	CB	CC	CD	CE	CF	CG	CH	E	EA ±0,05
25	100	45	90	M6-14*1)	36	42	66	60	85	150	70
32	120	60	120	M8-16*1)	38	50	80	75	98	180	90
40	150	80	150	M8-16*1)	42	57,5	95	92	118	215	115
50	180	90	180	M10-20*1)	44	67	111,5	100	132	250	135
63	215	120	240	M10-20*1)	47	74,5	127	110	140	320	200

*1) Deep.

For further information, visit www.norgren.com and use the new improved search function. If you cannot see the option you require please contact us.





Lintra® Plus Rodless Cylinders

M/146200 Precision roller guide Double acting – Ø25 ... 63 mm

Models – Precision roller guide

Model	Piston Ø	Stroke length	Port size	Reed switch with integral 5 m cable	Banjo flow control	Straight fitting	Elbow fitting
							
M/146225/M/****	25	made to order	G1/8	M/50/LSU/5V	COK510618	C02250618	C02470618
M/146232/M/****	32	made to order	G1/4	M/50/LSU/5V	COK510628	C02250628	C02470628
M/146240/M/****	40	made to order	G1/4	M/50/LSU/5V	COK510628	C02250628	C02470628
M/146250/M/****	50	made to order	G3/8	M/50/LSU/5V	COK510838	C02250838	C02470838
M/146263/M/****	63	made to order	G1/2	M/50/LSU/5V	COK510848	C02250848	C02470848

**** Insert stroke length in mm – very best availability in multiples of 100 mm.

For information on alternative magnetic switches see page 2-093.

For alternative fitting types, shapes or sizes, refer to our fittings section.

Service kit

Model	Description
	
QA/1460**/88/1000	Up to 1000 mm stroke
QA/1460**/88/3000	From 1001 mm to 3000 mm stroke
QA/1460**/88/8500	From 3001 mm up to max. stroke

** Insert cylinder diameters for the service kit.

Options

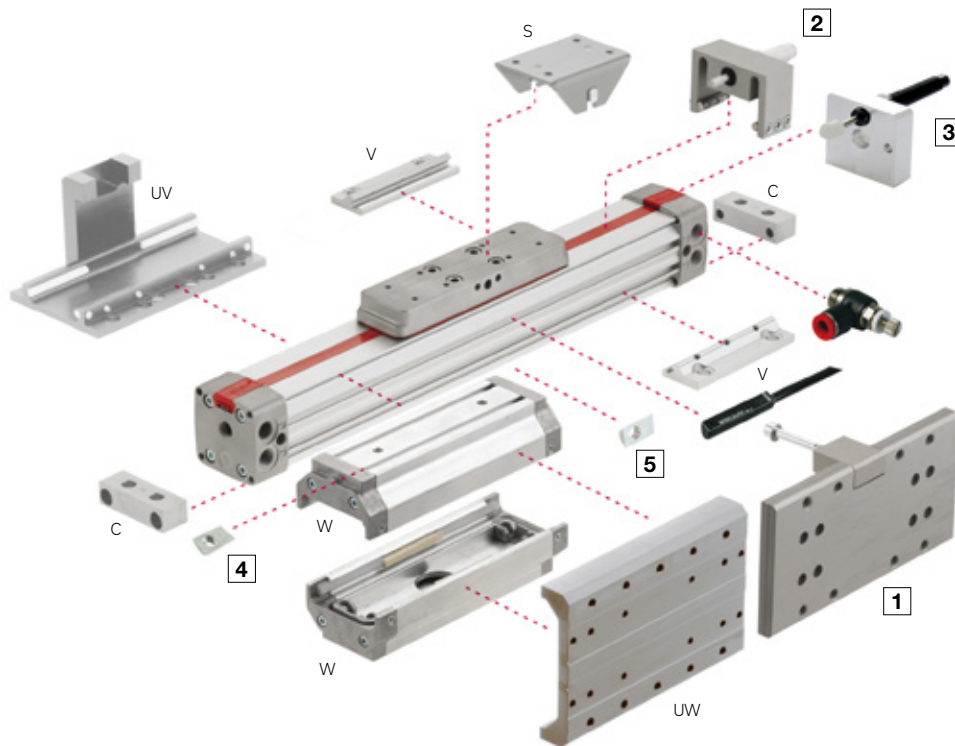
- » Alternative port configuration
- » Brake
- » Double Carriage



Mountings for Lintra® Plus Rodless Cylinders

M/146000, M/146100 and M/146200

Mountings





Mountings for Lintra® Plus Rodless Cylinders

M/146000, M/146100 and M/146200

Dia. Ø	C	S*	UV*	UW**	V	W**
16	QM/146016/21	QM/146016/37	QM/146016/34	–	QM/146016/32	QM/146116/35
20	QM/146020/21	QM/146020/37	QM/146020/34	QM/146120/36	QM/146020/32	QM/146120/35
25	QM/146025/21	QM/146025/37	QM/146025/34	QM/146125/36	QM/146025/32	QM/146125/35
32	QM/146032/21	QM/146032/37	QM/146032/34	QM/146132/36	QM/146032/32	QM/146132/35
40	QM/146040/21	QM/146032/37	QM/146040/34	QM/146140/36	QM/146040/32	QM/146140/35
50	QM/146050/21	QM/146050/37	QM/146050/34	QM/146150/36	QM/146050/32	QM/146150/35
63	QM/146063/21	QM/146050/37	QM/146063/34	QM/146163/36	QM/146063/32	QM/146163/35
80	QM/146080/21	QM/146080/37	QM/146080/34	–	QM/146080/32	QM/146180/35

Dia. Ø	Assembly kit for caged ball linear motion guide	Adjustable stop	Assembly kit for shock absorbers	Groove key for guiding bridge	Groove key for profile barrel
	1	2	3	4	5
16	–	–	–	–	–
20	–	QM/146120/75	–	–	–
25	QM/146225/P/70	QM/146125/75	QM/146125/67	M/P74065	M/P74065
32	QM/146232/P/70	QM/146132/75	QM/146132/67	M/P74065	M/P74065
40	QM/146240/P/70	QM/146140/75	QM/146140/67	M/P74066	M/P74065
50	QM/146250/P/70	–	QM/146150/67	M/P41858	M/P74065
63	QM/146263/P/70	–	QM/146163/67	M/P41858	M/P74065

* Suitable for internally guided models only.

** Suitable for external guided models only.



Other Lintra® Rodless Cylinders

PNEUMATIC CYLINDERS

A/44000 Lintra-Lite®

- » Compact, space-saving design
- » Proven sealing system
- » Integral switch mounting
- » Buffer or adjustable cushioning
- » Standard foot mountings



M/44000/M Lintra®

- » Ø25 ... 40 mm
- » Compact, space-saving design
- » Proven sealing system
- » Adjustable cushioning
- » Magentic piston as standard



M/46800/M, M/46800/HM Lintra® Heavy Duty Cylinders

- » Ø20 ... 40 mm
- » External guides for heavy loads over long distances
- » Rigid, reinforced aluminium profile provides greater load support
- » T-slots in the outer profile enable individual mounting options
- » Precision guidance with ball bearings on hardened trackways
- » Low rolling resistance



M/46800/PM Lintra® Heavy Duty Pneumatic Cylinders

- » Ø16, 25, 40 & 63 mm
- » Precise linear guiding
- » T-slots in the outer profile enable individual mounting options
- » Alternative driving cylinders offer versatile application possibilities
- » Torsional and bending resistant profiles



VM/146000, VM/146100 Lintra® Plus

- » Ø20 ... 80 mm
- » Corrosion-resistant
- » New lightweight design extrusion with universal mounting grooves
- » Proved and patented sealing system
- » Dust protection as standard
- » Up to 10% higher loading values against internal guiding series M/46000
- » Interchangeability with series VM/46000





Other Lintra® Rodless Cylinders

ELECTRIC CYLINDERS

M/49000, M/49100, M/49200 Lintra® Spindle

- » Ø25 ... 63 mm
- » High forces
- » Precise positioning
- » High repeatability
- » Constant, defined high and low speed operation
- » Proven Lintra® guiding systems
- » Interchangeable with Lintra® pneumatic cylinders series M/46000



M/49800/P Lintra® Spindle

- » Ø16 ... 63 mm
- » High forces
- » High dynamics
- » Torsional and bending resistant profiles
- » High repeatability
- » Alternative mounting possibilities



M/48200/H Lintra® Toothed Belt Cylinders

- » Cylinder size: 25, 40 & 63 mm
- » Proven Lintra® precision roller guiding
- » Torsional and bending resistant profiles
- » High repeatability
- » Alternative fixing possibilities



M/48800/P Lintra® Toothed Belt Cylinders

- » Cylinder sizes: 16, 25, 40 & 63 mm
- » Heavy loads, precise linear guiding
- » High dynamics
- » Torsional and bending resistant profiles
- » High repeatability
- » Alternative fixing possibilities





Rotary Vane Actuators

M/60280 Double acting – 30° ... 270° rotation angles

- » Modern, compact design
- » Suitable for torques from 0,15 to 247 Nm
- » Fixed and adjustable rotation angles
- » Single and double vane construction

Technical Data

Medium:
Compressed air, filtered,
lubricated or non-lubricated

Operation:
Double acting rotary vane
with buffer cushioning
M/60280 – M/60288 and IE
models – single vane
M/60284/TI – M/60288/TI
and TE models – double vane

Operating pressure:
2 ... 10 bar
3 ... 7 bar (M/60280,
M/60281, M/60281/IE)
2 ... 7 bar (M/60282,
M/60283, M/60282/IE)

Ambient temperature:
+5°C ... +60°C
Air supply must be dry enough
to avoid ice formation at
temperatures below +2°C

Rotation tolerance:
0° ... +4°: M/60280 –
M/60283
0° ... +3°: M/60284 –
M/60288, M/60284/TI –
M/60288/TI
-9° ... +3°: M/60281/IE –
M/60284/IE, M/60284/TE



Models

Models with fixed or adjustable rotation angles						Banjo flow control	Straight fitting	Elbow Fitting	Service kit
Model	Angle of rotation/ Adjustment	Output shaft Ø	Port size	Number of vanes	Torque at 6 bar (Nm)				
	90°	4	M5	Single	0,15				GM/60280/00
M/60280/180	180°	4	M5	Single	0,15	COK510405	CO2250405	C02470405	GM/60280/00
M/60281/90	90°	5	M5	Single	0,38	COK510405	CO2250405	C02470405	GM/60281/00
M/60281/180	180°	5	M5	Single	0,38	COK510405	CO2250405	C02470405	GM/60281/00
M/60281/IE	30 ... 180°	5	M5	Single	0,38	COK510405	CO2250405	C02470405	GM/60281/00

Accessories





Rotary Vane Actuators

M/60280 Double acting – 30° ... 270° rotation angles

Models

Models with fixed or adjustable rotation angles						Banjo flow control	Straight fitting	Elbow Fitting	Service kit
Model	Angle of rotation/ Adjustment	Output shaft Ø	Port size	Number of vanes	Torque at 6 bar (Nm)				
M/60282/90	90°	6	M5	Single	1,20	COK510405	C02250405	C02470405	QM/60282/00
M/60282/180	180°	6	M5	Single	1,20	COK510405	C02250405	C02470405	QM/60282/00
M/60282/IE	30 ... 180°	6	M5	Single	1,20	COK510405	C02250405	C02470405	QM/60282/00
M/60283/90	90°	8	M5	Single	2,10	COK510405	C02250405	C02470405	QM/60283/00
M/60283/180	180°	8	M5	Single	2,10	COK510405	C02250405	C02470405	QM/60283/00
M/60283/IE	30 ... 180°	8	M5	Single	2,10	COK510405	C02250405	C02470405	QM/60283/00
M/60284/90	90°	10	G1/8	Single	4,10	COK510618	C02250618	C02470618	QM/60284/00
M/60284/TI/90	90°	10	G1/8	Double	9,50	COK510618	C02250618	C02470618	QM/60284/TI/00
M/60284/180	180°	10	G1/8	Single	4,10	COK510618	C02250618	C02470618	QM/60284/00
M/60284/270	270°	10	G1/8	Single	4,10	COK510618	C02250618	C02470618	QM/60284/00
M/60284/IE	30 ... 270°	10	G1/8	Single	4,10	COK510618	C02250618	C02470618	QM/60284/00
M/60284/TE	30 ... 90°	10	G1/8	Double	9,50	COK510618	C02250618	C02470618	QM/60284/TI/00

Accessories





Rotary Vane Actuators

M/60280 Double acting – 30° ... 270° rotation angles

Models

Models with fixed rotation angles						Accessories			
Model	Angle of rotation/ Adjustment	Output shaft Ø	Port size	Number of vanes	Torque at 6 bar (Nm)	Banjo flow control	Straight fitting	Elbow Fitting	Service kit
									
M/60285/90	90°	12	G1/8	Single	5,80	COK510618	C02250618	C02470618	QM/60285/00
M/60285/TI/90	90°	12	G1/8	Double	12,80	COK510618	C02250618	C02470618	QM/60285/TI/00
M/60285/180	180°	12	G1/8	Single	5,80	COK510618	C02250618	C02470618	QM/60285/00
M/60285/270	270°	12	G1/8	Single	5,80	COK510618	C02250618	C02470618	QM/60285/00
M/60286/90	90°	17	G1/4	Single	18,00	COK510628	C02250628	C02470628	QM/60286/00
M/60286/TI/90	90°	17	G1/4	Double	41,50	COK510628	C02250628	C02470628	QM/60286/TI/00
M/60286/180	180°	17	G1/4	Single	18,00	COK510628	C02250628	C02470628	QM/60286/00
M/60286/270	270°	17	G1/4	Single	18,00	COK510628	C02250628	C02470628	QM/60286/00
M/60287/90	90°	25	G3/8	Single	34,50	COK510838	C02250838	C02470838	QM/60287/00
M/60287/TI/90	90°	25	G3/8	Double	83,00	COK510838	C02250838	C02470838	QM/60287/TI/00
M/60287/180	180°	25	G3/8	Single	34,50	COK510838	C02250838	C02470838	QM/60287/00
M/60287/270	270°	25	G3/8	Single	34,50	COK510838	C02250838	C02470838	QM/60287/00
M/60288/90	90°	40	G1/2	Single	123,00	COK510848	C02250848	C02470848	QM/60288/00
M/60288/TI/90	90°	40	G1/2	Double	247,00	COK510848	C02250848	C02470848	QM/60288/TI/00
M/60288/180	180°	40	G1/2	Single	123,00	COK510848	C02250848	C02470848	QM/60288/00
M/60288/270	270°	40	G1/2	Single	123,00	COK510848	C02250848	C02470848	QM/60288/00



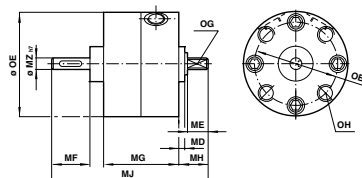


Rotary Vane Actuators

M/60280 Double acting – 30° ... 270° rotation angles

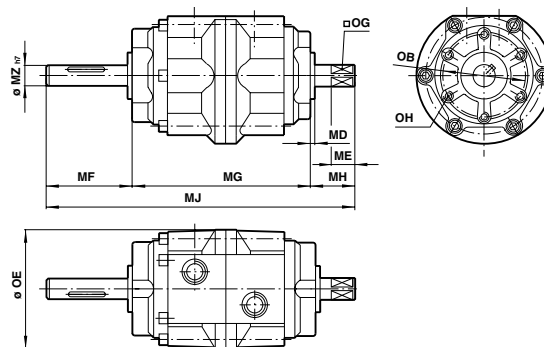
Dimensions

M/60280/1/2/3/4



= Stroke

M/60285/6/7/8



Model	MD	ME	MF	MG	MJ	MH	ØMZ _{h7}	ØOB	ØOE	OG _{-0,1}	OH	Keyway
M/60280	2	6	13	20	46	10	4	26	29	Ø4 h7	M3 x 6	–
M/60281	2	7	15	26	55	10	5	30	36,5	Ø5 h7	M3 x 6	–
M/60282	2	7	18	40	73	10	6	35	42,5	Ø6 h7	M3 x 6	–
M/60283	2	7	23	55	93,5	10	8	40	49,5	6	M5 x 8	3-0,03; 2+0,1*
M/60284	2,5	10	26	60	105	13,5	10	56	64	8	M5 x 8	4-0,03; 2,5+0,1*
M/60285	2,5	13	39,5	86	145	19,5	12	45	79	10	M6 x 9	4-0,03; 2,5+0,1*
M/60286	3	16	53,5	103	180	23,5	17	70	110	13	M8 x 12	5-0,03; 3+0,1*
M/60287	3,5	22	65	125	220	30	25	80	141,5	19	M10 x 15	7-0,038; 4+0,2*
M/60288	4,5	35	69,5	171	285	44,5	40	120	196	32	M12 x 18	12-0,043; 5+0,2*

Dimensions and drawings valid for fixed rotation units only - refer to full data sheets for detail on adjustable units.





Rotary Actuators – Rack & Pinion

M/162000/M Double acting – Ø32 ... 125 mm

- » Suitable torques from 1,2 ... 51,0 Nm/bar
- » Rotation angles 90°, 180°, 270°, 360°
- » Switches can be mounted flush with the profile
- » VDMA 24562 pitch to use standard VDMA mountings

Technical Data

Medium:

Compressed air, filtered,
lubricated or non-lubricated

Operation:

Double acting, magnetic
piston, adjustable cushioning

Operating pressure:

1,5 ... 10 bar

Ambient temperature:

-5°C ... +80°C max.
Air supply must be dry enough
to avoid ice formation at
temperatures below +2°C

Rotation angles:

90, 180, 270, 360°
Fixed up to +8°
Adjustable ±5°
Additional angles on request



Models

Accessories

Model	Dia. Ø	Angle of rotation	Output shaft Ø	Port size	Theoretical torque at 6 bar (Nm)	Reed switch with integral 5 m cable	Banjo flow control	Straight fitting	Elbow Fitting	Service kit
										
M/162032/MI/90	32	90°	14	G1/8	7,20	M/50/LSU/5V	COK510618	CO2250618	CO2470618	QM/162032/00
M/162032/MI/180	32	180°	14	G1/8	7,20	M/50/LSU/5V	COK510618	CO2250618	CO2470618	QM/162032/00
M/162032/MI/270	32	270°	14	G1/8	7,20	M/50/LSU/5V	COK510618	CO2250618	CO2470618	QM/162032/00
M/162032/MI/360	32	360°	14	G1/8	7,20	M/50/LSU/5V	COK510618	CO2250618	CO2470618	QM/162032/00
M/162040/MI/90	40	90°	14	G1/4	13,80	M/50/LSU/5V	COK510628	CO2250628	CO2470628	QM/162040/00
M/162040/MI/180	40	180°	14	G1/4	13,80	M/50/LSU/5V	COK510628	CO2250628	CO2470628	QM/162040/00
M/162040/MI/270	40	270°	14	G1/4	13,80	M/50/LSU/5V	COK510628	CO2250628	CO2470628	QM/162040/00
M/162040/MI/360	40	360°	14	G1/4	13,80	M/50/LSU/5V	COK510628	CO2250628	CO2470628	QM/162040/00
M/162050/MI/90	50	90°	19	G1/4	23,40	M/50/LSU/5V	COK510828	CO2250828	CO2470828	QM/162050/00
M/162050/MI/180	50	180°	19	G1/4	23,40	M/50/LSU/5V	COK510828	CO2250828	CO2470828	QM/162050/00
M/162050/MI/270	50	270°	19	G1/4	23,40	M/50/LSU/5V	COK510828	CO2250828	CO2470828	QM/162050/00
M/162050/MI/360	50	360°	19	G1/4	23,40	M/50/LSU/5V	COK510828	CO2250828	CO2470828	QM/162050/00





Rotary Actuators – Rack & Pinion

M/162000/M Double acting – Ø32 ... 125 mm

Models

Accessories

Model	Dia. Ø	Angle of rotation	Output shaft Ø	Port size	Theoretical torque at 6 bar (Nm)	Reed switch with integral 5 m cable	Banjo flow control	Straight fitting	Elbow Fitting	Service kit
M/162063/MI/90	63	90°	19	G3/8	43,80	M/50/LSU/5V	COK510838	C02250838	C02470838	QM/162063/00
M/162063/MI/180	63	180°	19	G3/8	43,80	M/50/LSU/5V	COK510838	C02250838	C02470838	QM/162063/00
M/162063/MI/270	63	270°	19	G3/8	43,80	M/50/LSU/5V	COK510838	C02250838	C02470838	QM/162063/00
M/162063/MI/360	63	360°	19	G3/8	43,80	M/50/LSU/5V	COK510838	C02250838	C02470838	QM/162063/00
M/162080/MI/90	80	90°	28	G3/8	94,20	M/50/LSU/5V	COK511038	C02251038	C02471038	QM/162080/00
M/162080/MI/180	80	180°	28	G3/8	94,20	M/50/LSU/5V	COK511038	C02251038	C02471038	QM/162080/00
M/162080/MI/270	80	270°	28	G3/8	94,20	M/50/LSU/5V	COK511038	C02251038	C02471038	QM/162080/00
M/162080/MI/360	80	360°	28	G3/8	94,20	M/50/LSU/5V	COK511038	C02251038	C02471038	QM/162080/00
M/162100/MI/90	100	90°	38	G1/2	157,80	M/50/LSU/5V	COK511248	C02251248	C02471248	QM/162100/00
M/162100/MI/180	100	180°	38	G1/2	157,80	M/50/LSU/5V	COK511248	C02251248	C02471248	QM/162100/00
M/162100/MI/270	100	270°	38	G1/2	157,80	M/50/LSU/5V	COK511248	C02251248	C02471248	QM/162100/00
M/162100/MI/360	100	360°	38	G1/2	157,80	M/50/LSU/5V	COK511248	C02251248	C02471248	QM/162100/00
M/162125/MI/90	125	90°	38	G1/2	306,00	M/50/LSU/5V	COK511248	C02251248	C02471248	QM/162125/00
M/162125/MI/180	125	180°	38	G1/2	306,00	M/50/LSU/5V	COK511248	C02251248	C02471248	QM/162125/00
M/162125/MI/270	125	270°	38	G1/2	306,00	M/50/LSU/5V	COK511248	C02251248	C02471248	QM/162125/00
M/162125/MI/360	125	360°	38	G1/2	306,00	M/50/LSU/5V	COK511248	C02251248	C02471248	QM/162125/00

For information on additional magnetic switches see page 2-093.

For alternative fitting types, shapes or sizes, refer to our fittings section.

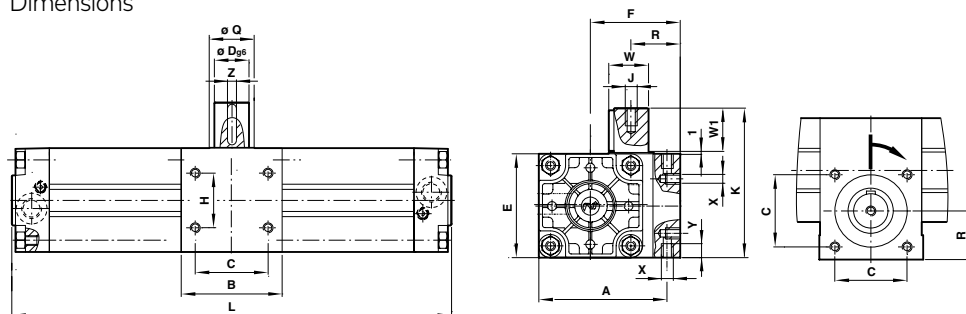




Rotary Actuators – Rack & Pinion

M/162000/M Double acting – Ø32 ... 125 mm

Dimensions



Dia. Ø	A	B/E	C	ØD ₉₆	F	H	J	K	ØQ	R	W	W1	X	Y	Z	L (90°)	L (180°)	L (270°)	L (360°)
32	71,5	50	33	14	46,5	18	M 5	81	25	25	16	30	M 6	10	5	227	274	321	368,5
40	82	60	40	14	54,5	22	M 5	91	25	30	16	30	M 6	10	5	266	323	379,5	436
50	94	70	50	19	60,5	25	M 6	106	30	32,5	21,5	40	M 8	13	6	282	345	408	471
63	110	75	60	24	71	35	M 8	116	30	37	27	40	M 8	13	8	331	406	480,5	555
80	142	99	80	28	93,5	50	M 8	150	45	50	31	50	M 10	16	8	396	495	594	693
100	156,5	115	80	38	99	60	M 10	166	50	54	41	50	M 10	16	10	414	521	628	735
125	188	125/140	90	38	118	70	M 10	191	60	60	41	50	M 12	20	10	483,5	615,5	747,5	879,5

Options

- » Female piston rod
- » Non-magnetic
- » Adjustable angle ± 5°

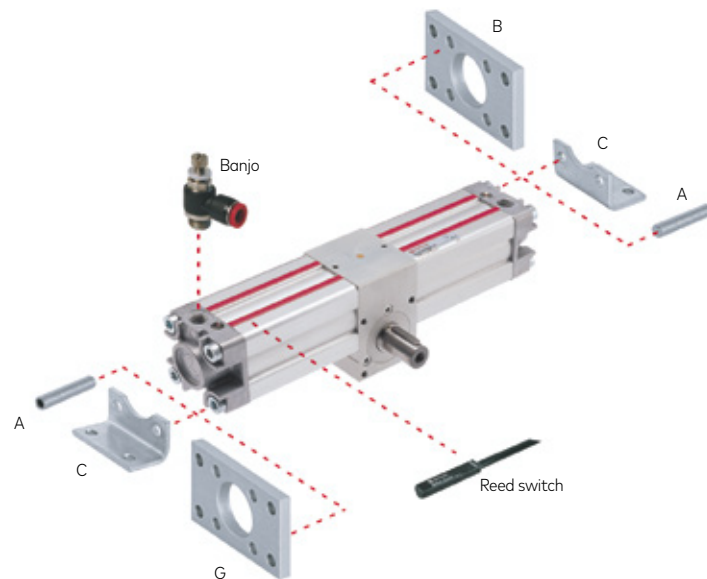
For further information, visit www.norgren.com and use the new improved search function. If you cannot see the option you require please contact us.





Mountings for Rotary Actuators M/162000/MI

Mountings



Dia. Ø	A	B, G	C
32	QM/8032/35	QA/8032/22	QA/8032/21
40	QM/8032/35	QA/8040/22	QA/8040/21
50	QM/8050/35	QA/8050/22	QA/8050/21
63	QM/8050/35	QA/8063/22	QA/8063/21
80	QM/8080/35	QA/8080/22	QA/8080/21
100	QM/8080/35	QA/8100/22	QA/8100/21
125	QM/8125/35	QM/8125/22	QM/8125/21





Stainless Steel Roundline Cylinders

KM/8000/M Double Acting – ISO 6432 – Ø12 ... 25 mm

- » High corrosion and acid resistance
- » Magnetic piston as standard
- » Conforms to ISO 6432
- » Suitable for applications in the food industry
- » Buffer or adjustable cushioning
- » Nose mounting nut and piston rod locknut as standard

Technical Data

Medium:
Compressed air, filtered,
lubricated or non-lubricated

Operation:
Double acting, magnetic
piston with buffer or
adjustable cushioning

Operating pressure:
1 ... 10 bar

Ambient temperature:
-10°C ... +80°C
Air supply must be dry enough
to avoid ice formation at
temperatures below +2°C



Models

Buffer cushioning Model	Adjustable cushioning Model	Dia. Ø	Stroke length	Port size	Piston rod Ø	Reed switch integral with 5 m cable	Switch mounting	Banjo flow control	Straight fitting	Elbow fitting
KM/8012/M/10		12	10	M5	6	M/50/LSU/SV	QM/33/016/23	10K510405	102250405	102470405
KM/8012/M/25		12	25	M5	6	M/50/LSU/SV	QM/33/012/22	10K510405	102250405	102470405
KM/8012/M/40		12	40	M5	6	M/50/LSU/SV	QM/33/012/22	10K510405	102250405	102470405
KM/8012/M/50		12	50	M5	6	M/50/LSU/SV	QM/33/012/22	10K510405	102250405	102470405
KM/8012/M/80		12	80	M5	6	M/50/LSU/SV	QM/33/012/22	10K510405	102250405	102470405
KM/8012/M/100		12	100	M5	6	M/50/LSU/SV	QM/33/012/22	10K510405	102250405	102470405
KM/8012/M/125		12	125	M5	6	M/50/LSU/SV	QM/33/012/22	10K510405	102250405	102470405
KM/8012/M/160		12	160	M5	6	M/50/LSU/SV	QM/33/012/22	10K510405	102250405	102470405
KM/8012/M/200		12	200	M5	6	M/50/LSU/SV	QM/33/012/22	10K510405	102250405	102470405

Accessories





Stainless Steel Roundline Cylinders

KM/8000/M Double Acting – ISO 6432 – Ø12 ... 25 mm

Models

Accessories

Buffer cushioning Model	Adjustable cushioning Model	Dia. Ø	Stroke length	Port size	Piston rod Ø	Reed switch integral with 5 m cable	Switch mounting	Banjo flow control	Straight fitting	Elbow fitting
KM/8016/M/10		16	10	M5	6	M/50/LSU/SV	QM/33/016/23	10K510405	102250405	102470405
KM/8016/M/25		16	25	M5	6	M/50/LSU/SV	QM/33/016/22	10K510405	102250405	102470405
KM/8016/M/40		16	40	M5	6	M/50/LSU/SV	QM/33/016/22	10K510405	102250405	102470405
KM/8016/M/50		16	50	M5	6	M/50/LSU/SV	QM/33/016/22	10K510405	102250405	102470405
KM/8016/M/80		16	80	M5	6	M/50/LSU/SV	QM/33/016/22	10K510405	102250405	102470405
KM/8016/M/100		16	100	M5	6	M/50/LSU/SV	QM/33/016/22	10K510405	102250405	102470405
KM/8016/M/125		16	125	M5	6	M/50/LSU/SV	QM/33/016/22	10K510405	102250405	102470405
KM/8016/M/160		16	160	M5	6	M/50/LSU/SV	QM/33/016/22	10K510405	102250405	102470405
KM/8016/M/200		16	200	M5	6	M/50/LSU/SV	QM/33/016/22	10K510405	102250405	102470405
KM/8020/M/10		20	10	G1/8	8	M/50/LSU/SV	QM/33/020/23	10K510618	102250618	102470618
KM/8020/M/25	KM/8021/M/25	20	25	G1/8	8	M/50/LSU/SV	QM/33/020/22	10K510618	102250618	102470618
KM/8020/M/40		20	40	G1/8	8	M/50/LSU/SV	QM/33/020/22	10K510618	102250618	102470618
KM/8020/M/50	KM/8021/M/50	20	50	G1/8	8	M/50/LSU/SV	QM/33/020/22	10K510618	102250618	102470618
KM/8020/M/80	KM/8021/M/80	20	80	G1/8	8	M/50/LSU/SV	QM/33/020/22	10K510618	102250618	102470618
KM/8020/M/100	KM/8021/M/100	20	100	G1/8	8	M/50/LSU/SV	QM/33/020/22	10K510618	102250618	102470618
KM/8020/M/125	KM/8021/M/125	20	125	G1/8	8	M/50/LSU/SV	QM/33/020/22	10K510618	102250618	102470618
KM/8020/M/160	KM/8021/M/160	20	160	G1/8	8	M/50/LSU/SV	QM/33/020/22	10K510618	102250618	102470618
KM/8020/M/200	KM/8021/M/200	20	200	G1/8	8	M/50/LSU/SV	QM/33/020/22	10K510618	102250618	102470618
KM/8020/M/250	KM/8021/M/250	20	250	G1/8	8	M/50/LSU/SV	QM/33/020/22	10K510618	102250618	102470618
KM/8025/M/10		25	10	G1/8	10	M/50/LSU/SV	QM/33/025/23	10K510618	102250618	102470618
KM/8025/M/25	KM/8026/M/25	25	25	G1/8	10	M/50/LSU/SV	QM/33/025/22	10K510618	102250618	102470618
KM/8025/M/40		25	40	G1/8	10	M/50/LSU/SV	QM/33/025/22	10K510618	102250618	102470618
KM/8025/M/50	KM/8026/M/50	25	50	G1/8	10	M/50/LSU/SV	QM/33/025/22	10K510618	102250618	102470618
KM/8025/M/80	KM/8026/M/80	25	80	G1/8	10	M/50/LSU/SV	QM/33/025/22	10K510618	102250618	102470618
KM/8025/M/100	KM/8026/M/100	25	100	G1/8	10	M/50/LSU/SV	QM/33/025/22	10K510618	102250618	102470618
KM/8025/M/125	KM/8026/M/125	25	125	G1/8	10	M/50/LSU/SV	QM/33/025/22	10K510618	102250618	102470618
KM/8025/M/160	KM/8026/M/160	25	160	G1/8	10	M/50/LSU/SV	QM/33/025/22	10K510618	102250618	102470618
KM/8025/M/200	KM/8026/M/200	25	200	G1/8	10	M/50/LSU/SV	QM/33/025/22	10K510618	102250618	102470618
KM/8025/M/250	KM/8026/M/250	25	250	G1/8	10	M/50/LSU/SV	QM/33/025/22	10K510618	102250618	102470618

Service kits are not available for this range of cylinders.

For information on alternative magnetic switches see pages 2-093.

Note that the fittings shown are nickel plated brass.

Alternatively our Pneufit S range offers full stainless steel versions. Refer to our fittings section.

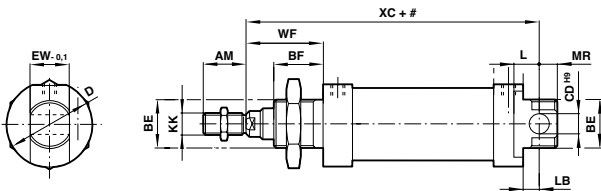




Stainless Steel Roundline Cylinders

KM/8000/M Double Acting – ISO 6432 – Ø12 ... 25 mm

Dimensions



Dia. Ø	AM	BE	BF	ØCD _{H9}	ØD	EW _{-0,1}	KK	L	LB	MR	WF	XC
12	16	M16x1,5	17	6	20	11,9	M6	9	3	8	22	75
16	16	M16x1,5	17	6	20	11,9	M6	9	4	7	22	82
20	20	M22x1,5	20	8	30	15,9	M8	12	3	11	24	95
25	22	M22x1,5	22	8	30	15,9	M10x1,25	12	7	9	28	104

Options

- » Flat rear cover
- » Double ended piston rod
- » Universal rear eye mounting
- » Extended piston rod

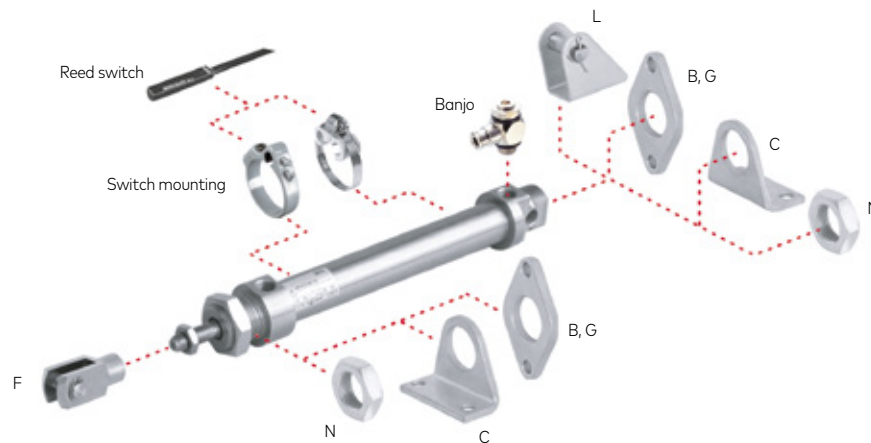




Stainless Steel Roundline Cylinders

KM/8000/M Double Acting – ISO 6432 – Ø12 ... 25 mm

Mountings



Dia. Ø	B, G	C	F	L	N
12	M/P72405	M/P72403	KQM/8012/25	KQM/8012/24	M/P72398
16	M/P72405	M/P72403	KQM/8012/25	KQM/8012/24	M/P72398
20	M/P72406	M/P72404	KQM/8020/25	KQM/8020/24	M/P72399
25	M/P72406	M/P72404	KQM/55433/25	KQM/8020/24	M/P72399

* This actuator is supplied with one nose nut, an additional lock nut style 'N' is required when ordering mountings 'B, G' and 'C' to connect to the rear end cap.





Stainless Steel Tie-Rod Cylinders

KA/802000/M Double Acting – Ø32 ... 200 mm

- » High corrosion and acid resistance
- » Conforms to ISO 15552 (ISO 6431, VDMA 24562, NFE 49-003-1)
- » Ideal for applications in the food industry

Technical Data

Medium:
Compressed air, filtered,
lubricated or non-lubricated

Operation:
KA/802000: double acting,
adjustable cushioning
and magnetic piston

Operating pressure:
1 ... 16 bar

Ambient temperature:
80°C max.
Air supply must be dry enough
to avoid ice formation at
temperatures below +2°C



Models

Accessories

Magnetic Model	Dia. Ø	Port size	Piston rod Ø	Reed switch integral with 5 m cable	Switch mounting brackets	Straight fitting	Elbow fitting	Service kit
								
KA/802032/M*	32	G1/8	12	M/50/LSU/5V	QM/27/2/1	S02250618	C02470618	KQA/8032/00
KA/802040/M*	40	G1/4	16	M/50/LSU/5V	QM/27/2/1	S02250628	C02470628	KQA/8040/00
KA/802050/M*	50	G1/4	20	M/50/LSU/5V	QM/27/2/1	S02250828	C02470828	KQA/8050/00
KA/802063/M*	63	G3/8	20	M/50/LSU/5V	QM/27/2/1	S02250838	C02470838	KQA/8063/00
KA/802080/M*	80	G3/8	25	M/50/LSU/5V	QM/27/2/1	S02251038	C02471038	KQA/8080/00
KA/802100/M*	100	G1/2	25	M/50/LSU/5V	QM/27/2/1	S02251248	C02471248	KQA/8100/00
KA/802125/M*	125	G1/2	32	M/50/LSU/5V	QM/27/2/1	S02251248	C02471248	KQA/8125/00
KA/802160/M*	160	G3/4	40	M/50/LSU/5V	QM/27/2/1	-	-	KQA/8160/00
KA/802200/M*	200	G3/4	40	M/50/LSU/5V	QM/27/2/1	-	-	KQA/8200/00

* Insert stroke length up to a maximum of 2,500 mm.

Please call your local team for latest availability.

Note: for best availability always choose a standard stroke length from the table below.

Note that the fittings shown are nickel plated brass.
Alternatively our Pneufit S range offers full stainless steel versions.

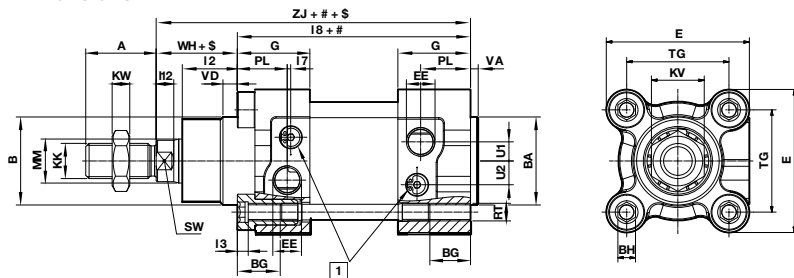
Refer to our fittings section.



Stainless Steel Tie-Rod Cylinders

KA/802000/M Double Acting – Ø32 ... 200 mm

Dimensions



Stroke
\$ Piston rod extension
1 Cushion screw

* Please insert stroke length.

Dia. Ø	A _{-0,5}	ØB _{d11}	ØBA _{d11}	BG min	BH	E	EE	G	KK	KV	KW	L2	L3	L7	L8	L12
32	22	30	30	16	6	47	G1/8	29	M10 x 1,25	17	5	19,5	4	6,6	94	5,5
40	24	35	35	16	6	53	G1/4	34,5	M12 x 1,25	19	6	22	4	5,6	105	6,5
50	32	40	40	16	8	65	G1/4	33	M16 x 1,5	24	8	25	5	1,6	106	8
63	32	45	45	16	8	75	G3/8	36,5	M16 x 1,5	24	8	25	5	3,6	121	8
80	40	45	45	17	19	95	G3/8	42	M20 x 1,5	30	10	33	-	1,8	128	10
100	40	55	55	17	19	113	G1/2	42	M20 x 1,5	30	10	35	-	3,8	138	10
125	54	60	60	20	24	140	G1/2	54	M27 x 2	41	13,5	44	-	1,8	160	13
160	72	65	65	28,5	32	180	G3/4	55	M36 x 2	55	18	58	-	-	180	16
200	72	75	75	28,5	32	220	G3/4	52,5	M36 x 2	55	18	67	-	-	180	16

Dia. Ø	ØMM _{h9}	PL	TG	RT	SW	U1	U2	VA	VD	WH	ZJ	Model Round barrel	at 0 mm	per 25 mm
32	12	15	32,5	M 6	10	4,6	6,3	3,5	6	26	120	KA/802032/M/*	0,9 (kg)	0,06 (kg)
40	16	21,5	38	M 6	13	5,8	9,2	3,5	6	30	135	KA/802040/M/*	1,3 (kg)	0,08 (kg)
50	20	22,7	46,5	M 8	17	8,7	10,8	3,5	6	37	143	KA/802050/M/*	2,0 (kg)	0,13 (kg)
63	20	24,2	56,5	M 8	17	10	12,8	3,5	6	37	158	KA/802063/M/*	3,0 (kg)	0,14 (kg)
80	25	29,7	72	M 10	22	12	14,5	3,5	6	46	174	KA/802080/M/*	5,0 (kg)	0,30 (kg)
100	25	27,7	89	M 10	22	9	14,5	3,5	6	51	189	KA/802100/M/*	7,3 (kg)	0,34 (kg)
125	32	39,7	110	M 12	27	12	17	5,5	8	65	225	KA/802125/M/*	12,2 (kg)	0,51 (kg)
160	40	31,5	140	M 16	36	15	17	6	10	80	260	KA/802160/M/*	23,4 (kg)	0,88 (kg)
200	40	26,5	175	M 16	36	19	14	6	10	95	275	KA/802200/M/*	34,4 (kg)	1,14 (kg)





Stainless Steel Tie-Rod Cylinders

KA/802000/M Double Acting – Ø32 ... 200 mm

Options

- » Heat resistant seals
- » Special wiper seals
- » Cushions removed
- » Double ended piston rod

Standard Strokes

Cylinder Ø (mm)	Stroke length (mm)										
	25	50	80	100	125	160	200	250	320	400	500
32	•	•	•	•	•	•	•	•	•	•	•
40	•	•	•	•	•	•	•	•	•	•	•
50	•	•	•	•	•	•	•	•	•	•	•
63	•	•	•	•	•	•	•	•	•	•	•
80	•	•	•	•	•	•	•	•	•	•	•
100	•	•	•	•	•	•	•	•	•	•	•
125	•	•	•	•	•	•	•	•	•	•	•
160	•	•	•	•	•	•	•	•	•	•	•
320	•	•	•	•	•	•	•	•	•	•	•



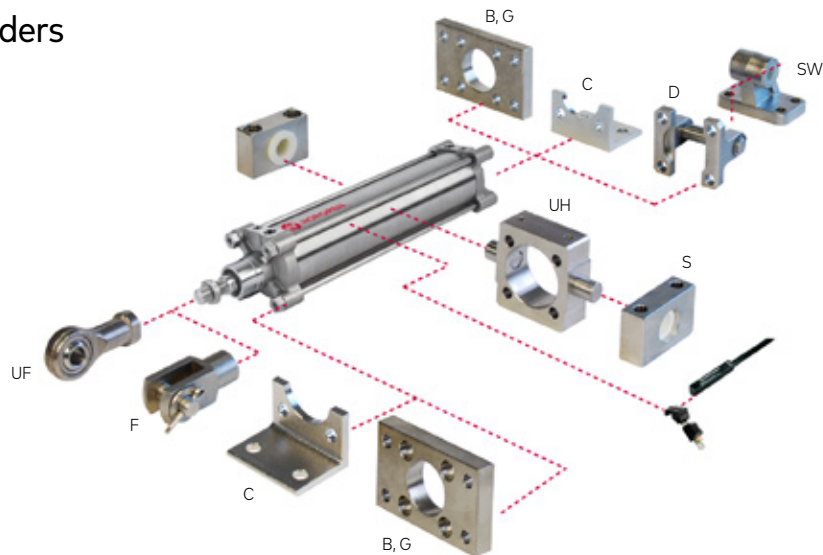


Stainless Steel Tie-Rod Cylinders

KA/802000/M Double Acting – Ø32 ... 200 mm

Mountings

Cylinder with Round barrel Ø32 ... 200 mm



Ø	B, G	C	D	F	S	SW	UF	UH
32	KQA/8032/22	KQA/8032/21	KQA/8032/23	KQM/55433/25	KQA/8032/41	M/P72288	KQM/8032/32	KQA/8032/40
40	KQA/8040/22	KQA/8040/21	KQA/8040/23	KQM/55441/25	KQA/8040/41	M/P72289	KQM/8040/32	KQA/8040/40
50	KQA/8050/22	KQA/8050/21	KQA/8050/23	KQM/55451/25	KQA/8050/41	M/P72290	KQM/8050/32	KQA/8050/40
63	KQA/8063/22	KQA/8063/21	KQA/8063/23	KQM/55451/25	KQA/8063/41	M/P72291	KQM/8050/32	KQA/8063/40
80	KQA/8080/22	KQA/8080/21	KQA/8080/23	KQA/8080/25	KQA/8063/41	M/P72292	KQM/8080/32	KQA/8080/40
100	KQA/8100/22	KQA/8100/21	KQA/8100/23	KQA/8080/25	KQA/8100/41	M/P72293	KQM/8080/32	KQA/8100/40
125	KQA/8125/22	KQA/8125/21	KQA/8125/23	KQA/8125/25	KQA/8100/41	–	KQM/8125/32	KQA/8125/40
160	–	–	–	–	–	–	–	–
200	–	–	–	–	–	–	–	–



Stainless Compact Air Bellows

KM/31000 Single acting, stainless steel end plates – Ø8 ... 14 1/2"

- » Almost frictionless operation
- » No maintenance or lubrication
- » High vibration isolation level
- » Easy, compact installation

Technical Data

Medium:

Compressed air lubricated or unlubricated, Nitrogen, water (with glycol)

Operating pressure:

5,5 bar recommended
dynamic pressure 8 bar max.

Ambient temperature:

KM/31000 (Standard):

-30°C ... +50°C

-40°C ... +70°C*

IR for TKM/31000:

-20°C ... +70°C

-25°C ... +90°C*

ECO for EKM/31000:

+50°C ... +115°C

-20°C ... +130°C*

* The number represent the maximum permissible operating temperature. It is suitable to be operated with restriction at this temperature, the air bellow may have a reduced life time!



Important instructions:

Thrust:

The thrust depends on the height of the bellow.
When height increases - the thrust decreases.

- » Before installing the air bellow, check it carefully for any damage it may have suffered from transport or improper storage.
- » Do not inflate the air bellow until it has been secured properly.

Clearance:

There must be enough clearance around the air bellow.

- » The full surface of the metal parts is to be used to bear the forces.
- » Air bellows must be equipped with lateral guides.
- » Deflate the air bellows fully before removing.
- » Ensure that the bellows is not constantly in contact with hydraulic oil, lubricants, solvents, metal cuttings and welding sparks.
- » Should the air bellow be subjected to special media in an application, ask Norgren for further information, specifying the medium, temperature and concentration.

Stops:

To avoid damage when the bellow is compressed or extended mechanical stops at both end positions have to be used.

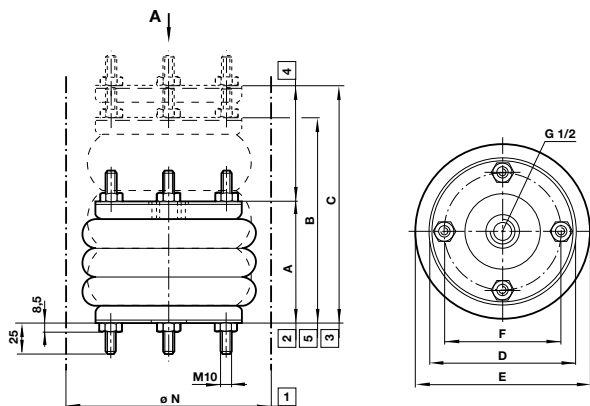




Stainless Compact Air Bellows

KM/31000 Single acting, stainless steel end plates – Ø8 ... 14 1/2"

Dimensions



Options

- » High temperature
- » Extreme temperature

- 1 Installation diameter min.
- 2 Installation height min.
- 3 Installation height max.
- 4 Stroke
- 5 Recommended max. working height

Models	Nominal Ø (inch) x convolutions	Recommended working height [B] max. (mm)	Stroke (mm)	Installation height [A] min. (mm)	Installation height [C] max. (mm)	Max. torque for mounting studs (Nm)	ØE	ØD	ØF	ØN	Weight (kg)
KM/31081	8" x 1	115	75	50	130	25	230	184	155,5	245	3
KM/31082	8" x 2	220	175	75	250	25	230	184	155,5	245	3,7
KM/31101	10" x 1	135	100	50	150	25	270	210	181	300	4,1
KM/31102	10" x 2	245	225	75	300	25	270	210	181	300	4,7
KM/31103	10" x 3	350	330	100	430	25	270	210	181	300	5,2
KM/31121	12" x 1	135	100	50	150	25	330	260	232	350	5,4
KM/31122	12" x 2	245	225	75	300	25	330	260	232	350	6,2
KM/31123	12" x 3	350	330	100	430	25	330	260	232	350	6,9
KM/31141	14 1/2" x 1	135	100	50	150	25	400	310	282,5	425	7,1
KM/31142	14 1/2" x 2	290	265	75	340	25	400	310	282,5	425	8,3
KM/31143	14 1/2" x 3	420	380	100	480	25	400	310	282,5	425	9,6





Stainless Roundline Cylinders

KM/55001/M Double acting, Stainless steel – Ø32 ... 125 mm

- » Cleanline design
- » High corrosion and acid resistance
- » Magnetic piston as standard
- » Suitable for applications in the food industry
- » Special wiper/seal as standard

Technical Data

Medium:
Compressed air, filtered,
lubricated or non-lubricated

Operation:
Double acting, magnetic
piston, adjustable cushioning

Operating pressure:
1 ... 10 bar

Non-standard strokes:
Non-standard strokes
(1600 mm max. available)

Ambient temperature:
-20°C ... +80°C
Maximum 150°C heat
resistant seals
Air supply must be dry enough
to avoid ice formation at
temperatures below +2°C



Models

Magnetic Model	Cylinder Ø (mm)	Cushion length (mm)	Port size	Piston rod Ø (mm)	Piston rod thread (mm)	Magnetically operated switches	Switch mounting ≥15 mm stroke	Service kit
KM/55033/M/*	32	19	G1/8	12	M10 x 1,25	M/50/LSU/SV	QM/33/432/22	KQM/55032/00
KM/55041/M/*	40	22	G1/4	16	M12 x 1,25	M/50/LSU/SV	QM/33/440/22	KQM/55040/00
KM/55051/M/*	50	24	G1/4	20	M16 x 1,5	M/50/LSU/SV	QM/33/450/22	KQM/55050/00
KM/55064/M/*	63	24	G3/8	20	M16 x 1,5	M/50/LSU/SV	QM/33/463/22	KQM/55063/00
KM/55081/M/*	80	27	G3/8	25	M20 x 1,5	M/50/LSU/SV	QM/33/480/22	KQM/55080/00
KM/55101/M/*	100	34	G1/2	25	M20 x 1,5	M/50/LSU/SV	QM/33/100/22	KQM/55100/00
KM/55126/M/*	125	41	G1/2	32	M27 x 2	M/50/LSU/SV	QM/33/125/22	KQM/55125/00

Accessories





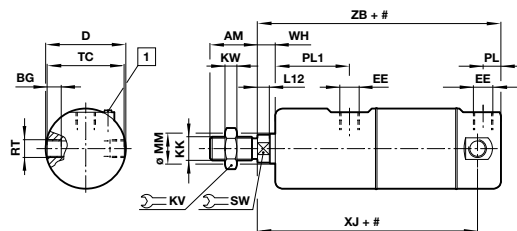
Stainless Roundline Cylinders

KM/55001/M Double acting, Stainless steel – Ø32 ... 125 mm

Dimensions

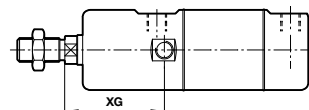
Standard cylinders

KM/55001/M – Standard cylinders with female threads on rear end cover for trunning mounting



Cylinder variant

KM/55001/MFT – Standard cylinders with female threads on front end cover for trunning mounting



Stroke

□ Cushion screw

Models	Ø	AM	BG	ØD	EE	KK	KV	KW	L12	ØMM	PL	PL1	RT	SW	TC	WH	XL	XG	ZB	kg at 0 mm	kg per 25 mm
KM/55033/M/*	32	22	6	36	G1/8	M10 x 1,25	17	5	6	12	9	39	M8 x 1	10	34,5	8	124,5	47	132	0,78	0,06
KM/55041/M/*	40	24	8	44	G1/4	M12 x 1,25	19	6	6,5	16	15	50	M10 x 1	13	42	10	142	57	154	1,36	0,09
KM/55051/M/*	50	32	9,5	54	G1/4	M16 x 1,5	24	8	8	20	12	50	M12 x 1,5	17	52	12	152	62	164	2,25	0,13
KM/55064/M/*	63	32	10	68	G3/8	M16 x 1,5	24	8	8	20	13	51	M14 x 1,5	17	66	13	159	64	172	3,78	0,16
KM/55081/M/*	80	40	18	86	G3/8	M20 x 1,5	30	10	10	25	16	47	M16 x 1,5	22	83,5	13	160	60	176	5,99	0,25
KM/55101/M/*	100	40	22	106	G1/2	M20 x 1,5	30	10	10	25	19	47	M20 x 1,5	22	102,5	15	178	62	197	10,36	0,29
KM/55126/M/*	125	54	29	133	G1/2	M27 x 2	41	13,5	13	32	17,5	62,5	M24 x 1,5	27	128,5	20	207,5	82,5	225	22,97	0,48

* Please insert stroke length.

Options

- » Hard Chrome piston rod
- » Integral clevis mounting
- » Integral eye mounting
- » Integral universal rear eye
- » Double ended piston rod



Stainless Roundline Cylinders

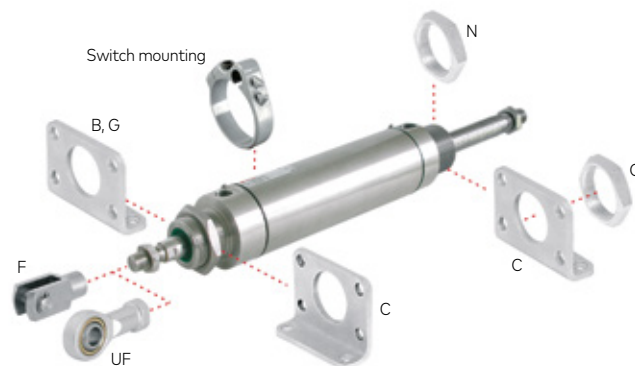
KM/55001/M Double acting, Stainless steel – Ø32 ... 125 mm

Mountings

Standard cylinders



Cylinder variant



Cyl. Ø	B, G	C	F	H	L	N	UF
32	M/P34297	KQM/55433/21	KQM/55433/25	QM/55232/28	KQM/55032/24	M/P34276	KQM/8025/32
40	M/P34298	KQM/55441/21	KQM/55441/25	QM/55240/28	KQM/55040/24	M/P34277	KQM/8040/32
50	M/P34299	KQM/55451/21	KQM/55451/25	QM/55250/28	KQM/55050/24	M/P34278	KQM/8050/32
63	M/P34300	KQM/55464/21	KQM/55464/25	QM/55263/28	KQM/55063/24	M/P34278	KQM/8050/32
80	–	–	KQA/8080/25	QM/55480/28	KQM/55080/24	–	KQM/8080/32
100	–	–	KQA/8080/25	QM/55410/28	KQM/55100/24	–	KQM/8080/32
125	–	–	KQA/8125/25	QM/55125/28	KQM/55125/24	–	KQM/8125/32

Stainless steel	
B/G	Flange mounting: X 5 Cr Ni 18 10 (1.4301; AISI 304)
C	Foot mounting: X 5 Cr Ni 18 10 (1.4301; AISI 304)
L	Rear hinge mounting: X 5 Cr Ni 18 10 (1.4301; AISI 304), Bolt: X 10 Cr Ni S 18 9 (1.4305; AISI 303), Eyebolt: X 10 Cr Ni S 18 9 (1.4305; AISI 303)
H	Central trunnion: X 10 Cr Ni S 18 9 (1.4305; AISI 303)
F	Piston rod clevis mounting: X 10 Cr Ni S 18 9 (1.4305; AISI 303)
UF	Body: X 5 Cr Ni 18 10 (1.4301; AISI 304), Inner ring: X 105 Cr Co 18-2 (1.4528), Outer ring: X 10 Cr Ni S 18 9 (1.4305; AISI 303)
Bracket for switches	Body Ø32 ... 80 mm POM, Ø100 & 125 mm stainless steel Screws stainless steel
Nose nut	X 10 Cr Ni S 18 9 (1.4305; AISI 303)





Air Bellows

M/31000 Single acting – Ø6 ... 16"

- » Frictionless operation
- » No maintenance or lubrication
- » High vibration ISolation level
- » Simple to install



Important instructions:

Thrust:

The thrust depends on the height of the bellow.
When height increases - the thrust decreases.

- » Before installing the air bellow, check it carefully for any damage it may have suffered from transport or improper storage.
- » Do not inflate the air bellow until it has been secured properly.

Technical Data

Medium:

Compressed air lubricated or unlubricated, Nitrogen, water (with glycol)

Operating pressure:

5,5 bar recommended
dynamic pressure 8 bar max.

Ambient temperature:

-30°C ... +50°C
(-40°C ... +70°C)

When operated at this temperature (+70°C) for prolonged periods, the bellow will experience a reduce working life.

Static = constant/
unchanging external load
Dynamic = vibration or a
changing internal pressure as a
result of changing external load

Clearance:

There must be enough clearance around the air bellow.

- » The full surface of the metal parts is to be used to bear the forces.
- » Air bellows must be equipped with lateral guides.
- » Deflate the air bellows fully before removing.
- » Ensure that the bellows are not constantly in contact with hydraulic oil, lubricants, solvents, metal cuttings and welding sparks.
- » Should the air bellow be subjected to special media in an application, ask Norgren for further information, specifying the medium, temperature and concentration.

Stops:

To avoid damage when the bellow is compressed or extended mechanical stops at both end positions have to be used.



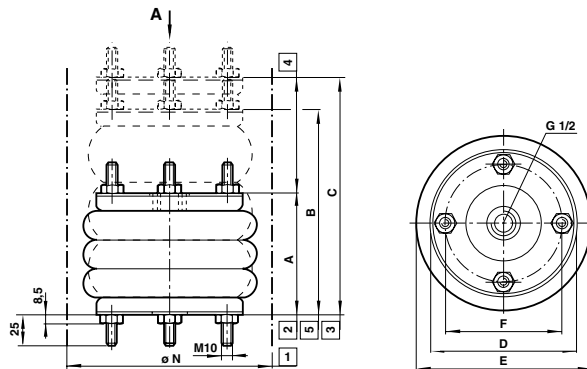


Air Bellows

M/31000 Single acting – Ø6 ... 16"

Dimensions

M/31061 ... M/31163



- 1 Installation diameter min.
- 2 Installation height min.
- 3 Installation height max.
- 4 Stroke
- 5 Recommended max. working height

Models	Nominal Ø (inch) x convolutions	Recommended working height [B] max. (mm)	Stroke (mm)	Installation height [A] min. (mm)	Installation height [C] max. (mm)	Max. torque for mounting studs (Nm)	ØE	ØD	ØF	ØN	Weight (kg)
M/31061	6 x 1	95	55	50	105	25	175	154	127	190	2,2
M/31062	6 x 2	170	115	75	190	25	175	154	127	190	2,7
M/31081	8 x 1	115	75	50	130	25	230	184	155	245	3
M/31082	8 x 2	220	175	75	250	25	230	184	155	245	3,7
M/31102	10 x 2	245	225	75	300	25	270	210	181	300	4,7
M/31103	10 x 3	350	330	100	430	25	270	210	181	300	5,2
M/31121	12 x 1	135	100	50	150	25	330	260	232	350	5,4
M/31122	12 x 2	245	225	75	300	25	330	260	232	350	6,2
M/31123	12 x 3	350	330	100	430	25	330	260	232	350	6,9
M/31141	14 1/2 x 1	150	100	50	150	25	400	310	282	425	7,1
M/31142	14 1/2 x 2	290	265	75	340	25	400	310	282	425	8,3
M/31143	14 1/2 x 3	420	380	100	480	25	400	310	282	425	9,6
M/31162	16 x 2	350	350	75	390	25	435	310	282	460	7,6
M/31163	16 x 3	475	430	120	550	25	435	310	282	460	10,4

For further information, visit www.norgren.com and use the new improved search function. If you cannot see the option you require please contact us.





Compact Air Bellows

PM/31000 Single acting – Ø2 3/4 ... 12"

- » Frictionless operation
- » No maintenance or lubrication
- » Ideal for short stroke, high-force applications
- » High vibration ISOlation level
- » Easy, compact installation



Important instructions:

Thrust:

The thrust depends on the height of the bellow.
When height increases - the thrust decreases.

- » Before installing the air bellow, check it carefully for any damage it may have suffered from transport or improper storage.
- » Do not inflate the air bellow until it has been secured properly.

Technical Data

Medium:

Compressed air lubricated or unlubricated, Nitrogen, water (with glycol)

Operating pressure:

5,5 bar recommended
dynamic pressure 8 bar max.

Ambient temperature:

-40°C ... +70°C "Static"
-30°C ... +50°C "Dynamic"

When operated at this temperature (+70°C) for pro-longed periods, the bellow will experience a reduce working life.
Static = constant/
unchanging external load
Dynamic = vibration or a changing internal pressure as a result of changing external load

Clearance:

There must be enough clearance around the air bellow.

- » The full surface of the metal parts is to be used to bear the forces.
- » Air bellows must be equipped with lateral guides.
- » Deflate the air bellows fully before removing
- » Ensure that the bellows are not constantly in contact with hydraulic oil, lubricants, solvents, metal cuttings and welding sparks.
- » Should the air bellow be subjected to special media in an application, ask Norgren for further information, specifying the medium, temperature and concentration

Stops:

To avoid damage when the bellow is compressed or extended mechanical stops at both end positions have to be used.





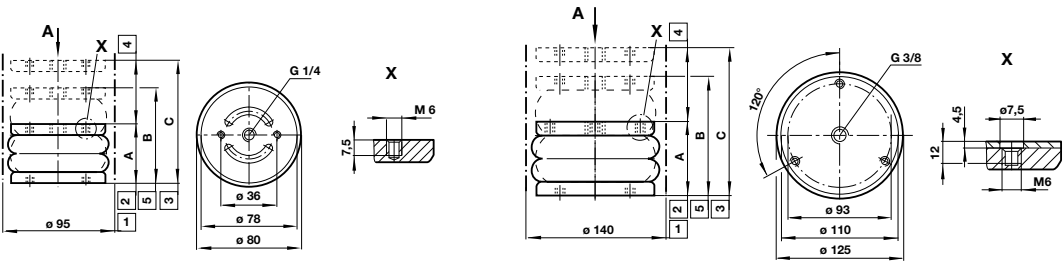
Compact Air Bellows

PM/31000 Single acting – Ø2 3/4 ... 12"

Dimensions

PM/31021, PM/31022, PM/31023

PM/31041, PM/31042, PM/31043



- ① Installation diameter min.
- ② Installation height min.
- ③ Installation height max.
- ④ Stroke
- ⑤ Recommended max. working height

Models	Nominal Ø (inch) x convolutions	Recommended working height [B] max. (mm)	Stroke (mm)	Installation height [A] min. (mm)	Installation height [C] max. (mm)	Max. torque for mounting studs (Nm)	Weight (kg)
PM/31021	2 3/4" x 1	65	20	50	70	5	0,35
PM/31022	2 3/4" x 2	105	45	65	110	5	0,4
PM/31023	2 3/4" x 3	130	60	80	140	5	0,5
PM/31041	4 1/2" x 1	80	40	50	90	5	0,75
PM/31042	4 1/2" x 2	135	85	65	150	5	0,95
PM/31043	4 1/2" x 3	180	100	100	200	5	1,2



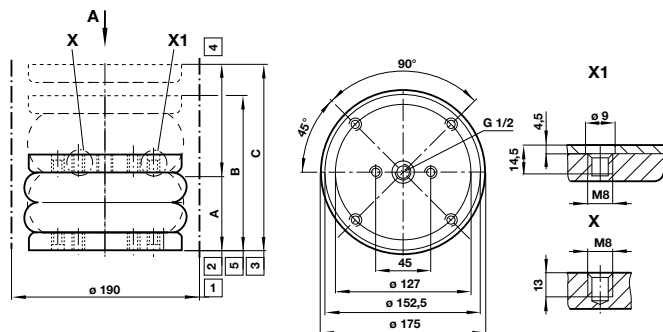


Compact Air Bellows

PM/31000 Single acting – Ø2 3/4 ... 12"

Dimensions

PM/31061, PM/31062, PM/31063



- 1 Installation diameter min.
- 2 Installation height min.
- 3 Installation height max.
- 4 Stroke
- 5 Recommended max. working height

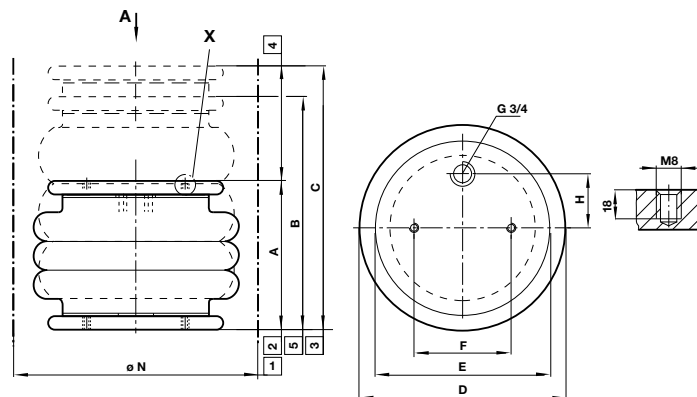
Models	Nominal Ø (inch) x convolutions	Recommended working height [B] max. (mm)	Stroke (mm)	Installation height [A] min. (mm)	Installation height [C] max. (mm)	Max. torque for mounting studs (Nm)	Weight (kg)
PM/31061	6" x 1	100	55	55	110	12	2,0
PM/31062	6" x 2	170	115	80	190	12	2,7
PM/31063	6" x 3	255	190	100	285	12	3,0



Compact Air Bellows

PM/31000 Single acting – Ø2 3/4 ... 12"

PM/31081 to PM/31123



- 1 Installation diameter min.
- 2 Installation height min.
- 3 Installation height max.
- 4 Stroke
- 5 Recommended max. working height

Models	Nominal Ø (inch) x convolutions	Recommended working height [B] max. (mm)	Stroke (mm)	Installation height [A] min. (mm)	Installation height [C] max. (mm)	Max. torque for mounting studs (Nm)	ØE	ØD	ØF	ØN	H	Weight (kg)
PM/31081	8" x 1	140	95	55	140	12	225	133	70	240	–	1,8
PM/31082	8" x 2	250	185	80	250	12	220	133	70	240	–	2,3
PM/31091	9 1/4" x 1	150	105	55	150	12	255	155	89	275	38	2,3
PM/31092	9 1/4" x 2	295	230	80	310	12	255	155	89	275	38	3,1
PM/31121	12" x 1	151	129	51	180	25	343	228	157	360	73	4,3
PM/31122	12" x 2	265	230	75	305	25	325	228	157	340	73	4,8
PM/31123	12" x 3	395	320	110	430	25	228	325	157,5	345	73	5,9





Miniature Shock Absorbers

MC Series Self-Compensating

- » Maintenance free, self-contained hydraulic components
- » Provides the highest possible cycle lifetime; up to 25 million cycles
- » Extremely low rod return force
- » Can be directly mounted into the end cover of pneumatic cylinders (up to 7 bar)
- » Integral positive stop incorporated on all models

Technical Data

Impact velocity range:

0,08 ... 6 m/s
(ensure that effective weight of application is within range of unit selected).

W₄ capacity rating (max. energy per hour Nm/hr):

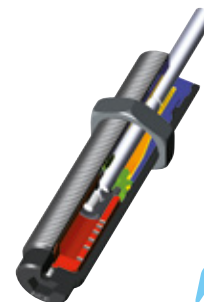
If your application exceeds tabulated W₄ figures consider additional cooling i. e. cylinder exhaust air etc.

Mounting:

In any position. If precise end position datum is required consider use of the optional stop collar type AH.

Ambient temperature:

0°C ... +66°C
Air supply must be dry enough to avoid ice formation at temperatures below +2°C



Models

Model	Max. energy capacity Nm per cycle per hour		Effective weight me Self-compensating			Return force	Rod reset time	Max. side load angle	Nylon button	Rectangular flange	Clamp mount	Stop collar				
	W ₃	W ₄	min	kg	max	N	s	o								
																
MC 150 M	20	34 000	0,9	–	10	3 - 5	0,4	4	PP 150	RF 14	MB 14	AH14				
MC 150 MH	20	34 000	8,6	–	86	3 - 5	0,4	4	PP 150	RF 14	MB 14	AH14				
MC 150 MH2	20	34 000	70	–	200	3 - 5	0,4	4	PP 150	RF 14	MB 14	AH14				
MC 225 M	41	45 000	2,3	–	25	4 - 6	0,3	4	PP 225	RF 20	MB 20	AH20				
MC 225 MH	41	45 000	23	–	230	4 - 6	0,3	4	PP 225	RF 20	MB 20	AH20				
MC 225 MH2	41	45 000	180	–	910	4 - 6	0,3	4	PP 225	RF 20	MB 20	AH20				
MC 600 M	136	68 000	9	–	136	5 - 9	0,6	2	PP 600	RF 25	MB 25	AH25				
MC 600 MH	136	68 000	113	–	1130	5 - 9	0,6	2	PP 600	RF 25	MB 25	AH25				
MC 600 MH2	136	68 000	400	–	2 300	5 - 9	0,6	2	PP 600	RF 25	MB 25	AH25				



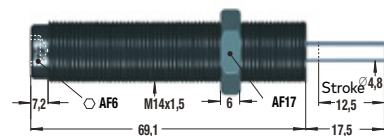


Miniature Shock Absorbers

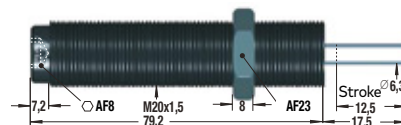
MC Series Self-Compensating

Dimensions

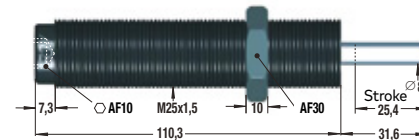
MC 150 M



MC 225 M



MC 600 M





Miniature Shock Absorbers

MA Series Adjustable

- » Maintenance free, self-contained hydraulic components
- » Integrated mechanical stop (MA 225 upwards)
- » Long stroke lengths to provide smooth deceleration and low reaction forces

Technical Data

Adjustment:

On model MA 150: by turning the adjustment screw at rear.
On MA 225 and MA 600: by turning the adjustment knob against the scale marked 0 to 9. After installation, cycle the machine a few times and turn the adjustment knob until optimum deceleration is achieved (i.e. smooth deceleration throughout stroke). Hard impact at start of stroke > Turn adjuster towards '9'. Hard setdown at end of stroke > Turn adjuster towards '0'.

Impact velocity range:

0,3 ... 3,6 m/s (check effective weight calculation):
FA units max. 2 m/s.

W₁ capacity rating (max. energy per hour Nm/hr):

If your application exceeds tabulated W₁ figures consider additional cooling i. e. cylinder exhaust air etc.

Mounting:

In any position. If precise end position datum is required consider use of the optional stop collar type AH.

Ambient temperature:

0°C ... +66°C

Air supply must be dry enough to avoid ice formation at temperatures below +2°C



ACE

Models

Model	Max. energy capacity Nm per cycle per hour		Effective weight me Self-compensating			Return force	Rod reset time	Max. side load angle	Rectangular flange	Clamp mount	Stop collar
	W ₃	W ₄	min	kg	max	N	s	o			
											
MA 150 M	22	35 000	1	–	109	3 - 5	0,4	5	RF 14	MB14	AH14
MA 225 M	25	45 000	2,3	–	226	5 - 10	0,1	2	RF 20	MB 20	AH20
MA 600 M	68	68 000	9	–	1360	10 - 30	0,2	2	RF 25	MB 25	AH25

Accessories

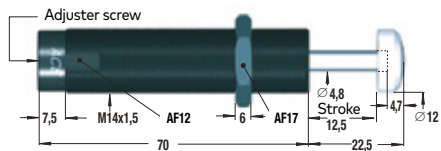


Miniature Shock Absorbers

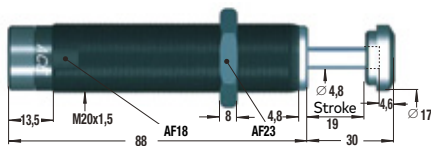
MA Series Adjustable

Dimensions

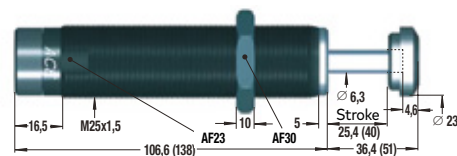
MA 150 M



MA 225 M



MA 600 M



Magnetically Operated Switches

M/50 Reed and Solid State

- » Suitable for all cylinder ranges with magnetic piston
- » When used on profile bodied actuators, switch fits flush with surface and requires no mounting bracket or adaptor
- » LED indicator – Solid State (standard), Reed (LSU models only)
- » Solid State switches are up to 4000 times faster in operation and have greater life expectancy
- » Easy IO link versions available
- » CE certified
- » UL certified
- » IO-Link Easy Function:
 - Visual installation aid
 - Counter
 - Temperature diagnostic
 - Power LED

Technical Data

Operation:

Reed normally open
Solid State normally open PNP/NPN

Voltage a.c.:

Reed 10 ... 240V
(M/50/LSU/CP 10 ... 60V)

Voltage d.c.:

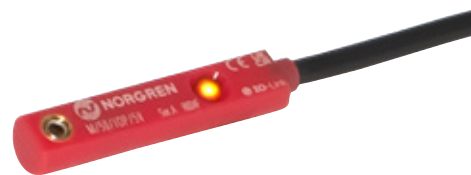
Reed 10 ... 170V
(M/50/LSU/CP 10 ... 60V)
Solid State 10 ... 30V

Current max.:

Reed 180mA
Solid State 150mA

Response time:

Reed 1,8 ms
Solid State <0,5 ms



Technical data - Solid state

Symbol	Model	Voltage (V d.c.)	Current maximum (mA)	Function	Operating temperature	Protection class	Plug	Cable length (m)	Cable type
	M/50/EAP/*V	10 ... 30	100	PNP	-40 ... +80°C	IP67	—	2, 5 or 10	PVC 3 x 0,12
	M/50/IOP/5V	10 ... 30	100	PNP	-40 ... +80°C	IP67	—	5	PVC 3 x 0,12
	M/50/EAP/5U	10 ... 30	100	PNP	-40 ... +80°C	IP68	—	5	PUR 3 x 0,14
	M/50/EAP/CP *1)	10 ... 30	100	PNP	-40 ... +80°C	IP67	M8 x 1	0,3	PVC 3 x 0,14
	M/50/IOP/CP *1)	10 ... 30	100	PNP	-40 ... +80°C	IP67	M8 x 1	0,3	PVC 3 x 0,14
	M/50/EAP/CC *1)	10 ... 30	100	PNP	-40 ... +80°C	IP67	M12 x 1	0,3	PVC 3 x 0,14
	M/50/EAN/*V	10 ... 30	100	NPN	-40 ... +80°C	IP67	—	2, 5 or 10	PVC 3 x 0,12
	M/50/EAN/CP *1)	10 ... 30	100	NPN	-40 ... +80°C	IP67	M8 x 1	0,3	PVC 3 x 0,14

* Insert cable length; *1) Plug-in connector below; Color code: BK = black, BN = brown, BU = blue.





Magnetically Operated Switches

M/50 Reed and Solid State

Models - Reed and ATEX approved switches

Accessories

Model	Cable length / plug	Temperature range	Cable material	Features	Extension cable 5 m (PVC)	Extension cable 10 m (PVC)
M/50/LSU/2V	2 m	-25 ... +80°C	PVC	Protection IP66	–	–
M/50/LSU/5V	5 m	-25 ... +80°C	PVC	Protection IP66	–	–
M/50/LSU/10V	10 m	-25 ... +80°C	PVC	Protection IP66	–	–
M/50/LSU/CP	0,3 m with M8 Plug	-25 ... +80°C	PVC	Protection IP66	M/P73001/5	M/P73001/10

Models - Solid State and Atex approved switches

Accessories

Model	Cable length / plug	Switching function	Temp range	Cable material	Extension cable 5 m (PVC)	Extension cable 10 m (PVC)
M/50/EAP/2V	2 m	PNP	-40 ... +80°C	PVC	–	–
M/50/EAP/5V	5 m	PNP	-40 ... +80°C	PVC	–	–
M/50/EAP/10V	10 m	PNP	-40 ... +80°C	PVC	–	–
M/50/EAP/CP	0,3 m with M8 Plug	PNP	-40 ... +80°C	PVC	M/P73001/5	M/P73001/10
M/50/EAP/CC	0,3 m with M12 Plug	PNP	-40 ... +80°C	PVC	M/P34692/5	–
M/50/IOP/5V	5 m	PNP	-40 ... +80°C	PVC	–	–
M/50/IOP/CP	0,3 m with M8 Plug	PNP	-40 ... +80°C	PVC	M/P73001/5	M/P73001/10

Note: If a bracket/adaptor is required to attach a switch to a cylinder this part number is shown on the relevant actuator product page.





[Valve Islands & Industrial Communications]

3

Valve islands are a collection of valves mounted into one unit, reducing pipework, electrical connections and complexity. We have been offering valve islands for twenty years, currently with the VR, VM and VS series.

On the other hand, IO-Link is revolutionising Industrial Automation by offering a standardised and seamless communication interface for all IO-Link devices, with simple installation and a complete range of diagnostics functionality. A globally standardised (IEC 61131-9) communication system for connecting sensors and many other components, without any complex wiring, to a control system.



Fast Find Guide

Please note: These products represent only part of the Norgren Valve Islands and Industrial Communication range. If you can't see the option you require please contact us.



Valve Islands

VR10 2 x 3/2, 5/2 & 5/3 10 mm  Page 3-004	VR15 2 x 3/2, 5/2 & 5/3 15 mm  Page 3-007	VM10 2 x 3/2, 5/2 & 5/3 10 mm  Page 3-010	VM15 2 x 3/2, 5/2 & 5/3 15 mm  Page 3-012	VS18 2 x 2/2, 2 x 3/2, 5/2 & 5/3 ISO 15407-2 18 mm  Page 3-014
VS26 2 x 2/2, 2 x 3/2, 5/2 & 5/3 ISO 15407-2 26 mm  Page 3-017				

Industrial Communication

NC Series
IO-Link Masters & I/O Modules

Page 3-020





Introducing the Norgren VR Valve Island Range

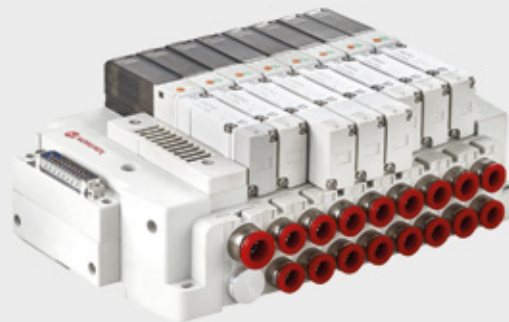
Flexibility and modularity have reached new levels.

A simple plug-in, sub-base style design allows for valves to be easily exchanged for easy installation and maintenance. Expanding the size and functionality of your Valve Island to match the changing demands of your application is a simple "plug-and-play" experience.

Available in two body sizes – 10 mm and 15 mm, the VR10/15 series can be used across a broad range of Industrial Automation markets, from food & beverage, packaging, labelling, textiles, glass production, metal production and paper and print.

Product Highlights:

- » **Connected** - Fast and easy connectivity via Multipole, EtherNet/IP, PROFINET, EtherCAT and IO-Link
- » **Modular** - A modular system offering a wide range of configuration options as a traditional soft jaw
- » **Easy to Configure** - BEST IN CLASS online configurator
- » **Easy Installation** - No restrictions in installation as connectors can be horizontal or vertical. Valve island can be direct mounted or mounted on a DIN rail.
- » **Energy Saving** - Low power solenoids (0.4w power consumption) with LED indicators



Find out more
norgren.com



Valve Islands

VR10 2 x 3/2, 5/2 or 5/3 – 10 mm

- » Vertical or Horizontal 24V DC Multipole
- » Industrial Ethernet and IO-Link
- » LED indicator of solenoid function
- » No restriction in installation
- » Up to 24 solenoids
- » Easy to replace valves and fittings
- » IP40 or IP65 protection

Technical Data

Medium:

Compressed air, filtered to 40 µm, lubricated or non-lubricated

Operation:

Dynamic softseal spool valve, solenoid pilot operated

Port sizes:

Ports 1,3 & 5: PIF 8 mm

Ports 2 & 4: PIF 4 mm, 6 mm

Flow:

Function	l/min
5/2	220
2x3/2	220
5/3	270

Ambient temperature:

-5°C ... +50°C

Air supply must be dry enough to avoid ice formation at temperatures below +2°C



EtherNet/IP™

EtherCAT®

IO-Link

Models - 5/2 Single and double solenoid actuated valves

Symbol	Model PNP	Actuation	Pilot Supply	Pilot Pressure (bar)	Operating Pressure (bar)	Manual Override	Voltage *1)
	VR10S511BV313A	Sol./Sol.	Internal	2-7	2-7	Push only	24 V d.c
	VR10S511BV312A	Sol./Sol.	Internal	2-7	2-7	Push only	12V d.c
	VR10S522BV313A	Sol./Sol.	External	2-7	-1-7	Push only	24 V d.c
	VR10S522BV312A	Sol./Sol.	External	2-7	-1-7	Push only	12V d.c
	VR10S513BV313A	Sol./Spring	Internal	2-7	2-7	Push only	24 V d.c
	VR10S513BV312A	Sol./Spring	Internal	2-7	2-7	Push only	12V d.c
	VR10S523BV313A	Sol./Spring	External	2-7	-1-7	Push only	24 V d.c
	VR10S523BV312A	Sol./Spring	External	2-7	-1-7	Push only	12V d.c

*1) 12V d.c. valves only for Multipole / all solenoids are a 0.45W energy saving type.





Valve Islands

VR10 2 x 3/2, 5/2 or 5/3 – 10 mm

Models - 5/3 Single and double solenoid actuated valves

Symbol	Model PNP	Actuation	Pilot Supply	Pilot Pressure (bar)	Operating Pressure (bar)	Manual Override	Voltage *1)
	VR10S611BV313A	APB	Internal	2-7	2-7	Push only	24 V d.c
	VR10S611BV312A	APB	Internal	2-7	2-7	Push only	12V d.c
	VR10S622BV313A	APB	Extern	2-7	-1-7	Push only	24 V d.c
	VR10S622BV312A	APB	Extern	2-7	-1-7	Push only	12V d.c
	VR10S711BV313A	COE	Internal	2-7	2-7	Push only	24 V d.c
	VR10S711BV312A	COE	Internal	2-7	2-7	Push only	12V d.c
	VR10S722BV313A	COE	Extern	2-7	-1-7	Push only	24 V d.c
	VR10S722BV312A	COE	Extern	2-7	-1-7	Push only	12V d.c
	VR10S811BV313A	COP	Internal	2-7	2-7	Push only	24 V d.c
	VR10S811BV312A	COP	Internal	2-7	2-7	Push only	12V d.c
	VR10S822BV313A	COP	Extern	2-7	-1-7	Push only	24 V d.c
	VR10S822BV312A	COP	Extern	2-7	-1-7	Push only	12V d.c

*1) 12V d.c. valves only for Multipole / all solenoids are a 0.45W energy saving type.

APB = All Ports Blocked.

COE = Centre Open Exhaust.

COP = Centre Open Port.





Valve Islands

VR10 2 x 3/2, 5/2 or 5/3 – 10 mm

Models - 2 x 3/2 Double solenoid actuated valves

Symbol	Model PNP	Actuation	Pilot Supply	Pilot Pressure (bar)	Operating Pressure (bar)	Manual Override	Voltage *1)
	VR10SA11BV313A	NC/NC	Internal	2-7	2-7	Push only	24 V d.c
	VR10SA11BV312A	NC/NC	Internal	2-7	2-7	Push only	12V d.c
	VR10SC11BV313A	NC/NO	Internal	2-7	2-7	Push only	24 V d.c
	VR10SC11BV312A	NC/NO	Internal	2-7	2-7	Push only	12V d.c
	VR10SB11BV313A	NO/NO	Internal	2-7	2-7	Push only	24 V d.c
	VR10SB11BV312A	NO/NO	Internal	2-7	2-7	Push only	12V d.c

*1) 12V d.c. valves only for Multipole / all solenoids are a 0.45W energy saving type.

NC = Normally Closed.

NO = Normally Open.

Electrical details for solenoid operators

Supply voltage*	12 V d.c. & 24V d.c.
Power consumption*	12 V d.c. & 24 V d.c 0.45W (Energy saving type)
Manual override	Push only
Rating	100% E.D.
Indication	LED red/green
Surge suppression	surge protecting circuit is equipped
Protection class	IP40 or IP65

*12V d.c. valves only for Multipole.





Valve Islands

VR15 2 x 3/2, 5/2 or 5/3 – 15 mm

- » Vertical or Horizontal 24V DC Multipole
- » Industrial Ethernet and IO-Link
- » LED indicator of solenoid function
- » No restriction in installation
- » Up to 24 solenoids
- » Easy to replace valves and fittings
- » IP40 or IP65 protection

Technical Data

Medium:

Compressed air, filtered to 40 µm, lubricated or non-lubricated

Operation:

Dynamic softseal spool valve, solenoid pilot operated

Port sizes:

Ports 1, 3 & 5: PIF 10 mm
Ports 2 & 4: PIF 4 mm, 6 mm, 8 mm

Flow:

Function	l/min
5/2	520
2x3/2	460
5/3	590

Ambient temperature:

-5°C ... +50°C
Air supply must be dry enough to avoid ice formation at temperatures below +2°C



EtherNet/IP™

EtherCAT®

IO-Link

Models - 5/2 Single and double solenoid actuated valves

Symbol	Model PNP	Actuation	Pilot Supply	Pilot Pressure (bar)	Operating Pressure (bar)	Manual Override	Voltage *1)
	VR15SS11BV313A	Sol./Sol.	Internal	2-7	2-7	Push only	24 V d.c.
	VR15SS11BV312A	Sol./Sol.	Internal	2-7	2-7	Push only	12V d.c.
	VR15SS22BV313A	Sol./Sol.	External	2-7	-1-7	Push only	24 V d.c.
	VR15SS22BV312A	Sol./Sol.	External	2-7	-1-7	Push only	12V d.c.
	VR15SS13BV313A	Sol./Spring	Internal	2-7	2-7	Push only	24 V d.c.
	VR15SS13BV312A	Sol./Spring	Internal	2-7	2-7	Push only	12V d.c.
	VR15SS23BV313A	Sol./Spring	External	2-7	-1-7	Push only	24 V d.c.
	VR15SS23BV312A	Sol./Spring	External	2-7	-1-7	Push only	12V d.c.

*1) 12V d.c. valves only for Multipole / all solenoids are a 0.45W energy saving type.





Valve Islands

VR15 2 x 3/2, 5/2 or 5/3 – 15 mm

Models - 5/3 Single and double solenoid actuated valves

Symbol	Model PNP	Actuation	Pilot Supply	Pilot Pressure (bar)	Operating Pressure (bar)	Manual Override	Voltage *1)
	VR15S611BV313A	APB	Internal	2-7	2-7	Push only	24 V d.c
	VR15S611BV312A	APB	Internal	2-7	2-7	Push only	12V d.c
	VR15S622BV313A	APB	Extern	2-7	-1-7	Push only	24 V d.c
	VR15S622BV312A	APB	Extern	2-7	-1-7	Push only	12V d.c
	VR15S711BV313A	COE	Internal	2-7	2-7	Push only	24 V d.c
	VR15S711BV312A	COE	Internal	2-7	2-7	Push only	12V d.c
	VR15S722BV313A	COE	Extern	2-7	-1-7	Push only	24 V d.c
	VR15S722BV312A	COE	Extern	2-7	-1-7	Push only	12V d.c
	VR15S811BV313A	COP	Internal	2-7	2-7	Push only	24 V d.c
	VR15S811BV312A	COP	Internal	2-7	2-7	Push only	12V d.c
	VR15S822BV313A	COP	Extern	2-7	-1-7	Push only	24 V d.c
	VR15S822BV312A	COP	Extern	2-7	-1-7	Push only	12V d.c

*1) 12V d.c. valves only for Multipole / all solenoids are a 0.45W energy saving type.

APB = All Ports Blocked.

COE = Centre Open Exhaust.

COP = Centre Open Port.





Valve Islands

VR15 2 x 3/2, 5/2 or 5/3 – 15 mm

Models - 2 x 3/2 Double solenoid actuated valves

Symbol	Model PNP	Actuation	Pilot Supply	Pilot Pressure (bar)	Operating Pressure (bar)	Manual Override	Voltage *1)
	VR15SA11BV313A	NC/NC	Internal	2-7	2-7	Push only	24 V d.c
	VR15SA11BV312A	NC/NC	Internal	2-7	2-7	Push only	12V d.c
	VR15SC11BV313A	NC/NO	Internal	2-7	2-7	Push only	24 V d.c
	VR15SC11BV312A	NC/NO	Internal	2-7	2-7	Push only	12V d.c
	VR15SB11BV313A	NO/NO	Internal	2-7	2-7	Push only	24 V d.c
	VR15SB11BV312A	NO/NO	Internal	2-7	2-7	Push only	12V d.c

*1) 12V d.c. valves only for Multipole / all solenoids are a 0.45W energy saving type.

NC = Normally Closed.

NO = Normally Open.

Electrical details for solenoid operators

Supply voltage*	12 V d.c. & 24V d.c.
Power consumption*	12 V d.c. & 24 V d.c 0.45W (Energy saving type)
Manual override	Push only
Rating	100% E.D.
Indication	LED red/green
Surge suppression	surge protecting circuit is equipped
Protection class	IP40 or IP65

*12V d.c. valves only for Multipole.





Valve Islands

VM10 2 x 3/2, 5/2 or 5/3 – 10 mm

- » Valve slices 2 x 3/2, 5/2 and 5/3 with integral push-in fittings Ø6 mm
- » Compact and lightweight
- » High flow from 10 mm valve width
- » To configure and order a Valve Island visit www.norgren.com
- » Multipole or individually wired
- » Fieldbus or industrial ethernet

Technical Data

Medium:
Compressed air, filtered,
lubricated and non-lubricated

Operation:
Spool valve indirectly
actuated

Port sizes:
Ports 1, 3 & 5: Ø8 & 10 mm
Ports 2 & 4: Ø3, 4 & 6 mm
Ports 12/14 & 82/84:
Ø4 & 6 mm

Flow:
Function l/min
5/2 430
5/2 400
3/2 and 5/3 350

Ambient temperature:
-5°C ... +50°C
Air supply must be dry enough
to avoid ice formation at
temperatures below +2°C



CANopen

EtherNet/IP® DeviceNet®

PROFI[®]
NET

PROFI[®]
BUS

Protection classification

UL/CSA
approval

Recognized to UL 429 - 5th
edition & CSA 22.2 No.139 - 1982
for Electrically Operated Valves.

Models - 2 x 3/2 Double solenoid actuated valves

Symbol	Model	Function	Actuation	Pilot supply	Manual override	Operating pressure (bar)	Pilot pressure (bar)
	VM106A11AB313B	2 x 3/2 NC	Solenoid/Spring	Internal	Push only	3 ... 8	–
	VM106B11AB313B	2 x 3/2 NO	Solenoid/Spring	Internal	Push only	3 ... 8	–
	VM106C11AB313B	2 x 3/2 NO/NC	Solenoid/Spring	Internal	Push only	3 ... 8	–





Valve Islands

VM10 2 x 3/2, 5/2 or 5/3 – 10 mm

Models - 5/2 Single and double solenoid actuated valves

Symbol	Model	Function	Actuation	Pilot supply	Manual override	Operating pressure (bar)	Pilot pressure (bar)
	VM106517AB313B	5/2	Solenoid/Spring	Internal	Push only	3 ... 8	–
	VM106511AB313B	5/2	Solenoid/Solenoid	Internal	Push only	2 ... 8	–

Models - 5/3 Double solenoid actuated valves

Symbol	Model	Function	Actuation	Pilot supply	Manual override	Operating pressure (bar)	Pilot pressure (bar)
	VM106611AB313B	5/3 APB	Solenoid/Solenoid	Internal	Push only	3 ... 8	–

Note: For 5/3 COE please use 2 x 3/2 NC. For 5/3 COP please use 2 x 3/2 NO.

APB = All Ports Blocked.

NC = Normally Closed.

NO = Normally Open.





Valve Islands

VM15 2 x 3/2, 5/2 or 5/3 – 15 mm

- » Valve slices 2 x 3/2, 5/2 and 5/3 with integral push-in fittings Ø8 mm
- » Compact and lightweight, integral push in fittings
- » High flow from 15 mm valve width
- » To configure and order a Valve Island visit: www.norgren.com
- » Electrical connection via multipole or individually wired

Technical Data

Medium:
Compressed air, filtered,
lubricated and non-lubricated

Operation:
Spool valve indirectly
actuated

Port sizes:
Ports 1, 3 & 5: Ø10 & 12 mm
Ports 2 & 4: Ø6, 8 & 10 mm
Ports 12/14 & 82/84: Ø6 mm

Flow:
Function l/min
5/2 1000
2x3/2 965
5/3 900

Ambient temperature:
-5°C ... +50°C

Air supply must be dry enough
to avoid ice formation at
temperatures below +2°C



Models - 2 x 3/2 Double solenoid actuated valves

Symbol	Model	Function	Actuation	Pilot supply	Manual override	Operating pressure (bar)	Pilot pressure (bar)
	VM158A11AB313B	2 x 3/2 NC	Solenoid/spring	Internal	Push only	3 ... 8	–

Models - 5/2 Single and double solenoid actuated valves

Symbol	Model	Function	Actuation	Pilot supply	Manual override	Operating pressure (bar)	Pilot pressure (bar)
	VM158517AB313B	5/2	Solenoid/spring	Internal	Push only	3 ... 8	–
	VM158511AB313B	5/2	Solenoid/solenoid	Internal	Push only	3 ... 8	–





Valve Islands

VM15 2 x 3/2, 5/2 or 5/3 – 15 mm

Models - 5/3 Double solenoid actuated valves

Symbol	Model	Function	Actuation	Pilot supply	Manual override	Operating pressure (bar)	Pilot pressure (bar)
	VM15*611AB313B	5/3 APB	Solenoid/solenoid	Internal	Push only	3 ... 8	–
	VM15*622AB313B	5/3 APB	Solenoid/solenoid	External	Push only	0,9 ... 8	3 ... 8

APB = All Ports Blocked.

NC = Normally Closed.





Plug-In Mini ISO Valve Islands

VS18 2 x 2/2, 2 x 3/2, 5/2 or 5/3 – 18 mm

- » Modular, easy to expand
- » 24V d.c. or 115V a.c.
Multipole or single ad-on station
- » Integrated Fieldbus, Industrial Ethernet and IO-Link
- » To configure and order a Valve Island visit www.norgren.com
- » Conforms to ISO 15407-2 Size 18 mm
- » Two spool technologies with unique advantages
 - glandless spool valves for long life cycles
 - softseal spool valves for high flow

Technical Data

Medium:

Compressed air, filtered to 40 µm, lubricated or non-lubricated

Flow:

Softseal
Function l/min
2x3/2 600
5/2; 5/3 650

Mounting:

Sub-base

Operating pressure:

Maximum pressure
10 bar VS18S and VS18G
models with internal pilot
supply 16 bar VS18G with
external pilot supply (VS18S
softseal spool valves VS18G
glandless spool valves)

Ambient/Media

temperature:

Ambient: -15°C ... +50°C

Media: -5°C ... +50°C

Air supply must be dry enough
to avoid ice formation at
temperatures below +2°C



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Models - 2 x 3/2 Double solenoid actuated softseal valves (flow 600 l/min)

Symbol	Model	Function 2x2/2	Actuation/return	Pilot supply	Pilot pressure (bar)	Operating pressure (bar)	Manual override	Voltage	Short code
	VS18SA11DF313A	NC	Sol/Spring	Internal	–	2,5 ... 10	Push only	24 V d.c. 1,2 W	SAU
	VS18SB11DF313A	NO	Sol/Spring	Internal	–	2,5 ... 10	Push only	24 V d.c. 1,2 W	SBU
	VS18SC11DF313A	NO/NC	Sol/Spring	Internal	–	2,5 ... 10	Push only	24 V d.c. 1,2 W	SCU

NO = Normally open. NC = Normally closed.

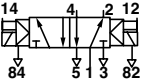
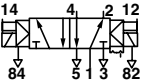




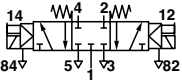
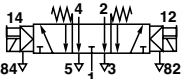
Plug-In Mini ISO Valve Islands

VS18 2 x 2/2, 2 x 3/2, 5/2 or 5/3 – 18 mm

Models - 5/2 Single and double solenoid actuated softseal valves (flow 650 l/min)

Symbol	Model	Actuation/return	Pilot supply	Pilot pressure (bar)	Operating pressure (bar)	Manual override	Voltage	Short code
	VS18S511DF313A	Sol/Sol	Internal	–	2 ... 10	Push only	24 V d.c. 1,2 W	SJU
	VS18S517DF313A	Sol/Spring	Internal	–	2 ... 10	Push only	24 V d.c. 1,2 W	SGU

Models - 5/3 Double solenoid actuated softseal valves (flow 650 l/min)

Symbol	Model	Function 2x2/2	Actuation/return	Pilot supply	Pilot pressure (bar)	Operating pressure (bar)	Manual override	Voltage	Short code
	VS18S611DF313A	APB	Sol/Sol	Internal	–	2 ... 10	Push only	24 V d.c. 1,2 W	SLU
	VS18S711DF313A	COE	Sol/Sol	Internal	–	2,5 ... 10	Push only	24 V d.c. 1,2 W	SQU

APB = All Ports Blocked.

COE = Centre Open Exhaust.





Plug-In Mini ISO Valve Islands

VS18 2 x 2/2, 2 x 3/2, 5/2 or 5/3 – 18 mm

Electrical details for solenoid operators

Voltage tolerances	(24 V d.c) +/- 10%
Rating	100% Continuous duty
Inlet orifice	0,8 mm
Indication	LED green
Surge suppression	Transil diode
Materials	PPS (body), FKM and NBR (seal)

Note: For alternative voltage and voltage tolerances please contact us.

Protection classification (IP Code): All VS18 valve islands fulfill IP65 and NEMA4 ratings.

Power supply and precautions: All VS18 24 V d.c products are designed to be used with a protective extra low voltage (PELV) power supply. All VS18 115 V a.c products correspond to the protection class I. Connection of the protective earth (PE) ground is required.

UL approval: Recognized to UL 429 for Electrically Operated Valves (not applicable for Industrial Ethernet and Fieldbus options).

ATEX: The 24 V d.c valve islands fulfils the requirement of the standard 2014/34/EU for intended use in hazardous locations.



Multipole and Industrial Ethernet versions:

II 3G Ex ec IIC T4 Gc
II 3D Ex tc IIIC T135°C Dc

Fieldbus versions:

II 3G Ex ec IIC T4 Gc
II 3D Ex tc IIIB T135°C Dc

IO-Link:

II 3G Ex ec IIC T4 Gc
II 3D Ex tc IIIB T135°C Dc

Equipment group, category, type of protection:

The Declaration of Conformity of the valve island can be found on www.norgren.com. Please review all ATEX data and notes in the maintenance and instruction booklet to eliminate any risks, allowing for safe function of the valve islands.

Note: Please refer to the corresponding ATEX installation instructions and the maximum permissible operating conditions for valve islands in the ATEX zone. The maximum allowed power consumption for ATEX is 20W. This corresponds to 16 simultaneously energized pilot valves. If a configuration consists of more than 16 pilot valves the user must undertake external actions (e.g. power-limited power supplies) to make sure that the power consumption of 20W is not exceeded.

This does not apply to IO-Link versions. Up to 40 pilot valves can be operated at IO-Link versions.





Plug-In Mini ISO Valve Islands

VS26 2 x 2/2, 2 x 3/2, 5/2 or 5/3 – 26 mm

- » Modular, easy to expand
- » 24V d.c. or 115V a.c.
Multipole or single ad-on station
- » UL and ATEX
- » To configure and order a Valve Island visit www.norgren.com
- » Conforms to ISO 15407-2 Size 26 mm
- » Two spool technologies with unique advantages
 - glandless spool valves for long life cycles
 - softseal spool valves for high flow

Technical Data

Medium:
Compressed air, filtered to
40 µm, lubricated or non-
lubricated

Flow:
Softseal
Function l/min
2x3/2 1250
5/2; 5/3 1350

Mounting:
Sub-base

Operating pressure:
Maximum pressure
10 bar VS26S and VS26G
models with internal pilot
supply
16 bar VS26G with external
pilot supply (VS26S softseal
spool valves VS26G glandless
spool valves)

**Ambient/Media
temperature:**
Ambient: -15°C ... +50°C
Media: -5°C ... +50°C
Air supply must be dry enough
to avoid ice formation at
temperatures below +2°C



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EtherNet/IP

DeviceNet

Models - 2x3/2 Double solenoid actuated softseal valves (flow 1250 l/min)

Symbol	Model	Function 2 x 3/2	Actuation	Pilot supply	Pilot pressure (bar)	Operating pressure (bar)	Manual override	Voltage	Short code
	VS26SA11DF313A	NC	Sol/Spring	Internal	–	3 ... 10	Push only	24 V d.c. 1,2 W	SAU
	VS26SB11DF313A	NO	Sol/Spring	Internal	–	3 ... 10	Push only	24 V d.c. 1,2 W	SBU
	VS26SC11DF313A	NO/NC	Sol/Spring	Internal	–	3 ... 10	Push only	24 V d.c. 1,2 W	SCU

NO = Normally open. NC = Normally closed.



For further information, visit www.norgren.com and use the new improved search function. If you cannot see the option you require please contact us.

More Info





Plug-In Mini ISO Valve Islands

VS26 2 x 2/2, 2 x 3/2, 5/2 or 5/3 – 26 mm

Models - 5/2 Single and double solenoid actuated softseal valves (flow 1350 l/min)

Symbol	Model	Actuation	Pilot supply	Pilot pressure (bar)	Operating pressure (bar)	Manual override	Voltage	Short code
	VS26S511DF313A	Sol/Sol	Internal	–	2 ... 10	Push only	24 V d.c. 1,2 W	SJU
	VS26S517DF313A	Sol/Spring	Internal	–	2 ... 10	Push only	24 V d.c. 1,2 W	SGU

Models - 5/3 Double solenoid actuated softseal valves (flow 1350 l/min)

Symbol	Model	Function 2x2/2	Actuation/return	Pilot supply	Pilot pressure (bar)	Operating pressure (bar)	Manual override	Voltage	Short code
	VS26S611DF313A	APB	Sol/Sol	Internal	–	2,5 ... 10	Push only	24 V d.c. 1,2 W	SLU
	VS26S711DF313A	COE	Sol/Sol	Internal	–	2,5 ... 10	Push only	24 V d.c. 1,2 W	SQU

APB = All Ports Blocked.

COE = Centre Open Exhaust.





Plug-In Mini ISO Valve Islands

VS26 2 x 2/2, 2 x 3/2, 5/2 or 5/3 – 26 mm

Electrical details for solenoid operators

Voltage tolerances	(24 V d.c.) +/- 10%
Rating	100% Continuous duty
Inlet orifice	0,8 mm
Indication	LED green
Surge suppression	Transil diode
Materials	PPS (body), FKM and NBR (seal)

Note: For alternative voltage and voltage tolerances please contact us.

Protection classification (IP Code): All VS26 valve islands fulfill IP65 and NEMA4 ratings.

Power supply and precautions: All VS26 24 V d.c products are designed to be used with a protective extra low voltage (PELV) power supply. All VS26 115 V a.c products correspond to the protection class I. Connection of the protective earth (PE) ground is required.

UL approval: Recognized to UL 429 for Electrically Operated Valves (not applicable for Industrial Ethernet and Fieldbus options).

ATEX: The 24 V d.c valve islands fulfils the requirement of the standard 2014/34/EU for intended use in hazardous locations.



Multipole and Industrial Ethernet versions:

II 3G Ex ec IIC T4 Gc
II 3D Ex tc IIIC T135°C Dc

Fieldbus versions:

II 3G Ex ec IIC T4 Gc
II 3D Ex tc IIIB T135°C Dc

IO-Link:

II 3G Ex ec IIC T4 Gc
II 3D Ex tc IIIB T135°C Dc

Equipment group, category, type of protection:

The Declaration of Conformity of the valve island can be found on www.norgren.com. Please review all ATEX data and notes in the maintenance and instruction booklet to eliminate any risks, allowing for safe function of the valve islands.

Note: Please refer to the corresponding ATEX installation instructions and the maximum permissible operating conditions for valve islands in the ATEX zone. The maximum allowed power consumption for ATEX is 20W. This corresponds to 16 simultaneously energized pilot valves. If a configuration consists of more than 16 pilot valves the user must undertake external actions (e.g. power-limited power supplies) to make sure that the power consumption of 20W is not exceeded.

This does not apply to IO-Link versions. Up to 40 pilot valves can be operated at IO-Link versions.





NC Series

IO-Link Masters, I/O Modules and Accessories

- » Industrial Ethernet connectivity products
- » IO-Link Master provide a gateway to PROFINET and EtherNet/IP
- » Standard building blocks make system design modular and simple
- » Installation time is reduced as all cables are premade, plug and socket, making it all plug and play
- » IO-Link enabled Valve Islands can be connected to a master port on a single standard cable
- » Electrical design is simplified as the I/O Modules can be configured depending on the input and output requirement.

Technical Data

Operating voltage (V):

20...30 DC;
(US; to SELV/PELV)

Current consumption (mA):

300...3900; (US)

Protection class: III
Additional voltage supply (V):

20...30 DC; (UA)

Max. current load total (A):

8

Current rating per port (A):

2; (adjustable: 0...2;
Factory setting: 2)

Total number of inputs and outputs:

24; (configurable)

Number of digital inputs:

12; (IO-Link Port Class A: 4 x 2)
(IO-Link Port Class B: 4 x 1)

Number of digital outputs:

12

Ethernet transmission standard:

10Base-T; 100Base-TX

Ethernet transmission rate:

10; 100

IO-Link Master transmission type:

COM 1/COM 2/COM 3

IO-Link revision:

1.1

IO-Link Master number of ports class A:

4

IO-Link Master number of ports class B:

4

Ambient temperature:

-25 ... 60°C (-13 ... 140°F)

Storage temperature:

-25 ... 85°C (-13 ... 185°F)

Max. relative air humidity:

90%

Protection:

IP 65; IP 66; IP 67



EtherNet/IP®

PROFINET®

IO-Link





NC Series

IO-Link Masters, I/O Modules and Accessories

Models - IO-Link Masters/I/O Modules/Accessories

	Model	Product Description	
	NC-MP-4A4B-12DLA	PROFINET IO-Link Master	Port Class A (4x) + Port Class B (4x)
	NC-ME-4A4B-12DLA	EtherNet/IP IO-Link Master	Port Class A (4x) + Port Class B (4x)
	NC-HB-8A5F-12A0A	I/O Module Standard	8 Port without Auxillary Power 16 x I/O Configurable
	NC-HA-8A5F-12AAA	I/O Module with Auxillary Power	8 Port with Auxillary Power 16 x I/O Configurable
	NC-TS-124F-125M0	Y-Splitter 2 x M12 - 1 x M12	2 x I/O into one port on I/O Module
	NC-TS-083F-124M0	Y-Splitter 2 x M8 - 1 x M12	2 x I/O into one port on I/O Module
	NC-PC-1200-00000	Protective Cap M12	Cover for unused ports
	NC-PC-0800-00000	Protective Cap M8	Cover for unused ports





NC Series

IO-Link Masters, I/O Modules and Accessories

Models - Industrial Ethernet - Cable and Connectors

	Model	Product Description	Compatible product:
	NC-124MS-1244SGA	Industrial Ethernet cable 4 Pin D-coded	M12 - M12 x 0.5 metre long
	NC-124MS-1244SG2	Industrial Ethernet cable 4 Pin D-coded	M12 - M12 x 2 metre long
	NC-124MS-1244SG5	Industrial Ethernet cable 4 Pin D-coded	M12 - M12 x 5 metre long
	NC-124MS-00000G2	Industrial Ethernet cable 4 Pin D-coded	M12 - Open End x 2 metre long
	NC-124MS-00000G5	Industrial Ethernet cable 4 Pin D-coded	M12 - Open End x 5 metre long
	NC-124MS-WIRE0D0	Industrial Ethernet M12 4 Pin D-coded	Wireable connector
	NC-RJ450-0000000	Industrial Ethernet RJ45	RJ45 wireable connector

Models - Power Cables

	Model	Product Description	Compatible product:
	NC-125FS-125MSL2	Power Cable 5 Pin L - coded	M12 - M12 x 2 metre long
	NC-125FS-125MSL5	Power Cable 5 Pin L - coded	M12 - M12 x 5 metre long
	NC-125FS-00000L2	Power Cable 5 Pin L - coded	M12 - Open End x 2 metre long
	NC-125FS-00000L5	Power Cable 5 Pin L - coded	M12 - Open End x 5 metre long
	NC-125FS-WIRE0L0	Power Socket 4 Pin L-coded	M12 - Wireable
	NC-125FM-WIRE0L0	Power Plug 5 Pin L - coded	M12 - Wireable
	NC-125FS-00000-5	Cable 5 Pin A-coded	M12 - Open End x 5 metre long





NC Series

IO-Link Masters, I/O Modules and Accessories

Models - Connector Cables and Plugs

	Model	Product Description	Compatible product:
	NC-083FS-083MS-A	Cable 3 Pin A-coded M8 - M8 x 0.6 metre long	Actuator sensors M/50/LSU/CP*; M/50/EAP/CP*
	NC-083FS-083MS-1	Cable 3 Pin A-coded M8 - M8 x 1 metre long	
	NC-083FS-083MS-2	Cable 3 Pin A-coded M8 - M8 x 2 metre long	
	NC-083FS-083MS-5	Cable 3 Pin A-coded M8 - M8 x 5 metre long	
	NC-083FS-00000-5	Cable 3 Pin A-coded M8 - Open End x 5 metre long	
	NC-084FS-124MS-A	Cable 4 Pin A-coded M8 - M12 x 0.6 metre long	Pressure sensors 54D*
	NC-084FS-124MS-1	Cable 4 Pin A-coded M8 - M12 x 1 metre long	
	NC-084FS-124MS-2	Cable 4 Pin A-coded M8 - M12 x 2 metre long	
	NC-084FS-124MS-5	Cable 4 Pin A-coded M8 - M12 x 5 metre long	
	NC-084FS-00000-5	Cable 4 Pin A-coded M8 - Open End x 5 metre long	
	NC-125FS-125MS-A	Cable 5 Pin A-coded M12 - M12 x 0.6 metre long	Pressure sensors 34D*
	NC-125FS-125MS-1	Cable 5 Pin A-coded M12 - M12 x 1 metre long	
	NC-125FS-125MS-2	Cable 5 Pin A-coded M12 - M12 x 2 metre long	
	NC-125FS-125MS-5	Cable 5 Pin A-coded M12 - M12 x 5 metre long	
	NC-125FS-00000-5	Cable 5 Pin A-coded M12 - Open End x 5 metre long	
	NC-083MS-WIRE0AO	Plug 3 Pin A-coded M8 - Wireable male	
	NC-084MS-WIRE0AO	Plug 4 Pin A-coded M8 - Wireable male	
	NC-124MS-WIRE0AO	Plug 4 Pin A-coded M12 - Wireable male	
	NC-125MS-WIRE0AO	Plug 5 Pin A-coded M12 - Wireable male	

* = Part number series.





NC Series

IO-Link Masters, I/O Modules and Accessories

Models - Valve Connectors

	Model	Product Description	Compatible product:
	NC-DINAA-123MS-A	DIN form A Solenoid Connector with LED - 3 Pin A-coded M12 x 0.6 metre long	Example - Solenoid valve series SXE with 23N, 33N coil
	NC-DINAA-123MS-1	DIN form A Solenoid Connector with LED - 3 Pin A-coded M12 x 1 metre long	
	NC-DINAA-123MS-2	DIN form A Solenoid Connector with LED - 3 Pin A-coded M12 x 2 metre long	
	NC-DINAA-123MS-5	DIN form A Solenoid Connector with LED - 3 Pin A-coded M12 x 5 metre long	
	M/P43316/11	DIN form A Solenoid Connector with LED - Open End x 1 metre long	
	M/P43316/13	DIN form A Solenoid Connector with LED - Open End x 3 metre long	
	NC-DINBA-123MS-A	DIN form B Solenoid Connector with LED - 3 Pin A-coded M12 x 0.6 metre long	Example - Solenoid valve series V60-63 and SXE series with 13L coil
	NC-DINBA-123MS-1	DIN form B Solenoid Connector with LED - 3 Pin A-coded M12 x 1 metre long	
	NC-DINBA-123MS-2	DIN form B Solenoid Connector with LED - 3 Pin A-coded M12 x 2 metre long	
	NC-DINBA-123MS-5	DIN form B Solenoid Connector with LED - 3 Pin A-coded M12 x 5 metre long	
	NC-DINBA-00000-1	DIN form B Solenoid Connector with LED - Open End 1 metre long	
	NC-DINBA-00000-3	DIN form B Solenoid Connector with LED - Open End 3 metre long	





NC Series

IO-Link Masters, I/O Modules and Accessories

Models - Valve Connectors

	Model	Product Description	Compatible product:
	NC-DINIA-123MS-A	DIN form B Industrial Standard Solenoid Connectorwith LED - 3 Pin A-coded M12 x 0.6 metre long	Example - Solenoid valves series V60-63 and SXE series with 13J coil
	NC-DINIA-123MS-1	DIN form B Industrial Standard Solenoid Connectorwith LED - 3 Pin A-coded M12 x 1 metre long	
	NC-DINIA-123MS-2	DIN form B Industrial Standard Solenoid Connectorwith LED - 3 Pin A-coded M12 x 2 metre long	
	NC-DINIA-123MS-5	DIN form B Industrial Standard Solenoid Connectorwith LED - 3 Pin A-coded M12 x 5 metre long	
	M/P43314/11	DIN form B Industrial Standard Solenoid Connectorwith LED - Open End x 1 metre long	
	M/P43314/13	DIN form B Industrial Standard Solenoid Connectorwith LED - Open End x 3 metre long	
	NC-DINCA-123MS-A	DIN form C Solenoid Connector with LED - 3 Pin A-coded M12 x 0.6 metre long	Example - Solenoid valves series V40/V41, V44/V45 with C313A coil
	NC-DINCA-123MS-1	DIN form C Solenoid Connector with LED - 3 Pin A-coded M12 x 1 metre long	
	NC-DINCA-123MS-2	DIN form C Solenoid Connector with LED - 3 Pin A-coded M12 x 2 metre long	
	NC-DINCA-123MS-5	DIN form C Solenoid Connector with LED - 3 Pin A-coded M12 x 5 metre long	
	V10014-D01	DIN form C Solenoid Connector with LED - Open End x 1 metre long	
	V10014-D03	DIN form C Solenoid Connector with LED - Open End x 3 metre long	



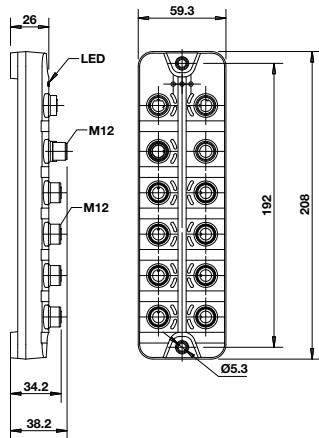


NC Series

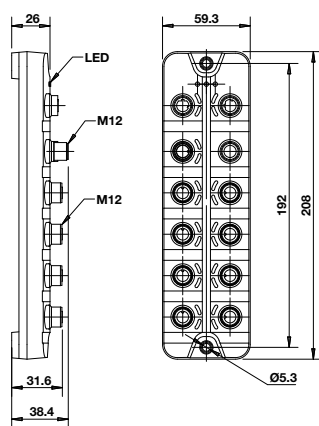
IO-Link Masters, I/O Modules and Accessories

Dimensions

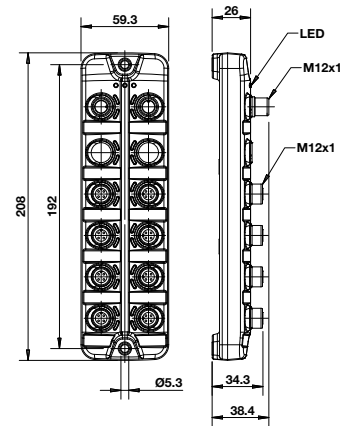
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NC-MP-4A4B-12DLA



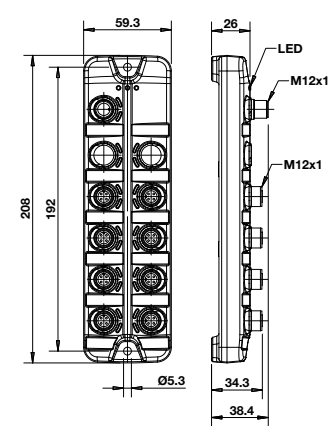
IO-Link Master with EtherNet/IP Interface
NC-ME-4A4B-12DLA



IO-Link I/O Module with Auxillary Power
NC-HA-8A5F-12AAA



IO-Link I/O Module - Standard
NC-HB-8A5F-12A0A



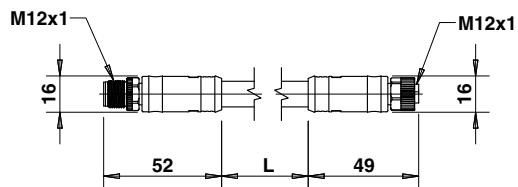


NC Series

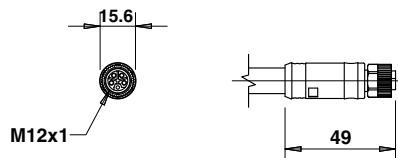
IO-Link Masters, I/O Modules and Accessories

Dimensions

Power Cable 5 Pin L - coded M12 - M12

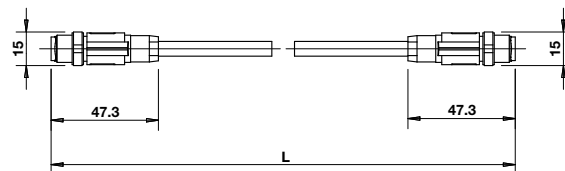


M12 - Open End



Product Description	Cable length (m) L	Model
Power Cable 5 Pin	2.0	NC-125FS-125MSL2
L - coded M12 - M12	5.0	NC-125FS-125MSL5
Power Cable 5 Pin	2.0	NC-125FS-00000L2
L - coded M12 - Open End	5.0	NC-125FS-00000L5

Industrial Ethernet cable 4 Pin D-coded



Product Description	Cable length (m) L	Model
Industrial Ethernet cable	0.5	NC-124MS-1244SGA
4 Pin D-coded M12 - M12	2.0	NC-124MS-1244SG2
	5.0	NC-124MS-1244SG5
Industrial Ethernet cable	2.0	NC-124MS-00000G2
4 Pin D-coded M12 - Open End	5.0	NC-124MS-00000G5





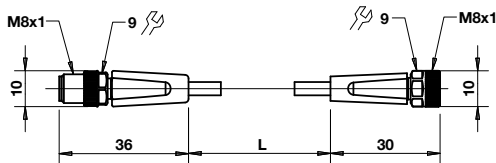
NC Series

IO-Link Masters, I/O Modules and Accessories

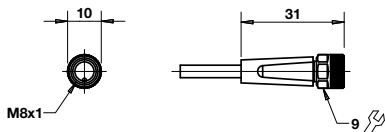
Dimensions

Connector Cables and Plugs

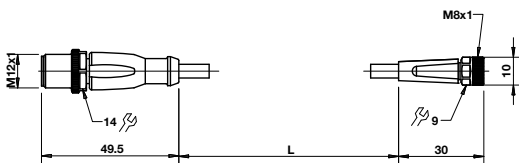
Cable 3 Pin A-coded



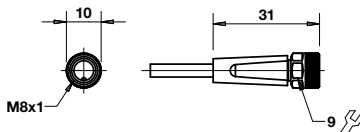
M8 - Open End



Cable 4 Pin A-coded



M8 - Open End



Product Description	Cable length (m) L	Model
Cable 3 Pin A-coded M8 - M8	0.6	NC-083FS-083MS-A
	1.0	NC-083FS-083MS-1
	2.0	NC-083FS-083MS-2
	5.0	NC-083FS-083MS-5
Cable 3 Pin A-coded M8 - Open End	5.0	NC-083FS-00000-5

Product Description	Cable length (m) L	Model
Cable 4 Pin A-coded M8 - M12	0.6	NC-084FS-124MS-A
	1.0	NC-084FS-124MS-1
	2.0	NC-084FS-124MS-2
	5.0	NC-084FS-124MS-5
Cable 4 Pin A-coded M8 - Open End	5.0	NC-084FS-00000-5





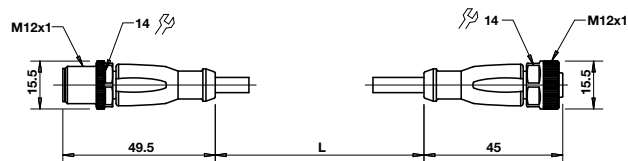
NC Series

IO-Link Masters, I/O Modules and Accessories

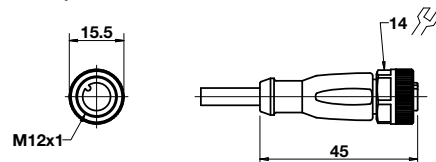
Dimensions

Connector Cables and Plugs

Cable 5 Pin A-coded



M12 - Open End



Product Description	Cable length (m) L	Model
Cable 5 Pin A-coded M12 - M12	0.6	NC-125FS-125MS-A
	1.0	NC-125FS-125MS-1
	2.0	NC-125FS-125MS-2
	5.0	NC-125FS-125MS-5
Cable 5 Pin A-coded M12 - Open End	5.0	NC-125FS-00000-5





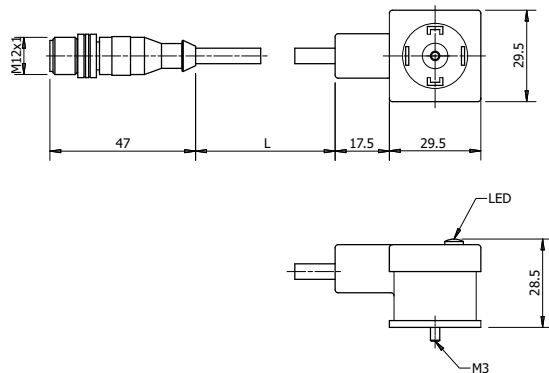
NC Series

IO-Link Masters, I/O Modules and Accessories

Dimensions

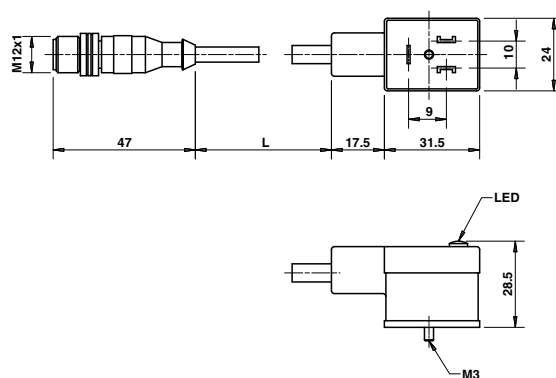
Valve Connectors

DIN form A Solenoid Connector with LED



Product Description	Cable length (m) L	Model
3 Pin A-coded M12	0.6	NC-DINAA-123MS-A
3 Pin A-coded M12	1.0	NC-DINAA-123MS-1
3 Pin A-coded M12	2.0	NC-DINAA-123MS-2
3 Pin A-coded M12	5.0	NC-DINAA-123MS-5
Open End	1.0	M/P43316/11
Open End	3.0	M/P43316/13

DIN form B Solenoid Connector with LED



Product Description	Cable length (m) L	Model
3 Pin A-coded M12	0.6	NC-DINBA-123MS-A
3 Pin A-coded M12	1.0	NC-DINBA-123MS-1
3 Pin A-coded M12	2.0	NC-DINBA-123MS-2
3 Pin A-coded M12	5.0	NC-DINBA-123MS-5
Open End	1.0	NC-DINBA-00000-1
Open End	3.0	NC-DINBA-00000-3





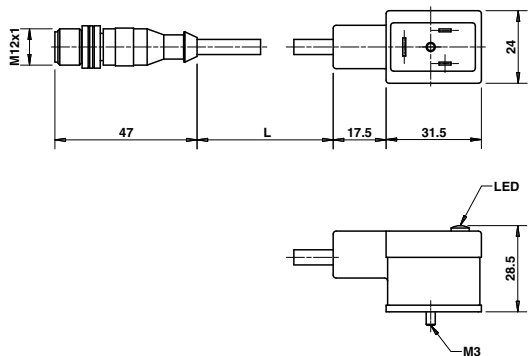
NC Series

IO-Link Masters, I/O Modules and Accessories

Dimensions

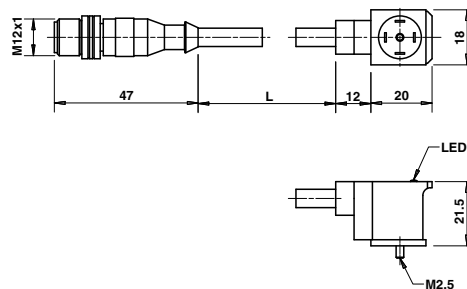
Valve Connectors

DIN form B Industrial Standard Solenoid Connector with LED



Product Description	Cable length (m) L	Model
3 Pin A-coded M12	0.6	NC-DINIA-123MS-A
3 Pin A-coded M12	1.0	NC-DINIA-123MS-1
3 Pin A-coded M12	2.0	NC-DINIA-123MS-2
3 Pin A-coded M12	5.0	NC-DINIA-123MS-5
Open End	1.0	M/P43314/11
Open End	3.0	M/P43314/13

DIN form C Solenoid Connector with LED



Product Description	Cable length (m) L	Model
3 Pin A-coded M12	0.6	NC-DINCA-123MS-A
3 Pin A-coded M12	1.0	NC-DINCA-123MS-1
3 Pin A-coded M12	2.0	NC-DINCA-123MS-2
3 Pin A-coded M12	5.0	NC-DINCA-123MS-5
Open End	1.0	V10014-D01
Open End	3.0	V10014-D03



Industrial Communication

IO-Link is revolutionising Industrial Automation by offering a standardised and seamless communication interface for all IO-Link devices, with simple installation and a complete range of diagnostics functionality.

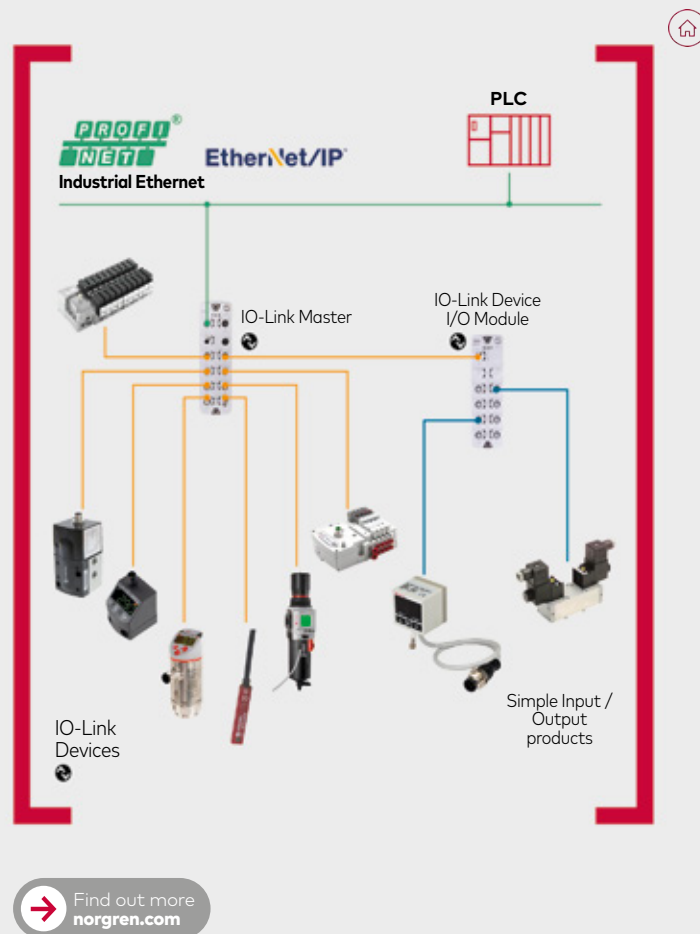
IO-Link is a globally standardised (IEC 61131-9) communication system for connecting sensors and many other components, without any complex wiring, to a control system. A serial, bi-directional point-to-point communication

Norgren, the right partner for your IO-Link needs

With established manufacturing and technical facilities globally, we have the capability to cope with the most demanding international projects. With a sales and service network in over 50 countries, we have the reach and capability to ensure continuity of supply and local support where it is needed.

Norgren offers a complete IO-Link system solution, which includes a wide range of IO-Link enabled devices, IO-Link Masters and I/O Modules (Hubs).

Alongside reliable, high performance and quality IO-Link products; Norgren offers insight, technical excellence, and a collaborative approach, to help our customers forge a brighter future of possibility.



Find out more
norgren.com



NORGREN

IMI



[Valves]

4

In Industrial Automation, valves can be as simple or complex as required - directional control valves or proportional valves, electrically or air operated, for just compressed air or complex fluid control requirements. We have ISO and NAMUR standard ranges and cover many ATEX requirements. We have one of the worlds largest ranges of valves.

When it comes to safety, nothing can be left to chance. That is why we are so highly valued in this field. We offer safety valves to help you fully comply with the requirements of DIN ISO13849-1.

Tried and trusted product ranges like Norgren, Buschjost, Herion or FAS.





Fast Find Guide

Please note: These products represent only part of the Norgren Valves range. If you can't see the option you require please contact us.

Sub-base Valves

V40/V41

2 x 3/2, 5/2 & 5/3 Valve
ISO 15407-1
18 mm



Page 4-006

V44/V45

2 x 3/2, 5/2 & 5/3 Valve
ISO 15407-1
26 mm



Page 4-014

ISO★STAR

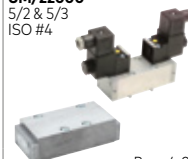
5/2 & 5/3
ISO #1 ... ISO #3



Page 4-023

UM/22000

5/2 & 5/3
ISO #4



Page 4-031

In-line and Manifold Valves

V60 ... 63

3/2, 2x3/2, 5/2 & 5/3
G1/8 ... G1/2



Page 4-035

V50 ... 53

3/2, 5/2 & 5/3
G1/8 ... G1/2



Page 4-050

EXCEL 22, M/49

3/2
G1/8



Page 4-058

Special Purpose Valves

Two-hand control unit

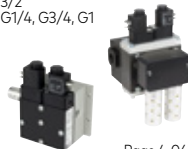
XSHC04
4 mm PIF



Page 4-060

Safety valves SCVA

3/2
G1/4, G3/4, G1



Page 4-062

Safety valves SCVA10

3/2
G1/2



Page 4-066

Safety valves SCSQ10

3/2
G1/2



Page 4-069

Solenoid actuated press

safety valves XSz
3/2
G1/4 ... G2



Page 4-072





Fast Find Guide

Please note: These products represent only part of the Norgren Valves range. If you can't see the option you require please contact us.

Manual/Mechanical Valves

Super X
3/2, 5/2 & 5/3
G1/8, G1/4



Page 4-079

VHLA
4/2, 4/3 APB
G1/4 ... G1/2



Page 4-099

M/1700
5/2, 5/3
G1/4, G1/2



Page 4-101

S/666
3/2
G1/8



Page 4-103

Proportional Valves

VP10
G1/4



Page 4-108

VP12
G1/8



Page 4-110

VP50
G1/4



Page 4-112

VP50 IO-Link
G1/4



Page 4-114

VP51
G1/4



Page 4-116

140 Fail-safe
G1/4 or 1/4 NPT



Page 4-118

VP23
G1/4 ... G3/4



Page 4-120

VP60 Proportional Flow
G1/4, 1/4 NPT



Page 4-123

100X & 101X Series
G1/4, 1/4 NPT



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Fast Find Guide

Please note: These products represent only part of the Norgren Valves range. If you can't see the option you require please contact us.



Process Industry

82510 2/2 G1/4 ... G3/8  Page 4-129	82400 2/2 G1/4 ... G2  Page 4-131	84500 2/2 G1/2 ... G2  Page 4-133	95000 2/2 G1/4  Page 4-136	96000 3/2 G1/4  Page 4-138
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Flow Control Valves

C00GE, C00GP Ø4 ... 12 mm  Page 4-142	T1000 Uni-directional M5, G1/8 ... G1/2  Page 4-144	T1100 Bi-directional G1/8 ... G1/2  Page 4-144	M/800 G1/8 ... G1  Page 4-146	T20 M5, G1/8 ... G1/2  Page 4-148
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Fast Find Guide

Please note: These products represent only part of the Norgren Valves range. If you can't see the option you require please contact us.

Other Valves and Accessories

T70, S/511, S/513, S/514 Quick Exhaust Valves G1/8 ... G1/2  Page 4-150	T55 Non-Return Valves M5, G1/8 ... G1/2  Page 4-152	C00GL, C01G, C02G Non-Return Valves Ø4 ... 12 mm M5, 1/8 ... 1/2  Page 4-154	T50P Non-Return Valves Ø4 ... 12 mm PLF  Page 4-156	S/520 Non-Return Valves G1/8 ... G1  Page 4-158
T65 Shuttle Valves G1/8 & G1/4  Page 4-160	101GA, 102GA Blocking Valves G1/8 ... G1/2  Page 4-161	T60 Air Fuses G1/4 ... G3/8  Page 4-162	Solenoid Plugs and Cables 15 mm, 22 mm & 30 mm  Page 4-164	





Mini ISO Valves

V40/V41 2 x 3/2, 5/2 and 5/3, Solenoid and pilot actuated, ISO 15407-1/VDMA 24 563, Size 18 mm

- » High performance, compact design
- » Flexible sub-base system
- » Multipressure system capability
- » Wide range of accessories
- » Dual spool technology
 - V40 Glandless spool and sleeve (long life)
 - V41 Softseal spool (high flow)

Technical Data

Medium:

Compressed air, filtered to 40 µm, lubricated or non-lubricated

Operation:

V40: Glandless spool valve, solenoid pilot or air pilot actuated

V41: Softseal spool valve, solenoid pilot or air pilot actuated

Flow:

V41 Softseal

Function	l/min
2x3/2	610
5/2	650
5/3	680

V40 Glandless

5/2	570
5/3	610

Mounting:

Sub-base

Operating pressure:

Maximum pressure
10 bar V41 models and V40 solenoid pilot actuated valves with internal pilot supply.
16 bar V40 solenoid pilot actuated valves w. ext. pilot supply and V40 air pilot actuated valves.

Details of minimum and maximum pilot pressure see overleaf

Ambient temperature:

-15°C ... +50°C

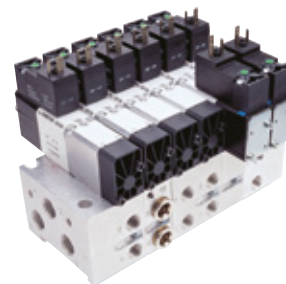
V40/V41 solenoid and

V41 air pilot models

-15°C ... +80°C

V40 air pilot models

Air supply must be dry enough to avoid ice formation at temperatures below +2°C



Models - 2 x 3/2 Solenoid pilot actuated softseal valves

Symbol	Model	Function	Actuation/return	Pilot supply	Pilot exhaust	Operating pressure (bar)	Pilot pressure (bar)	Flow (l/min)
	V415A11D-C313A	NC	Solenoid/Spring	Internal	Collected #	2,5 ... 10	–	610

Pilot exhaust collected and exhausted via port 14.

NC = Normally closed.





Mini ISO Valves

V40/V41 2 x 3/2, 5/2 and 5/3, Solenoid and pilot actuated, ISO 15407-1/VDMA 24 563, Size 18 mm

Models - 5/2 Solenoid pilot actuated glandless and softseal valves

Symbol	Model	Pilot supply	Pilot exhaust	Operator 14	Operator 12	Operating pressure (bar)	Pilot pressure (bar)	Sealing system	Flow (l/min)
	V405513D-C313A	Internal	Collected #	Solenoid	Air spring	1 ... 10	–	Glandless	570
	V415513D-C313A	Internal	Collected #	Solenoid	Air spring	1 ... 10	–	Soft seal	650
	V405516D-C313A	Internal	Collected #	Solenoid	Spring	1,6 ... 10	–	Glandless	570
	V415517D-C313A	Internal	Collected #	Solenoid	Spring	2 ... 10	–	Soft seal	650
	V405511D-C313A	Internal	Collected #	Solenoid	Solenoid	2 ... 10	–	Glandless	570

Models - 5/3 Solenoid pilot actuated glandless and softseal valves

Symbol	Model	Function	Pilot supply	Pilot exhaust	Operator 14	Operator 12	Operating pressure (bar)	Pilot pressure (bar)	Sealing system	Flow (l/min)
	V405611D-C313A	APB	Internal	Collected #	Solenoid	Solenoid	2 ... 10	–	Glandless	610
	V415611D-C313A	APB	Internal	Collected #	Solenoid	Solenoid	2 ... 10	–	Soft seal	680
	V405711D-C313A	COE	Internal	Collected #	Solenoid	Solenoid	2 ... 10	–	Glandless	610
	V415711D-C313A	COE	Internal	Collected #	Solenoid	Solenoid	2 ... 10	–	Soft seal	680

Pilot exhaust collected and exhausted via port 14.

APB = All Ports Blocked.

COE = Centre Open Exhaust.





Mini ISO Valves

V40/V41 2 x 3/2, 5/2 and 5/3, Solenoid and pilot actuated, ISO 15407-1/VDMA 24 563, Size 18 mm

Voltage codes

Voltage	Coil code	Current
24 V d.c.	C313A	1,2 W

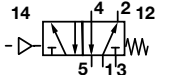
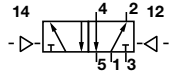
Other voltages available on request. Spare pilot valves are delivered with mounting screws.

Electrical details for solenoid operators

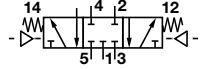
Voltage tolerances	-10%/+15%
Rating	100% Continuous duty
Inlet orifice	0,8 mm
Electrical connection	15 mm DIN EN 175301-803 (DIN 43 650) Table C
Manual override	Shrouded push button, spring return Convertible into lockable type with set-up kit, part no. V70532-K00
Protection class	IP 65 with sealed plug (ISO 6952) NEMA 4
Materials	PPS (body), FPM and NBR (seal)

Intrinsically safe version available on request.

Models - 5/2 Air pilot actuated glandless and softseal valves

Symbol	Model	Operator 14	Operator 12	Operating pressure (bar)	Pilot pressure (bar)	Sealing system	Flow (l/min)
	V405537A-X0090	Air	Spring	-0,9 ... 16	1,6 ... 16	Glandless	570
	V415537A-X0090	Air	Spring	-0,9 ... 10	2 ... 10	Soft seal	610
	V405533A-X0020	Air	Air	-0,9 ... 16	2 ... 16	Glandless	570

Models - 5/3 Air pilot actuated glandless and softseal valves

Symbol	Model	Function	Operator 14	Operator 12	Operating pressure (bar)	Pilot pressure (bar)	Sealing system	Flow (l/min)
	V415633A-X0020	APB	Air	Air	-0,9 ... 10	2 ... 10	Soft seal	680

APB = All Ports Blocked.

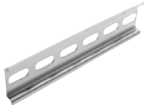




Mini ISO Valves

V40/V41 2 x 3/2, 5/2 and 5/3, Solenoid and pilot actuated, ISO 15407-1/VDMA 24 563, Size 18 mm

Accessories

DIN EN 50 022 rail (1 m)	DIN-rail mounting kit	Blanking disc to modular sub-base	Manual override set-up kit	Blanking plate for unused station
				
V10009-C00 (35 x 7,5 mm)	V70531-KA0	V70422-K50 (Ports 1,3,5)	V70532-K00	V70400-K50

Sandwich plates

Double pressure regulator plate

V70427-K54 (Ports 2+4 reg.)

Bases

Single station Model	Description
	
V70401-A5B	Single station side ported with pilot ports – G1/8

Accessories

Straight fitting	Elbow fitting	Silencer
		
C02250618	C02470618	T40C1800





Mini ISO Valves

V40/V41 2 x 3/2, 5/2 and 5/3, Solenoid and pilot actuated, ISO 15407-1/VDMA 24 563, Size 18 mm

Bases

Accessories

Modular sub-bases and end plates				
Model	Description	Straight fitting	Elbow fitting	Silencer
				
V70425-x5F	Modular sub-base side ported without pilot ports (Port 2+4). See table below	C02250618	C02470618	–
V70426-x5F	Modular sub-base side ported with pilot ports (Port 2+4). See table below	C02250618	C02470618	–
V70425-A5E	Modular sub-base bottom ported without pilot ports (Port 2+4) – G1/8	C02250618	C02470618	–
V70426-A5E	Modular sub-base bottom ported with side pilot ports (Port 2+4) – G1/8*	C02250618	C02470618	–
				
V70424-B5C	End plate kit. End ported – G1/4	C02250828	C02470828	T40C2800
				
V70431-A5F	End plate kit with 2 side ported valve stations without pilot ports – G1/4, G1/8	C02250618 (Ports 2 & 4) C02250828 (Ports 1, 3 & 5)	C02470618 (Ports 2 & 4) C02470828 (Ports 1, 3 & 5)	T40C2800 –
				
V70402-A50	2 Station fixed length manifold. Bottom ported	C02250618 (Ports 2 & 4)	C02470618 (Ports 2 & 4)	T40C2800
V70404-A50	4 Station fixed length manifold. Bottom ported	C02250828 (Ports 1, 3 & 5)	C02470828 (Ports 1, 3 & 5)	–
V70406-A50	6 Station fixed length manifold. Bottom ported	–	–	–
V70408-A50	8 Station fixed length manifold. Bottom ported	–	–	–
V70410-A50	10 Station fixed length manifold. Bottom ported	For all models listed on the left	–	–

* Pilot ports 12+14 on side.





Mini ISO Valves

V40/V41 2 x 3/2, 5/2 and 5/3, Solenoid and pilot actuated, ISO 15407-1/VDMA 24 563, Size 18 mm

Code x	Code y	Ports 2 & 4	Ports
A	A	G1/8	M5
6	-	Ø6 mm PIF	M5

Connector plug - Ordered separately

15 mm DIN EN 175301-803 (DIN 43 650) Table C



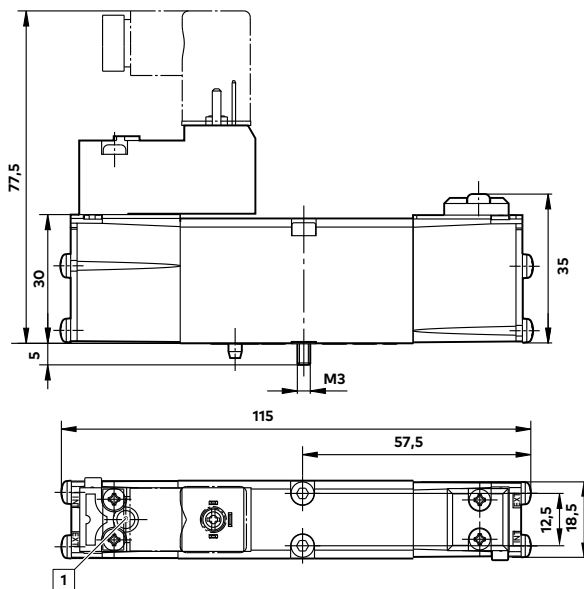
V10027-D00
250 V a.c./300 Vd.c.

Dimensions

V4155*3D-C3***

5/2 Single solenoid pilot valve

Air spring return



[1] Manual override





Mini ISO Valves

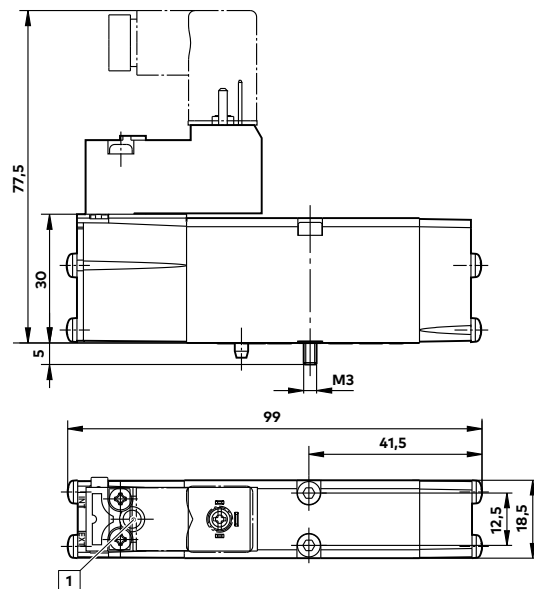
V40/V41 2 x 3/2, 5/2 and 5/3, Solenoid and pilot actuated, ISO 15407-1/VDMA 24 563, Size 18 mm

Dimensions

V4055D-C3*****

5/2 Single solenoid pilot valve

Mechanical (& air) spring valve



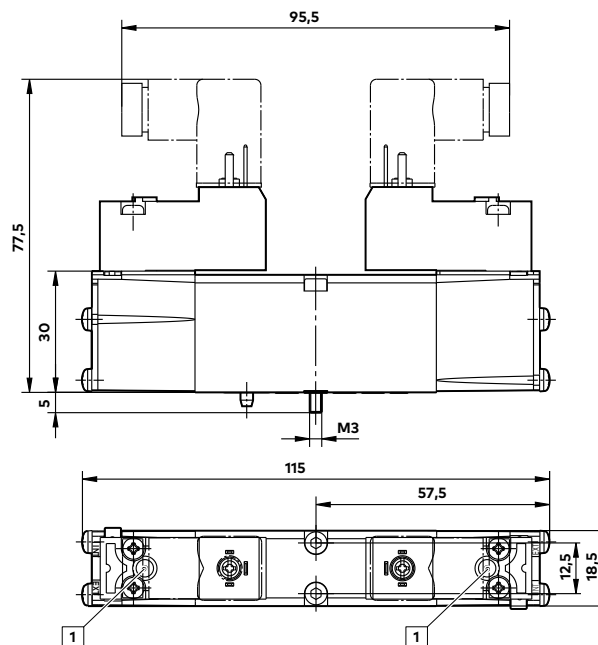
1 Manual override

V4055D-C3*** & V4155**D-C3*****

5/2 Double solenoid pilot valve

V405*D-C3*** & V415***D-C3*****

2x3/2 + 5/3 Double solenoid pilot valve





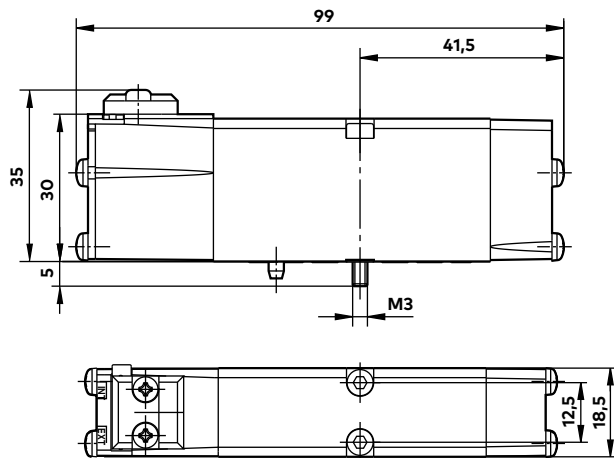
Mini ISO Valves

V40/V41 2 x 3/2, 5/2 and 5/3, Solenoid and pilot actuated, ISO 15407-1/VDMA 24 563, Size 18 mm

Dimensions

V415537A-X0090

5/2 Single air pilot valve

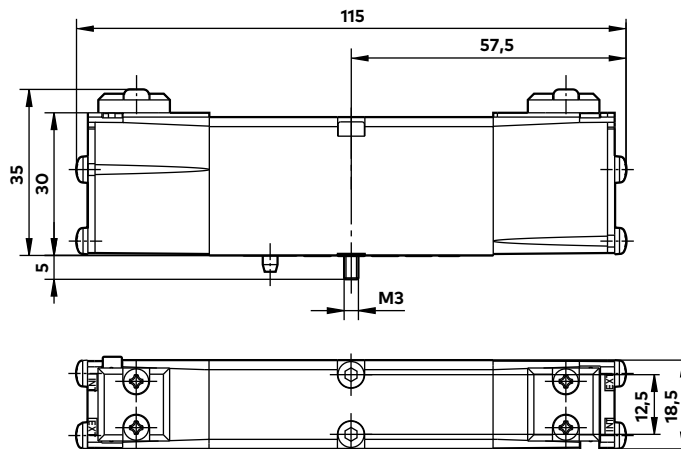


V405537A-X0090

5/2 Single air pilot valve

V405*33A-X00*0 & V415*33A-X00*0

2x3/2, 5/2 + 5/3 Double air pilot valve





Mini ISO Valves

V44/V45 Solenoid and pilot actuated, ISO 15407-1/VDMA 24 563, Size 26 mm

- » High performance, compact design
- » Flexible sub-base system
- » Multipressure system capability
- » Wide range of accessories
- » Dual spool technology
 - V44 Glandless spool and sleeve (long life)
 - V45 Softseal spool (high flow)
- » Valve exchange under pressure

Technical Data

Medium:

Compressed air, filtered to 40 µm, lubricated or non-lubricated

Operation:

V44: Glandless spool valve, solenoid pilot or air pilot actuated

V45: Softseal spool valve, solenoid pilot or air pilot actuated

Flow:

Softseal

Function

2x3/2 NC 1100 l/min

5/2 1200 l/min

5/3 1150 l/min

Glandless

5/2 900 l/min

5/3 900 l/min

Mounting:

Sub-base

Operating pressure:

See tables for individual details

Ambient temperature:

-15°C ... +50°C

V44/V45 solenoid and V45 air pilot models

-15°C ... +80°C

V44 air pilot models

Air supply must be dry enough to avoid ice formation at temperatures below +2°C



Models - 2 x 3/2 Solenoid pilot actuated softseal valves

Symbol	Model	Function	Actuation/Return	Pilot supply	Pilot exhaust	Operating pressure (bar)	Pilot pressure (bar)	Flow (l/min)
	V45AA11D-C313A	NC	Solenoid/Spring	Internal	Collected #	3 ... 10	-	1000

Pilot exhaust collected and exhausted via port 14.

NC = Normally closed.





Mini ISO Valves

V44/V45 Solenoid and pilot actuated, ISO 15407-1/VDMA 24 563, Size 26 mm

Models - 5/2 Solenoid pilot actuated glandless and softseal valves

Symbol	Model	Pilot supply	Pilot exhaust	Operator 14	Operator 12	Operating pressure (bar)	Pilot pressure (bar)	Sealing system	Flow (l/min)
	V44A513D-C313A	Internal	Collected #	Solenoid	Air spring	1 ... 10	–	Glandless	900
	V44A517D-C313A	Internal	Collected #	Solenoid	Spring	1,6 ... 10	–	Glandless	900
	V45A517D-C313A	Internal	Collected #	Solenoid	Spring	2 ... 10	–	Soft	1200
	V44A511D-C313A	Internal	Collected #	Solenoid	Solenoid	2 ... 10	–	Glandless	900
	V45A511D-C313A	Internal	Collected #	Solenoid	Solenoid	2 ... 10	–	Soft	1200

Pilot exhaust collected and exhausted via port 14.

Models - 5/3 Solenoid pilot actuated glandless and softseal valves

Symbol	Model	Function	Pilot supply	Pilot exhaust	Operator 14	Operator 12	Operating pressure (bar)	Pilot pressure (bar)	Sealing system	Flow (l/min)
	V44A611D-C313A	APB	Internal	Collected #	Solenoid	Solenoid	2 ... 10	–	Glandless	900
	V45A611D-C313A	APB	Internal	Collected #	Solenoid	Solenoid	2,5 ... 10	–	Soft	1150
	V44A711D-C313A	COE	Internal	Collected #	Solenoid	Solenoid	2 ... 10	–	Glandless	900
	V45A711D-C313A	COE	Internal	Collected #	Solenoid	Solenoid	2,5 ... 10	–	Soft	1150

Pilot exhaust collected and exhausted via port 14.

APB = All Ports Blocked.

COE = Centre Open Exhaust.





Mini ISO Valves

V44/V45 Solenoid and pilot actuated, ISO 15407-1/VDMA 24 563, Size 26 mm

Voltage codes

Voltage	Coil code	Current
24 V d.c.	C313A	1,2 W

Other voltages available on request. Spare pilot valves are delivered with mounting screws.

Electrical details for solenoid operators

Voltage tolerances	-10%/+15%
Rating	100% Continuous duty
Inlet orifice	0,8 mm
Electrical connection	15 mm DIN EN 175301-803 (DIN 43 650) Table C
Manual override	Shrouded push button, spring return Convertible into lockable type with set-up kit, part no. V70532-K00
Protection class	IP 65 with sealed plug (ISO 6952) NEMA 4
Materials	PPS (body), FPM and NBR (seal)

Models - 5/2 Air pilot actuated glandless and softseal valves

Symbol	Model	Operator 14	Operator 12	Operating pressure (bar)	Pilot pressure (bar)	Sealing system	Flow (l/min)
	V44A537A-X0090	Air	Spring	-0,9 ... 16	1,6 ... 16	Glandless	900
	V45A537A-X0090	Air	Spring	-0,9 ... 10	2 ... 10	Soft	1200
	V44A533A-X0020	Air	Air	-0,9 ... 16	2 ... 16	Glandless	900
	V45A533A-X0020	Air	Air	-0,9 ... 10	2 ... 10	Soft	1200

Models - 5/3 Air pilot actuated glandless and softseal valves

Symbol	Model	Function	Operator 14	Operator 12	Operating pressure (bar)	Pilot pressure (bar)	Sealing system	Flow (l/min)
	V45A633A-X0020	APB	Air	Air	-0,9 ... 10	2,5 ... 10	Soft	1150

APB = All Ports Blocked.





Mini ISO Valves

V44/V45 Solenoid and pilot actuated, ISO 15407-1/VDMA 24 563, Size 26 mm

Accessories

DIN EN 50 022 rail (1 m)	DIN-rail mounting kit	Blanking disc to modular sub-base	Manual override set-up kit	Blanking plate for unused station
V10009-C00 (35 x 7,5 mm)	V70531-KA0	V70522-K00 (Ports 1,3,5)	V70532-K00	V70500-KA0

Sandwich plates

Single pressure regulator plate	Double pressure regulator plate
V70527-KA1 (Port 1 reg.)	V70527-KA4 (Ports 2+4 reg.)

Bases

Single station Model	Description
V70501-BAB	Single station side ported with pilot ports – G1/4

Accessories

Straight fitting	Elbow fitting	Silencer
C02250828	C02470828	T40C2800





Mini ISO Valves

V44/V45 Solenoid and pilot actuated, ISO 15407-1/VDMA 24 563, Size 26 mm

Bases

Accessories

Single station				
Model	Description	Straight fitting	Elbow fitting	Silencer
				
V70525-xAF	Modular sub-base side ported without pilot ports (Ports 2+4) – G1/4. See table below.	C02250828	C02470828	–
V70526-xAF	Modular sub-base side ported with pilot ports (Ports 2+4) – G1/4*. See table below.	C02250828	C02470828	–
V70525-BAE	Modular sub-base bottom ported without pilot ports (Ports 2+4) – G1/4	C02250828	C02470828	–
V70526-BAE	Modular sub-base bottom ported with side pilot ports (Ports 2+4) – G1/4*	C02250828	C02470828	–
				
V70524-CAC	End plate kit. End ported – G3/8.	C02251038 (Ports 1,3 & 5)	C02471038 (Ports 1,3 & 5)	T40C3800
				
V70502-BAO	2 Station fixed length manifold. Bottom ported.	C02250828 (Ports 2 & 4)	C02470828 (Ports 2 & 4)	T40C3800
V70504-BAO	4 Station fixed length manifold. Bottom ported.	C02251038 (Ports 1, 3 & 5)	C02471038 (Ports 1, 3 & 5)	–
V70506-BAO	6 Station fixed length manifold. Bottom ported.	–	–	–
V70508-BAO	8 Station fixed length manifold. Bottom ported.	–	–	–
V70510-BAO	10 Station fixed length manifold. Bottom ported	For all models listed on the left	–	–

* Pilot ports 12+14 on side.





Mini ISO Valves

V44/V45 Solenoid and pilot actuated, ISO 15407-1/VDMA 24 563, Size 26 mm

Code x	Ports 2 & 4	Ports 12/14
B	G1/4	M5
8	Ø8 mm PIF	M5

x = Insert port type from table.

Connector plug - Ordered separately

15 mm DIN EN 175301-803 (DIN 43 650) Table C



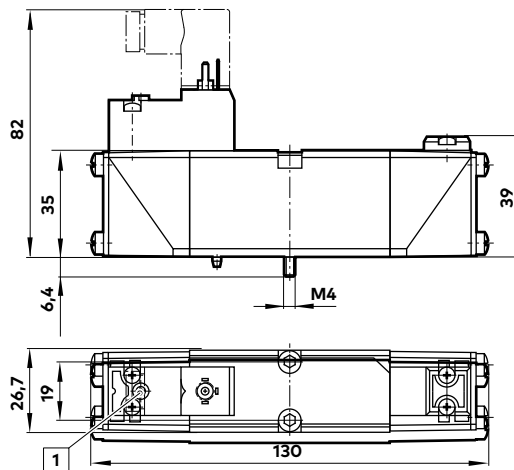
V10027-D00
250 V a.c./300 Vd.c.

Dimensions

V44A5*3D-C3***

5/2 Single solenoid pilot valve

Air spring return



1 Manual override



Mini ISO Valves

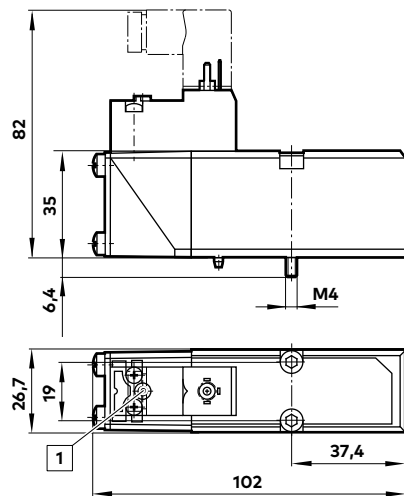
V44/V45 Solenoid and pilot actuated, ISO 15407-1/VDMA 24 563, Size 26 mm

Dimensions

V44A5**7D-C3*** & V45A5**7D-C3***

5/2 Single solenoid pilot valve

Mechanical spring return



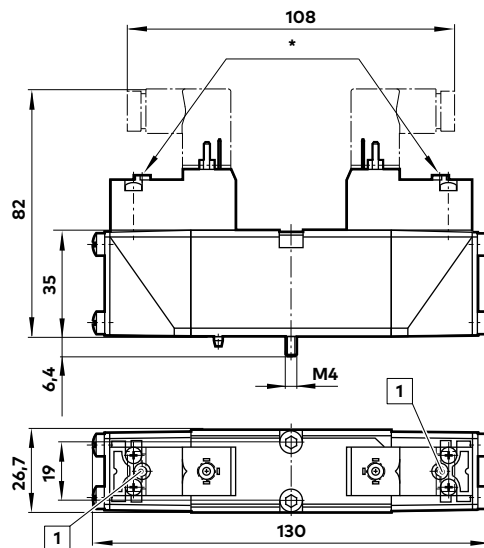
[1] Manual override

V44A5**D-C3*** & V45A5**D-C3***

5/2 Double solenoid pilot valve

V44A***D-C3*** & V45A***D-C3***

2x3/2 + 5/3 Double solenoid pilot valve



For further information, visit www.norgren.com and use the new improved search function. If you cannot see the option you require please contact us.





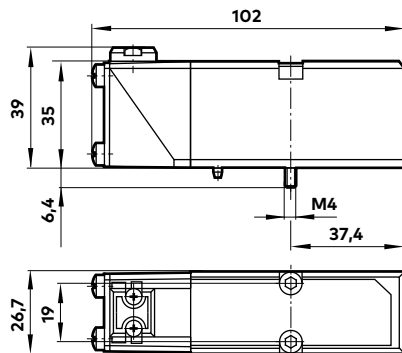
Mini ISO Valves

V44/V45 Solenoid and pilot actuated, ISO 15407-1/VDMA 24 563, Size 26 mm

Dimensions

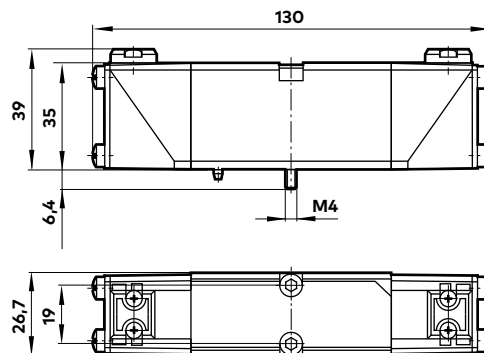
V44A537A-X00*0 & V45A537A-X00*0

5/2 Single air pilot valve



V44A*33A-X00*0 & V45A*33A-X00*0

2 x 3/2, 5/2 + 5/3 Double air pilot valve

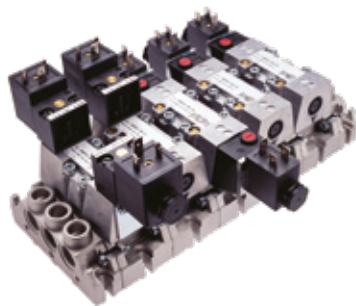


ISO★STAR Glandless valves

SXE series and SXP series

The ISO★Star range now uses an aluminium spool but is still hugely valued. In many industries, it has effectively replaced Beech products with a more up-to-date, more cost-effective solution. Dimensionally interchangeable with other systems conforming to ISO, Norgren is a pioneer of the low friction, fast-switching, long-life glandless spool.

- » Three sizes of valve, with or without integral flow regulators, 5/2 and 5/3 function, with standard or CNOMO solenoids or air pilots and single station or manifold bases
- » Hard-anodised, low friction aluminium spool and sleeve offers long life, and constant performance from start-up in all kinds of environments. Copes with many airline contaminants
- » Fast switching times coupled with low power solenoids, perfect in high cycling applications



Integral flow
regulators



Trouble
free life!



Find out more
norgren.com



NORGREN

IMI



Solenoid & Pilot Actuated Spool Valves

ISO★STAR (SXE, SXP) Sub-base, 5/2 & 5/3, ISO #1 to ISO #3

- » Specially coated glandless spool and sleeve for long trouble-free life
- » Integral flow regulators available on ISO #1 and #2 sizes
- » Low power solenoids feature manual override as standard
- » Wide range of sub-bases and accessories
- » Conforms to ISO 5599-1

Technical Data

Medium:

Compressed air, filtered, lubricated, non lubricated

Operating pressure:

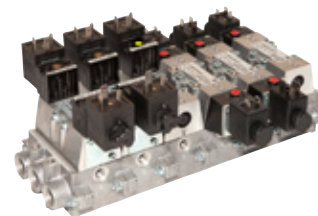
Maximum 16 bar, see table for individual details

Flow:

ISO #1 1230 l/min
ISO #2 2450 l/min
ISO #3 4400 l/min

Ambient temperature:

-15°C ... +50°C
solenoid models
-15°C ... +80°C pilot models
Air supply must be dry enough to avoid ice formation at temperatures below +2°C





Solenoid & Pilot Actuated Spool Valves

ISO★STAR (SXE, SXP) Sub-base, 5/2 & 5/3, ISO #1 to ISO #3

Models - Solenoid pilot actuated valves (without solenoid coils)

Symbol	End solenoid models Model	Operating pressure (bar)	CNOMO solenoid models Model	Operating pressure (bar)	Size	Function	Mid position	Actuation	Flow regulator
	SXE 9573-A81-00K	1,8 ... 10	–	–	ISO #1	5/2	–	Sol/Spring	Built-in
	SXE 9574-A81-00K	1,8 ... 10	–	–	ISO #2	5/2	–	Sol/Spring	Built-in
	SXE 9575-A71-00K	1,8 ... 10	–	–	ISO #3	5/2	–	Sol/Spring	–
	–	–	SXE 0573-Z50-81K	2 ... 16	ISO #1	5/2	–	Sol/Sol	–
	SXE 0573-A60-00K	2 ... 10	–	–	ISO #1	5/2	–	Sol/Sol	Built-in
	–	–	SXE 0574-Z50-81K	2 ... 16	ISO #2	5/2	–	Sol/Sol	–
	SXE 0574-A60-00K	2 ... 10	–	–	ISO #2	5/2	–	Sol/Sol	Built-in
	SXE 0575-A50-00K	2 ... 10	SXE 0575-Z50-81K	2 ... 16	ISO #3	5/2	–	Sol/Sol	–
		SXE 9673-A60-00K	2 ... 10	–	ISO #1	5/3	APB	Sol/Sol	Built-in
		SXE 9674-A60-00K	2 ... 10	–	ISO #2	5/3	APB	Sol/Sol	Built-in
	SXE 9675-A50-00K	2 ... 10	–	–	ISO #3	5/3	APB	Sol/Sol	–
		SXE 9773-A60-00K	2 ... 10	–	ISO #1	5/3	COE	Sol/Sol	Built-in
		SXE 9774-A60-00K	2 ... 10	–	ISO #2	5/3	COE	Sol/Sol	Built-in
	SXE 9775-A50-00K	2 ... 10	–	–	ISO #3	5/3	COE	Sol/Sol	–
		SXE 9873-A60-00K	2 ... 10	–	ISO #1	5/3	COP	Sol/Sol	Built-in
		SXE 9874-A60-00K	2 ... 10	–	ISO #2	5/3	COP	Sol/Sol	Built-in
	SXE 9875-A50-00K	2 ... 10	–	–	ISO #3	5/3	COP	Sol/Sol	–

APB = All Ports Blocked, COE = Centre Open Exhaust, COP = Centre Open Pressure. Service kits not available for these valves.

Manual override on end solenoid models: Push to operate spring return, lockable.

Manual override on CNOMO solenoid models (-81/***): Push to operate spring return.

For Valve complete with solenoid coil remove K and replace with '****' where *** is taken from the correct coil table below.





Solenoid & Pilot Actuated Spool Valves

ISO★STAR (SXE, SXP) Sub-base, 5/2 & 5/3, ISO #1 to ISO #3

Voltage Codes and spare coils

Standard Coils

22 mm Coil with connector interface acc. to Industrial Standard

Model	Code	Power inrush/hold
QM/48/13J/21	13J	2 W
QM/48/18J/21	18J	4/2,5 VA
QM/48/19J/21	19J	6/5 VA

22 mm Coil with connector interface acc. to DIN 43650 table B

Model	Code	Power inrush/hold
V10626-A13L	13L	2 W
V10626-A18L	18L	4/2,5 VA
V10626-A19L	19L	6/5 VA

CNOMO Coils

30 mm Coil with connector interface acc. to DIN 43650 table A - 10 bar option

Model	Code	Power inrush/hold	Voltage
V10633-A33N	33N	4 W	24 V d.c.
V10633-A88N	88N	8 VA	110/120 V a.c.
V10633-A89N	89N	8 VA	230 V a.c.

30 mm Coil with connector interface acc. to DIN 43650 table A - 16 bar option

Model	Code	Power inrush/hold	Voltage
V10633-A23N	23N	1,5 W	24 V d.c.
V10633-A28N	28N	2 VA	110/120 V 50/60 Hz
V10633-A29N	29N	3 VA	220/240 V 50/60 Hz

Connector plugs - ordered separately

Industrial standard 22 mm 2-pole + PE



0657868000000000

22 mm, EN 175301-803 (DIN 43650 B) Form B 2-pole + PE



0680003000000000

30 mm, EN 175301-803 (DIN 43650 B) Form A 2-pole + PE



0570275000000000

Electrical details for end & CNOMO solenoid operators

Voltage tolerance	±10%
Rating	100% E.D.
Inlet orifice	1,0 mm
Electrical connection	Corresponding to chosen coil. See voltage code tables
Solenoid coil	May be rotated at 90° intervals
Protection class	IP 65 with sealed plug (ISO 6952)

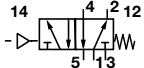
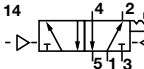
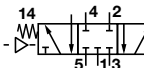




Solenoid & Pilot Actuated Spool Valves

ISO★STAR (SXE, SXP) Sub-base, 5/2 & 5/3, ISO #1 to ISO #3

Models - Air pilot actuated valves

Symbol	Model	Size	Function	Mid position	Actuation	Flow regulator	Operating pressure (bar)	kg
	SXP 9573-170-00	ISO #1	5/2	-	Pilot/Spring	-	-0,9 ... 16	0,21
	SXP 9574-170-00	ISO #2	5/2	-	Pilot/Spring	-	-0,9 ... 16	0,45
	SXP 9575-170-00	ISO #3	5/2	-	Pilot/Spring	-	-0,9 ... 16	0,72
	SXP 0573-170-00	ISO #1	5/2	-	Pilot/Pilot	-	-0,9 ... 16	0,30
	SXP 0574-170-00	ISO #2	5/2	-	Pilot/Pilot	-	-0,9 ... 16	0,50
	SXP 0575-170-00	ISO #3	5/2	-	Pilot/Pilot	-	-0,9 ... 16	0,72
	SXP 9673-180-00	ISO #1	5/3	APB	Pilot/Pilot	Built-in	-0,9 ... 16	0,25
	SXP 9674-180-00	ISO #2	5/3	APB	Pilot/Pilot	Built-in	-0,9 ... 16	0,58
	SXP 9675-170-00	ISO #3	5/3	APB	Pilot/Pilot	-	-0,9 ... 16	0,80

APB = All Ports Blocked.





Solenoid & Pilot Actuated Spool Valves

ISO★STAR (SXE, SXP) Sub-base, 5/2 & 5/3, ISO #1 to ISO #3

Bases

VDMA 24345 sub-bases			Accessories		
Model	Description	Size	Straight fitting	Elbow fitting	Silencer
					
M/P19126 (G1/4)	Form A - Side ported	ISO 1	C02250828	C02470828	T40C2800
M/P19132 (G3/8)	Form A - Side ported	ISO 2	C02251038	C02471038	T40C3800
M/P19138 (G1/2)	Form A - Side ported	ISO 3	C02251248	C02471248	T40C4800
					
CQM/22152/3/21	Form C - Manifold	ISO 1	C02250828	C02470828	-
CQM/22253/3/21	Form C - Manifold	ISO 2	C02251038	C02471038	-
CQM/22354/3/21	Form C - Manifold	ISO 3	C02251248	C02471248	-
					
CQM/22152/3/22	Form D - End plates	ISO 1	C02251038	C02471038	T40C3800
CQM/22253/3/22	Form D - End plates	ISO 2	C02251248	C02471248	T40C4800
CQM/22354/3/22	Form D - End plates	ISO 3	-	-	T40C8800





Solenoid & Pilot Actuated Spool Valves

ISO★STAR (SXE, SXP) Sub-base, 5/2 & 5/3, ISO #1 to ISO #3

Bases

Accessories

Universal base options					
Model	Description	Size	Straight fitting	Elbow fitting	Silencer
					
CQM/22152/3/27 (G1/4)	Modular base	ISO 1	C02250828	C02470828	-
CQM/22253/3/27 (G3/8)	Modular base	ISO 2	C02251038	C02471038	-
					
CQM/22152/3/31 (G3/8)	End plate, side ports open	ISO 1	C02251038	C02471038	T40C3800
CQM/22253/3/31 (G1/2)	End plate, side ports open	ISO 2	C02251248	C02471248	T40C4800





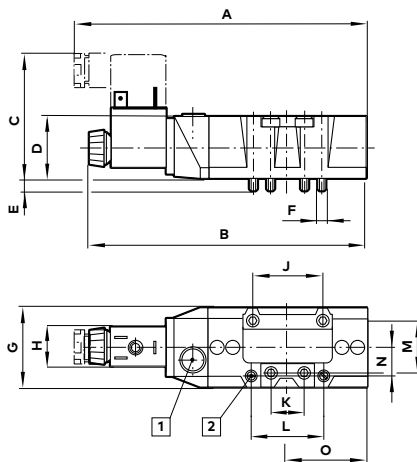
Solenoid & Pilot Actuated Spool Valves

ISO★STAR (SXE, SXP) Sub-base, 5/2 & 5/3, ISO #1 to ISO #3

Dimensions

Single end solenoid models

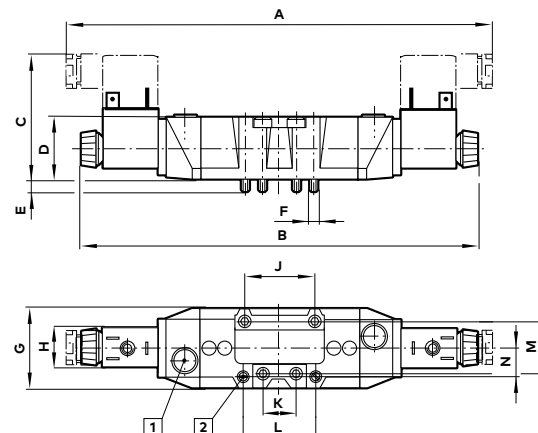
	ISO 1	ISO 2	ISO 3
A	154	181	207,5
B	146	173	197
C	66	71	72
D	33	42	43
E	7,5	8	11,5
F	M5	M6	M8
G	42	55	62,5
H	22/30	22/30	22/30
J	36	48	64
K	18	24	32
L	38	48	—
M	28	38	48
N	15	20	—
O	42	53	65,4



- 1 Manual override
- 2 Flow regulators

Double end solenoid models

	ISO 1	ISO 2	ISO 3
A	222	255	284
B	204	239	263
C	65	71	72
D	33	42	43
E	7,5	8	11,5
F	M5	M6	M8
G	42	55	62,5
H	22/30	22/30	22/30
J	36	48	64
K	18	24	32
L	38	48	—
M	28	38	48
N	15	20	—





Solenoid & Pilot Actuated Spool Valves

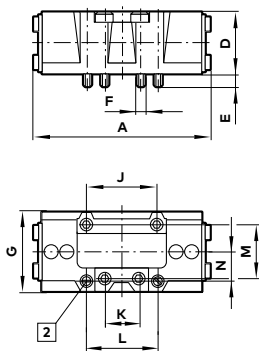
ISO★STAR (SXE, SXP) Sub-base, 5/2 & 5/3, ISO #1 to ISO #3

Dimensions

Single and double pilot models

ISO 1		ISO 2		ISO 3	
Single	Double	Single	Double	Single	Double
A 88	92,5	112	119	135,5	140 (142)
D 33	33	42	42	43	43
E 7,5	7,5	8	8	11,5	11,5
F M5	M5	M6	M6	M8	M8
G 42	42	55	55	62,5	62,5
J 36	36	48	48	64	64
K 18	18	24	24	32	32
L 38	38	48	48	-	-
M 28	28	38	38	48	48
N 15	15	20	20	-	-
O 42		53		65,5	

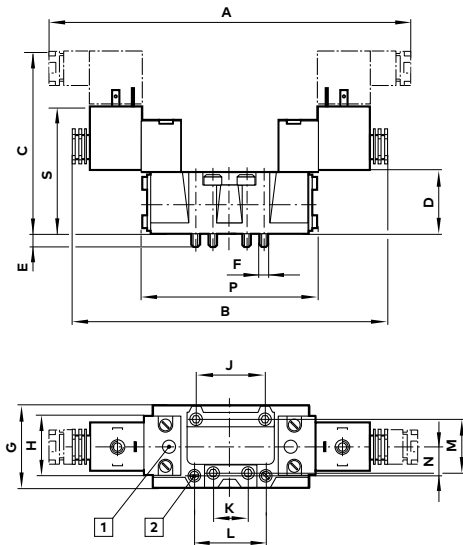
() for 5/3 way valves.



Double CNOMO solenoid valves

	ISO 1	ISO 2	ISO 3
A	191	208	231
B	171	189	212
C	89	107	108
D	33	42	43
E	7,5	8	11,5
F	M5	M6	M8
G	42	55	62,5
H	32	32	32
J	36	48	64
K	18	24	32
L	38	48	-
M	28	38	48
N*	15	20	-
P	92,5	119	140 (142)
S	62	71	78,5

() for 5/3 way valves.



- ☐ Manual override
- ☑ Flow regulators





Solenoid & Pilot Actuated Spool Valves

UM/22000 Sub-base 5/2 and 5/3, ISO #4

- » Sub-base mounted, ISO 5599-1
- » Steel reinforced main seals
- » 16 bar and 10 bar CNOMO solenoid pilots with locking or non-locking manual override
- » Low power coils (1,5W)
- » Wide range of sub-bases and accessories

Technical Data

Medium:

Compressed air, 40 µm filtered, lubricated or non-lubricated

Operating pressure:

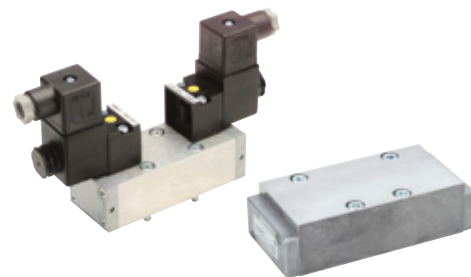
Solenoid pilot actuated valves: 10 bar
Air pilot actuated valves and solenoid pilot actuated valves: 16 bar

Flow:

5660 l/min

Ambient temperature:

-15°C ... +50°C solenoid models
-15°C ... +80°C pilot models
Air supply must be dry enough to avoid ice formation at temperatures below +2°C



Models - 5/2 Solenoid pilot actuated valves – 10 bar models

Symbol	Model 22 mm industrial 24vDC coil	ISO size	Operator/return	Pilot supply	Flow (l/min)	Operating pressure (bar)	Pilot pressure (bar)
	UM/22456/172/61/13J	4	Solenoid/spring and air	Internal	5660	2,5 ... 10	–
	UM/22456/123/61/13J	4	Solenoid/ solenoid	Internal	5660	2 ... 10	–

Models - 5/3 Solenoid pilot actuated valves – 10 bar models

Symbol	Model 22 mm industrial 24vDC coil	ISO size	Function	Operator/return	Pilot supply	Flow (l/min)	Operating pressure (bar)
	UM/22456/6123/61/13J	4	APB	Solenoid/ solenoid	Internal	5490	2,8 ... 10

Function: APB = All Ports Blocked.





Solenoid & Pilot Actuated Spool Valves

UM/22000 Sub-base 5/2 and 5/3, ISO #4

Voltage codes and spare coils for 10 bar solenoid models

22 mm Coil with connector interface acc. to Industrial Standard			22 mm Coil with connector interface acc. to EN 175 301-803, form B		
Model	Code	Power inrush/hold	Model	Code	Power inrush/hold
QM/48/13J/21	13J	2 W	V10626-A13L	13L	2 W
QM/48/18J/21	18J	4/2,5 VA	V10626-A18L	18L	4/2,5 VA
QM/48/19J/21	19J	6/5 VA	V10626-A19L	19L	6/5 VA

Electrical details for solenoid operators

Voltage tolerance	±10%
Rating	100% E.D.
Inlet orifice	1,0 mm
Electrical connection	Corresponding to chosen coil: EN 175301-803 - Form A, 30 mm EN 175301-803 - Form B, 22 mm Industrial Standard, 22 mm
Solenoid coil	May be rotated at 90° intervals
Protection class	IP 65 with sealed plug

Bases - VDMA 24 345 sub-bases

Form A Side ported	Form C Manifold	Form D End Plates
		
ISO#4 M/P19144 (G3/4)	CQM/22456/3/21	CQM/22456/3/22



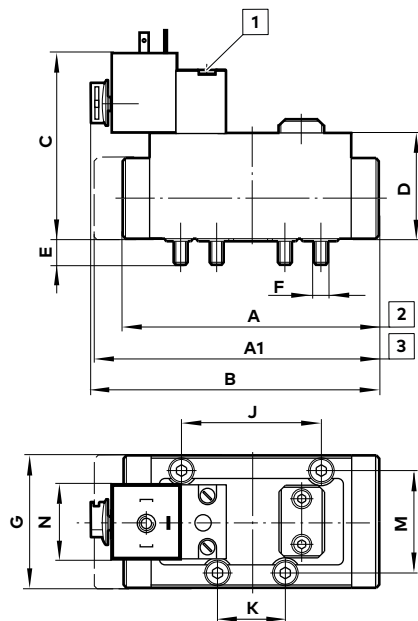


Solenoid & Pilot Actuated Spool Valves

UM/22000 Sub-base 5/2 and 5/3, ISO #4

Dimensions

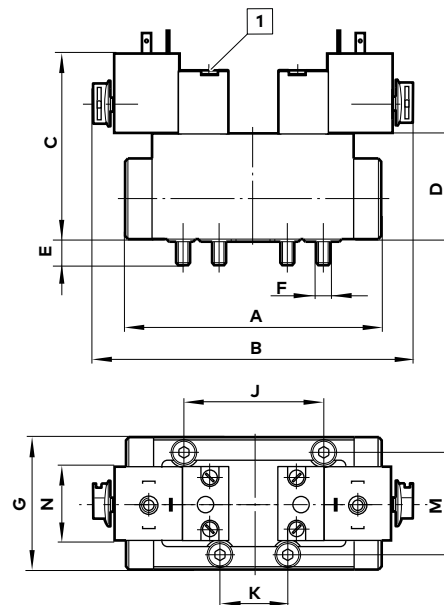
5/2 Single solenoid valve



	A	A1	B	C	D	E	F	G	J	K	M	N*
ISO#4	177	187	152	83	45	14	M8	75	80	40	58	22 or 30

* Illustrated with 30 mm coil.

5/2 and 5/3 Double solenoid valves



	A	B	C	D	E	F	G	J	K	M	N*
ISO#4	177	140	83	45	14	M8	75	80	40	58	22 or 30

* Illustrated with 30 mm coil.

- 1 Manual override
- 2 Model .../172
- 3 Model .../22, .../122

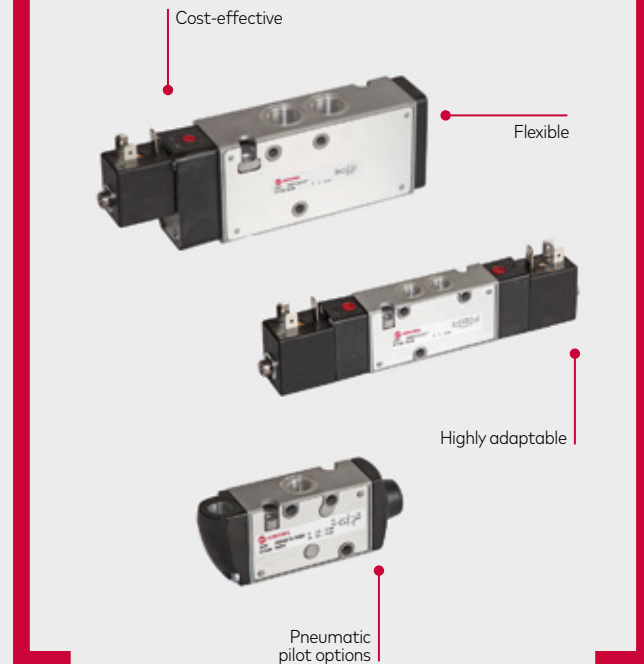


V60 Series in-line valves

The Norgren V60 series is one of the industry's largest range of in-line valves, with thousands of product combinations.

Offering high flow together with a compact body size, V60 series valves can flow up to twice the value of older styles of similar spool valves. Not just simple – the series also includes twin 3/2 functions in one body.

- » Four sizes of valve, flowing 500 to 4,500 lit/min coupled with compact body size and a number of valve functions, to meet most requirements
- » Quickly replaceable solenoid coils, choice of manual override and option of collected exhaust
- » Manifold base system allows assembly of valves for more complex applications. Valve types can be mixed on one assembly and piped with multi-pressures



Find out more
norgren.com



NORGREN

IMI



In-Line Valves

V60 ... 63 3/2, 2x3/2, 5/2 & 5/3, G1/8 ... G1/2

- » 3/2, 5/2, 5/3 and 2 x 3/2 solenoid actuated valves
- » High flow rate at small size
- » Proven sealing system maintenance-free
- » Different manual override options available
- » Low power consumption
- » Manifold system for easy assembly
- » Different pressure ranges possible

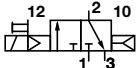
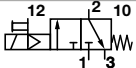
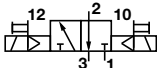
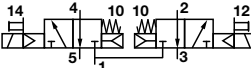
Technical Data

Medium:
Compressed air, filtered,
lubricated or non-lubricated

Ambient temperature:
-10°C ... +50°C
Air supply must be dry enough
to avoid ice formation at
temperatures below +2°C



Models - Solenoid actuated

Symbol	Actuation	G1/8	Operating Pressure (bar)	G1/4	Operating Pressure (bar)	G3/8	Operating Pressure (bar)	G1/2	Operating Pressure (bar)
3/2 Valves									
		Flow (l/min) = 750		Flow (l/min) = 1300		Flow (l/min) = 2600		Flow (l/min) = 4500	
	Sol/Air Spring NC	V60A413A-A2000	2 ... 10	V61B413A-A2000	2 ... 10	V62C413A-A2000	2 ... 10	V63D413A-A2000	3 ... 10
	Sol / Spring NC	V60A417A-A2000	2 ... 10	V61B417A-A2000	2 ... 10	V62C417A-A2000	2 ... 10	V63D417A-A2000	2 ... 10
	Sol/Sol	V60A411A-A3000	1,5 ... 10	V61B411A-A3000	1,5 ... 10	V62C411A-A3000	1,5 ... 10	V63D411A-A3000	2 ... 10
2 x 3/2 Valves									
		Flow (l/min) = 500		Flow (l/min) = 500		Flow (l/min) = 1900			
	Sol/Spring NC	V60AA11A-A2000	2 ... 10	V61BA11A-A2000	2 ... 10	V62CA11A-A2000	2 ... 10	-	-

Note: For Manual Override Options - Digit 10 is :- 2 - Turn & Lock (Standard - Sol/Spring), 3 Push Only (Standard - Sol/Sol).

Note: The above are for valves without coils - for coils to be included remove 000 and replace with Coil Code from the tables below.

NC = Normally Closed.

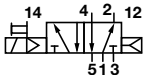
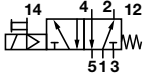
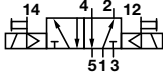
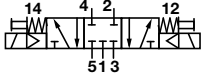
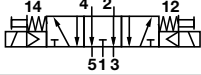
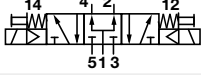




In-Line Valves

V60 ... 63 3/2, 2x3/2, 5/2 & 5/3, G1/8 ... G1/2

Models - Solenoid actuated

Symbol	Actuation	G1/8	Operating Pressure (bar)	G1/4	Operating Pressure (bar)	G3/8	Operating Pressure (bar)	G1/2	Operating Pressure (bar)
5/2 Valves									
		Flow (l/min) = 750			Flow (l/min) = 1300			Flow (l/min) = 2600	Flow (l/min) = 4500
	Sol/Air Spring	V60A513A-A2000	2 ... 10	V61B513A-A2000	2 ... 10	V62C513A-A2000	2 ... 10	V63D513A-A2000	3 ... 10
	Sol / Spring	V60A517A-A2000	3 ... 10	V61B517A-A2000	3 ... 10	V62C517A-A2000	3 ... 10	V63D517A-A2000	3 ... 10
	Sol/Sol	V60A511A-A3000	1,5 ... 10	V61B511A-A3000	1,5 ... 10	V62C511A-A3000	1,5 ... 10	V63D511A-A3000	2 ... 10
5/3 Valves									
		Flow (l/min) = 500			Flow (l/min) = 950			Flow (l/min) = 1900	Flow (l/min) = 2200
	Sol/Sol APB	V60A611A-A3000	3 ... 10	V61B611A-A3000	3 ... 10	V62C611A-A3000	3 ... 10	V63D611A-A3000	3 ... 10
	Sol/Sol COE	V60A711A-A3000	3 ... 10	V61B711A-A3000	3 ... 10	V62C711A-A3000	3 ... 10	V63D711A-A3000	3 ... 10
	Sol/Sol COP	V60A811A-A3000	3 ... 10	V61B811A-A3000	3 ... 10	V62C811A-A3000	3 ... 10		
Accessories									
Straight Fitting	C02250618	–	C02250828	–	C02251038	–	C02251248	–	
Elbow Fitting	C02470618	–	C02470828	–	C02471038	–	C02471248	–	
Silencer	T40C1800	–	T40C2800	–	T40C3800	–	T40C4800	–	
Basic Plug	M/P19063	–	M/P19063	–	M/P19063	–	M/P19063	–	

Note: For Manual Override Options - Digit 10 is :- 2 - Turn & Lock (Standard - Sol/Spring), 3 Push Only (Standard - Sol/Sol).

Note: The above are for valves without coils - for coils to be included remove 000 and replace with Coil Code from the tables below.

APB = All Ports Blocked, COE = Centre Open Exhaust, COP = Centre Open Pressure.





In-Line Valves

V60 ... 63 3/2, 2x3/2, 5/2 & 5/3, G1/8 ... G1/2

Voltage codes and spare coils

Model	Voltage	Coil code	Power inrush/hold
			
22 mm coil for connector interface acc. to industrial standard			
QM/48/13J/21	24 V d.c.	13J	2 W
QM/48/18J/21	110/120V 50/60Hz	18J	4/2,5 VA
QM/48/19J/21	220/240 V 50/60 Hz	19J	6/5 VA
22 mm coil for connector interface acc. EN 175 301-803, form B			
V10626-A13L	24 V d.c.	13L	2 W
V10626-A18L	110/120 V 50/60 Hz	18L	4/2,5 VA
V10626-A19L	220/240 V 50/60 Hz	19L	6/5 VA

Connector plugs must be ordered separately. Other voltages available, please contact us.

Electrical details for solenoid operators

Voltage tolerance	± 10%	
Rating	100% continuous duty	
Inlet orifice	0,8 mm	
Electrical connection (corresponding to choosen coil)	EN 175301-803 - Form B, 22 mm	
	Industrial Standard, 22 mm	
Solenoid	4 x 90° rotatable	
	Without	# = 1
Manual override	Push and turn to lock	# = 2
	Push only (not lockable)	# = 3
Protection class	IP 65 (with sealed plug)	

Connector plugs - ordered separately

Industrial standard 22 mm 2-pole + PE	22 mm, EN 175301-803 (DIN 43650 B) Form B 2-pole + PE
 	
0657868000000000 12 ... 250 V a.c./d.c.	0680003000000000 12 ... 250 V a.c./d.c.
0680000000000000 15 ... 30 V DC; LED, surge suppression	0664811000000000 15 ... 30 V DC; LED, surge suppression
M/P24121/3 150 ... 250 V a.c.; glim lamp	0664812000000000 150 ... 250 V a.c.; glim lamp

Note: Light emitting gaskets can not be used.





In-Line Valves

V60 ... 63 3/2, 2x3/2, 5/2 & 5/3, G1/8 ... G1/2

Models - Pilot actuated

Symbol	Actuation	G1/8	Operating pressure (bar)	Pilot pressure external (bar)	G1/4	Operating Pressure (bar)	Pilot pressure external (bar)	G3/8	Operating pressure (bar)	Pilot pressure external (bar)	G1/2	Operating pressure (bar)	Pilot pressure external (bar)
3/2 Valves		Flow (l/min) = 750			Flow (l/min) = 1300			Flow (l/min) = 2600			Flow (l/min) = 4500		
	Air/Spring NC	V60A4D7A-XA090	-0,9 ... 10	2,5 ... 10	V61B4D7A-XA090	-0,9 ... 10	2,5 ... 10	V62C4D7A-XA090	-0,9 ... 10	2,5 ... 10	V63D4D7A-XA090	-0,9 ... 16	3 ... 16
	Air/Air NC	V60A4DDA-XA020	-0,9 ... 10	1,5 ... 10	V61B4DDA-XA020	-0,9 ... 10	1,5 ... 10	V62C4DDA-XA020	-0,9 ... 10	1,5 ... 10	V63D4DDA-XA020	-0,9 ... 16	1,5 ... 16
5/2 Valves		Flow (l/min) = 750			Flow (l/min) = 1300			Flow (l/min) = 2600			Flow (l/min) = 4500		
	Air/Spring	V60A5D7A-XA090	-0,9 ... 10	2,5 ... 10	V61B5D7A-XA090	-0,9 ... 10	2,5 ... 10	V62C5D7A-XA090	-0,9 ... 10	2,5 ... 10	V63D5D7A-XA090	-0,9 ... 16	3 ... 16
	Air/Air	V60A5DDA-XA020	-0,9 ... 10	1,5 ... 10	V61B5DDA-XA020	-0,9 ... 10	1,5 ... 10	V62C5DDA-XA020	-0,9 ... 10	1,5 ... 10	V63D5DDA-XA020	-0,9 ... 16	1,5 ... 16
Accessories													
Straight Fitting		C02250618	–	–	C02250828	–	–	C02251038	–	–	C02251248	–	–
Elbow Fitting		C02470618	–	–	C02470828	–	–	C02471038	–	–	C02471248	–	–
Silencer		T40C1800	–	–	T40C2800	–	–	T40C3800	–	–	T40C4800	–	–
Straight Fitting - Pilot Port		C02250618	–	–	C02250618	–	–	C02250618	–	–	C02250618	–	–
Elbow Fitting - Pilot Port		C02470618	–	–	C02470618	–	–	C02470618	–	–	C02470618	–	–

NC = Normally Closed.





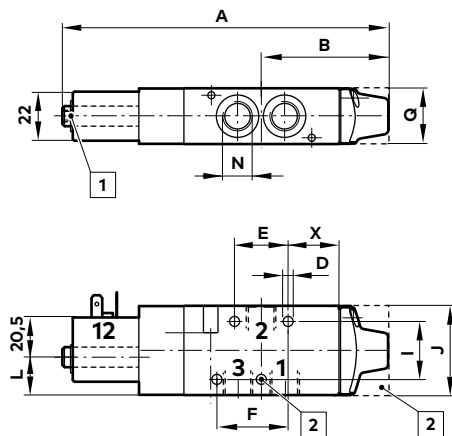
In-Line Valves

V60 ... 63 3/2, 2x3/2, 5/2 & 5/3, G1/8 ... G1/2

Dimensions

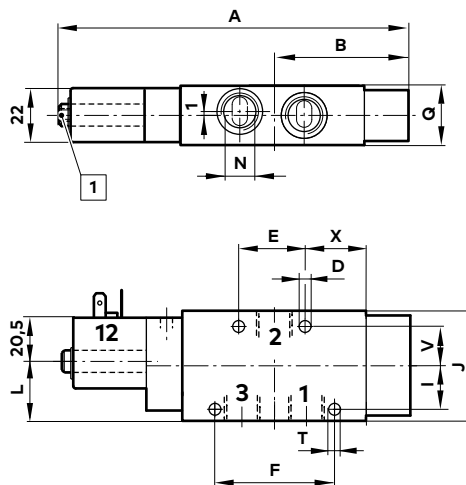
①

3/2 Sol/Spring V60-V62



②

3/2 Sol/Spring V63



□ Collected pilot exhaust (M5)

⊠ V62: Central mounting hole (left hole is not applicable) and square end cover

Model	A	B	ØD	E	F	I	J	L	N	O	Q	ØT	V	X
V60	125	45	4,5	18	25	26	35	12	G1/8	–	22	–	–	19
V61	147	57,5	4,5	24	32	26	40	17	G1/4	–	25	–	–	23
V62	166,5	70	4,5	26	–	36	55	32	G3/8	–	34	–	23	30
V63	197	87,5	7	46	75	26	65	38	G1/2	–	35	5,5	–	36





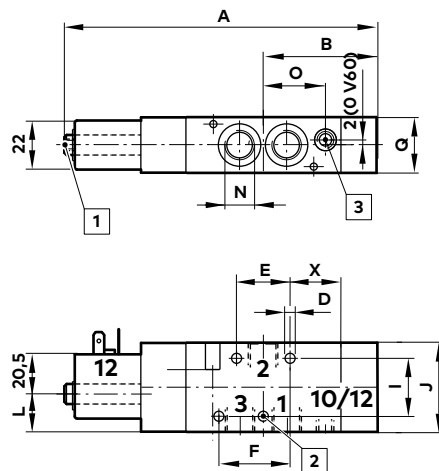
In-Line Valves

V60 ... 63 3/2, 2x3/2, 5/2 & 5/3, G1/8 ... G1/2

Dimensions

③

3/2 Sol/Air Spring V60-V62



① Collected pilot exhaust (M5)

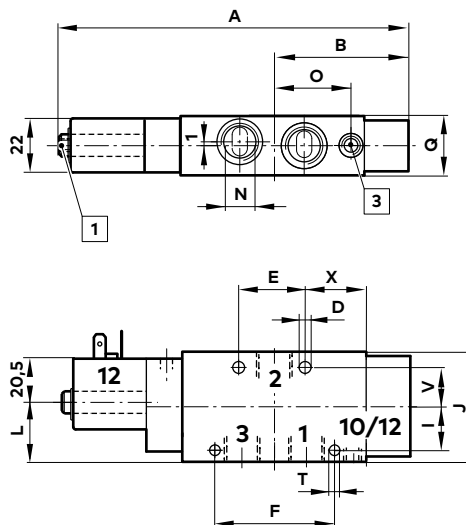
② V62: Central mounting hole (left hole is not applicable) and square end cover

③ External pilot port, M5 (V60 & V61), G1/8

Model	A	B	ØD	E	F	I	J	L	N	O	Q	ØT	V	X
V60	116,5	37	4,5	18	25	26	35	12	G1/8	–	22	–	–	19
V61	132,5	43	4,5	24	32	26	40	17	G1/4	–	25	–	–	23
V62	147	50,5	4,5	26	–	36	55	32	G3/8	–	34	–	–	30
V63	190	80	7	46	75	26	65	38	G1/2	–	35	5,5	23	36

④

3/2 Sol/Air Spring V63



For further information, visit www.norgren.com and use the new improved search function. If you cannot see the option you require please contact us.





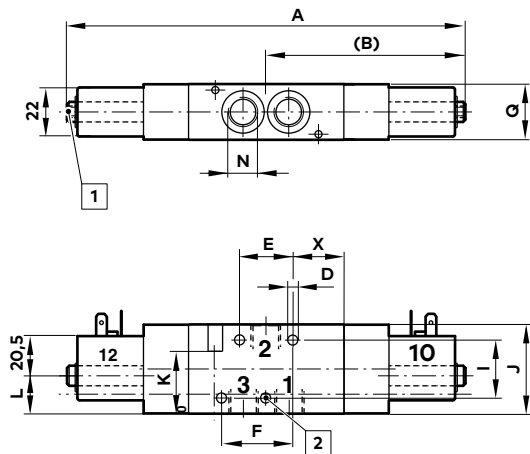
In-Line Valves

V60 ... 63 3/2, 2x3/2, 5/2 & 5/3, G1/8 ... G1/2

Dimensions

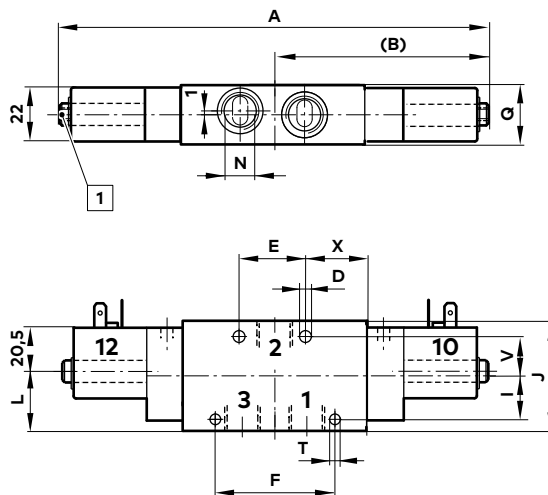
⑤

3/2 Sol/Sol V60-V62



⑥

3/2 Sol/Sol V63



① Collected pilot exhaust (M5)

② V62: Central mounting hole (left hole is not applicable) and square end cover

Model	A	B	ØD	E	F	I	J	L	N	Q	ØT	V	X
V60	116,5	37	4,5	18	25	26	35	12	G1/8	22	–	–	19
V61	132,5	43	4,5	24	32	26	40	17	G1/4	25	–	–	23
V62	147	50,5	4,5	26	–	36	55	32	G3/8	34	–	–	30
V63	190	80	7	46	75	26	65	38	G1/2	35	5,5	23	36





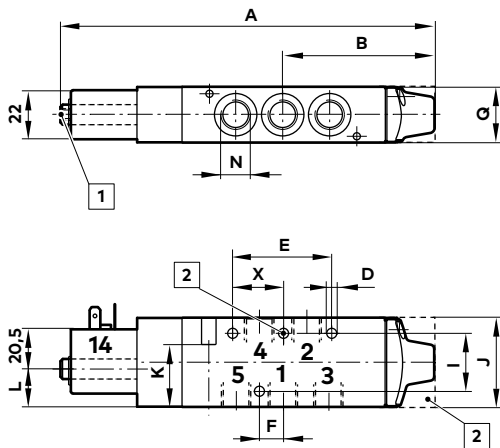
In-Line Valves

V60 ... 63 3/2, 2x3/2, 5/2 & 5/3, G1/8 ... G1/2

Dimensions

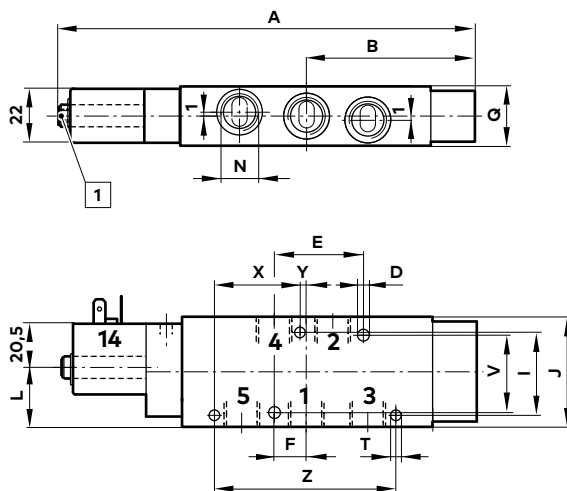
⑦

5/2 Sol/Spring V60-V62



⑧

5/2 Sol/Spring V63



□ Collected pilot exhaust (M5)

⊠ V62: Central mounting hole (left hole is not applicable) and square end cover

Model	A	B	ØD	E	F	I	J	K	L	N	O	Q	ØT	V	X	Y	Z
V60	140	52,5	4,5	33,5	8	26	35	28	12	G1/8	-	22	-	-	17	-	-
V61	167	67,5	4,5	44	10	26	40	28	17	G1/4	-	25	-	-	22	-	-
V62	191	82	4,5	-	12	36	55	44	32	G3/8	-	34	-	-	26	-	-
V63	235	106,5	7	60	19	52	65	-	38	G1/2	-	35	5,5	46	57,5	3	115





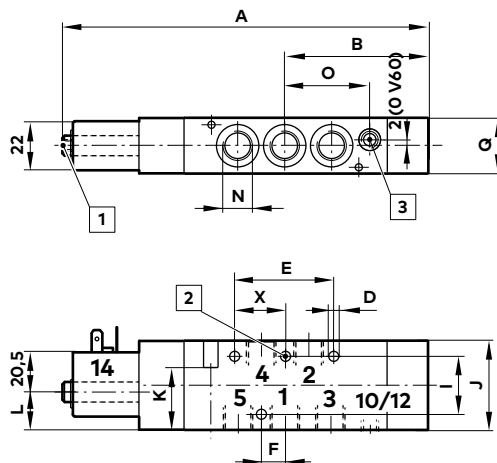
In-Line Valves

V60 ... 63 3/2, 2x3/2, 5/2 & 5/3, G1/8 ... G1/2

Dimensions

⑨

5/2 Sol/Air Spring V60-V62



① Collected pilot exhaust (M5)

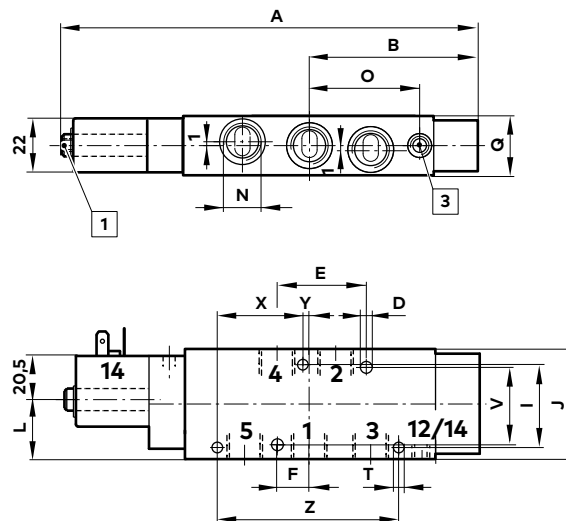
② V62: Central mounting hole (left hole is not applicable) and square end cover

③ External pilot port, M5 (V60 & V61), G1/8

Model	A	B	ØD	E	F	I	J	K	L	N	O	Q	ØT	V	X	Y	Z
V60	132	44,5	4,5	33,5	8	26	35	28	12	G1/8	-	22	-	-	17	-	-
V61	153	53	4,5	44	10	26	40	28	17	G1/4	-	25	-	-	22	-	-
V62	171,5	62,5	4,5	-	12	36	55	44	32	G3/8	-	34	-	-	26	-	-
V63	228	99	7	60	19	52	65	-	38	G1/2	-	35	5,5	46	57,5	3	115

⑩

5/2 Sol/Air Spring V63





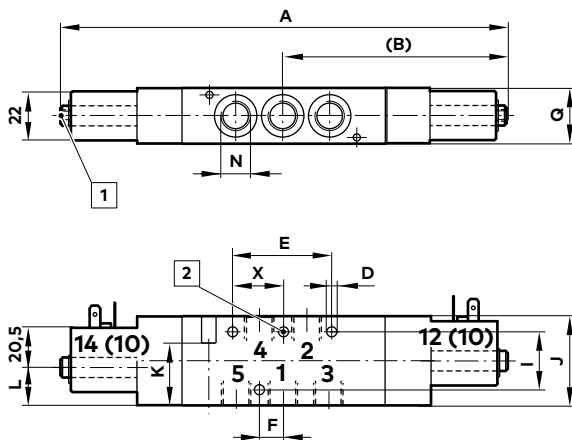
In-Line Valves

V60 ... 63 3/2, 2x3/2, 5/2 & 5/3, G1/8 ... G1/2

Dimensions

⑪

5/2 & 2x3/2 Sol/Sol V60-V62

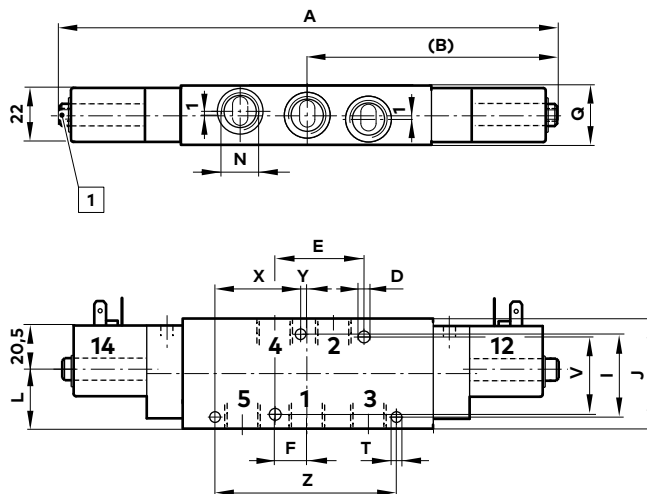


① Collected pilot exhaust (M5)

② V62: Central mounting hole (left hole is not applicable)

⑫

5/2 Sol/Sol V63



Model	A	B	ØD	E	F	I	J	L	N	Q	ØT	V	W	X	Y	Z
V60	174,5	87,5	4,5	33,5	8	26	35	12	G1/8	22	-	-	16	17	-	-
V61	199	99,5	4,5	44	10	26	40	17	G1/4	25	-	-	21	22	-	-
V62	218	109	4,5	-	12	36	55	32	G3/8	34	-	-	24,5	26	-	-
V63	257	128,5	7	60	19	52	65	38	G1/2	35	5,5	46	38	57,5	3	115

For further information, visit www.norgren.com and use the new improved search function. If you cannot see the option you require please contact us.





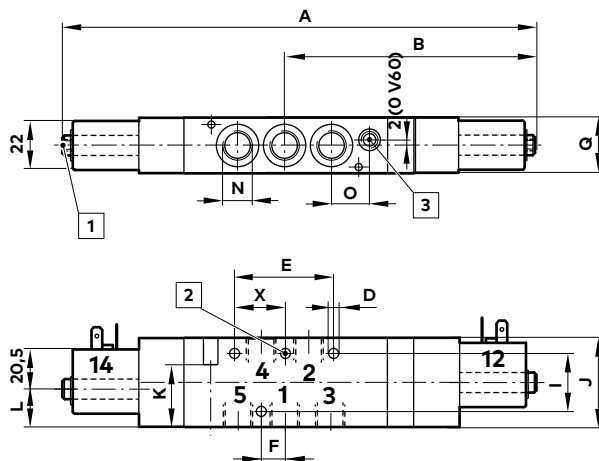
In-Line Valves

V60 ... 63 3/2, 2x3/2, 5/2 & 5/3, G1/8 ... G1/2

Dimensions

⑬

5/3 Sol/Sol V60-V62



① Collected pilot exhaust (M5)

② V62: Central mounting hole (left hole is not applicable) and square end cover

③ External pilot port, M5 (V60 & V61), G1/8

Model	A	B	ØD	E	F	I	J	L	N	O	Q	X
V60	188,5	101,5	4,5	33,5	8	26	35	12	G1/8	13	22	17
V61	217	117,5	4,5	44	10	26	40	17	G1/4	18	25	22
V62	240,5	131,5	4,5	-	12	36	55	32	G3/8	23,5	34	26



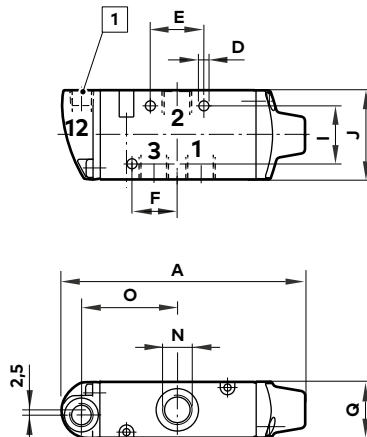
In-Line Valves

V60 ... 63 3/2, 2x3/2, 5/2 & 5/3, G1/8 ... G1/2

Dimensions

⑭

3/2NC Air/Spring V60-V61

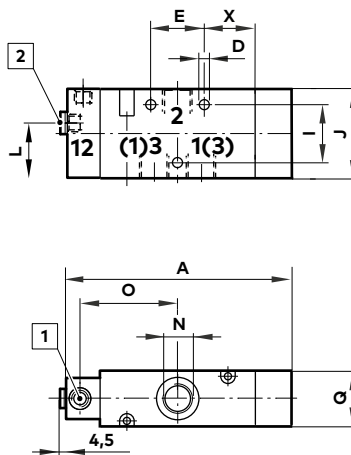


① Pilot ports G1/8

② Alternative pilot ports G1/8

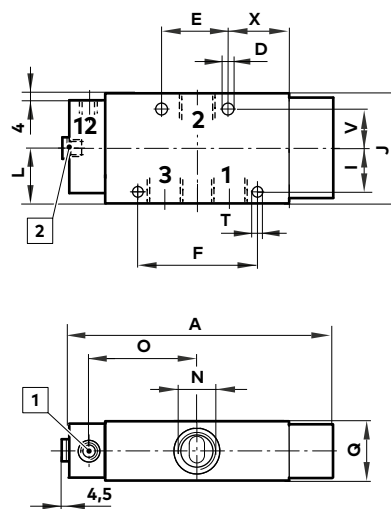
⑮

3/2NC Air/Spring V62



⑯

3/2NC Air/Spring V63



Model	A	ØD	E	F	I	J	L	N	O	Q	ØT	V	X
V60	89,5	4,5	18	16	26	35	-	G1/8	36	22	-	-	-
V61	110	4,5	24	20	26	40	-	G1/4	43	25	-	-	-
V62	132	4,5	26	-	36	55	33,5	G3/8	52	34	-	-	-
V63	162	7	46	75	26	65	39,5	G1/2	64	35	5,5	23	36

For further information, visit www.norgren.com and use the new improved search function. If you cannot see the option you require please contact us.





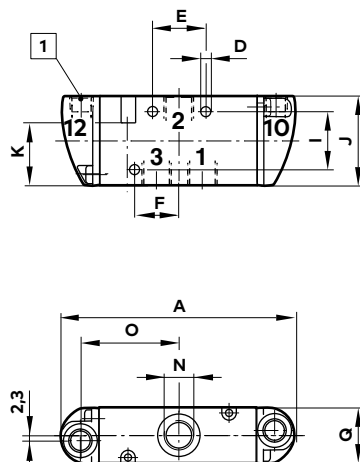
In-Line Valves

V60 ... 63 3/2, 2x3/2, 5/2 & 5/3, G1/8 ... G1/2

Dimensions

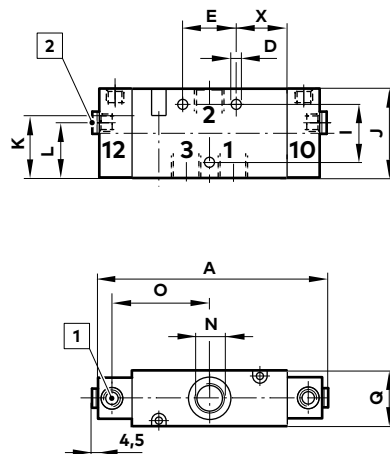
⑰

3/2NC Air/Air V60 & V61



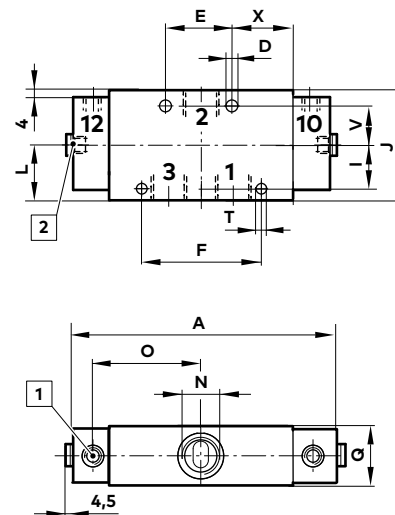
⑱

3/2NC Air/Air V62



⑲

3/2NC Air/Air V63



□ Pilot ports G1/8

▣ Alternative pilot ports G1/8

Model	A	D	E	F	I	J	L	N	O	Q	T	V	X
V60	89	4,5	18	16	26	35	–	G1/8	36	22	–	–	–
V61	104	4,5	24	20	26	40	–	G1/4	43	25	–	–	–
V62	124	4,5	26	–	36	55	33,5	G3/8	52	34	–	–	30
V63	148	7	46	75	26	65	39,5	G1/2	64	35	5,5	23	36





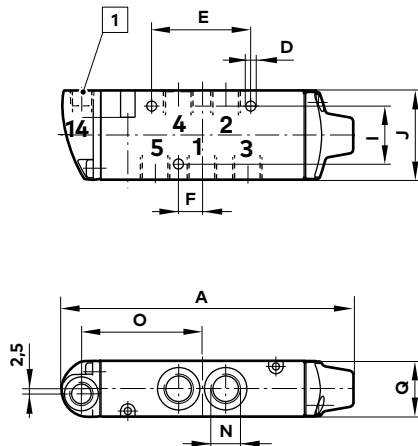
In-Line Valves

V60 ... 63 3/2, 2x3/2, 5/2 & 5/3, G1/8 ... G1/2

Dimensions

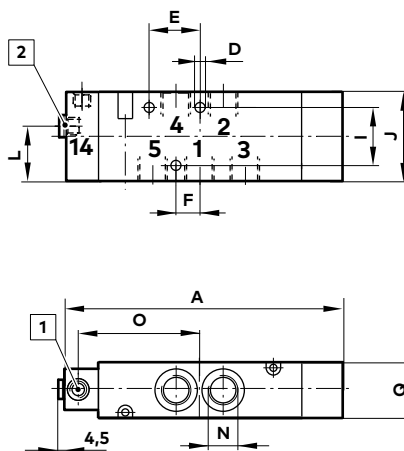
②①

5/2 Air/Spring V60 & V61



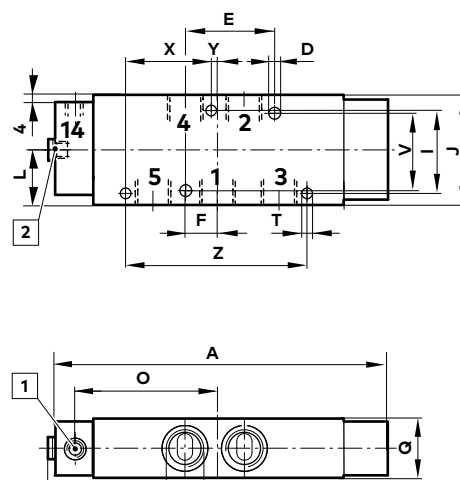
②①

5/2 Air/Spring V62



②②

5/2 Air/Spring V63



□ Pilot ports G1/8 or 1/8-27 NPT

▣ Alternative pilot ports G1/8 or 1/8-27 NPT

Model	A	D	E	F	I	J	L	N	O	Q	T	V	X	Y	Z
V60	105	4,5	33,5	8	26	35	—	G1/8	43,5	22	—	—	—	—	—
V61	130	4,5	44	10	26	40	—	G1/4	53	25	—	—	—	—	—
V62	156	4,5	26	12	36	55	33,5	G3/8	64	34	—	—	—	—	—
V63	200	7	60	19	52	65	39,5	G1/2	83	35	5,5	46	57,5	3	115



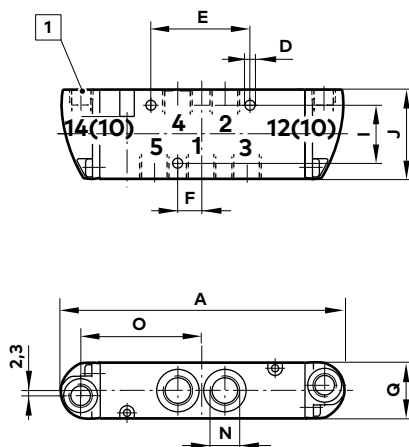
In-Line Valves

V60 ... 63 3/2, 2x3/2, 5/2 & 5/3, G1/8 ... G1/2

Dimensions

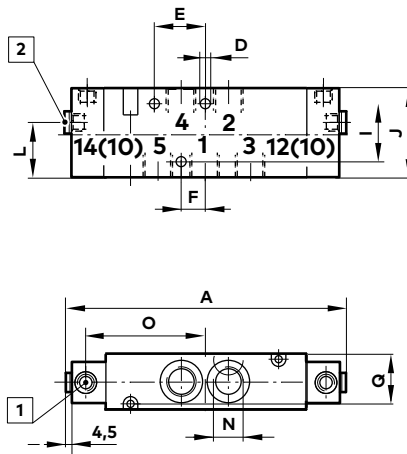
②③

5/2 Air/Air V60 & V61



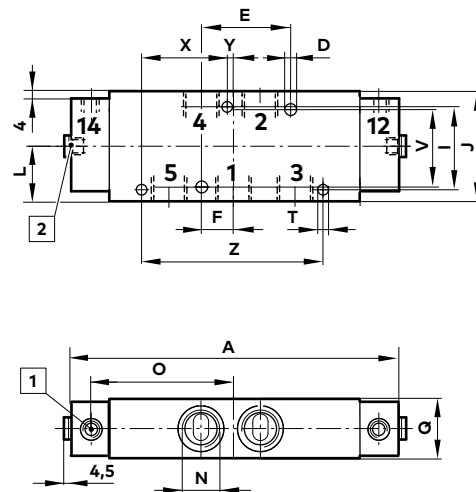
②④

5/2 Air/Air V62



②⑤

5/2 Air/Air V63



① Pilot ports G1/8

② Alternative pilot ports G1/8

Model	A	D	E	F	I	J	L	N	O	Q	T	V	X	Z
V60	104,5	4,5	33,5	8	26	35	–	G1/8	44	22	–	–	–	–
V61	124	4,5	44	10	26	40	–	G1/4	53	25	–	–	–	–
V62	148	4,5	26	12	36	55	33,5	G3/8	64	34	–	–	–	–
V63	186	7	60	19	52	65	39,5	G1/2	83	35	5,5	46	57,5	115





In-Line Valves

V50 ... V53 3/2, 5/2 or 5/3, G1/8 ... G1/2

- » Solenoid actuated and pilot operated spool valve
- » High flow in-line valves
- » Compact and robust design
- » Low power energy efficient solenoids
- » Flexible in-line and manifold mounting options

Technical Data

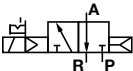
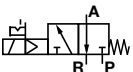
Medium:
Compressed air, filtered
(40 µm) lubricated
or non lubricated

Mounting position:
In-line or sub-base

Ambient temperature:
Pilot models: -5°C ... +60°C
Solenoid models:
-5°C ... +50°C
Air supply must be dry enough
to avoid ice formation at
temperatures below +2°C



Models - Solenoid actuated

Symbol	G1/8	G1/4	G3/8	G1/2	Operating Pressure (bar)	Actuation
Models - 3/2 Valves	Flow 480 l/min	Flow 1020 l/min	Flow 1705 l/min	Flow 2480 l/min		
	V50A413A-A213A	–	–	–	2 ... 8	Sol/Air Spring
	–	V51B417A-A213J	V52C417A-A213J	V53D417A-A213J	2 ... 8	Sol/Spring

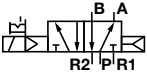
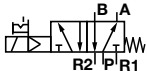
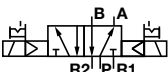
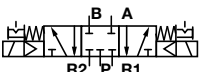
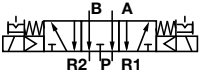




In-Line Valves

V50 ... V53 3/2, 5/2 or 5/3, G1/8 ... G1/2

Models - Solenoid actuated

Symbol	G1/8	G1/4	G3/8	G1/2	Operating Pressure (bar)	Actuation
Models - 5/2 Valves	Flow: 480 l/min	Flow: 1020 l/min	Flow: 1705 l/min	Flow: 2480 l/min		
	V50A513A-A213A	–	–	–	2 ... 8	Sol/Air Spring
	–	V51B517A-A213J	V52C517A-A213J	V53D517A-A213J	2 ... 8	Sol / Spring
	V50A511A-A213A	V51B511A-A213J	V52C511A-A213J	V53D511A-A213J	2 ... 8	Sol/Sol
Models - 5/3 Valves	Flow: 270 l/min	Flow: 755 l/min	Flow: 1190 l/min	Flow: 2480 l/min		
	V50A611A-A213A	V51B611A-A213J	V52C611A-A213J	V53D611A-A213J	3 ... 8	Sol/Sol APB
	V50A711A-A213A	V51B711A-A213J	V52C711A-A213J	V53D711A-A213J	3 ... 8	Sol/Sol COE
Accessories						
Straight Fitting	C02250618	C02250828	C02251038	C02251248	–	
Elbow Fitting	C02470618	C02470828	C02471038	C02471248	–	
Silencer	T40C1800	T40C2800	T40C3800	T40C4800	–	

APB = All Ports Blocked.

COE = Centre Open Exhaust.





In-Line Valves

V50 ... V53 3/2, 5/2 or 5/3, G1/8 ... G1/2

Voltage codes and spare coils

V50 models only

15 mm coil for connector interface acc. EN 175 301-803, form C			
Model	Voltage	Power Inrush/Hold	Code
			
V12958-A13	24 V d.c.	2,9 W	13A

V51 ... V53 series

22 mm coil for connector interface acc. to industrial standard			
Model	Voltage	Power Inrush/Hold	Code
			
QM/48/13J/21	24 V d.c.	2 W	13J
QM/48/18J/21	110/120 V 50/60 Hz	4/2,5 VA	18J
QM/48/19J/21	220/240 V 50/60 Hz	6/5 VA	19J

Electrical details for solenoid operators

Voltage tolerance	± 10%
Rating	100% continuous duty
	0,6 mm; V50
Inlet orifice	0,8 mm; V51 ... V53
Electrical connection (corresponding to choosen coil)	EN 175301-803 - Form C; 15 mm; V50 Industrial Standard; 22 mm; V51 ... V53
Solenoid coil mounting	Four positions x 90°
Manual override	Push and turn to lock (plastic)
Protection class	IP 65 (with sealed plug)

Connector plugs - included in delivery

15 mm, EN 175301-803 (DIN 43650 B) Form C 2-pole + PE		Industrial standard 22 mm 2-pole + PE	
			
V10027-D00		0657868000000000	





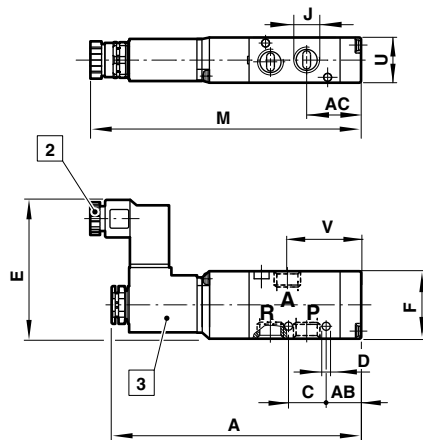
In-Line Valves

V50 ... V53 3/2, 5/2 or 5/3, G1/8 ... G1/2

Dimensions

①

3/2 Single solenoid pilot valve, 1/8" port
Air return



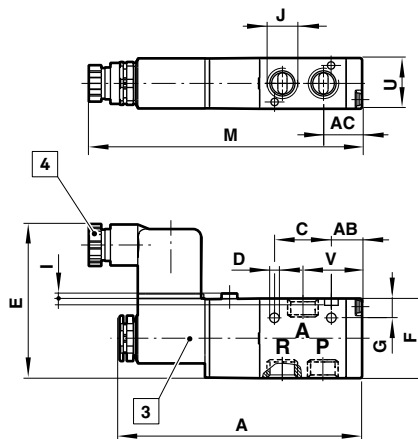
② Gland size PG-7

③ Solenoid rotates 2 x 180° (V50), 4 x 90° (V51 ... V53)

④ Gland size PG-9

②

3/2 Single solenoid pilot valve, 1/4" ... 1/2" ports
Spring return



Series	Dimension No.	A	AB	AC	C	D	E	F	G	I	J	M	U	V
V50	1	99,5	13,5	21,5	15	3,2	55,5	27	5	–	1/8"	108	18	29,5
V51	2	106,5	13,5	17	25	4,2	67	35	8,5	3	1/4"	120	22,5	26
V52	2	126,5	13	26	26	4,5	73	46,5	39,5	3	3/8"	139,5	30	41
V53	2	133	12,5	27	29	4,5	73	46,5	39,5	3	1/2"	146	30	40,5



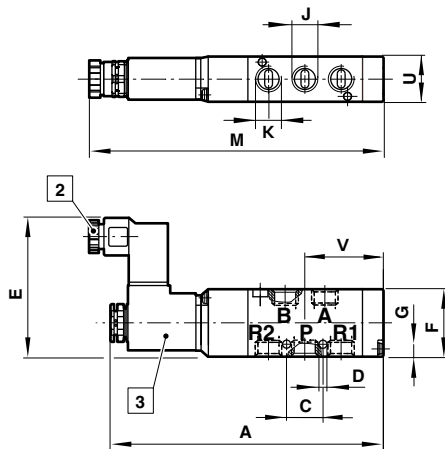
In-Line Valves

V50 ... V53 3/2, 5/2 or 5/3, G1/8 ... G1/2

Dimensions

③

5/2 Single solenoid pilot valve, 1/8" port
Air return



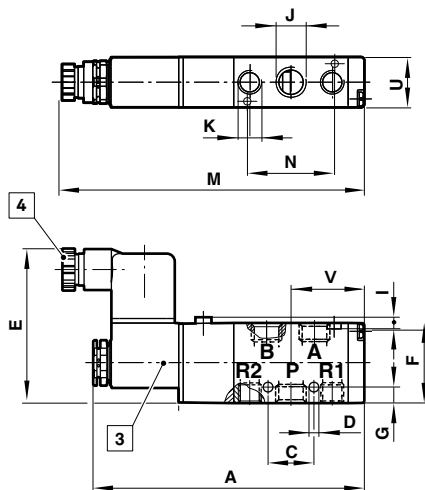
② Gland size PG-7

③ Solenoid rotates 2 x 180° (V50), 4 x 90° (V51 ... V53)

④ Gland size PG-9

④

5/2 Single solenoid pilot valve, 1/4" ... 1/2" ports
Spring return



Series	Dimension No.	A	C	D	E	F	G	I	J	K	M	U	V
V50	3	110	14,5	3,2	54	27	5	–	1/8"	1/8"	118,5	18	32,5
V51	4	118,5	20	4,2	67	35	7	3	1/4"	1/8"	132	22,5	32
V52	4	145,5	26	5,5	73	46,5	4,5	3	3/8"	3/8"	158,5	30	45
V53	4	157	29	4,5	73	46,5	7	3	1/2"	1/2"	170	30	51

For further information, visit www.norgren.com and use the new improved search function. If you cannot see the option you require please contact us.





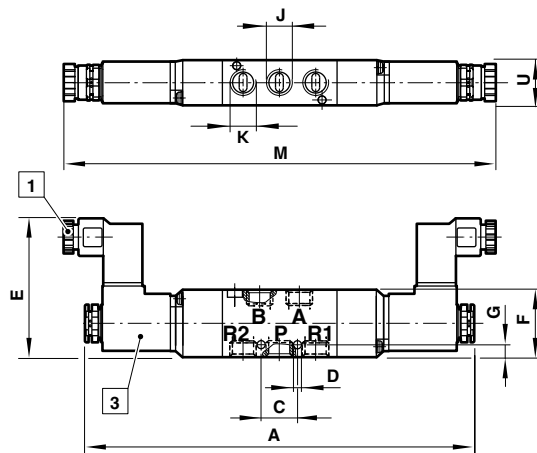
In-Line Valves

V50 ... V53 3/2, 5/2 or 5/3, G1/8 ... G1/2

Dimensions

⑤

5/2 Double solenoid pilot valve, 1/8" port



② Gland size PG-7

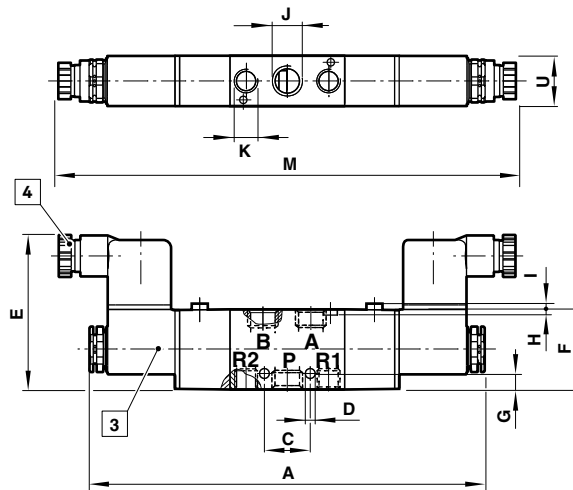
③ Solenoid rotates 2 x 180° (V50), 4 x 90° (V51 ... V53)

④ Gland size PG-9

Series	Dimension No.	A	C	D	E	F	G	I	J	K	M	U
V50	5	155	14,5	3,2	55	27	5	–	1/8"	1/8"	172	18
V51	6	173	20	4,2	67	35	7	3	1/4"	1/8"	200	22,5
V52	6	201	26	5,5	73	46,5	4,5	3	3/8"	3/8"	228	30
V53	6	212	29	4,5	73	46,5	7	3	1/2"	1/2"	238	30

⑥

5/2 Double solenoid pilot valve, 1/4" ... 1/2" ports



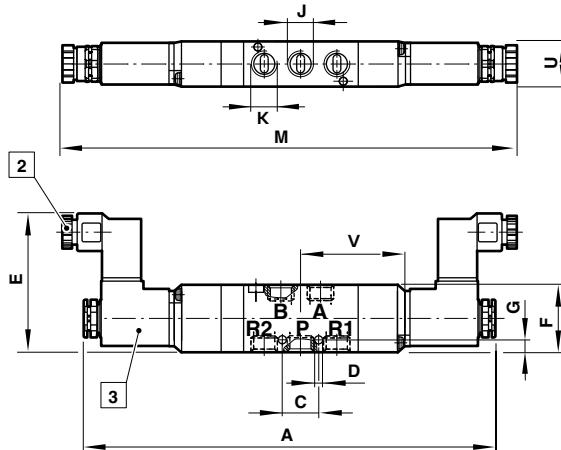
In-Line Valves

V50 ... V53 3/2, 5/2 or 5/3, G1/8 ... G1/2

Dimensions

⑦

5/3 Double solenoid pilot valve, 1/8" port



② Gland size PG-7

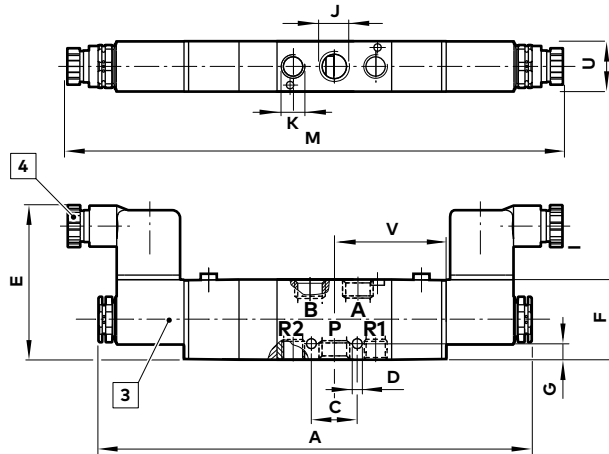
③ Solenoid rotates 2 x 180° (V50), 4 x 90° (V51 ... V53)

④ Gland size PG-9

Series	Dimension No.	A	C	D	E	F	G	I	J	K	M	U	V
V50	7	164	14,5	3,2	55	27	5	–	1/8"	1/8"	181	18	43,5
V51	8	194	20	4,2	67	35	7	3	1/4"	1/8"	221	22,5	48,5
V52	9	254,5	26	5,5	73	46,5	4,5	3	3/8"	3/8"	281,5	30	–
V53	9	265,5	29	4,5	73	46,5	7	3	1/2"	1/2"	291,5	30	–

⑧

5/3 Double solenoid pilot valve, 1/4" port



For further information, visit www.norgren.com and use the new improved search function. If you cannot see the option you require please contact us.





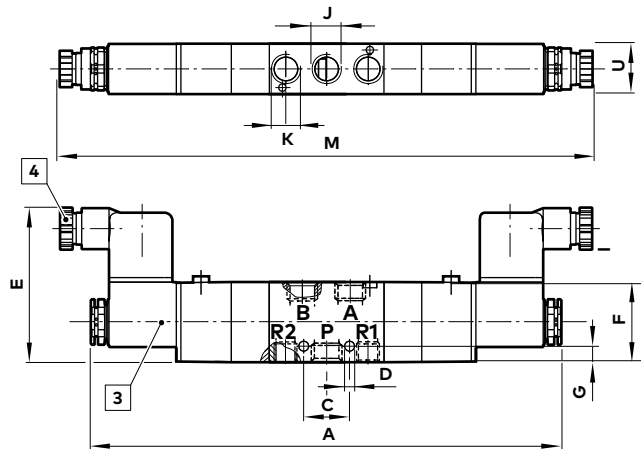
In-Line Valves

V50 ... V53 3/2, 5/2 or 5/3, G1/8 ... G1/2

Dimensions

9

5/3 Double solenoid pilot valve, 3/8" and 1/2" ports



3 Solenoid rotates 2 x 180° (V50), 4 x 90° (V51 ... V53)

4 Gland size PG-9

Series	Dimension No.	A	C	D	E	F	G	I	J	K	M	U	V
V50	7	164	14,5	3,2	55	27	5	–	1/8"	1/8"	181	18	43,5
V51	8	194	20	4,2	67	35	7	3	1/4"	1/8"	221	22,5	48,5
V52	9	254,5	26	5,5	73	46,5	4,5	3	3/8"	3/8"	281,5	30	–
V53	9	265,5	29	4,5	73	46,5	7	3	1/2"	1/2"	291,5	30	–





Solenoid Actuated 22 mm Poppet Valves

Excel 22, M/49 3/2, NC, G1/8

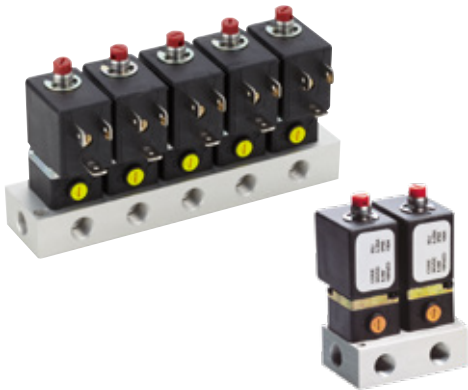
- » Sub-base mounted and manifold mounted – compact and convenient
- » Screwdriver manual override as standard
- » Removable encapsulated coils
- » Exhaust diffuser supplied as standard

Technical Data

Medium:
Compressed air, filtered,
lubricated or non-lubricated

Operating pressure:
0 ... 10 bar

Ambient temperature:
-20°C ... +50°C
Air supply must be dry enough
to avoid ice formation at
temperatures below +2°C

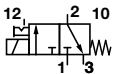


Models

Model	Actuation	Orifice	Port size	Flow (l/min)	Operating pressure (bar)	Mounting
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Accessories

Straight fitting	Elbow fitting	Basic plug
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M/49/MAZ***	3/2 NC	1 mm (low power)	G1/8	30	0 ... 10	Single	C02250618	C02470618	M/P19063
M/49/MDZ***	3/2 NC	1,6 mm	G1/8	77	0 ... 10	Single	C02250618	C02470618	M/P19063

*** Insert voltage codes from table below.
Order connector plugs separately.
NC = Normally Closed.



Solenoid Actuated 22 mm Poppet Valves

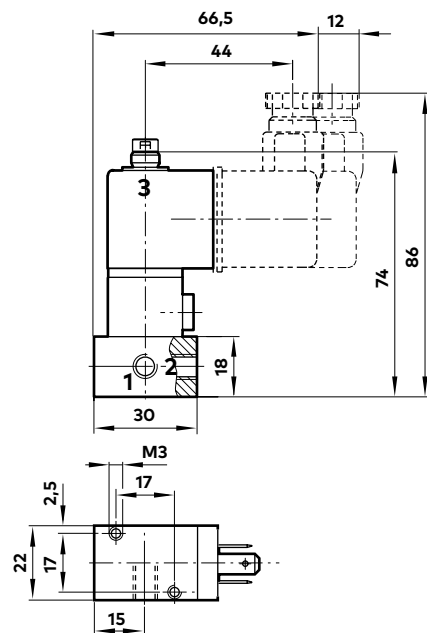
Excel 22, M/49 3/2, NC, G1/8

Voltage codes and spare coils

Voltage	1,0 mm orifice (low power)		
	Code	Power	Coil
24 V d.c.	13J	2 W	QM/48/13J/21
110/120 V 50/60 Hz	18J	4/2,5 VA	QM/48/18J/21
220/240 V 50/60 Hz	19J	6/5 VA	QM/48/19J/21

Voltage	1,6 mm orifice		
	Code	Power	Coil
24 V d.c.	83J	6 W	QM/48/83J/21
110/120 V 50/60 Hz	88J	12/8 VA	QM/48/88J/21
220/240 V 50/60 Hz	89J	12/8 VA	QM/48/89J/21

Dimensions





Two-Hand Control Unit

XSHC04 PIF 4 mm

- » Meets the requirements of EN ISO 13851 Class IIIB ^{*1)}
- » Certificate of Conformity supplied with every unit
- » Both hands must be engaged simultaneously
- » Single fault tolerant
- » Protection against accidental operation
- » No setting or adjustment required

Technical Data

Medium:
Compressed air filtered to 40 µm, lubricated or non-lubricated operation

Operating pressure:
3 ... 8 bar

Ambient temperature:
-5°C ... +40°C
Air supply must be dry enough to avoid ice formation at temperatures below +2°C



*1) The scope of the Machinery Directive encompasses safety components as well as machinery, and since two-hand control units are classed as safety components this requires the XSHC04 to satisfy the essential health and safety requirements of the Directive. One method of ensuring this is to conform with published European Norm (EN) Standards. In the case of the XSHC04 the main standard is EN ISO 13851 Safety of Machinery – Two-hand control devices, Principles for design and selection. This standard classifies two-hand controls into various types, each requiring minimum performance and safety characteristics, such as simultaneous operation, fault tolerance, prevention of accidental operation etc.

Models

Symbol	Model	O/D tube	Return	Operation
	XSHC04	4 mm	0,6 s max.	Both buttons must be operated within 0,5 secs

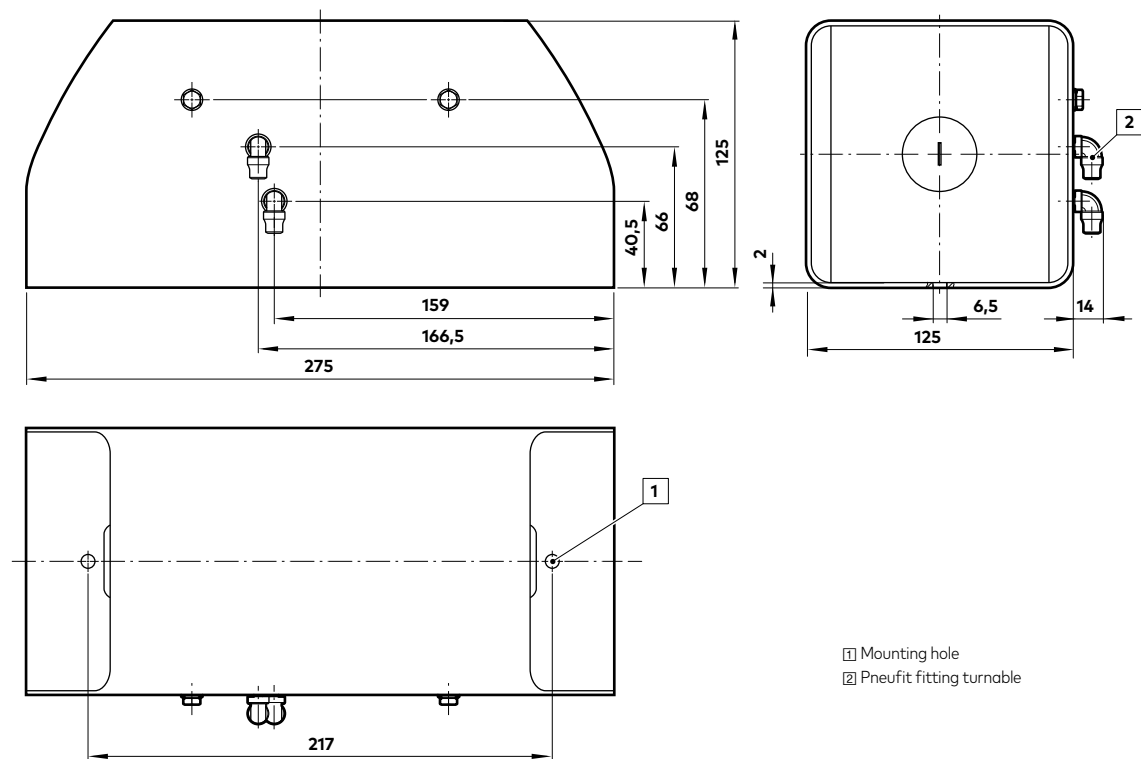




Two-Hand Control Unit

XSHC04 PIF 4 mm

Dimensions





Solenoid Actuated Safety Valves

SCVA08, SCVA20 & SCVA32 3/2 – G1/4, G3/4, G1

- » Redundant valve assembly, pneumatic self-monitoring with integrated safety silencer
- » Ensures safe loading and venting
- » Requires no cyclical monitoring or evaluation system
- » A complete range in sizes - DN 8, 20 and 32
- » With the appropriate application, performance level "e" (cat. 4) of DIN EN ISO 13849-1 is achieved for the safety function "Pressure building up from '1' to '2' and pressure dropping from '2' to '3' "- DGUV approval

Technical Data

Medium:

Compressed air, filtered
≤ 50 µm, lubricated
or non-lubricated

Operating Pressure:

See table below

Mounting:

Preferably upright with
solenoids on top

Press control:

Valves are not approved
for press clutch and
brake applications

Ambient temperature:

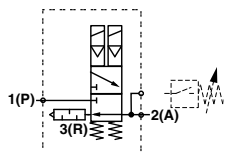
-10°C ... +60°C

Air supply must be dry enough
to avoid ice formation at
temperatures below +2°C



Models

Model	Port size	Orifice (mm)	Power at 24 V d.c. (W)	Pressure range (bar)	Flow		Port sizes			Plug	Pressure switch - flange/ face mounted direct onto valve *2)
					1 » 2 (l/min)	2 » 3 (l/min)	1	2	3		



SCVA081BB0A02400	G1/4	8	4,8	3 ... 10	1280	1550	G1/4	G1/4	G1/4	0680003000000000, EN 175301-803 - form B	0881400000000000
SCVA201EF0B02400	G3/4	20	11	2 ... 10	3500	13250	G3/4	G3/4	G1	0570275000000000, EN 175301-803 - form A	0881400000000000
SCVA321FH0C02400	G1	32	16	2 ... 10	7300	23000	G1	-	-	0570275000000000, EN 175301-803 - form A	0881400000000000

*2) The pressure switch is not required as part of the safe functioning system within the valve, its is offered as a means of indicating that the valve taken up a safe condition ie. no pressure at the output port 2.



Accessories





Solenoid Actuated Safety Valves

SCVA08, SCVA20 & SCVA32 3/2 – G1/4, G3/4, G1

Technical data – Solenoids

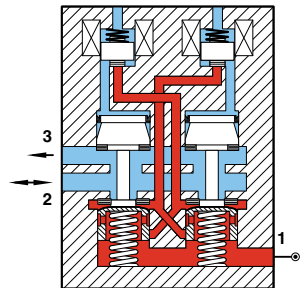
Standard voltages	24 V d.c.
Duty cycle	100% ED
Protection class	IP65

Other voltages on request!

Functional diagram

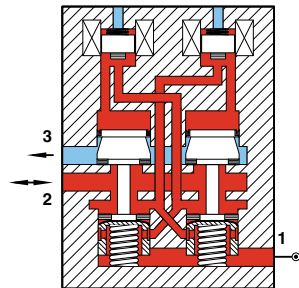
Basic position

Channel "2" onto "3"
Safety silencer relieved



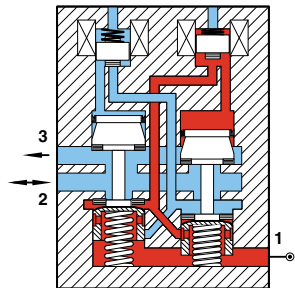
Working position

Both solenoids energized
Channel „1" onto „2" turned on



Safety position

For unbalanced control, faulty solenoid, dirty valve, etc.





Solenoid Actuated Safety Valves

SCVA08, SCVA20 & SCVA32 3/2 – G1/4, G3/4, G1

Time to vent residual pressure to 0,5 bar

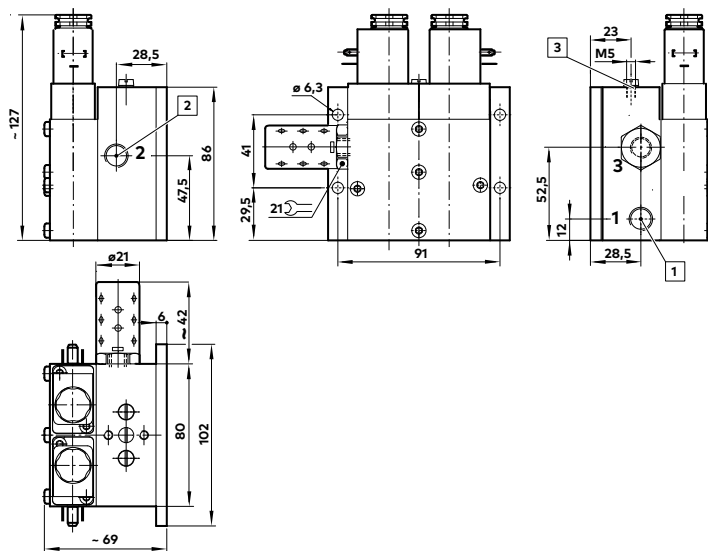
Model	Volume (dm ³)	Operating pressure (bar)	Exhaust time (ms)
SCVA081...	1	5	200
		8	250
		10	290
	3	5	560
		8	730
		10	820

Model	Volume (dm ³)	Operating pressure (bar)	Exhaust time (ms)
SCVA201...	8	5	230
		8	290
		10	330
	20	5	520
		8	700
		10	800

Model	Volume (dm ³)	Operating pressure (bar)	Exhaust time (ms)
SCVA321...	20	5	310
		8	400
		10	420
	50	5	730
		8	930
		10	1100

Dimensions

SCVA081BB0A02400 (G1/4)



- 1 Port 1 (G1/4)
- 2 Port 2 (G1/4)
- 3 Interface for pressure switch



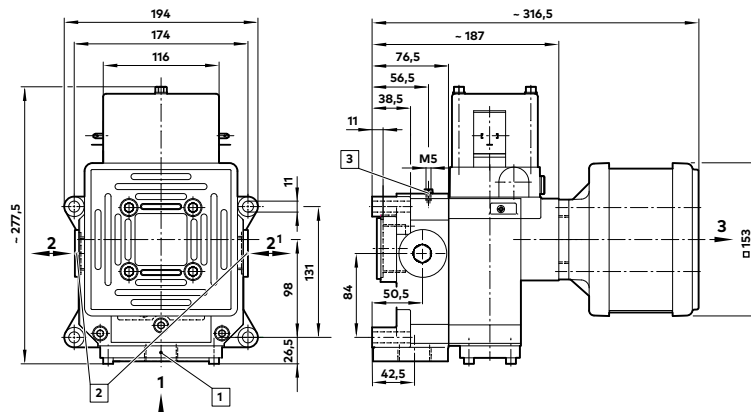


Solenoid Actuated Safety Valves

SCVA08, SCVA20 & SCVA32 3/2 – G1/4, G3/4, G1

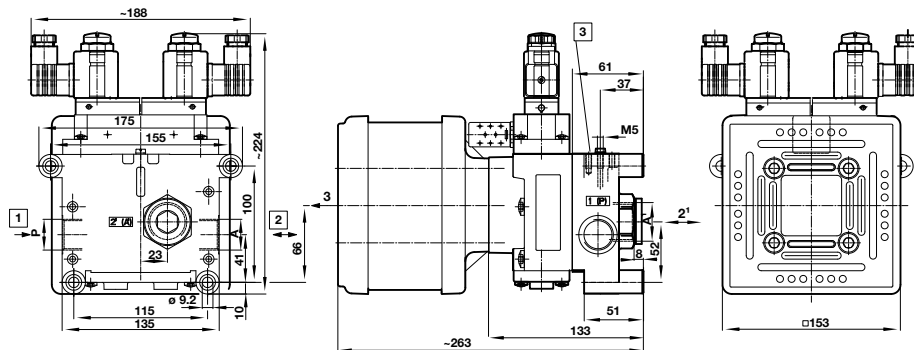
Dimensions

SCVA321FHOC02400 (G1)



- 1 Port 1 (G1)
- 2 Alternative ports (G1), two plugs are in scope of delivery
- 3 Interface for pressure switch

SCVA201EF0B02400 (G3/4)



- 1 Port 1 (G3/4)
- 2 Port 2 (G3/4)
- 3 Interface for pressure switch





Solenoid Actuated Safety Valves

SCVA10 3/2 – G1/2

- » Redundant valve assembly, pneumatic self-monitoring with integrated safety silencer
- » Ensures safe loading and venting
- » Requires no cyclical monitoring or evaluation system
- » With the appropriate application, performance level "e" (cat. 4) of DIN EN ISO 13849-1 is achieved for the safety function "Pressure building up from '1' to '2' and pressure dropping from '2' to '3' "- DGUV approval
- » Valve interface enables direct mount to the Excelon 73/74 & Excelon Plus 84 series air preparation products

Technical Data

Medium:

Compressed air, filtered
≤ 50 µm, lubricated
or non-lubricated

Operating pressure:

See table below

Mounting:

Preferably upright
with solenoids

Press control:

Valves are not approved
for press clutch and
brake applications

Ambient temperature:

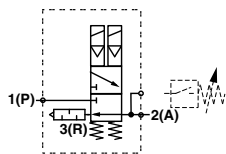
-10°C ... +60°C

Air supply must be dry enough
to avoid ice formation at
temperatures below +2°C



Models

Model	Orifice (mm)	Power at 24 V d.c. (W)	Pressure range (bar)	Flow 1 » 2 (l/min)	2 » 3 (l/min)	Port sizes 1 2 3	Connector form B, DIN EN 175301-803	Quikclamp with wall bracket *1)*2)	Quikmount pipe adaptor	Pressure switch - flange/ face mounted direct onto valve *3)
SCVA101DE1A02400	10	4,8	2 ... 10	3400	6500	G1/2 G1/2 G3/4	068000300000000000	840014-52KIT	840015-11R (G1/2)	088140000000000000



*1) Quikmount pipe adaptor please order separately.

*2) Quikclamp in order to connect the SCVA10 safety valve to the outlet of Excelon Plus series 84 Airline units. In case the Quikclamp is placed as last piece at the outlet of the SCVA10 safety valve, an end connector 840015-11R is needed in addition – please order separately.

*3) The pressure switch is not required as part of the safe functioning system within the valve, its is offered as a means of indicating that the valve taken up a safe condition ie. no pressure at the output port 2.





Solenoid Actuated Safety Valves

SCVA10 3/2 – G1/2

Technical data – Solenoids

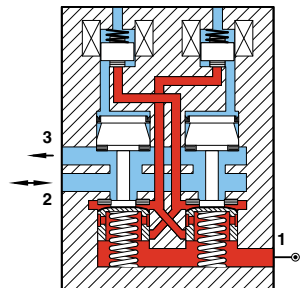
Standard voltages	24 V d.c.
Duty cycle	100% ED
Protection class	IP65

Other voltages on request!

Functional diagram

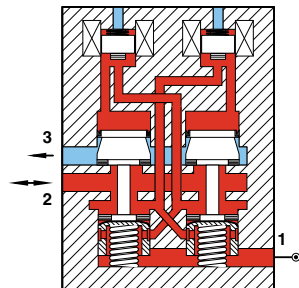
Basic position

Channel "2" onto "3"
Safety silencer relieved



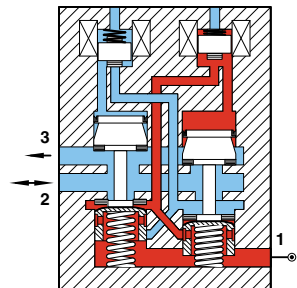
Working position

Both solenoids energized
Channel „1“ onto „2“ turned on



Safety position

For unbalanced control, faulty solenoid, dirty valve, etc.





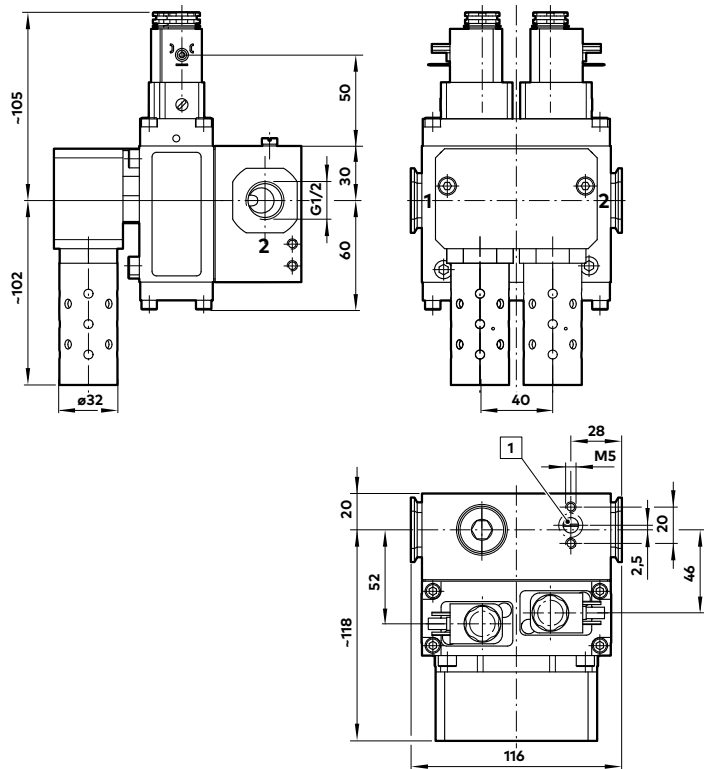
Solenoid Actuated Safety Valves

SCVA10 3/2 – G1/2

Time to vent residual pressure to 0,5 bar

Model	Volume (dm³)	Operating pressure (bar)	Exhaust time (ms)
SCVA101...	3	5	200
		8	250
		10	280
	8	5	450
		8	580
		10	640

Dimensions



Safety Valves with Integrated Soft Start Function

SCSQ10 3/2, G1/2

- » Redundant valve assembly, pneumatic self-monitoring with integrated safety silencer
- » Requires no cyclical monitoring or evaluation system
- » With the appropriate application, performance level "e" (cat. 4) of DIN EN ISO 13849-1 is achieved for the safety function "Pressure building up from '1' to '2' and pressure dropping from '2' to '3'" - DGUV approval
- » Valve interface enables direct mount to the Excelon 73/74 & Excelon Plus 84 series air preparation products

Technical Data

Medium:

Compressed air, filtered
 $\leq 50 \mu\text{m}$, lubricated
 or non-lubricated

Operating pressure:

See table below

Mounting:

Preferably upright with
 solenoids on top

Press control:

Valves are not approved
 for press clutch and
 brake applications

Ambient temperature:

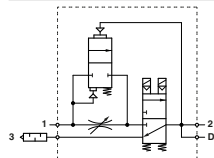
$-10^{\circ}\text{C} \dots +60^{\circ}\text{C}$

Air supply must be dry enough
 to avoid ice formation at
 temperatures below $+2^{\circ}\text{C}$



Models

Model	Orifice (mm)	Power at 24 V d.c. (W)	Pressure range (bar)	Flow 1 → 2 (l/min)	2 → 3 (l/min)	Port sizes			Connector form A, DIN EN 175301-803	Quickclamp with wall bracket *1)*2)	Quickmount pipe adaptor	Pressure switch - flange/ face mounted direct onto valve *3)
						1	2	3				
SCSQ101D01D02400	10	4,5	3,5 ... 10	3000	5700	G1/2	G1/2	G3/4	05702750000000000	840014-52KIT	840015-11R (G1/2)	08814000000000000



*1) Quickmount pipe adaptor please order separately.

*2) Quickclamp in order to connect the SCVA10 safety valve to the outlet of Excelon Plus series 84 Airline units. In case the Quickclamp is placed as last piece at the outlet of the SCVA10 safety valve, an end connector 840015-11R is needed in addition – please order separately.

*3) The pressure switch is not required as part of the safe functioning system within the valve, its is offered as a means of indicating that the valve taken up a safe condition ie. no pressure at the output port 2.



Safety Valves with Integrated Soft Start Function

SCSQ 3/2, G1/2

Technical data – Solenoids

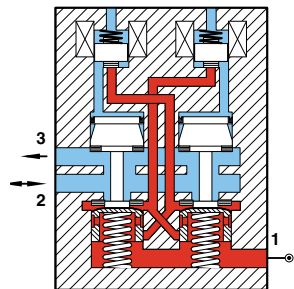
Standard voltages	24 V d.c.
Duty cycle	100% ED
Protection class	IP65

Other voltages on request!

Functional diagram

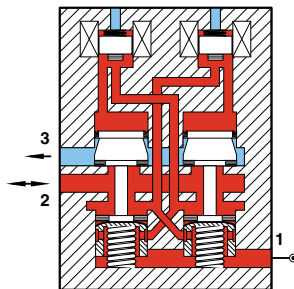
Basic position

Channel "2" onto "3"
Safety silencer relieved



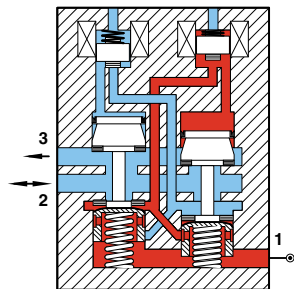
Working position

Both solenoids energized
Channel „1“ onto „2“ turned on



Safety position

For unbalanced control, faulty solenoid, dirty valve, etc.



Soft start function

The safety valve with soft start function provides for a controlled build-up of pressure at the valve output in two stages:

Stage 1 – The pressure builds up slowly depending on the setting of the throttle valve and the volume of the system to be filled.

Stage 2 – At a certain pressure level (p_s) an internal pilot valve operates bypassing the throttle allowing full operating pressure at the valve outlet.

This pressure level (p_s) will be dependant on the operating pressure (p_o) of the system and can be estimated to be greater than 60% of the operating pressure ($p_s > 0,6 \times p_o$).





Safety Valves with Integrated Soft Start Function

SCSQ 3/2, G1/2

Filling time depending on throttle position of soft start valve

From switching signal ON to pressure build-up 90% of rated pressure

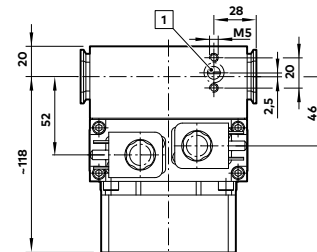
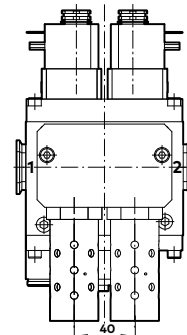
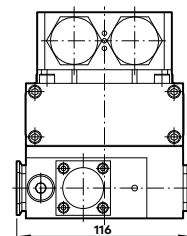
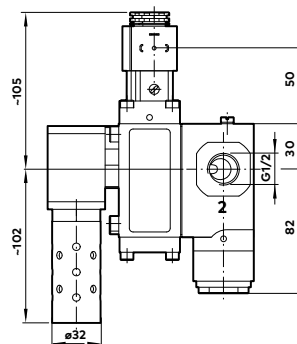
Operating pressure (bar)	Volume (dm ³)	Filling time approx. (ms)			
		Numbers of needle turn			
		4	6	12	
5	3	3200	2600	1700	
	8	8300	7000	4300	
6	3	3000	2400	1500	
	8	7800	6500	3900	
8	3	2700	2200	1400	
	8	7300	5700	3700	

Exhausting time

From switching signal OFF to pressure reduction to 10% of rated pressure

Operating pressure (bar)	Volume (dm ³)	Exhaust time (ms)
5	3	190
	8	440
6	3	200
	8	460
8	3	210
	8	480

Dimensions



□ Interface for pressure switch





Solenoid Actuated Press Safety Valves

XSz 8 ... XSz 50 3/2, G1/4 ... G2

- » Inherently fail-safe without residual pressure
- » Dynamic self monitoring
- » For use with pneumatic clutch and brake systems and other 3-way safety functions
- » Conforms to DIN ISO13849-1 (perf level 'e', cat IV) OSHA, BG, CSA and other approvals
- » Improves safety and reduces downtime
- » No additional electrical monitoring required
- » Easily fitted into existing systems

Technical Data

Medium:

Compressed air, filtered ($\leq 50 \mu\text{m}$), lubricated and non-lubricated

Suitable oils:

Shell Tellus S2 MA 32, ExxonMobil Febis K 32 or comparable oil with DVI values < 8 (DIN ISO 1817) and ISO viscosity class 32-46 (DIN 51519)

Operating Pressure:

2 ... 10 bar

For more details please see table

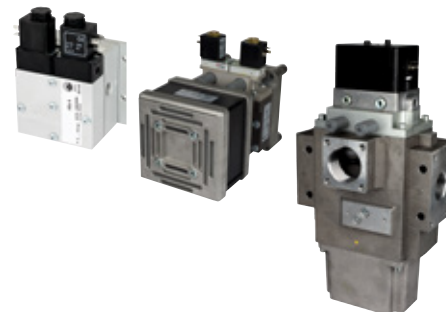
Mounting position:

Preferably upright with solenoids on top

Ambient temperature:

-10°C ... +60°C

Air supply must be dry enough to avoid ice formation at temperatures below +2°C



Models

Symbol	Model *	Series	Pressure range (bar)	Flow 1 (P) » 2 (A) 2 (A) » 3 (R)		Port sizes				Dimension No.
				(m³/h)	(m³/h)	1 (P)	2 (A)	2' (A')	3 (R)	
	2492806305202400	XSz 8 *1)	3 ... 10	77	93	G1/4	G1/4	–	G1/4	1
	2492932305202400	XSz 10 *2)	2 ... 10	190	390	G1/2	G1/2	(G1/2)	–	2
	2493032020002400	XSz 20 *2)	2 ... 8	210	795	G3/4	G3/4	G1	–	3
	2493105080002400	XSz 32 *2)	2 ... 8	440	1380	G1	G1	G1 1/2	–	4
	24932300800	XSz 50 *4)	2 ... 8	1100	3300	G1 1/2	G2	–	G2	5
	24932310800 *3)	XSz 50 *4)	2 ... 8	1100	3300	G1 1/2	G2	–	G2	5

Port sizes in brackets are plugged.

* 24VDC Solenoids included. For other voltages please contact us. All solenoids are delivered without plugs.

*1) XSz 8 valves are delivered with silencer.

*2) Valves delivered with integrated silencer and without flange (R ports).

*3) With pressure balance Model 1028100.

*4) Valves delivered without silencer and with flange.





Solenoid Actuated Press Safety Valves

XSz 8 ... XSz 50 3/2, G1/4 ... G2

Technical data – Solenoids

Model	0200, 0800, and 3052
Standard voltages	24 V d.c. and 230 V a.c., other on request
Duty cycle	100% ED
Protection class	IP65
Electrical connection	DIN EN 175301-803 (DIN 43650), form A

Model	Power consumption V d.c. (W)	Current V a.c.	
		Inrush (VA)	Hold (VA)
0200	11	22	15
0800	16	50	27
3052	4,8	12	8,5

Accessories

Series		Connector DIN EN 175301-803	Silencer
			
XSz 8	0680003000000000		MB002B (G1/4), MB003B (G3/8)
XSz 10	0680003000000000		–
XSz 20	0570275000000000		–
XSz32	0570275000000000		–

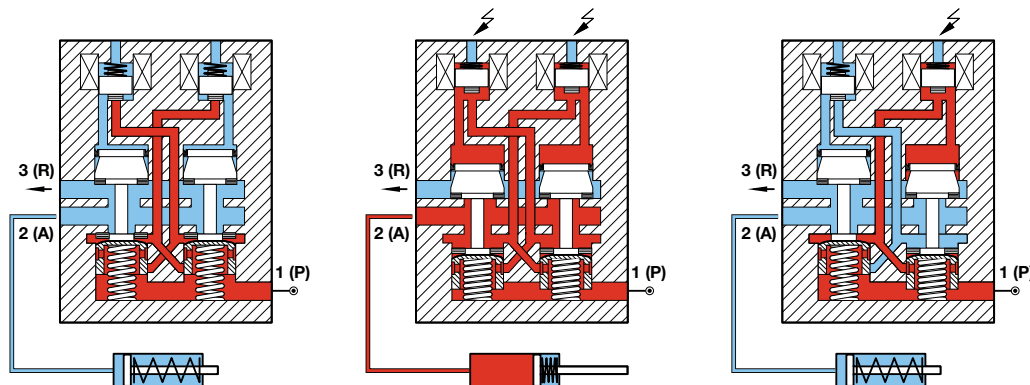
Caution: the safety is related to the quality of the silencer, use only Norgren original silencers.



Solenoid Actuated Press Safety Valves

XSz 8 ... XSz 50 3/2, G1/4 ... G2

Functional diagram



Solenoids de-energized

A port is exhausted. P port is closed, no connection from P to A. No residual pressure on port A as port A is freely exhausted through port R. No acting pressure on port A.

Solenoids energized

Pilots are synchronously energised. Connection from port P to A. Working pressure on A. No passage from P to R. Dynamic self monitoring of both pilot systems, checking each other at each cycle for proper functioning.

Malfunction

Pilots non-synchronously energised. Dynamic monitor notices failure operation and prevents the pistons from giving connection from P to A. Synchronously port A exhausts through R. No residual pressure remains in the system since P and A are not connected. The pilot line has lost the pressure and is locked.

1 (P) = Air pressure port, 2 (A) = Power port (clutch / brake), 3 (R) = Exhaust.

Norgren XSz Safety valves comply with the Category IV of DIN EN ISO 13849-1, if the operating system has been designed and realised according to Category IV.



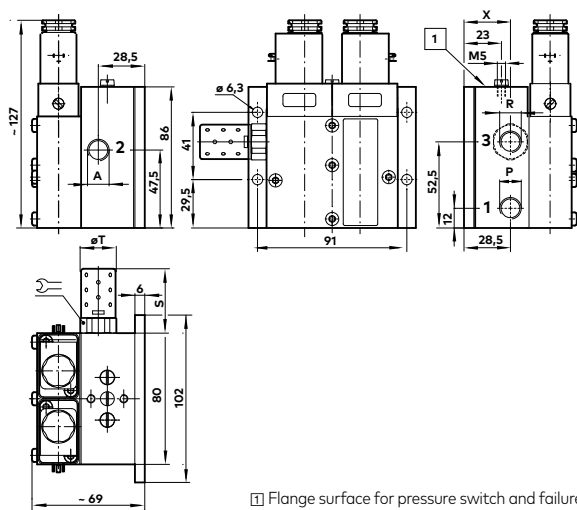
Solenoid Actuated Press Safety Valves

XSz 8 ... XSz 50 3/2, G1/4 ... G2

Dimensions

①

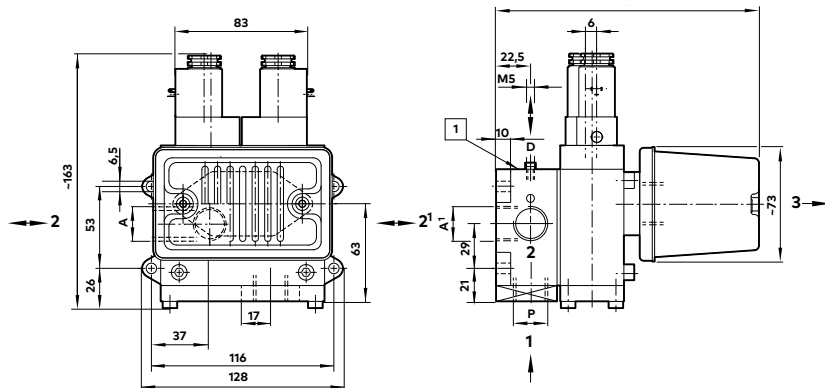
XSz 8 - with silencer



① Flange surface for pressure switch and failure indicator unit

②

XSz 10 - with silencer



Model	1 (P)	2 (A)	3 (R)	S	ØT	X
24928063052	G1/4	G1/4	G1/4	42	21	– 21

Model	1 (P)	2 (A)	2' (A ^b)	3 (R)
24929323052	G1/2	G1/2	G1/2 *	–

* Closed.





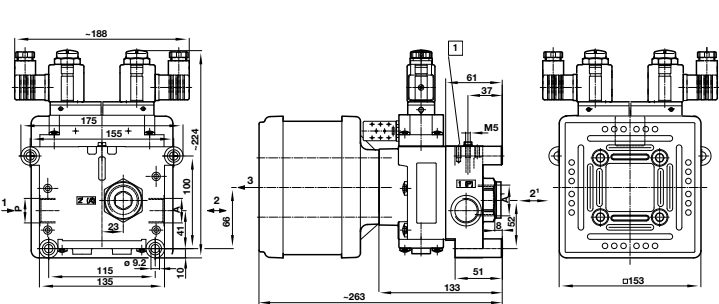
Solenoid Actuated Press Safety Valves

XSz 8 ... XSz 50 3/2, G1/4 ... G2

Dimensions

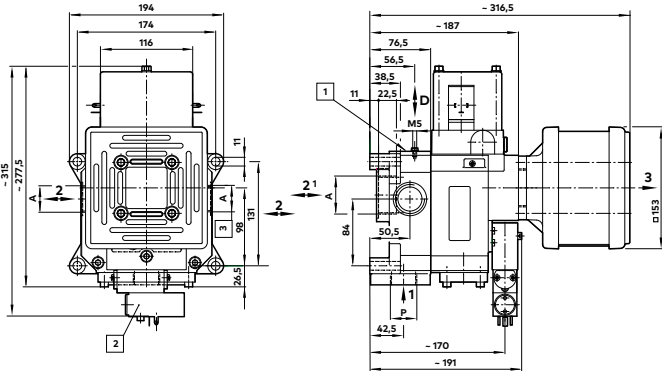
③

XSz 20 - with silencer



④

XSz 32 - with silencer



[1] Flange surface for pressure switch and failure indicator unit

Model	1 (P)	2 (A)	2' (A')	3 (R)	L
24930320200	G3/4	G3/4	G1	–	66,5 (57)

Model	1 (P)	2 (A)	2' (A')	3 (R)
24931050800	G1	G1	G1/2	–





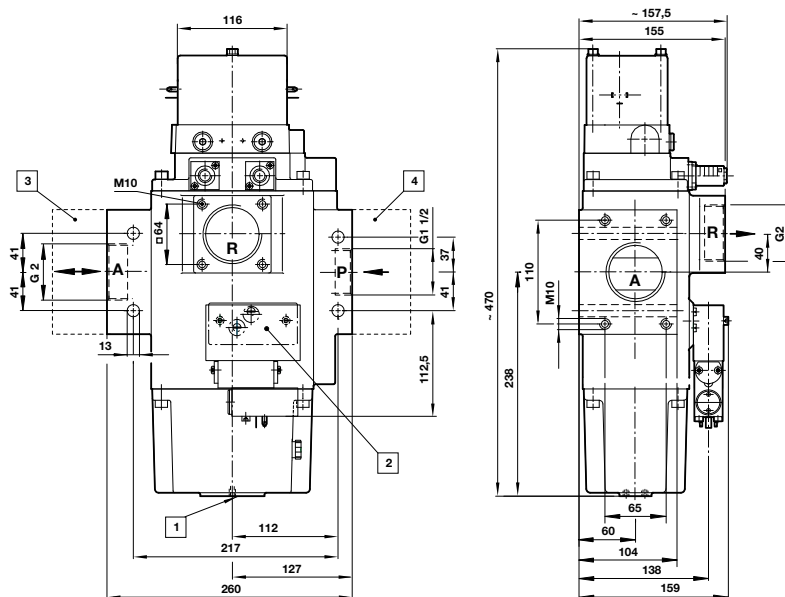
Solenoid Actuated Press Safety Valves

XSz 8 ... XSz 50 3/2, G1/4 ... G2

Dimensions

⑤

XSz 50 - without silencer, with pressure balance



- ① Flange surface for pressure switch and failure indicator unit
- ② Pressure balance
- ③ Flange surface for 18D pressure switch

Model	1 (P)	2 (A)	2' (A')	3 (R)
24932300800	G11/2	G2	—	G2
24932310800 *3)	G11/2	G2	—	G2



Super X series Manual and mechanical valve

Strong, robust and reliable, they employ a mixture of custom-made and electrical style operating heads on a modular body system covering 3/2, 5/2 and 5/3 functions. New er options now include many 3/2 versions with a moulded body having either threaded ports or integral push-in fittings.

For heavier applications, traditional die-cast bodies are still available. In addition to the standard catalogued series, Norgren also produces many special options covering more diverse applications.

- » Compact, high flow for body size with electrical style operators – complete integration with other control systems and aesthetically pleasing
- » Wide range of operators in all functions, able to meet most control requirements – best use of standard product with total flexibility and minimum spares holding and inventory count
- » Moulded body available with integral PIFs



Manually & Mechanically Actuated Spool Valve

030, X30, X33 (Super X) 3/2, 5/2 and 5/3, G1/8, G1/4

- » Suitable for multi-directional flow and dual supply applications
- » High flow rate
- » Electrical style manual operators offer ease of use, and include several special use versions which can be used to comply with health and safety requirements

Technical Data

Medium:
Compressed air, filtered,
lubricated and non-lubricated

Operating pressure:
Maximum 10 bar

Flow:
1/8" 335 l/min
1/4" 965 l/min

Ambient temperature:
0°C ... +70°C
Air supply must be dry enough
to avoid ice formation at
temperatures below +2°C

3/2 way PA body valves
Metal versions are
available on request

Port assembly torque:
Use recommended torque
for fittings. This should not
exceed 10 Nm, otherwise
damage may occur to body.
Please contact us - many
options available ex-stock



Models – 3/2 mechanical valves

Symbol	Model	Port size	Actuation	Operating pressure (bar)	Operating force (N)	Dimension No.	Straight fitting	Elbow fitting	Silencer
	03040002	G1/8	Plunger/spring	- 0,9 ... 10	31	1	C02250618	C02470618	T40C1800
	03060002	G1/4	Plunger/spring	- 0,9 ... 10	53	8	C02250828	C02470828	T40C2800
	03040202	G1/8	Roller/spring	- 0,9 ... 10	31	2	C02250618	C02470618	T40C1800
	03060202	G1/4	Roller/spring	- 0,9 ... 10	61	9	C02250828	C02470828	T40C2800
	03041102	G1/8	Roller lever/spring	- 0,9 ... 10	31	3	C02250618	C02470618	T40C1800
	03061102	G1/4	Roller lever/spring	- 0,9 ... 10	45	10	C02250828	C02470828	T40C2800
	03029302	G1/8	Roller lever (heavy duty) /spring	- 0,9 ... 10	31	4	C02250618	C02470618	T40C1800

Accessories





Manually & Mechanically Actuated Spool Valve

O30, X30, X33 (Super X) 3/2, 5/2 and 5/3, G1/8, G1/4

Models – 3/2 manual valves

Accessories

Symbol	Model	Port size	Actuation	Colour	Operating pressure (bar)	Operating force (N)	Dimension No.	Straight fitting	Elbow fitting	Silencer	
											
		O3040402	G1/8	Button/spring	Black	- 0,9 ... 10	31	13	C02250618	C02470618	T40C1800
		O3040602	G1/8	Button/spring	Red	- 0,9 ... 10	31	13			
		O3041402	G1/8	Button (shrouded)/spring	Black	- 0,9 ... 10	31	14	C02250618	C02470618	T40C1800
		O3041502	G1/8	Button (shrouded)/spring	Green	- 0,9 ... 10	31	14	C02250618	C02470618	T40C1800
		O3041602	G1/8	Button (shrouded)/spring	Red	- 0,9 ... 10	31	14	C02250618	C02470618	T40C1800
		O3042802	G1/8	Emergency stop/twist reset	Red	- 0,9 ... 10	18	15	C02250618	C02470618	T40C1800
		O3041902	G1/8	Rotary knob/set reset	Black	- 0,9 ... 10	–	20	C02250618	C02470618	T40C1800
		O3029602	G1/8	Lever toggle/spring	Black	- 0,9 ... 10	13	16	C02250618	C02470618	T40C1800
		O3040302	G1/8	Toggle/toggle	Black	- 0,9 ... 10	28	17	C02250618	C02470618	T40C1800
		O3042402	G1/8	Knob/knob or pilot	Black	- 0,9 ... 10	18	19	C02250618	C02470618	T40C1800
		O3062702	G1/4	Knob/knob or pilot	Black	- 0,9 ... 10 *	13	32	C02250828	C02470828	T40C2800
		O3043702	G1/8	Lever/lever	Black	- 0,9 ... 10	9	18	C02250618	C02470618	T40C1800
		O3063702	G1/4	Lever/lever	Black	- 0,9 ... 10	13	33	C02250828	C02470828	T40C2800
		O3043802	G1/8	Lever/spring	Black	- 0,9 ... 10	9	18	C02250618	C02470618	T40C1800
		O3048102	G1/8	Pedal/spring	–	- 0,9 ... 10	22	21	C02250618	C02470618	T40C1800
		O3068102	G1/4	Pedal/spring	–	- 0,9 ... 10	22	31	C02250828	C02470828	T40C2800

* Reset pressure: 4 bar minimum.

Pressure for pilot function is the minimum pressure to operate the valve. The valve may switch below this pressure.



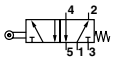
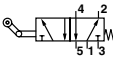


Manually & Mechanically Actuated Spool Valve

O30, X30, X33 (Super X) 3/2, 5/2 and 5/3, G1/8, G1/4

Models – 5/2 mechanical valves

Accessories

Symbol	Model	Port size	Actuation	Colour	Operating pressure (bar)	Operating force (N)	Dimension No.	Straight fitting	Elbow fitting	Silencer
	X3044202	G1/8	Roller/spring	–	- 0,9 ... 10	54	5			
	X3064202	G1/4	Roller/spring	–	- 0,9 ... 10	67	11			
	X3045102	G1/8	Roller lever/spring	–	- 0,9 ... 10	31	6			
	X3065102	G1/4	Roller lever/spring	–	- 0,9 ... 10	45	12			
	X3039302	G1/8	Roller lever (heavy duty)/spring	–	- 0,9 ... 10	31	7			



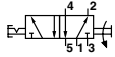
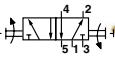
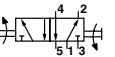
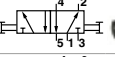
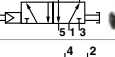
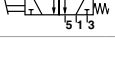
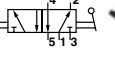
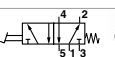
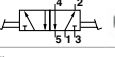
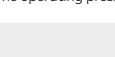
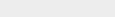


Manually & Mechanically Actuated Spool Valve

030, X30, X33 (Super X) 3/2, 5/2 and 5/3, G1/8, G1/4

Models – 5/2 manual valves

Accessories

Symbol	Model	Port size	Actuation	Colour	Operating pressure (bar)	Operating force (N)	Dimension No.	Straight fitting	Elbow fitting	Silencer
	X3046802	G1/8	Emergency stop/ twist reset	Red	- 0,9 ... 10	18	22			
	X3045802801	G1/8	Key/key		- 0,9 ... 10	–	29	C02250618	C02470618	T40C1800
	X3045902	G1/8	Rotary knob/ knob reset		- 0,9 ... 10	–	23	C02250618	C02470618	T40C1800
	X3046502	G1/8	Knob/knob	Black	- 0,9 ... 10	22	27	C02250618	C02470618	T40C1800
	X3066502	G1/4	Knob/knob	Black	- 0,9 ... 10	13	34	C02250618	C02470618	T40C1800
	X3046402	G1/8	Knob, push/knob, pull or pilot	Black	- 0,9 ... 10 *	22	28	C02250618	C02470618	T40C1800
	X3047802	G1/8	Lever/spring	Black	- 0,9 ... 10	16	38	C02250828	C02470828	T40C2800
	X3067802	G1/4	Lever/spring	Black	- 0,9 ... 10	15	35	C02250618	C02470618	T40C1800
	X3029602	G1/8	Toggle/toggle	Black	- 0,9 ... 10	13	24	C02250618	C02470618	T40C1800
	X3044302	G1/8	Toggle/spring	Black	- 0,9 ... 10	48	25	C02250618	C02470618	T40C1800
	X3047702	G1/8	Toggle/lever	Black	- 0,9 ... 10	13	38	C02250618	C02470618	T40C1800
	X3067702	G1/4	Toggle/lever	Black	- 0,9 ... 10	13	35	C02250828	C02470828	T40C2800
	X3048202	G1/8	Pedal/spring	Black	- 0,9 ... 10	22	30	C02250618	C02470618	T40C1800
	X3068202	G1/4	Pedal/spring	Black	- 0,9 ... 10	22	37	C02250828	C02470828	T40C2800
	X3048402	G1/8	Pedal/pedal	Black	- 0,9 ... 10	22	30	C02250618	C02470618	T40C1800
	X3068402	G1/4	Pedal/pedal	Black	- 0,9 ... 10	22	37	C02250828	C02470828	T40C2800

* The operating pressure for pilot function is the minimum pressure to operate the valve. The valve may switch below this pressure.





Manually & Mechanically Actuated Spool Valve

O30, X30, X33 (Super X) 3/2, 5/2 and 5/3, G1/8, G1/4

Models – 5/3 manual valves

Accessories

Symbol	Model	Port size	Actuation	Colour	Operating pressure (bar)	Operating force (N)	Dimension No.	Straight fitting	Elbow fitting	Silencer
	X3343702	G1/8	Lever/lever/lever	Black	- 0,9 ... 10	12	26			
	X3363702	G1/4	Lever/lever/lever	Black	- 0,9 ... 10	12	36	C02250828	C02470828	T40C2800



Manually & Mechanically Actuated Spool Valve

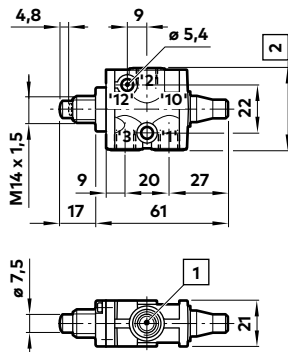
Super X 3/2, 5/2 and 5/3, G1/8, G1/4

Dimensions

①

03040002

3/2 Plunger actuated spring return valve



The plunger on this valve is designed for axial loading only.
Nut and mounting washer kit supplied as optional extra part number 03 0430 00

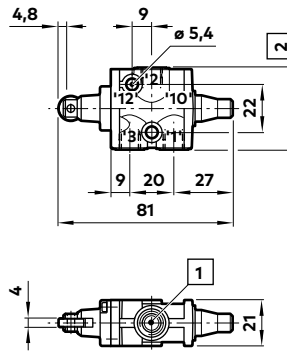
□ Port size G1/8 or Ø6 mm

□ 37 mm for G1/8 and 45 mm for Ø6 mm

②

03040202

3/2 Roller actuated spring return valve

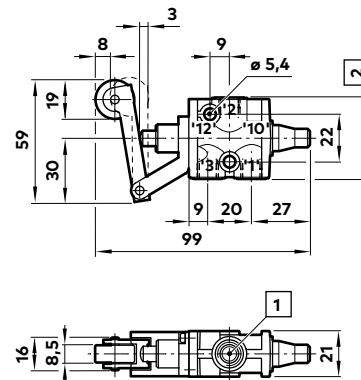


Maximum recommended cam rise: 4,5 mm
Cam angle of approach: 30° maximum
Cam speed: 8 m/min. maximum
Operating speed: 300 cpm

③

03041102

3/2 Roller lever actuated spring return valve



Operating travel: 8 mm
Over-travel: 3 mm
Cam angle of approach: 45° maximum
Cam speed: 8 m/min. maximum
Operating speed: 300 cpm

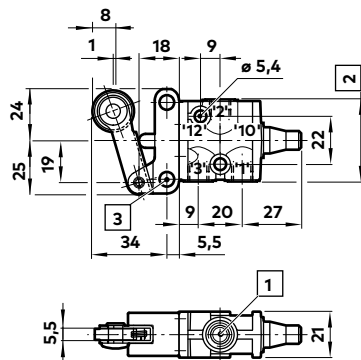


030, X30, X33 (Super X) 3/2, 5/2 and 5/3, G1/8, G1/4

④

03029302

3/2 Heavy duty roller lever actuated spring return valve



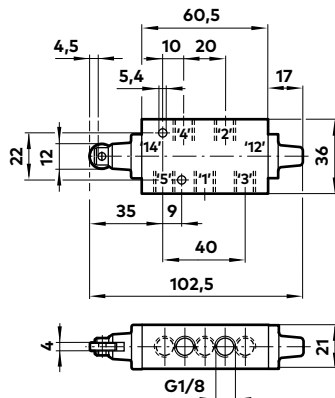
Operating Travel: 8 mm
Over-travel: 1 mm
Cam angle of approach: 45° maximum
Cam speed: 8 m/min. maximum
Operating speed: 300 cpm

- ① Port size G1/8 or Ø6 mm
- ② 37 mm for G1/8 and 45 mm for Ø6 mm
- ③ 0.7 mm thick spacing washer must be used if additional mounting holes are used.



X3044202

5/2 Roller actuated spring return valve

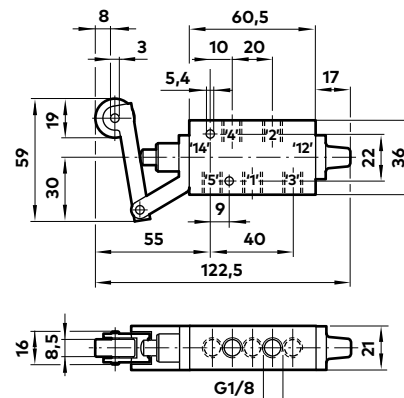


Maximum recommended can rise: 4,5 mm
Cam angle of approach: 30° maximum
Cam speed: 8 m/min. maximum
Operating speed: 300 cpm



X3045102

5/2 Roller lever actuated spring return valve



Operating travel: 8 mm
Over-travel: 3 mm
Cam angle of approach: 45° maximum
Cam speed: 8 m/min. maximum
Operating speed: 300 cpm





Manually & Mechanically Actuated Spool Valve

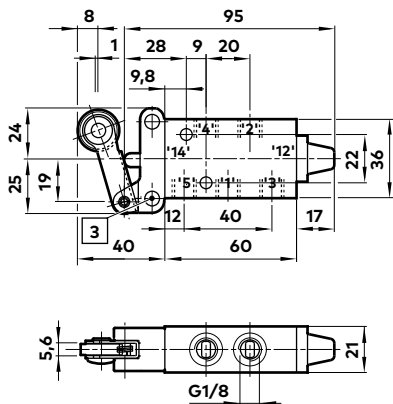
Super X 3/2, 5/2 and 5/3, G1/8, G1/4

Dimensions

⑦

X3039302

5/2 Heavy duty roller lever actuated spring return valve



Operating travel: 8 mm

Over-travel: 1 mm

Cam angle of approach: 45° maximum

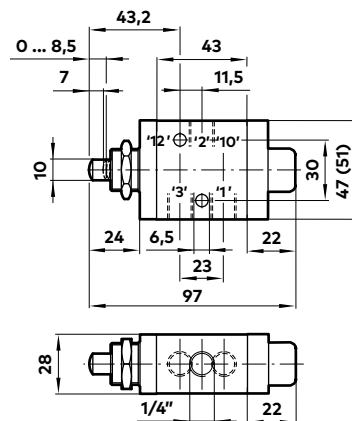
Cam speed: 8 m/min. maximum

Operating speed: 300 cpm

⑧

03060002

3/2 Plunger actuated spring return valve



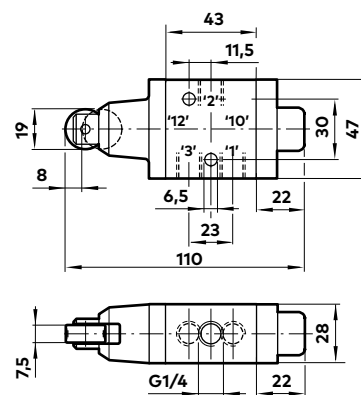
Panel hole: Ø21 mm

The plunger on this valve is designed for axial loading only

⑨

03060202

3/2 Roller actuated spring return valve



Cam angle of approach: 45° maximum

Cam speed: 6 m/min. maximum

Operating speed: 200 cpm

③ 0,7 mm thick spacing washer must be used if additional mounting holes are used.



Manually & Mechanically Actuated Spool Valve

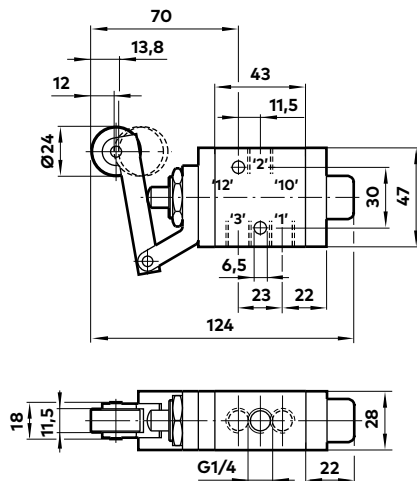
O30, X30, X33 (Super X) 3/2, 5/2 and 5/3, G1/8, G1/4

Dimensions

⑩

O3061102

3/2 Roller lever actuated spring return valve

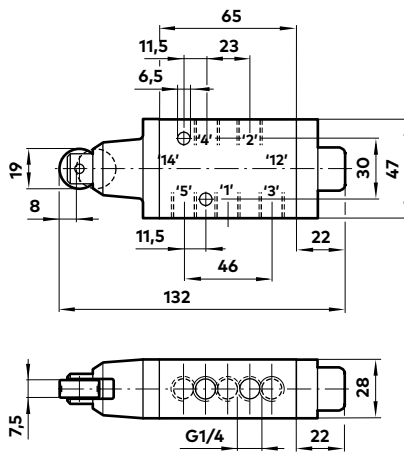


Cam angle of approach: 45° maximum
Cam speed: 5 m/min. maximum
Operating speed: 150 cpm

⑪

X3064202

5/2 Roller actuated spring return valve

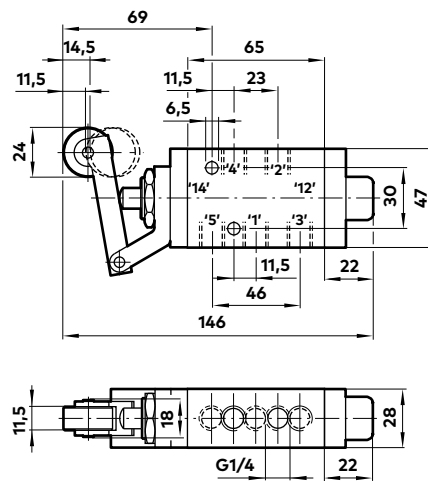


Cam angle of approach: 45° maximum
Cam speed: 6 m/min. maximum
Operating speed: 200 cpm

⑫

X3065102

5/2 Roller lever actuated spring return valve



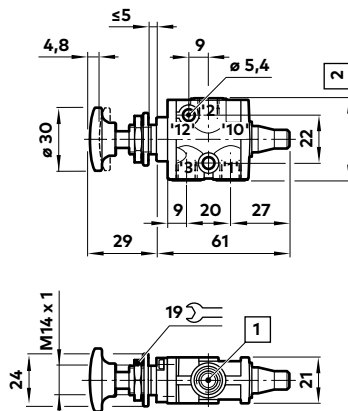
Cam angle of approach: 45° maximum
Cam speed: 5 m/min. maximum
Operating speed: 150 cpm



030, X30, X33 (Super X) 3/2, 5/2 and 5/3, G1/8, G1/4

13

3/2 Button operated spring return valves

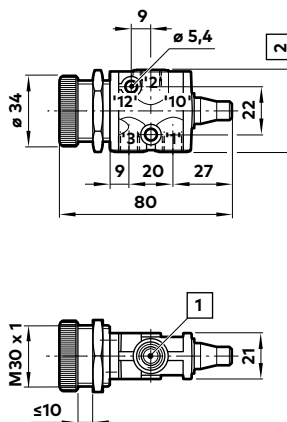


These valves are suitable for panel mounting by means of an optional nut and washer, reference 03 0430 00; a shrouded panel mounting kit is also available, reference 03 0429 00.

- ① Port size G1/8 or Ø6 mm
- ② 37 mm for G1/8 and 45 mm for Ø6 mm
- ③ 0,7 mm thick spacing washer must be used if additional mounting holes are used.



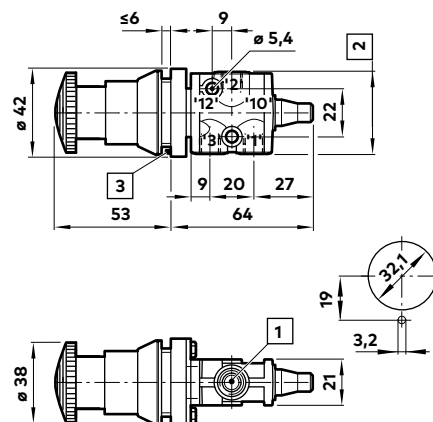
3/2 Button (Shrouded) operated spring return valves



These valves are suitable for panel mounting.



3/2 Button (Palm) operated, twist return valve (Emergency stop)



Valve latches when button is depressed and returns when the locking ring is rotated anti-clockwise.
This valve is suitable for panel mounting.

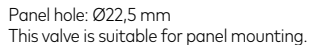




Dimensions

03029602

3/2 Lever toggle spring return valve

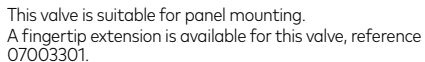


① Port size G1/8 or Ø6 mm

② 37 mm for G1/8 and 45 mm for Ø6 mm

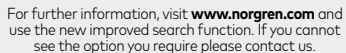
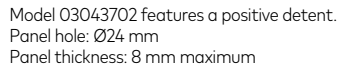
03040302

3/2 Toggle operated spring return valve



03043802 & 03043702

3/2 Lever operated spring return valve



Manually & Mechanically Actuated Spool Valve

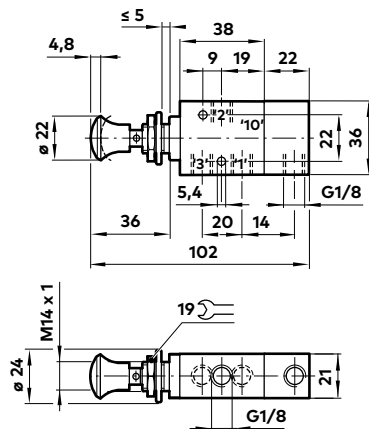
030, X30, X33 (Super X) 3/2, 5/2 and 5/3, G1/8, G1/4

Dimensions

①⑨

03042402

3/2 Knob operated, knob or pilot return valve



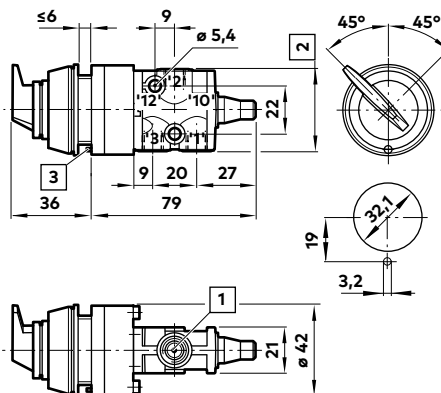
This valve is suitable for panel mounting by means of an optional nut and washer, reference 03 0430 00.

- ① Port size G1/8 or Ø6 mm
- ② 37 mm for G1/8 and 45 mm for Ø6 mm
- ③ 0,7 mm thick spacing washer must be used if additional mounting holes are used.

②⑩

03041902

3/2 Rotary knob operated rotary knob return valve



Switch shown in non-operated position
This valve is suitable for panel mounting.





Manually & Mechanically Actuated Spool Valve

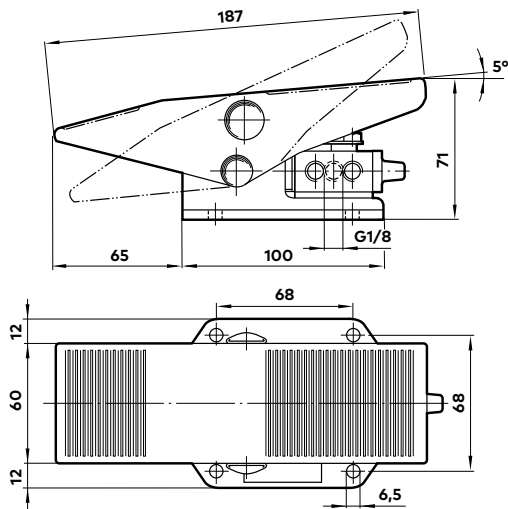
030, X30, X33 (Super X) 3/2, 5/2 and 5/3, G1/8, G1/4

Dimensions

②①

03048102

3/2 Pedal operated spring return valve

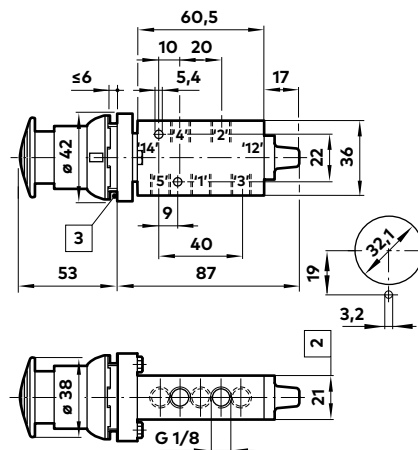


A foot guard is available for this valve, reference 03 0480 60.

②②

X3046802

5/2 Button (Palm) operated spring return valves



These valves are suitable for panel mounting.

② 37 mm for G1/8 and 45 mm for Ø6 mm

③ 0,7 mm thick spacing washer must be used if additional mounting holes are used.



Manually & Mechanically Actuated Spool Valve

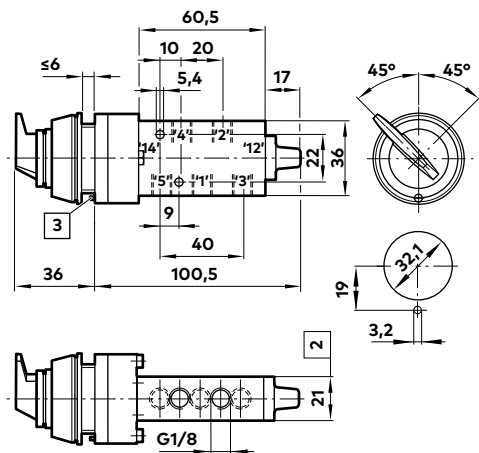
O30, X30, X33 (Super X) 3/2, 5/2 and 5/3, G1/8, G1/4

Dimensions

②③

X3045902

5/2 Rotary knob operated rotary knob return valve



Switch shown in non-operated position
This valve is suitable for panel mounting.

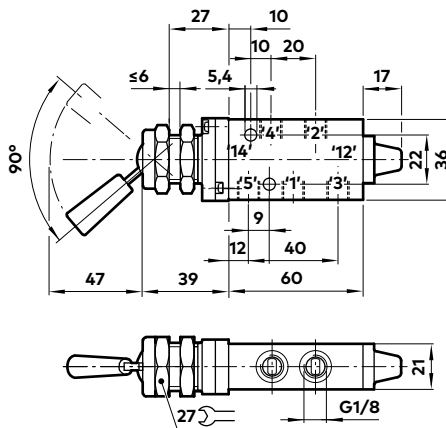
② 37 mm for G1/8 and 45 mm for Ø6 mm

③ 0,7 mm thick spacing washer must be used if additional mounting holes are used.

②④

X3029602

5/2 Toggle operated toggle return valve



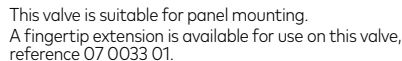
Panel hole: Ø22,5 mm
This valve is suitable for panel mounting.



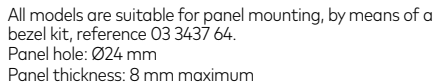
030, X30, X33 (Super X) 3/2, 5/2 and 5/3, G1/8, G1/4

25

5/2 Toggle operated spring return valve



5/3 Lever operated valves



5/2 Knob operated knob return valve



Manually & Mechanically Actuated Spool Valve

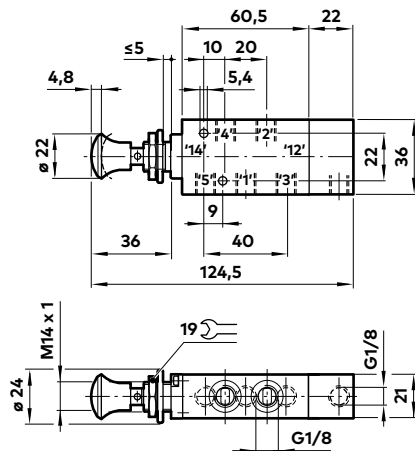
O30, X30, X33 (Super X) 3/2, 5/2 and 5/3, G1/8, G1/4

Dimensions

②⑧

X3046402

5/2 Knob operated, knob or pilot return valve

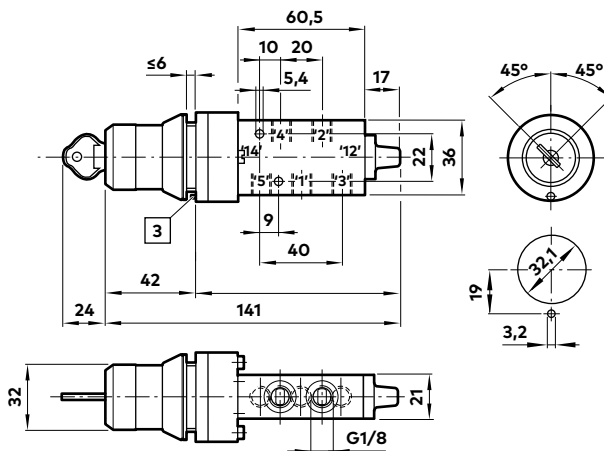


These valves are suitable for panel mounting by means of an optional nut and washer, reference 03043000

②⑨

X3045802801

5/2 Key operated key return valve



The key is removable in both positions.
Key slot shown in non-operated position.
Two keys are supplied.
This valve is suitable for panel mounting.

☐ 0,7 mm thick spacing washer must be used if additional mounting holes are used.





Manually & Mechanically Actuated Spool Valve

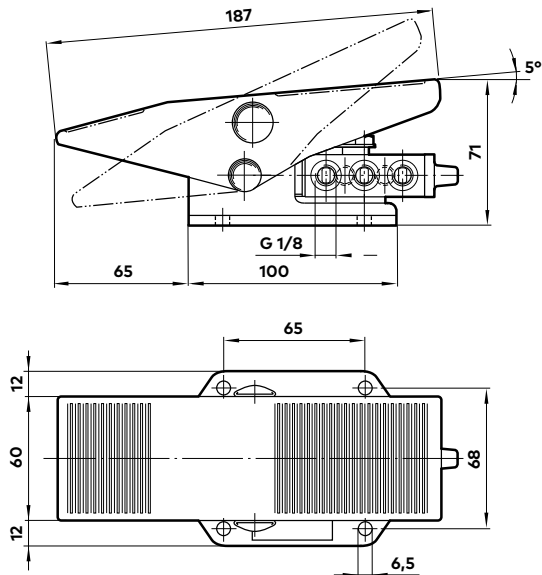
030, X30, X33 (Super X) 3/2, 5/2 and 5/3, G1/8, G1/4

Dimensions

③①

X3048202 - 5/2 Pedal operated spring return valve

X3048402 - 5/2 Pedal operated pedal return valve

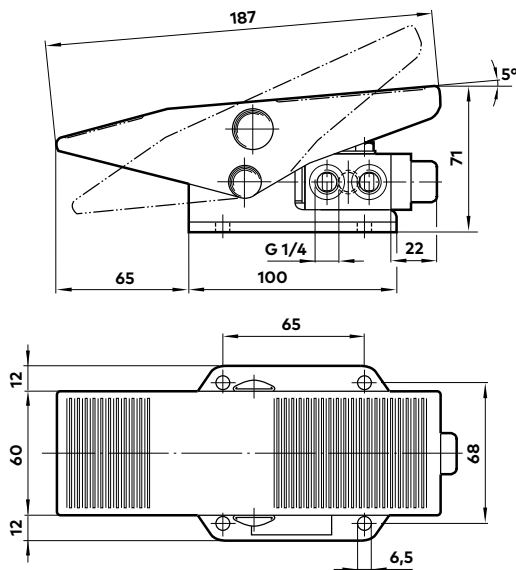


A foot guard is available for this valve, reference 03048060.

③①

03068102

3/2 Pedal operated spring return valve



A foot guard is available for this valve, reference 03048060.





Manually & Mechanically Actuated Spool Valve

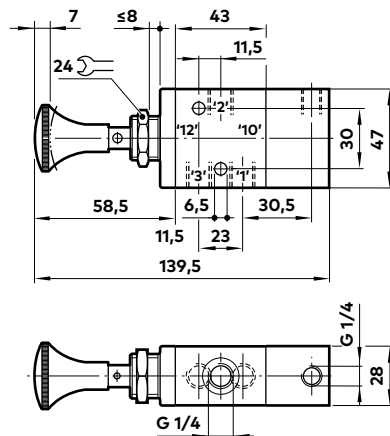
030, X30, X33 (Super X) 3/2, 5/2 and 5/3, G1/8, G1/4

Dimensions

32

03062702

3/2 Knob operated, knob or pilot return valve



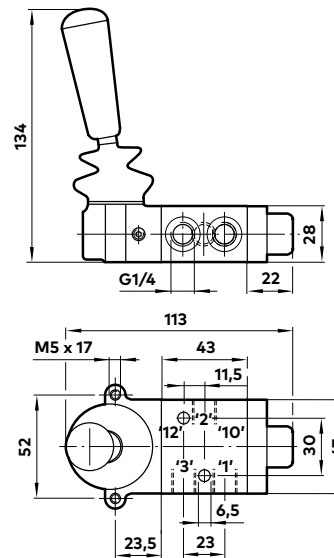
This valve is suitable for panel mounting and includes a nut and washer.

Panel hole: Ø21 mm

33

03063702

3/2 Lever operated valve



Model 03063702 features a positive detent in each position. Both models are suitable for panel mounting by means of a bezel kit, reference 03363764.

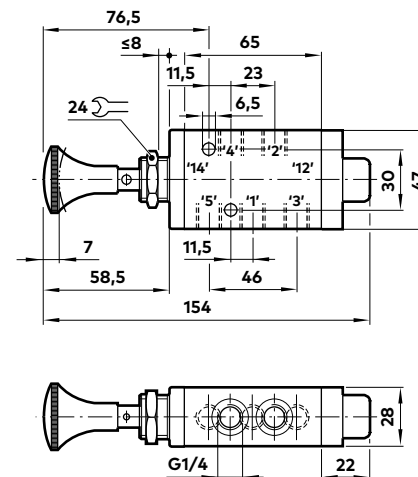
Panel hole: Ø31 mm;

Panel thickness: 8 mm maximum

34

X3066502

5/2 Knob operated knob return valve



This valve is suitable for panel mounting and includes a nut and washer.

Panel hole: Ø21 mm



Manually & Mechanically Actuated Spool Valve

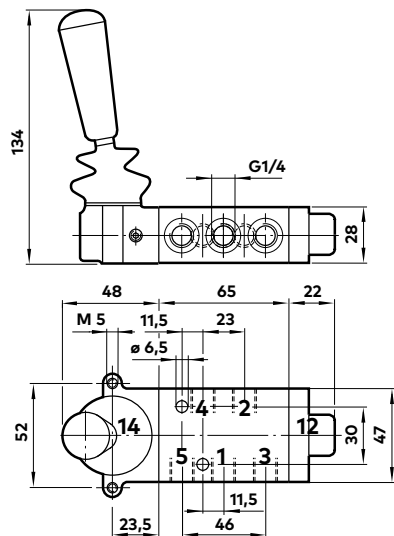
030, X30, X33 (Super X) 3/2, 5/2 and 5/3, G1/8, G1/4

Dimensions

35

X3067802, X3067702

5/2 Lever operated valve



Model X3067702 features a positive detent in each position.

Both models are suitable for panel mounting by means of a bezel kit, reference 03363764.

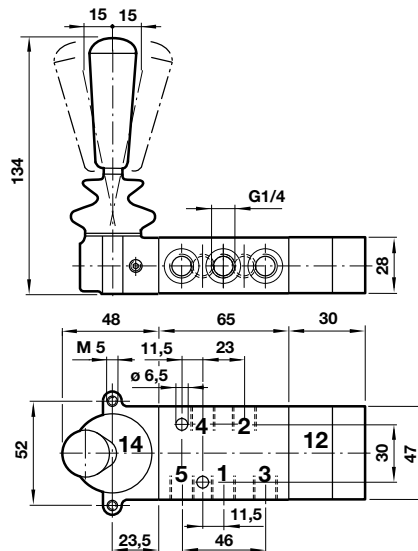
Panel hole: Ø31 mm

Panel thickness: 8 mm maximum

36

X3363702

5/3 Three position lever operated valves



These valves are suitable for panel mounting by means of a bezel kit, reference 03363764.

Panel hole: Ø31 mm

Panel thickness: 8 mm maximum





Manually & Mechanically Actuated Spool Valve

030, X30, X33 (Super X) 3/2, 5/2 and 5/3, G1/8, G1/4

Dimensions

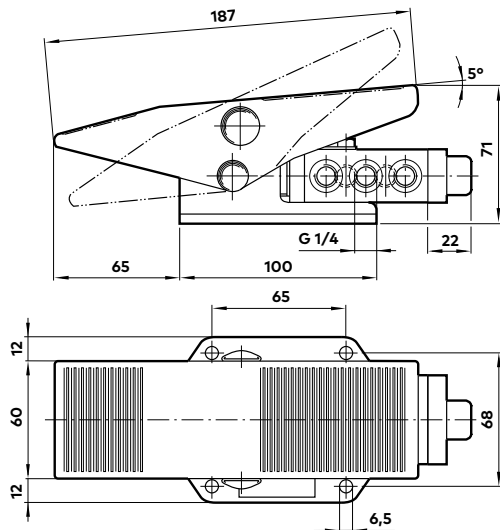
③⑦

X3068202

5/2 Pedal operated spring return valve

X3068402

5/2 Pedal operated pedal return valve



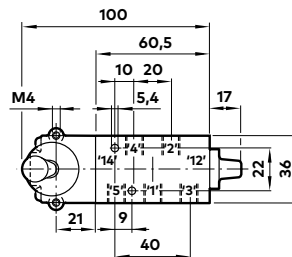
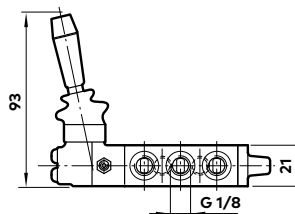
③⑧

X3047802

5/2 Lever/spring

X3047702

5/2 Toggle/lever



A foot guard is available for this valve, reference 03048060.





Rotary Hand Valve

VHLA 4/2, 4/3, G1/4 ... G1/2

- » Aluminium die-cast design suitable for heavy duty applications
- » Detented centre position
- » High flow rates
- » Easy to grasp and rotate lever
- » Panel mounting option

Technical Data

Medium:
Compressed air, filtered,
lubricated and non-lubricated

Operating pressure:
0 ... 9,7 bar

Flow:
400 ... 3100 l/min

Ambient temperature:
-5°C ... +60°C
Air supply must be dry enough
to avoid ice formation at
temperatures below +2°C

Materials

Body and cover:
Aluminium alloy

Seals:
NBR



Models

Symbol	Model	Port size	Function	Flow (l/min)	Panel mount nut	Straight fitting	Elbow fitting	Silencer
	VHLA202-02G	G1/4	4/2	400				
	VHLA402-04G	G1/2	4/2	3100				
	VHLA200-02G	G1/4	4/3 APB	400	VHLA-200N	C02250828	C02470828	T40C2800
	VHLA400-04G	G1/2	4/3 APB	3100	VHLA-400N	C02251248	C02471248	T40C4800

Caution: These valves are not leak free, care should be taken with safety critical applications and where an APB valve is used to hold an actuator in a mid position.

Installation: It is recommended that air pressure is applied only at port 1, otherwise leakage may occur - (ie. reverse porting is not recommended). It is recommended that a silencer is fitted in the exhaust port, particularly in applications where dust is present.



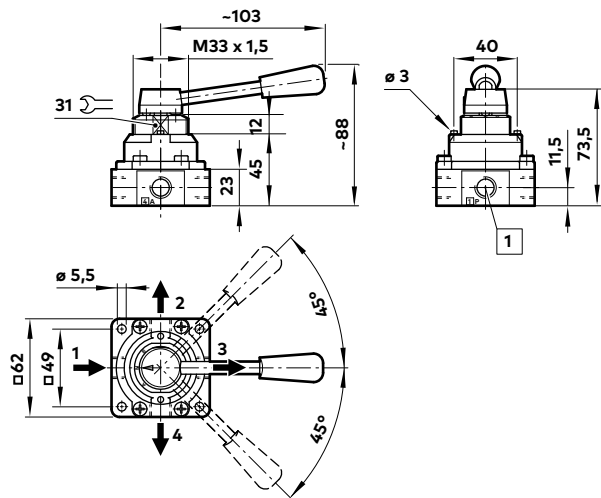


Rotary Hand Valve

VHLA 4/2, 4/3, G1/4 ... G1/2

Dimensions

G1/4

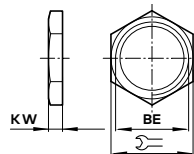
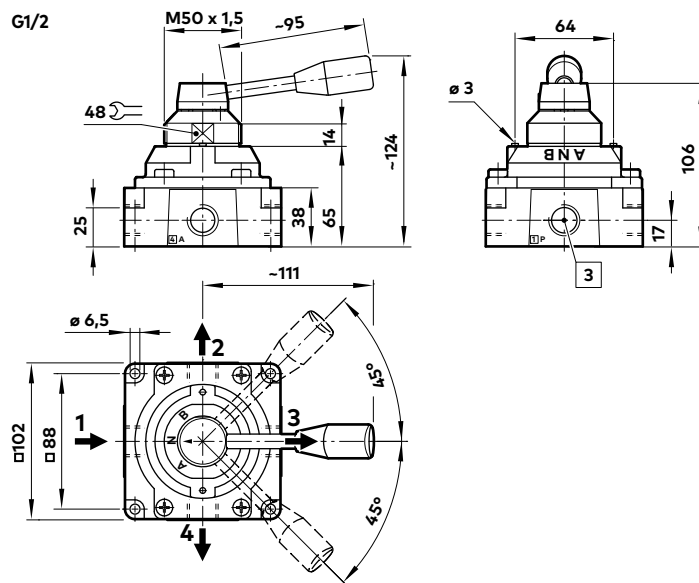


- 1 All ports G1/4
- 2 All ports G3/8
- 3 All ports G1/2

Panel mount nut

BE		KW		Model
M33x1,5	40	6		VHLA-200N
M50x1,5	55	8		VHLA-400N

G1/2



For further information, visit www.norgren.com and use the new improved search function. If you cannot see the option you require please contact us.





Manual In-Line Valve

M/1700 5/2, 5/3, G1/4, G1/2

- » Compact, well proven range – perfectly suited to many applications
- » Air assisted detent ensures positive valve location
- » Simple servicing and sub-base mounting for reduced down-time

Technical Data

Medium:
Compressed air, filtered,
lubricated and non-lubricated

Operating pressure:
2 ... 10 bar

Flow:
Size l/min
G1/4 1290
G1/2 3200

Ambient temperature:
-20°C ... +80°C
Air supply must be dry enough
to avoid ice formation at
temperatures below +2°C



Models

Symbol	Model	Size	Function	Actuation	Mid position
	M/1702/177	G1/4	5/2	Lever/Lever	–
	M/1704/177	G1/2	5/2	Lever/Lever	–
	M/1702/87	G1/4	5/3	Lever/Lever/Lever	APB
	M/1704/87	G1/2	5/3	Lever/Lever/Lever	APB
	M/1704/687	G1/2	5/3	Lever/Spring/Lever	APB
	M/1714/687	G1/2	5/3	Lever/Spring/Lever	COE

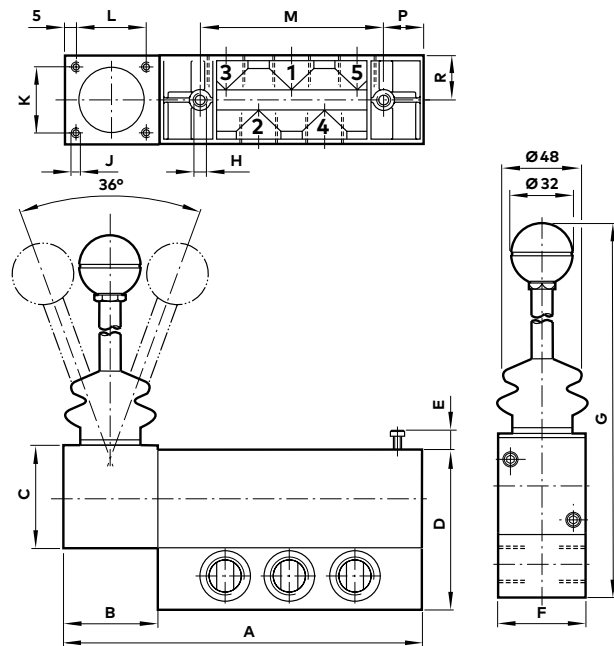
APB = All Ports Blocked.
COE = Centre Open Exhaust.



Manual In-Line Valve

M/1700 5/2, 5/3, G1/4, G1/2

Dimensions



Model	A	B	C	D	E	F	G	H	J	K	L	M	P	R
M/1702	143,5	42	41,5	65	0,5	35	200,5	M6	M4	27	32	67,5	17	17,5
M/17*4	197	49	56,5	89,5	9,5	35	222,5	M8	M5	35,5	35,5	101,5	23	24





Poppet Valve Manual/Mechanical

S/666 3/2 G1/8

- » Long established and well-proven valves
- » Compact size
- » Normally closed and normally open models
- » May also be used as 2/2 valves

Technical Data

Medium:
Compressed air, filtered,
lubricated and non-lubricated

Operation:
Poppet valves,
directly actuated

Mounting:
Through-holes in valve body

Port Size:
G1/8

Operating Pressure:
2 ... 10 bar

Flow:
666 range = 174 l/min
667 range = 156 l/min

Ambient temperature:
-20°C ... +80°C
Air supply must be dry enough
to avoid ice formation at
temperatures below +2°C



Models

Symbol	Model	Function	Actuation	Dimension No.
Pilot				
	S/666/40	3/2 NC	Pilot/Spring	9
	S667/40	3/2 NO	Pilot/Spring	9

NC = Normally Closed.

NO = Normally Open.





Poppet Valve Manual/Mechanical

S/666 3/2 G1/8

Models

Symbol	Model	Function	Actuation	Dimension No.
Mechanical				
	S/666/14	3/2 NC	Plunger/Spring	7
	S/666/8	3/2 NC	Roller/Spring	8
	S/667/8	3/2 NO	Roller/Spring	8
	S/666/108	3/2 NC	Variable Roller/Spring	1
	S/666/106	3/2 NC	Variable Rod/Spring	2
	S/666/116	3/2 NC	Antenna Spring/Spring	3
Manual				
	S/666/1	3/2 NC	Button/Spring	6
	S/666/7	3/2 NC	Lever/Lever (Panel mounting)	5
	S/666/117	3/2 NC	Lever (long)/Lever (panel mounting)	4

NC = Normally Closed.

NO = Normally Open.





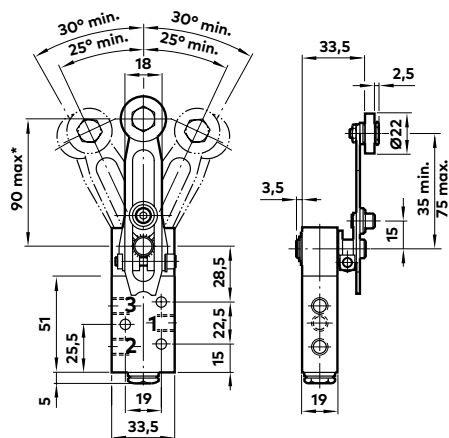
Poppet Valve Manual/Mechanical

S/666 3/2 G1/8

Dimensions

①

S/666/108

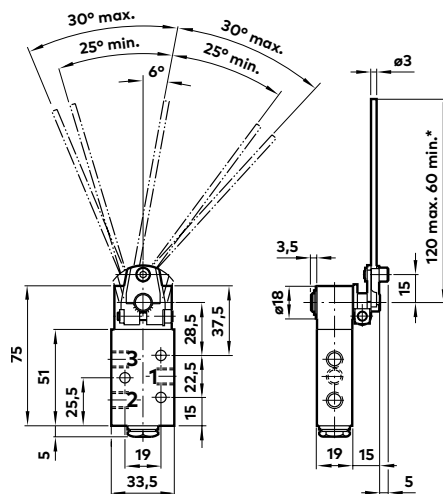


Mechanism may be operated either side of centre line.
When the valve is mounted horizontally, the roller is recommended to be positioned on the upper face of the arm.

*Alternative position

②

S/666/106

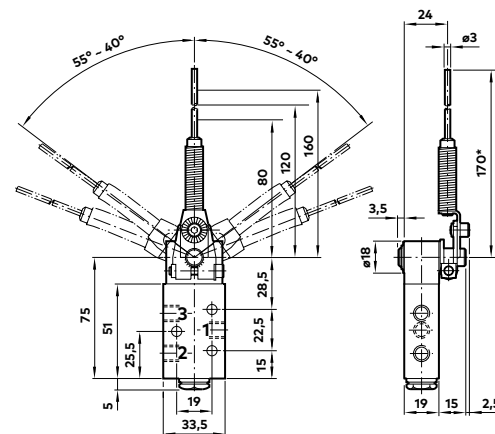


Mechanism may be operated either side of centre line.

*Recommended

③

S/666/116



*Rotation at Point of Application: 40° minimum @ 80 mm,
50° minimum @ 120 mm, 55° minimum @ 160 mm.
Mechanism may be operated either side of centre line.



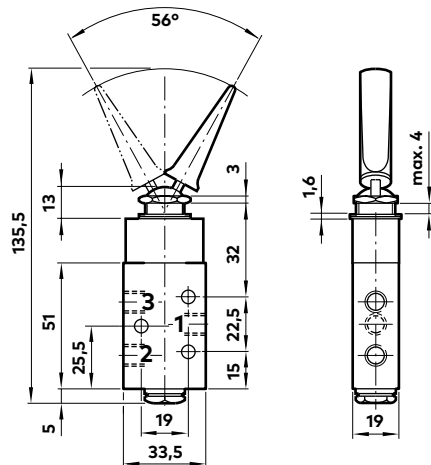
Poppet Valve Manual/Mechanical

S/666 3/2 G1/8

Dimensions

④

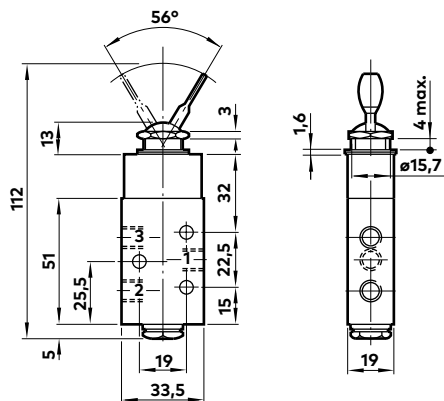
S/666/117



Panel hole: Ø16 mm
Panel thickness: 4 mm maximum

5

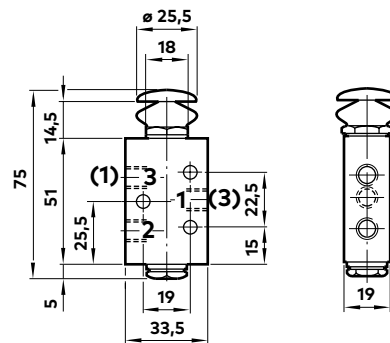
S/666/7



Panel hole: Ø16 mm
Panel thickness: 4 mm maximum

⑥

S/666/1





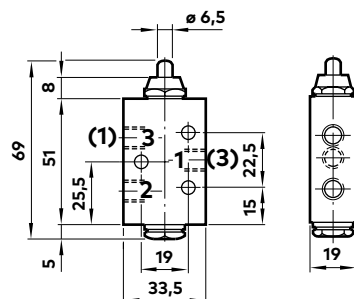
Poppet Valve Manual/Mechanical

S/666 3/2 G1/8

Dimensions

⑦

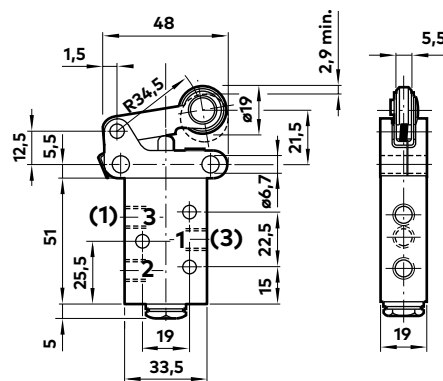
S/666/14



Pre-travel: 0,8 mm closed top seat
Operating Travel: 0,8 mm open bottom seat
Over-travel: 1,5 mm
Model number S/667/14 type 3/2 normally open numbers are shown in brackets.

⑧

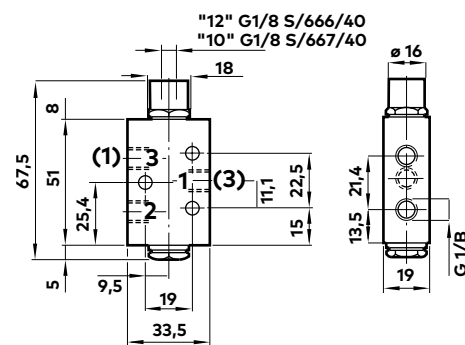
S/666/8 and S/667/8



Pre-travel: 1,4 mm closed top seat
Operating Travel: 1,4 mm open bottom seat
Over-travel: 2,2 mm
Model number S/667/8 type 3/2 normally open numbers are shown in brackets.

⑨

S/666/40 and S/667/40



Proportional Pressure Control Valve

VP10 G1/4

- » Air piloted proportional pressure valve
- » Reliable, rugged design
- » Excellent accuracy
- » IP 65 environmental protection in normal position

Technical Data

Medium:

Compressed air, filtered to 5 µm, dry and oil free

Flow capacity:

Up to 300 l/min

Air consumption:

Up to 1 bar: 2,8Nl/min,
up to 2 bar: 4,0Nl/min,
up to 4 bar: 7,5Nl/min,
up to 8 bar: 9,0Nl/min

Supply Pressure:

At least 0,7 bar above max.
required output pressure.
Up to 2bar instruments:
max 5bar,
up to 8bar instruments:
max 10 bar

Ambient temperature:

-40°C ... +85°C

Air supply must be dry enough
to avoid ice formation at
temperatures below +2°C

Response time:

< 0,35 seconds for 10 ... 90%
or 90 ... 10% of output
pressure into a 10cc load
(1 bar range instruments)

Supply sensitivity:

> 0,075% span output
change per % supply
pressure change

Linearity:

≤ 0,5% of span

Hysteresis:

≤ 0,5% of span



Models

Model	Port size	Flow (l/min)	Operating pressure (bar)	Control signal	Straight fitting	Elbow fitting
VP1001BJ400A00	G1/4	300	0,2 ... 1	4 ... 20 mA	C02250828	C02470828
VP1006BJ401A00	G1/4	300	0,2 ... 6	4 ... 20 mA	C02250828	C02470828
VP1008BJ401A00	G1/4	300	0,2 ... 8	4 ... 20 mA	C02250828	C02470828

Accessories

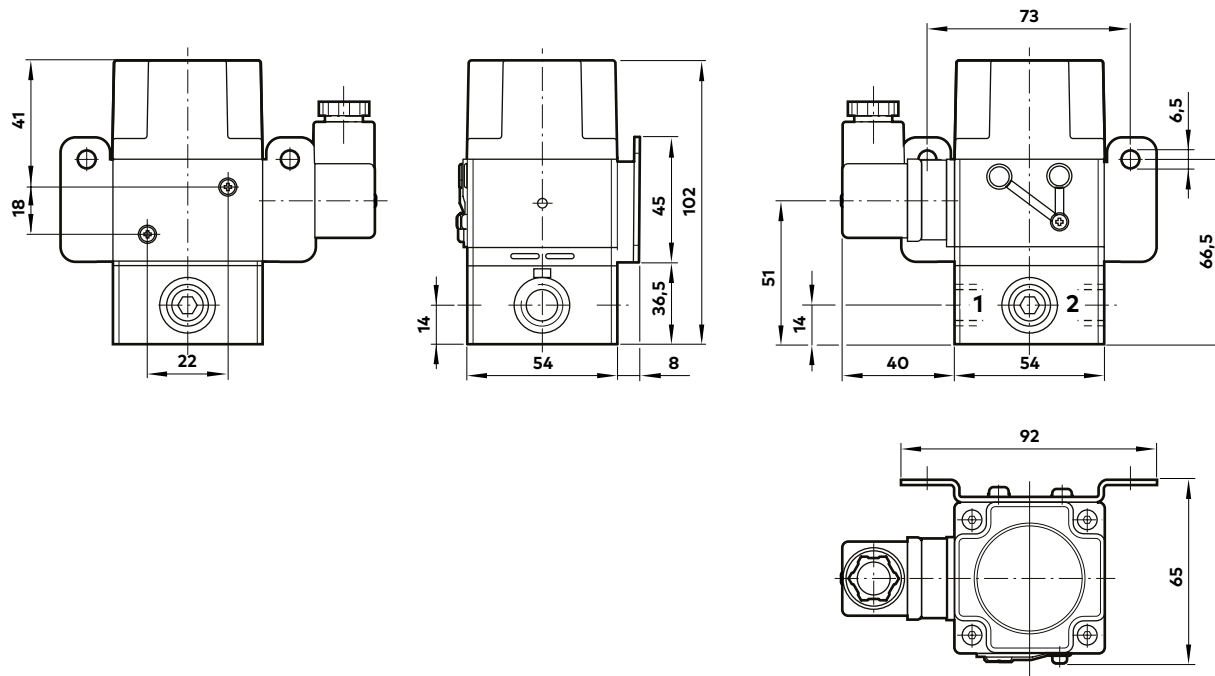




Proportional Pressure Control Valve

VP10 G1/4

Dimensions



Miniature Proportional Pressure Control Valve

VP12 G1/8

- » Compact and flexible design
- » Reliable, rugged, open-loop device
- » Low power consumption

Technical Data

Medium:

Compressed air filtered to 5 µm, oil free and dry air

Supply pressure:

At least 1,5 bar above maximum required output pressure

Degree of protection:

IP20

Ambient temperature:

0°C ... +60°C

Air supply must be dry enough to avoid ice formation at temperatures below +2°C

Linearity:

< 1,5% of span

Hysteresis and deadband:

< 1% of span



Models

Model	Port size	Flow (l/min)	Operating pressure (bar)	Control signal	Straight fitting	Elbow fitting
VP1202BG101Q00	G1/8"	200	0 ... 2 bar	0 ... 10 V	C02250618	C02470618
VP1204BG101Q00	G1/8"	200	0 ... 4 bar	0 ... 10 V	C02250618	C02470618
VP1206BG101Q00	G1/8"	200	0 ... 6 bar	0 ... 10 V	C02250618	C02470618
VP1208BG101Q00	G1/8"	200	0 ... 8 bar	0 ... 10 V	C02250618	C02470618
VP1202BG401Q00	G1/8"	200	0 ... 2 bar	4 ... 20 mA	C02250618	C02470618
VP1204BG401Q00	G1/8"	200	0 ... 4 bar	4 ... 20 mA	C02250618	C02470618
VP1206BG401Q00	G1/8"	200	0 ... 6 bar	4 ... 20 mA	C02250618	C02470618
VP1208BG401Q00	G1/8"	200	0 ... 8 bar	4 ... 20 mA	C02250618	C02470618

Accessories

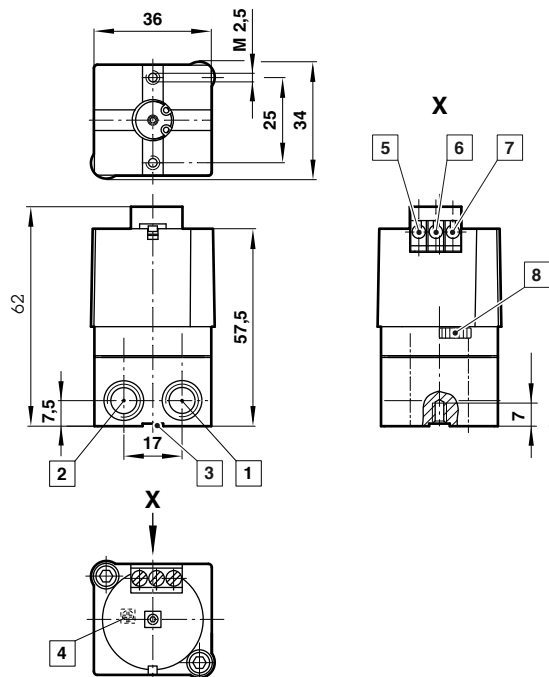




Miniature Proportional Pressure Control Valve

VP12 G1/8

Dimensions



Options

- » Manifold version
- » PSI settings

- 1 Inlet port (G1/8 or 1/8 NPT)
- 2 Outlet port (G1/8 or 1/8 NPT)
- 3 Exhaust, do not obstruct
- 4 Span adjust pot (under lid)
- 5 Power (3 wire units only)
- 6 Signal (2 & 3 wire units)
- 7 Common (2 & 3 wire units)
- 8 Adjust zero





Proportional Pressure Control Valve

VP50 G1/4

- » Port size: 1/4" (ISO G or NPT) or manifold
- » Closed-loop air piloted proportional pressure control valve
- » High flow
- » Excellent performance characteristics
- » Fast response time with pressure output display
- » Adjustable gain and pressure range
- » Low power consumption
- » Feedback signal
- » Manifold mountable

Technical Data

Medium:
Compressed air, filtered
to 5 µm, dry and oil free

Operation:
Air piloted spool valve
with integrated electronic
pressure control

Supply pressure:
Minimum 2 bar above
maximum output
required, 12 bar max.

Air Supply sensitivity:
Better than 0,75% span
output change per bar
supply pressure change

Flow:
Up to 1400 Nl/min

Air consumption:
< 5 Nl/min

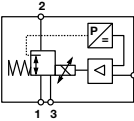
Ambient temperature:
0°C ... +50°C
Air supply must be dry enough
to avoid ice formation at
temperatures below +2°C

Linearity:
< 1%

Hysteresis and deadband:
< 1%



Models

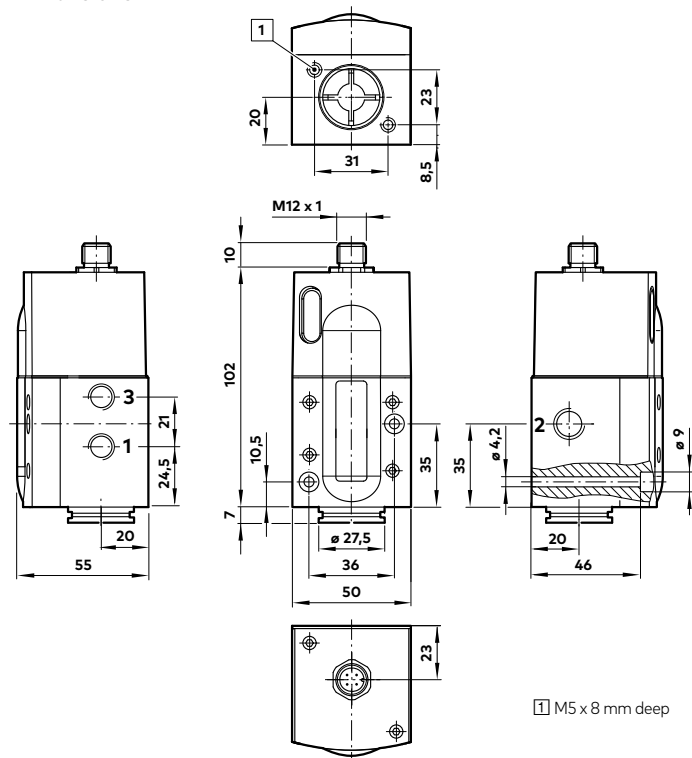
Model	Port Size	Flow (l/min)	Operating pressure (bar)	Control signal	Straight fitting	Elbow fitting	Silencer	Connector with 5m moulded cable
								
VP5002BJ111H00	G1/4	1400	0 ... 2	0 ... 10 V	C02250828	C02470828	T40C2800	0250081000000000
VP5002BJ411H00	G1/4	1400	0 ... 2	4 ... 20 mA	C02250828	C02470828	T40C2800	0250081000000000
VP5006BJ111H00	G1/4	1400	0 ... 6	0 ... 10 V	C02250828	C02470828	T40C2800	0250081000000000
VP5006BJ411H00	G1/4	1400	0 ... 6	4 ... 20 mA	C02250828	C02470828	T40C2800	0250081000000000
VP5008BJ111H00	G1/4	1400	0 ... 8	0 ... 10 V	C02250828	C02470828	T40C2800	0250081000000000
VP5008BJ411H00	G1/4	1400	0 ... 8	4 ... 20 mA	C02250828	C02470828	T40C2800	0250081000000000
VP5010BJ111H00	G1/4	1400	0 ... 10	0 ... 10 V	C02250828	C02470828	T40C2800	0250081000000000
VP5010BJ411H00	G1/4	1400	0 ... 10	4 ... 20 mA	C02250828	C02470828	T40C2800	0250081000000000

Accessories



VP50 G1/4

Dimensions



① M5 x 8 mm deep

Electrical Information

Electromagnetic compatibility	CE marked; conforms to EC requirements EN 50081-2 (1994) and EN 50082-2 (1995)
Electrical input signal	4 ... 20 mA or 0 ... 10 V factory set
Electrical power input	24 V d.c. $\pm 25\%$ (power consumption <1 W)
Output pressure feedback signal	0 ... 10 V full range
Connections	M12, 5 pin

Pin configuration



PIN-No.	Function
1	+24 V d.c. supply
2	0 ... 10V feedback
3	Control signal (+VE)
4	Common (DC supply signal and feedback return)
5	Chassis



IO-Link Proportional Pressure Control Valve

VP50 IO-Link G1/4

- » Closed-loop air piloted proportional control valve
- » IO-Link communications
- » User Adjustable settings
- » Fast Response time
- » Low Power consumption
- » Output Pressure Feedback
- » High visibility LED status lights
- » Manifold mountable
- » RoHS compliant

Technical Data

Medium:

Compressed dry air, oil free,
filtered to 5 µm with addition
of a coalescing filter.
ISO 8573-1:2010 [6.1:2]

Operation:

Air piloted spool valve
with integrated electronic
pressure control

Supply pressure:

Minimum 2 bar above
maximum output required
Standard units: 12 bar max.

Supply sensitivity:

Better than 0,75% span
output change per bar
supply pressure change

Flow:

Up to 1000 Nl/min

Air consumption:

<5 Nl/min

Ambient temperature:

0°C ... +60°C

Air supply must be dry enough
to avoid ice formation at
temperatures below +2°C

Linearity:

<1%

Hysteresis and deadband:

<1%



Models

Symbol	Model	Pressure Range	Port Size	Unit of Pressure	Ambient/Media Temperature	Max. Flow (l/min)	Set point (input)	Weight (kg)
	VP5002BJ511H00	0 ... 2 bar	G1/4	bar	0 ... +60°C	1.000	IO-Link	0,55
	VP5006BJ511H00	0 ... 6 bar	G1/4	bar	0 ... +60°C	1.000	IO-Link	0,55
	VP5010BJ511H00	0 ... 10 bar	G1/4	bar	0 ... +60°C	1.000	IO-Link	0,55

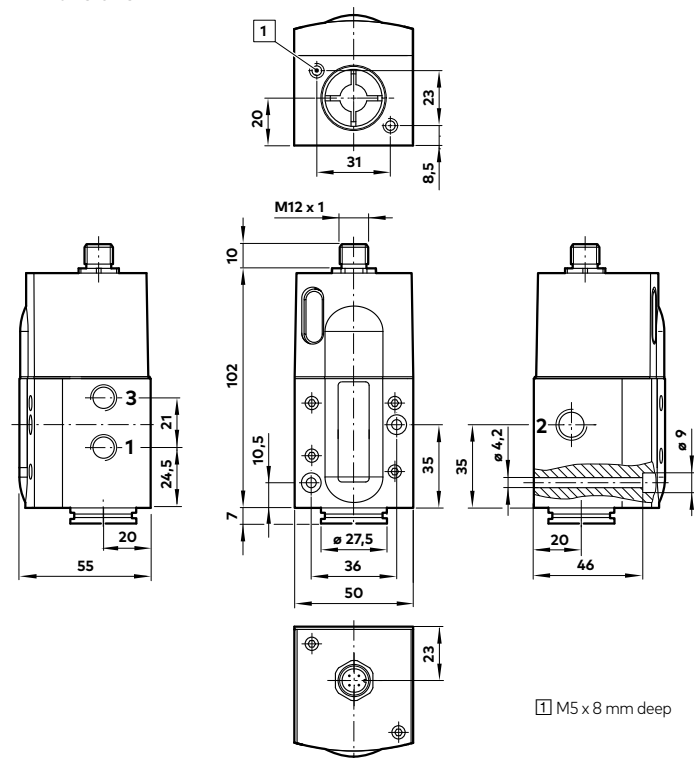




IO-Link Proportional Pressure Control Valve

VP50 IO-Link G1/4

Dimensions



Electrical Information

Electromagnetic compatibility	Conforms to EC requirements EN 61000-6-4:2007+A1:2011 and EN 61000-6-2:2005
Signal	IO-Link
Electrical power input	24 V d.c. $\pm 25\%$, (power consumption $< 0,55$ W)
Feedback	IO-Link
Connections	M12x1, 5-pin

Pin configuration



PIN-No.	Function
1	+24 V d.c. supply ($\pm 25\%$)
2	N/A
3	Power Ground (-V)
4	Signal (C/Q)
5	N/A



Proportional Pressure Control Valve

VP51 Programmable G1/4

- » Closed loop air pilot digital proportional control valve
- » Fully programmable with on-board diagnostics
- » Ability to set up offline
- » Multi-language menu option
- » Password protection option at first level functionality
- » Instant LED warning functions
- » Pressure output display; no gauge necessary
- » High speed response

Technical Data

Medium:

Compressed air, filtered to 5 µm, dry and oil free

Output pressure:

User adjustable up to 10 bar

Supply pressure:

Minimum 2 bar above maximum output required, 12 bar max

Ambient temperature:

0°C ... +50°C

Air supply must be dry enough to avoid ice formation at temperatures below +2°C

Air Supply sensitivity:

Better than 0,75% span output change per bar supply pressure change

Flow:

Standard units up to 1400 N l/min (see characteristic curves)

Air consumption:

<5 N l/min

Linearity:

<1%

Hysteresis and deadband:

<1%



Models

Model	Port size	Max. flow (l/min)	Output pressure (bar)	Control signal	Straight fitting	Elbow fitting	Silencer	Connector with 5m moulded cable
								
VP5110BJ111H00	G1/4	1200	0 ... 10	0 ... 10 V	C02250828	C02470828	T40C2800	0250081000000000
VP5110BJ411H00	G1/4	1200	0 ... 10	4 ... 20 mA	C02250828	C02470828	T40C2800	0250081000000000

Accessories

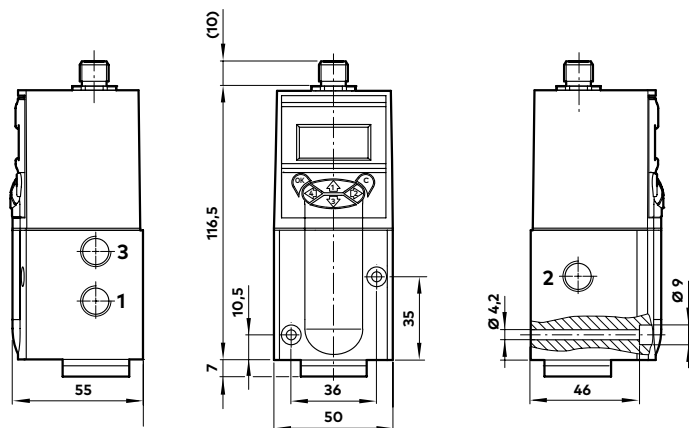




Proportional Pressure Control Valve

VP51 Programmable G1/4

Dimensions



Electrical Information

Electromagnetic compatibility	CE marked: conforms to EC requirements EN 50081-2 (1994) and EN 50082-2 (1995)
Electrical input signal	4 ... 20 mA or 0 ... 10 V factory set
Electrical power input	24 V d.c. $\pm 25\%$ (power consumption <1 W)
Output pressure feedback signal	0 ... 10 V full range or user-configurable switched output
Connections	M12, 5 pin

Pin configuration



1	+24 V d.c. supply
2	0 ... 10 V feedback
3	Control signal (+VE)
4	Common (DC supply signal and feedback return)
5	Chassis





Current To Pressure (I/P) Electronic Converter

140 Failsafe G1/4 or 1/4 NPT

- » Excellent accuracy
- » Jack Socket for on-site monitoring
- » Fail-Safe
- » Weatherproof (IP66 or Type 4X)
- » Fast response and minimal temperature effect
- » High flow

Technical Data

Medium:
Oil free, dry air, min filtered to 50 µm; internal in-built air filter

Output pressure:
0,2 ... 1 bar

Supply pressure:
1,2 ... 10,3 bar

Response time:
< 1 second (from 0 ... 90% or 90 ... 10% of output pressure into a 0,5 litre load)

Temperature sensitivity:
Typically < 0,06% span/°C between -40°C ... +85°C

Supply sensitivity:
< 0,1% of span for full supply pressure range

Ambient temperature:
-40°C ... +85°C
Air supply must be dry enough to avoid ice formation at temperatures below +2°C

I.P. Rating:
IP66, NEMA Type 4X

Linearity independent:
Mean < 0,1% of span

Hysteresis & deadband:
Mean < 0,1% of span



Models

Symbol	Model Multi certified units only – IS/Type N/Exd	Certification	Port size	Output pressure	Conduit Entry
	EX14001BJ4LE2	Cenelec only	G1/4	0,2 ... 1 bar	M 20 x 1,5
	EX14001BK4EE1	ATEX: Ex ia, Exd, Exn FM/CSA: I.S., N.I.	1/4 NPT	0,2 ... 1 bar	1/2 NPT

Options available: Output pressure monitoring gauge.

Electrical parameters

Input Signal	4 ... 20 mA (two wire) Terminal voltage < 6,5 V at 20 mA
Failure Mode	Pressure falls to below 15 mbar (0,2 psi) in < 2 sec when input signal fails
Overload Protection	100 mA max overload current
Connections	1/2" NPT or M20; internal terminal block with capacity up to 2,5 mm² conductor

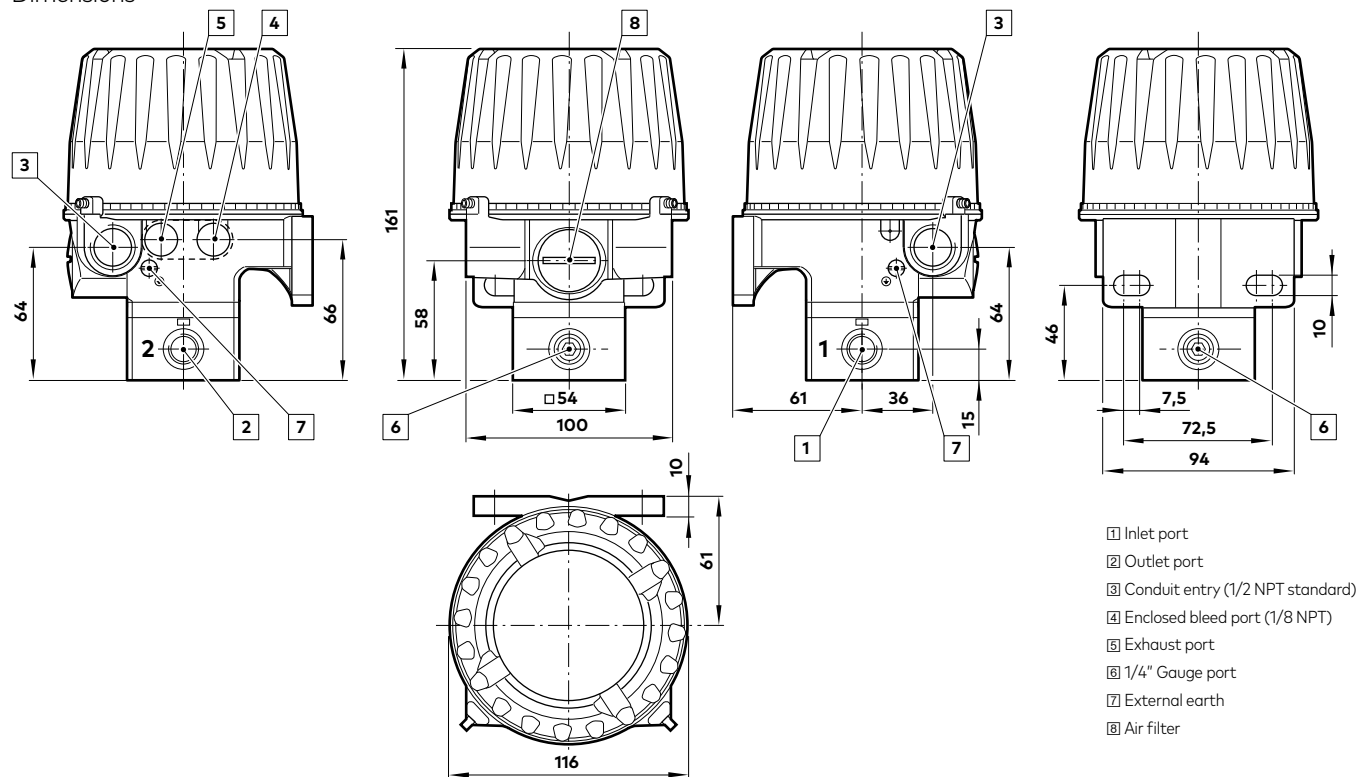




Current To Pressure (I/P) Electronic Converter

140 Failsafe G1/4 or 1/4 NPT

Dimensions





Proportional Pressure Control Valve

VP23 3-WAY – G1/4 ... G3/4

- » All-digital control electronics
- » Variable pressure control
- » Optional: serial interface with LED display
- » Free of lacquer affecting substances
- » Microprocessor-controlled closed-loop controller

Technical Data

Medium:

Filtered (50 µm), unlubricated or lubricated condensate-free compressed air or neutral gases.

Due to the lubricants and their additives, use of lubricated compressed air can affect the dynamics and service life

Ambient/Media temperature:

Ambient: -5°C ... +60°C

Media: -5°C ... +50°C

(no condensation permitted)

Air supply must be dry enough to avoid ice formation at temperatures below +2°C

Linearity:

< ± 1,0% (p2 max.)

Hysteresis:

< ± 0,5% (p2 max.)

Control accuracy:

< ± 1,0% (p2 max.)

Response accuracy:

< ± 0,2% (p2 max.)

Repeat accuracy:

< ± 0,5% (p2 max.)
values related to 20°C and
24 V d.c. power supply



Analogue Models

Symbol	Model	Orifice (mm)	Operating pressure	Set point	Actual value	Connector
	VP2302BD461MB201	8 mm	0 ... 2 bar	4 ... 20 mA	0 ... 10 V/4 ... 20 mA	M12/8 pin
	VP2310BD461MB201	8 mm	0 ... 10 bar	4 ... 20 mA	0 ... 10 V/4 ... 20 mA	M12/8 pin
	VP2316BD461MB201	8 mm	0 ... 16 bar	4 ... 20 mA	0 ... 10 V/4 ... 20 mA	M12/8 pin

IO-Link Models

Symbol	Model	Orifice (mm)	Operating pressure	Set point	Actual value	Connector
	VP2302BDLL1MB200	8 mm	0 ... 2 bar	IO-Link	IO-Link	M12/8 pin
	VP2310BDLL1MB200	8 mm	0 ... 10 bar	IO-Link	IO-Link	M12/8 pin
	VP2316BDLL1MB200	8 mm	0 ... 16 bar	IO-Link	IO-Link	M12/8 pin





Proportional Pressure Control Valve

VP23 3-WAY – G1/4 ... G3/4

Connecting plugs

Model	Description	Specification
		
0250811000000000	Connecting plug	M12x1; 8-pin; 5 m, 8 x 0,25 mm ² , straight
0250813000000000	Connecting plug	M12x1; 8-pin; 5 m, 8 x 0,25 mm ² , 90°
0252383000000000	Connecting plug	M12x1; 8-pin; screw terminals, 90°

Note: Cable material PUR shielded.

Connector IO-Link version

Model	Description
	
NC-125FS-125MS-A	Cable 5 Pin A-coded M1 - M12, 0.6 metre long
NC-125FS-125MS-1	Cable 5 Pin A-coded M12 - M12, 1 metre long
NC-125FS-125MS-2	Cable 5 Pin A-coded M12 - M12, 2 metre long
NC-125FS-125MS-5	Cable 5 Pin A-coded M12 - M12, 5 metre long
NC-125FS-00000-5	Cable 5 Pin A-coded M12 - Open End, 5 metre long

Serial interface accessories

Adaptor cable Model	Description
	
5988319000000000	Adaptor cable with software CD VP tool

Connection plates

Model	Description	Ports
		
0542636000000000	Connection plate NG 8	G1/4
0543705000000000	Connection plate NG 8	G3/8



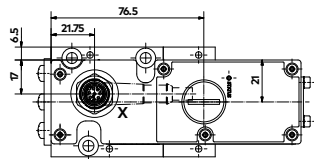
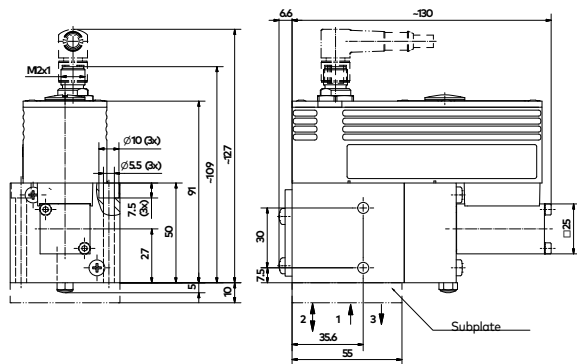
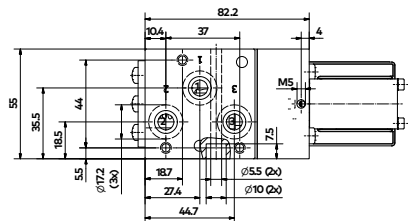


Proportional Pressure Control Valve

VP23 3-WAY – G1/4 ... G3/4

Dimensions

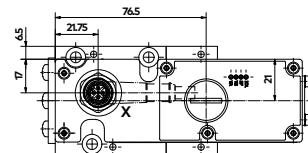
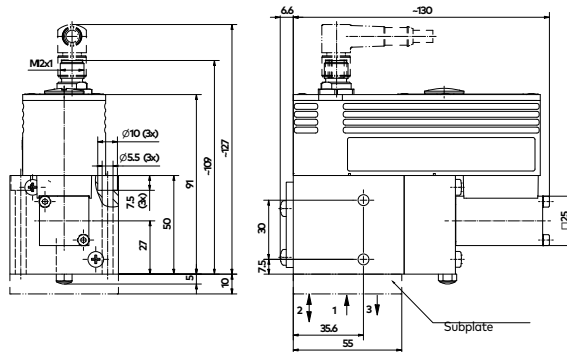
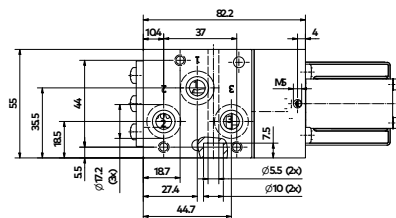
Analogue ND8



Options

- » 16 mm nominal size
- » Profibus DP version

IO-Link NG 8





Proportional Flow Control Valve

VP60 G1/4, 1/4 NPT

- » High flow rate, low pressure loss
- » Calibrated, linear flow characteristic with zero crossover
- » Silicon-free to test spec P-VW 3.10.7/01.92
- » Fast dynamic response
- » Diagnostic function

Technical Data

Medium:

ISO8573-1 Class: 2-3-1,
filtered, dried, oil-free.
The dynamic performance and
service life of the valve may be
significantly reduced if using
unfiltered air containing water
and oil!

Operation:

Directly-controlled spool valve
with fast dynamic response

Flow:

1200 l/min

Ambient/Media temperature:

Ambient: 0°C ... +60°C

Media: 5°C ... +60°C

Air supply must be dry enough
to avoid ice formation at
temperatures below +2°C

Leakage:

Typical value: 8 l/min

Degree of protection:

IP65

Service life:

>250 million full-
travel operations with
recommended air quality

Response sensitivity:

± 0,5 (% max. Q)*

Hysteresis:

± 0,5 (% max. Q)*

Repeat accuracy:

± 1,0 (% max. Q)*

Linearity:

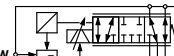
± 3,0 (% max. Q)*

* Values related to 20°C

Dynamic values stated relate
24 V d.c. power supply



Models

Model	Orifice (mm)	Output pressure (bar)	Set point	Actual value	Straight fitting	Elbow fitting	Silencer
							
VP6010LJ461MB200	8	-1 ... 16	4 ... 20 mA	0 ... 10 V/4 ... 20 mA	C02250828	C02470828	T40C2800
VP6010LJ661MB200	8	-1 ... 16	-5 V ... 5 V	0 ... 10 V/4 ... 20 mA	C02250828	C02470828	T40C2800
VP6010LJ761MB200	8	-1 ... 16	0 ... 10 V	0 ... 10 V/4 ... 20 mA	C02250828	C02470828	T40C2800
VP6010LJLL1MB200	8	-1 ... 16	IO-Link	IO-Link	C02250828	C02470828	T40C2800
VP6010LKLL1MB200	8	-1 ... 16	IO-Link	IO-Link	C02250828	C02470828	T40C2800

Accessories

Straight fitting	Elbow fitting	Silencer





Proportional Flow Control Valve

VP60 G1/4, 1/4 NPT

Connecting plugs

Model	Description
	
0250811	M12x1, 8 pin, 5 meter long, open end - straight
0250813	M12x1, 8 pin, 5 meter long, open end - 90°

Note: Cable material PUR shielded.

Connector IO-Link version

Model	Description
	
NC-125FS-125MS-A	Cable 5 Pin A-coded M1 - M12, 0.6 metre long
NC-125FS-125MS-1	Cable 5 Pin A-coded M12 - M12, 1 metre long
NC-125FS-125MS-2	Cable 5 Pin A-coded M12 - M12, 2 metre long
NC-125FS-125MS-5	Cable 5 Pin A-coded M12 - M12, 5 metre long
NC-125FS-00000-5	Cable 5 Pin A-coded M12 - Open End, 5 metre long

Serial interface accessories

Adaptor cable Model	Description
	
0253875	USB-C Adaptor cable



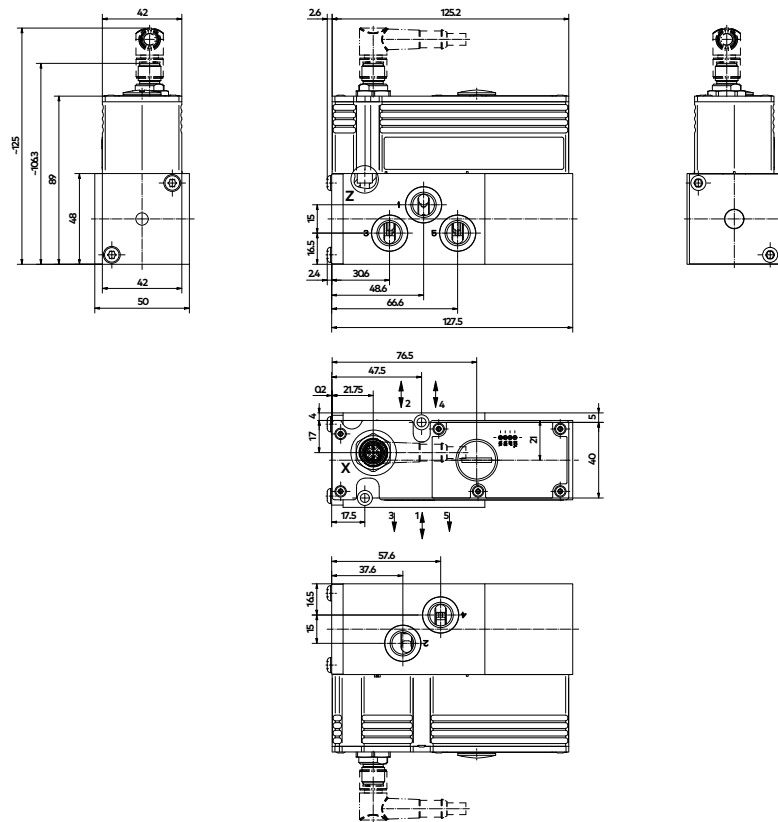


Proportional Flow Control Valve

VP60 G1/4, 1/4 NPT

Dimensions

Standard model G1/4 and 1/4 NPT





Proportional Pressure Control Valves

100X & 101X Series G1/4, 1/4 NPT

- » Reliable, rugged, open loop control
- » Proportional I/P and E/P converters
- » ATEX certified units are available as intrinsically safe
- » Minimum vibration effects
- » IP65 environmental protection
- » Mounting bracket and connector included

Technical Data

Medium:
Oil free, dry air, filtered to 5 µm

Flow capacity:
> 300NL/min forward & relief flow

Linearity:
< 0,5% of span

Hysteresis:
< 0,5% of span

Supply pressure:
At least 0,7 bar above maximum required output pressure. Max. 5 bar

Ambient temperature:
0°C ... +85°C
Air supply must be dry enough to avoid ice formation at temperatures below +2°C

I.P. Rating:
IP65 in normal operation

Weight:
1,0 kg

Mounting Position:
Surface mounting bracket provided.
Alternative mounting options available.



Models

Symbol	Model	Output pressure	Input Signal	ATEX intrinsically safe
	402100R	0,2 ... 1 bar	4 ... 20 mA	
	492100R	0,2 ... 1 bar	4 ... 20 mA	X
	572400R	0,14 ... 8 bar	4 ... 20 mA	



100X & 101X Series G1/4, 1/4 NPT

Technical drawing of the 1000 series pressure transmitter, showing three views: front, side, and top. Dimensions are given in mm.

Front View Dimensions:

- Total height: 41
- Height of the main body: 18
- Width of the main body: 22

Side View Dimensions:

- Total height: 102
- Height of the main body: 38
- Height of the bracket: 36,5
- Width of the main body: 54
- Width of the bracket: 8
- Height of the bracket base: 14

Top View Dimensions:

- Total width: 73
- Width of the main body: 54
- Width of the bracket: 40
- Height of the main body: 51
- Height of the bracket: 14
- Height of the bracket base: 66,5
- Width of the bracket base: 92
- Height of the bracket base: 65

Legend:

- 1 Inlet port (G1/4 or 1/4 NPT)
- 2 Outlet port (G1/4 or 1/4 NPT)
- 3 Adjust zero
- 4 Adjust span
- 5 Plug orients 4 ways
- 6 Bracket supplied as standard

- 1 Inlet port (G1/4 or 1/4 NPT)
- 2 Outlet port (G1/4 or 1/4 NPT)
- 3 Adjust zero
- 4 Adjust span
- 5 Plug orients 4 ways
- 6 Bracket supplied as standard



Buschjost valves

The constant research and continuing innovation behind the Buschjost name has helped to create a market leader in process and multimedia valves, which can be found in a huge variety of applications worldwide.

In fact, in Germany, Buschjost process valves are amongst only three brands which are SIL certified for use in power plants.

Solenoid Operated Valves

- » Port sizes from G1/4 to G2 plus options of flange connections
- » Range of body and seal materials to cover most industrial applications
- » Extensive use of patented Buschjost Click-on® coils
- » ATEX versions available
- » Diaphragm (up to 16 bar) and piston (up to 40 bar versions available)
- » Range covers direct, indirect and forced lift versions

Pressure Operated Valves

- » Port sizes G1/4 to G2
- » Diaphragm and piston versions available up to 16 bar depending upon size and actuator type
- » Range of body and seal materials to cover most industry applications
- » Suitable for fluid viscosities up to 600 centistokes and fluids with contamination
- » Solenoid pilot operator available to directly mount to the valve actuator

Click-on® Benefits

- » Valve core tube completely sealed – fluid cannot escape
- » Solenoid can be removed and replaced without tools
- » Can be rotated through 360°
- » Cannot be over tightened leading to damage to valve
- » Totally IP65 protected

Valve technology
for over 75 years



Find out more
norgren.com



2/2-Way Directly Operated Valves

Series 82510

- » 2/2-way seat valves
- » G1/4 ... 3/8
- » Suitable for vacuum
- » High flow rate
- » Functional compact design
- » Body with M5 fastening thread as standard
- » Solenoid interchangeable without tools (Click-on*)
- » Valve operates without pressure differential (Zero delta P)

Technical Data

Switching function:
Normally closed

Flow direction:
Determined

Mounting position:
Optional, preferably
solenoid vertical on top



Models - Valves normally closed

Symbol	Series 82510 Model	Port size	Orifice (mm)	Operating pressure (bar)
	8251000.9101.xxxxx	G1/4	1,5	0 ... 25
	8251020.9101.xxxxx	G1/4	2,5	0 ... 10
	8251120.9101.xxxxx	G3/8	2,5	0 ... 10
	8251040.9101.xxxxx	G1/4	3	0 ... 4
	8251060.9151.xxxxx	G1/4	4	0 ... 12
	8251160.9151.xxxxx	G3/8	4	0 ... 12

Replace xxxx with Voltage code & frequency from the table below.

Technical Data

	82510
Medium	Neutral gases and liquids
Port size	G1/4 ... 3/8
Operating pressure	0 ... 10/25/4 bar
Temperature	
Media temperature	-10°C ... +90°C
Ambient temperature	-10°C ... +50°C
Material	
Body	Brass (CW617N)
Seat seal	NBR
Internal parts	Stainless steel, brass





2/2-Way Directly Operated Valves

Series 82510

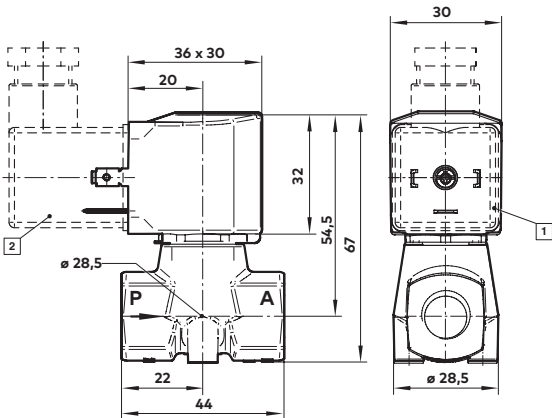
Voltage codes and spare coils

Voltage and frequency solenoid									
Model		Code Voltage	Code Frequency	Voltage	Frequency	Power consumption		Inrush	Holding
9101	9151					Inrush 9101 *1)	Holding	Inrush 9151 *1)	Holding
0000000.9101.02400	0000000.9151.02400	024	00	24 V d.c.	–	8 W	8 W	18 W	18 W
0000000.9101.23050	0000000.9151.23050	230	50	230 V a.c.	50 Hz	15 VA	12 VA	45 VA	35 VA

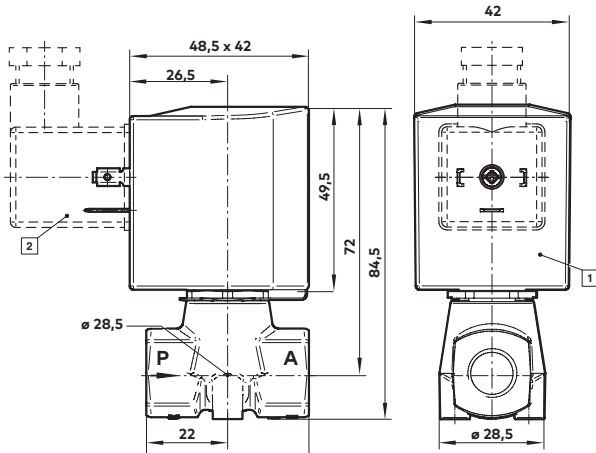
*1) Note: coil only / up to +55°C ambient temperature.
Further versions on request!

Dimensions

82510 with solenoid 9101



82510 with solenoid 9151



- Solenoid rotatable 360°
- Socket turnable 4 x 90°
(Socket included)





2/2-Way Indirectly Operated Solenoid Valves

Series 82400

- » 2/2-way seat valves
- » DN 8 ... 50, G1/4 ... 2
- » High flow rate
- » Damped operation
- » Functional compact design
- » Solenoid interchangeable without tools (Click-on*)
- » Fluids of Group 2 acc. Pressure Equipment Directive 97/23/EC (Series 83030)

Technical Data

Switching function:
Normally closed

Flow direction:
Determined

Mounting position:
Optional, preferably
solenoid vertical on top

Differential pressure:
0,1 bar required



Models

Symbol	Series 82400 Model	Port size	Orifice (mm)	Operating pressure (bar)
	8240000.9101.xxxxx	G1/4	8	0,1 ... 16
	8240100.9101.xxxxx	G3/8	10	0,1 ... 16
	8240200.9101.xxxxx	G1/2	12	0,1 ... 16
	8240300.9101.xxxxx	G3/4	20	0,1 ... 16
	8240400.9101.xxxxx	G1	25	0,1 ... 16
	8240500.9101.xxxxx	G1 1/4	32	0,1 ... 10 *1)
	8240600.9101.xxxxx	G1 1/2	40	0,1 ... 10 *1)
	8240700.9101.xxxxx	G2	50	0,1 ... 10 *1)

*1) Note: Operating pressure 0,1 ... 16 bar with solenoid 9151.
Replace xxxxx with voltage code & frequency from the table below.

Technical Data

	82400 (82410)
Medium	Neutral gases and liquids
Port size	G1/4 ... 2
Operating pressure	0,1 ... 10/16 bar
Temperature	
Media temperature	-10°C ... +90°C
Ambient temperature	-10°C ... +50°C
Material	
Body	Brass (CW617N)
Seat seal	NBR
Internal parts	Stainless steel, PVDF, brass from DN 25



2/2-Way Indirectly Operated Solenoid Valves

Series 82400

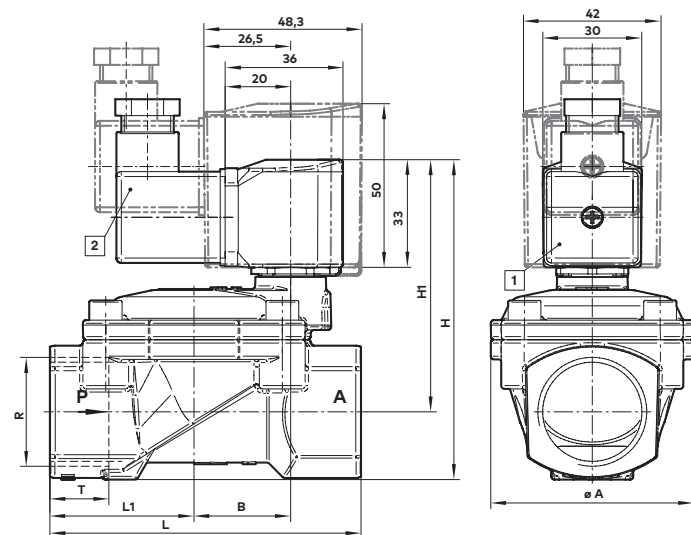
Voltage codes and spare coils

Voltage and frequency solenoid									
Model		Code Voltage	Code Frequency	Voltage	Frequency	Power consumption Inrush 9101 *2)	Holding	Inrush 9151*2)	Holding
9101	9151								
0000000.9101.02400	0000000.9151.02400	024	00	24 V d.c.	–	8 W	8 W	18 W	18 W
0000000.9101.23050	0000000.9151.23050	230	50	230 V a.c.	50 Hz	15 VA	12 VA	45 VA	35 VA

*1) Note: coil only / up to +55°C ambient temperature.

Further versions on request!

Dimensions



1) Solenoid rotatable 360°

2) Socket turnable 4 x 90° (Socket included)

Model	Port size	A	B	H	H1	L	L1	T
8240000.9101.xxxxx	G1/4	44	19,5	78,5	67	60	27,5	12
8240100.9101.xxxxx	G3/8	44	19,5	78,5	67	60	27,5	12
8240200.9101.xxxxx	G1/2	44	19,5	81	67	67	31	14
8240300.9101.xxxxx	G3/4	50	24	88	71,5	80	36,5	16
8240400.9101.xxxxx	G1	62	29,5	97,5	77	95	44	18
8240500.9101.xxxxx	G1 1/4	92	44,5	124,5	95,5	132	60	20
8240600.9101.xxxxx	G1 1/2	92	44,5	124,5	95,5	132	60	22
8240700.9101.xxxxx	G2	109	54,5	142,5	108	160	74	24

Replace xxxxx with voltage code & frequency from the voltage codes table.





2/2-Way Pressure Actuated Valves by External Fluid

Series 84500

- » 2/2-way seat valves
- » DN 15 ... 50, G1/2 ... 2
- » Easy rebuilding into »normally open« or »double-acting« without tools
- » Optical position indicator is standard
- » Damped closing (Valve closes against flow direction)
- » Suitable for contaminated flow fluid
- » Suitable for vacuum up to max. 90%
- » Reversed flow direction optional

Technical Data

Switching function:

Normally closed

Flow direction:

Determined

Mounting position:

Optional, preferably solenoid vertical on top



Models

Symbol	Series 84500 Model	Port size	Operating pressure (bar)
	8450200.0000.00000	G1/2	0 ... 16 (25)
	8450300.0000.00000	G3/4	0 ... 10 (16)
	8450400.0000.00000	G1	0 ... 10
	8450500.0000.00000	G1 1/4	0 ... 7
	8450600.0000.00000	G1 1/2	0 ... 4,5
	8450700.0000.00000	G2	0 ... 3

Technical Data

	84500
Medium	Neutral gases and liquids
Pilot fluid	Neutral gases max. +60°C
Port size	G1/2 ... 2
Operating pressure	0 ... 25 bar (depends on port size)
Pilot pressure	3,5 ... 10 bar
Temperature	
Media temperature	-10°C ... +180°C
Ambient temperature	-10°C ... +60°C
Material	
Process fluid	
Body	Brass (CW617N)
Seat seal	PTFE
Internal parts	Brass, stainless steel
Material	
Pilot fluid	
Body	Polyamid 66 with glass fibre 30%
Seals	NBR
Internal parts	Brass, stainless steel

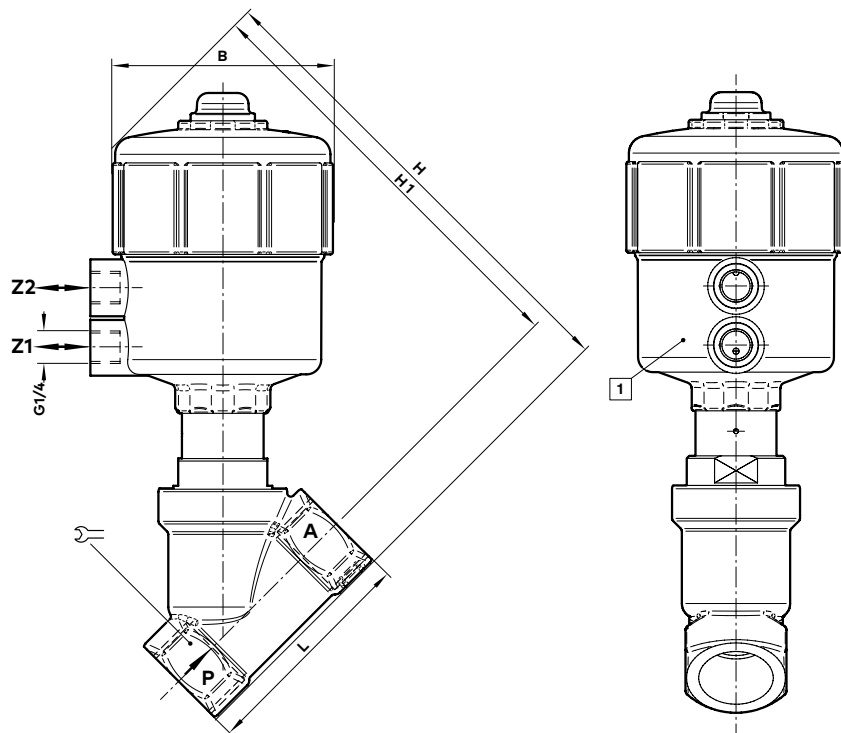




2/2-Way Pressure Actuated Valves by External Fluid

Series 84500

Dimensions



1 Actuator may be rotated 360°

Model	Port size	B	H	H1	L	
8450200.0000.00000	G1/2	89,5	177,5	164	65	27
8450300.0000.00000	G3/4	89,5	184	168	75	32
8450400.0000.00000	G1	89,5	194,5	174	90	41
8450500.0000.00000	G1 1/4	89,5	209,5	184,5	110	50
8450600.0000.00000	G1 1/2	89,5	208,5	186	120	55
8450700.0000.00000	G2	89,5	229,5	194,5	150	70

For further information, visit www.norgren.com and use the new improved search function. If you cannot see the option you require please contact us.





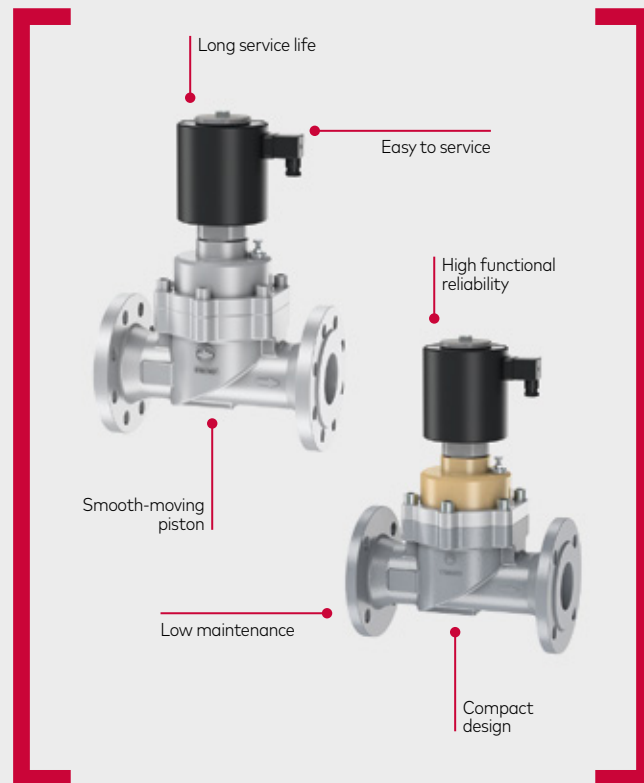
Flanged valves

Tough, durable, reliable

Tough, durable, reliable: Buschjost branded flanged valves have proven reliable in the field for many years. Customers in various industries have relied on Norgren's innovative products for more than 50 years – including general mechanical engineering and plant construction, the chemical industry, right up to the power plant sector.

Product Highlights:

- » Long service life
- » High functional reliability
- » Low maintenance
- » Smooth-moving piston
- » Compact design
- » Easy to service



Find out more
norgren.com



Direct Solenoid Actuated Poppet Valves

95000 2 ... 6 mm orifice (ND) 2/2, NC/NO, G1/4

- » Working from 0 bar up
- » Short switching times
- » Suited for fine vacuum down to $1,33 \times 10^{-2}$ mbar
- » For a.c. solenoid systems with integrated rectifier (40 ... 60 Hz)
- » Variable valve solenoid combination

Technical Data

Medium:
Neutral gaseous and liquid fluids

Flow direction:
Fixed

Mounting position:
Optional, preferably with solenoid on top

Media temperature:
-25°C ... +80°C NBR

Ambient temperature:
Depending on solenoid system -25°C ... +80°C
Air supply must be dry enough to avoid ice formation at temperatures below +2°C
For contaminated fluids installation of an upstream filter is recommended



Models

Symbol	Model	Function	Port size	Orifice (mm)	Operating pressure (bar)	Flow (l/min)	Solenoid group	Dimension No.
	9500200xxxx*****	2/2 NC	G1/4	2	0 ... 35	120	13B	1
	9500300xxxx*****	2/2 NC	G1/4	3	0 ... 10	200	13C	1
	9500400xxxx*****	2/2 NC	G1/4	4	0 ... 12	350	13D	1
	9501500xxxx*****	2/2 NC	G1/4	5	0 ... 5	450	16D	2
	9501600xxxx*****	2/2 NC	G1/4	6	0 ... 5	550	16D	2
	9502210xxxx*****	2/2 NO	G1/4	2	0 ... 40	70	13B	3
	9502310xxxx*****	2/2 NO	G1/4	3	0 ... 10	160	13B	3

xxxx Insert solenoid code according to solenoid group from tables on pages 5-140 and 5-141. ***** Insert voltage codes from table below.

Replace both xxxx and ***** with 'O' for valve without solenoid.

NC = Normally Closed, NO = Normally Open.



Direct Solenoid Actuated Poppet Valves

95000 2 ... 6 mm orifice (ND) 2/2, NC/NO, G1/4

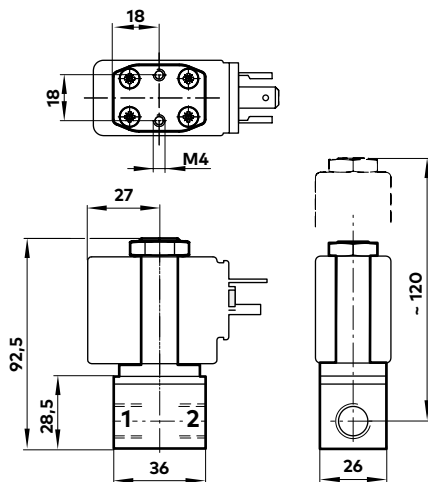
Voltage codes

24 V d.c.	02400
230 V a.c.	23050

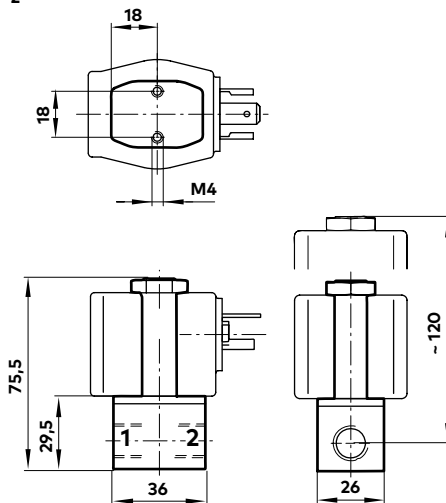
Other voltages available, please contact us for more information.

Dimensions

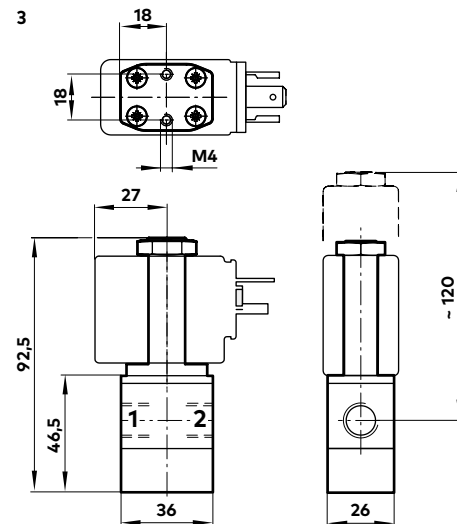
1



2



3



96000 2 ... 5 mm orifice (ND) 3/2, NC/NO, G1/4

- ## Technical Data

Medium:
Neutral gaseous
and liquid fluids

Flow direction:
Fixed

Mounting position:
Optional, preferably
with solenoid on top

Media temperature:
-25°C ... +80°C NBR

Ambient temperature:

Depending on solenoid system -25°C ... +80°C
Air supply must be dry enough to avoid ice formation at temperatures below +2°C
For contaminated fluids installation of an upstream filter is recommended



Models

Symbol	Model	Function	Port size	Orifice (mm)	Operating pressure (bar)	Flow (l/min)	Solenoid group	Dimension No.
	9600210xxx*****	3/2 NC	G1/4	2	0 ... 10	120	13B	1
	9600240xxx*****	3/2 NC	G1/4	2	0 ... 18	120	13D	1
	9600340xxx*****	3/2 NC	G1/4	3	0 ... 14	200	13D	1
	9601430xxx*****	3/2 NC	G1/4	4	0 ... 8	350	16C	2
	9601440xxx*****	3/2 NC	G1/4	4	0 ... 10	350	16D	1
	9601540xxx*****	3/2 NC	G1/4	5	0 ... 7	450	16D	2
	9602210xxx*****	3/2 NO	G1/4	2	0 ... 9	100	13B	3
	9602340xxx*****	3/2 NO	G1/4	3	0 ... 9	160	13D	3
	9602440xxx*****	3/2 NO	G1/4	4	0 ... 6	300	16D	3

xxxx Insert solenoid code according to solenoid group from tables on pages 5-140 and 5-141. ***** Insert voltage codes from table below.

Replace both xxxx and ***** with 'O' for valve without solenoid.

NC = Normally Closed, NO = Normally Open.



Direct Solenoid Actuated Poppet Valves

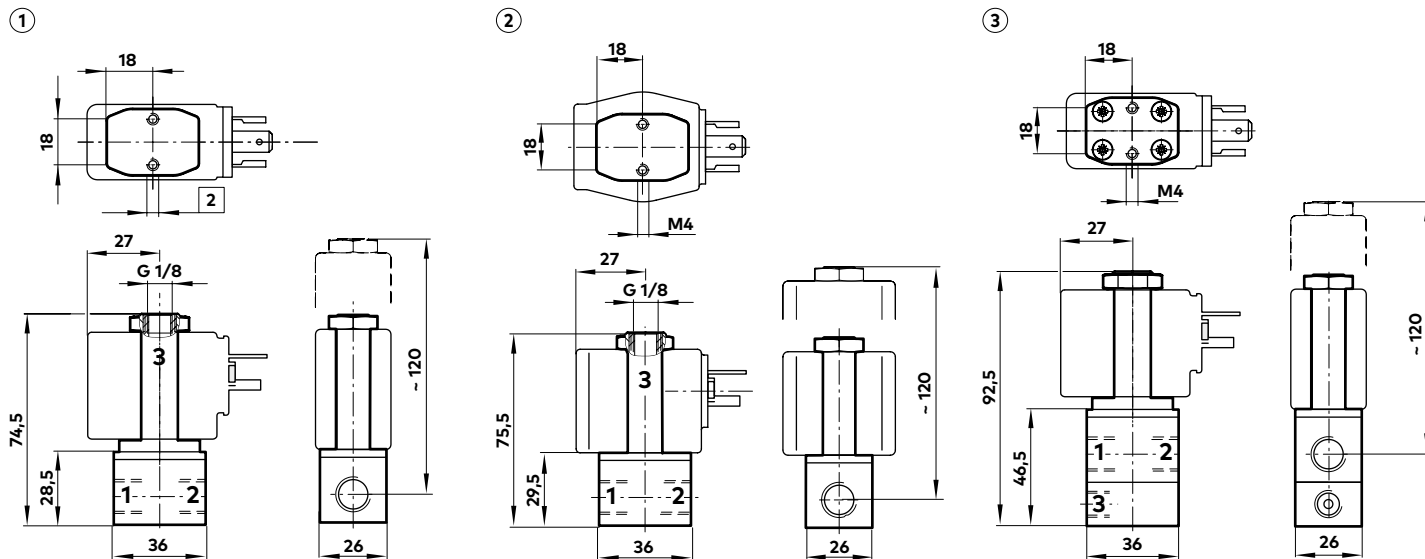
96000 2 ... 5 mm orifice (ND) 3/2, NC/NO, G1/4

Voltage codes

24 V d.c.	02400
230 V a.c.	23050

Other voltages available, please contact us for more information.

Dimensions





Solenoid Operators

95000 & 96000 Poppet Valves

Model	Power consumption		Voltage		Protection category	Protection class	Temperatures °C ambient/fluid	Electrical connection	Solenoid code
	24 V d.c. (W)	230 V a.c. (VA)	24 V d.c. (mA)	230 V a.c. (mA)					



Group 13B	8,0	–	331	–	–	IP 65 (with connector) ⁵⁾	-25 ... +60 Fluid: max. 80	DIN EN 175301-803 Form A ⁴⁾	0246 ⁷⁾
Group 13B	–	9,2	–	40	–	IP 65 (with connector) ⁵⁾	-25 ... +60 Fluid: max. 80	DIN EN 175301-803 Form A ⁴⁾	3206 ⁷⁾

Model	Power consumption		Voltage		Protection category	Protection class	Temperatures °C ambient/fluid	Electrical connection	Solenoid code
	24 V d.c. (W)	230 V a.c. (VA)	24 V d.c. (mA)	230 V a.c. (mA)					



Group 13C	12,1	–	504	–	–	IP 65 (with connector) ⁵⁾	-25 ... +60 Fluid: max. 80	DIN EN 175301-803 Form A ⁴⁾	0200 ⁷⁾
Group 13C	–	11,3	–	49	–	IP 65 (with connector) ⁵⁾	-25 ... +60 Fluid: max. 80	DIN EN 175301-803 Form A ⁴⁾	3204 ⁷⁾

Model	Power consumption		Voltage		Protection category	Protection class	Temperatures °C ambient/fluid	Electrical connection	Solenoid code
	24 V d.c. (W)	230 V a.c. (VA)	24 V d.c. (mA)	230 V a.c. (mA)					



Group 13D	16,9	–	703	–	–	IP 65 (with connector) ⁵⁾	-25 ... +60 Fluid: max. 80	DIN EN 175301-803 Form A ⁴⁾	0700 ⁷⁾
Group 13D	–	19,5	–	75	–	IP 65 (with connector) ⁵⁾	-25 ... +60 Fluid: max. 80	DIN EN 175301-803 Form A ⁴⁾	3703 ⁷⁾





Solenoid Operators

95000 & 96000 Poppet Valves

Model	Power consumption		Voltage		Protection category	Protection class	Temperatures °C ambient/fluid	Electrical connection	Solenoid code
	24 V d.c. (W)	230 V a.c. (VA)	24 V d.c. (mA)	230 V a.c. (mA)					



Group 16C	6,8	–	284	–	–	IP 65 (with connector) ⁵⁾	-25 ... +60 Fluid: max. 80	DIN EN 175301-803 Form A ⁶⁾	0827 ⁷⁾
Group 16C	–	10,6	–	46	–	IP 65 (with connector) ⁵⁾	-25 ... +60 Fluid: max. 80	DIN EN 175301-803 Form A ⁶⁾	3805 ⁷⁾

Model	Power consumption		Voltage		Protection category	Protection class	Temperatures °C ambient/fluid	Electrical connection	Solenoid code
	24 V d.c. (W)	230 V a.c. (VA)	24 V d.c. (mA)	230 V a.c. (mA)					



Group 16D	16,9	–	703	–	–	IP00 without plug ⁵⁾ IP65 with plug ⁵⁾	-25 ... +60	DIN EN 175301-803 Form A ⁶⁾	0800 ⁷⁾
Group 16D	–	17,3	–	75	–	IP00 without plug ⁵⁾ IP65 with plug ⁵⁾	-25 ... +60	DIN EN 175301-803 Form A ⁶⁾	3803 ⁷⁾

Standard voltages 24 V d.c., 230 V a.c. Other voltages on request.

Design acc. to VDE 0580, EN 50014/50028. 100% duty cycle.

5) Required connector type 0570275000000000.

6) Connector/cable gland not supplied, see 'Accessories' table.

7) Suitable for outdoor installation only if equipped with a special protection (e.g. cubicle installation).

Accessories

Connectors



0570275000000000



In-Line Flow Regulators (Block Form)

C00GE and C00GP Uni-directional – Ø4 ... 12

- » High flow performance
- » In-line or panel mounting
- » Adjustment can be locked
- » Captive regulator needle will not blow out when unscrewed
- » Nickel plated brass components provide corrosion and contamination resistance and an extended life

Technical Data

Medium:
Compressed air, filtered,
lubricated and non-lubricated

Operating pressure:
10 bar max.

Ambient temperature:
0°C ... +60°C
Air supply must be dry enough
to avoid ice formation at
temperatures below +2°C

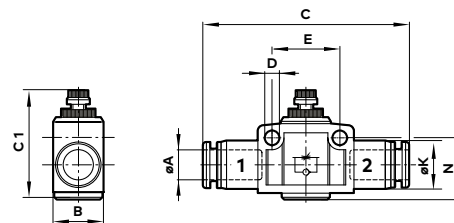
Tube sizes:
4 ... 12 mm

Tubing types:
Nylon 11 or 12, Polyurethane
85, 95 or 98 durometer



Models – In-line flow control

Symbol	Model	ØA	B	C	C1 min.	max.	D	E	ØK	N
	C00GE0400	4	12	45	30	33	3,3	15	11	13,5
	C00GE0600	6	16	50	35	39,5	4,4	20,5	13	17,5
	C00GE0800	8	19	55,5	37,5	42	4,4	23	15	20
	C00GE1000	10	23	61	44	49	4,4	28	17,5	23
	C00GE1200	12	26,5	70	47,5	53,5	4,4	32	20,5	25,5



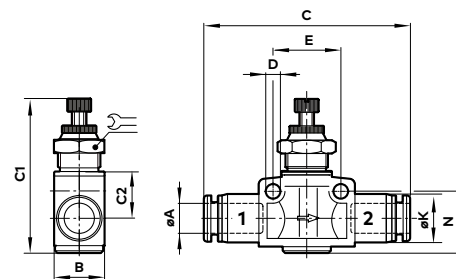


In-Line Flow Regulators (Block Form)

C00GE and C00GP Uni-directional – Ø4 ... 12

Models – In-line and panel mounting flow control

Symbol	Model	ØA	B	C	C1 min.	C1 max.	C2	D	E	ØK	N		Panel hole	Panel thickness
 	C00GP0400	4	12	42	35,5	38	5,5	3,2	15,5	11	13,5	12	11	5
	C00GP0600	6	16	49,5	43	48,5	8	4,3	20,5	13	17,5	17	16	6
	C00GP0800	8	19	56,5	47,5	53	8,5	4,3	23	15	20	19	17	6
	C00GP1000	10	23	63	53,5	61,5	10,5	4,3	27,5	17,5	23	22	17	7
	C00GP1200	12	26,5	73,5	57,5	64,5	12	4,4	32,5	20,5	25,5	24	21	7



Block Form Flow Regulators

T1000 and T1100 Uni-directional (T1000) – M5, G1/8 ... G1/2 Bi-directional (T1100) – G1/8 ... G1/2

- » Compact size/low weight/ in-line units
- » High flow performance
- » Suitable for panel and wall mounting
- » Two way flow control (T1100 series)
- » Adjustment can be locked
- » Captive regulator needle will not blow out when unscrewed
- » Adjusting knob position line

Technical Data

Medium:

Compressed air, filtered,
lubricated or non-
lubricated, inert gases

Operating pressure:

1 ... 10 bar
(T1000 series G1/8 ... G1/2)
0,3 ... 10 bar
(T1000 series M5)
0 ... 10 bar
(T1100 series)

Ambient temperature:

-20°C ... +80°C
Air supply must be dry enough
to avoid ice formation at
temperatures below +2°C



Models

Symbol	Model	Port size	Max. regulated flow factor		Free flow factor		Opening pressure (bar)	Minimum operating pressure (bar)
			C*	CV	C*	CV		
	T1000M0500	M5	0,28	0,07	0,28	0,07	0,3	0,3
	T1000C1800	G1/8	0,57	0,14	1,50	0,37	<0,1	1
	T1000C2800	G1/4	1,30	0,32	2,80	0,69	<0,1	1
	T1000C3800	G3/8	4,80	1,17	6,70	1,64	<0,1	1
	T1000C4800	G1/2	7,50	1,84	8,30	2,00	<0,1	1
	T1100C1800	G1/8	0,57	0,14	–	–	–	0
	T1100C2800	G1/4	1,30	0,32	–	–	–	0
	T1100C4800	G1/2	7,50	1,84	–	–	–	0

* C: measured in dm³/(s.bar).



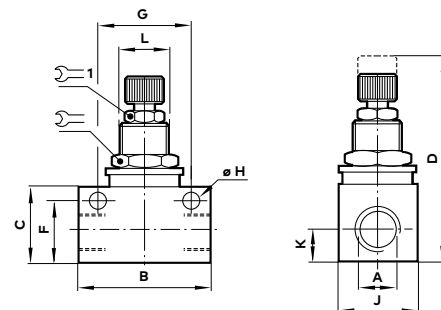


Block Form Flow Regulators

T1000 and T1100 Uni-directional (T1000) – M5, G1/8 ... G1/2 Bi-directional (T1100) – G1/8 ... G1/2

Dimensions

Model	A	B	C	D	F	G	ØH	J	K	L	
T1000M0500	M5	25	15	45	12	18	4,5	12	5,5	M10 x 0,75	12
T1000C1800	G1/8	34	20	51	16,5	24	4,5	16	8	M12 x 1	14
T1000C2800	G1/4	45	25,5	61,5	21	32	4,5	19	9,5	M14 x 1	17
T1000C3800	G3/8	58	32,5	78,5	27	43	4,5	28	13	M20 x 1	24
T1000C4800	G1/2	65	36	82	30,5	50	4,5	30	15	M20 x 1	24
T1100C1800	G1/8	34	20	51	16,5	24	4,5	16	8	M12 x 1	14
T1100C2800	G1/4	45	25,4	61,5	20,8	32	4,5	19	9,5	M12 x 1	17
T1100C4800	G1/2	65	36	82	30,5	50	6,5	30	15	M20 x 1	24



Heavy Duty Flow Regulators

M/800 In-line Uni-directional – G1/8 ... G1

- » Line mounted general purpose regulators
- » Captive regulating needle will not blow out when unscrewed
- » Calibrated adjusting knob, can be locked
- » Suitable for wall mounting
- » High operating pressure

Technical Data

Medium:
Compressed air, filtered,
lubricated and non-lubricated

Operating pressure:
0,3 ... 16 bar

Ambient temperature:
-20°C ... +80°C
(Alternative models
to 150°C)
Air supply must be dry enough
to avoid ice formation at
temperatures below +2°C



Models

Symbol	BSPP Model	Port size	Max. regulated flow factor		Free flow factor		Spare kit
			C*	CV	C*	CV	
	S/836	G1/8	0,7	0,17	2,1	0,6	QS/520/00
	S/837	G1/4	2	0,49	4,3	1	QS/521/00
	S/839	G1/2	12	2,9	17	4,1	QS/522/00
	M/840	G3/4	18	4,4	38	9,3	QS/523/00
	M/855	G1	36	8,8	45	11	QS/524/00

* C measured in dm³/(s.bar).



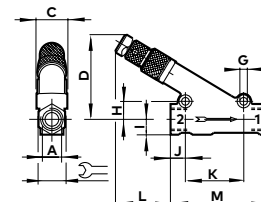


Heavy Duty Flow Regulators

M/800 In-line Uni-directional – G1/8 ... G1

Dimensions

Model	A	D max.	ØG	H	I	J	K	L	M	
S/836	G1/8	38	5,1	8,5	8	5	24,5	27,5 max.	46	13
M/837	G1/4	37,5	5,2	11	9,5	6	41	25 max.	60	17
M/839	G1/2	80	8,3	17	16	13	57	53 max.	95	28
M/840	G3/4	104	8,3	21,5	17,5	20,5	76	66 max.	118	32
M/855	G1	147	13	26	24	23	90	107 max.	150	48w



Options

- » High temperature version
- » Alternative threads





Exhaust Flow Regulator/Silencers

T20 M5, G1/8 ... G1/2

- » Compact, integral flow regulator and silencer units
- » Captive regulating needle will not blow out when unscrewed
- » Reduced dimensions

Technical Data

Medium:
Compressed air, filtered,
lubricated and non-
lubricated, inert gases

Operating pressure:
1 ... 10 bar

Ambient temperature:
-20°C ... +80°C
Air supply must be dry enough
to avoid ice formation at
temperatures below +2°C



Models

Symbol	Model	Thread	Port size	Max. regulated flow factor C*	CV
	T20M0500	Metric	M5	0,3	0,07
	T20C1800	BSPP	1/8	1,6	0,4
	T20C2800	BSPP	1/4	3,2	0,8
	T20C3800	BSPP	3/8	6,9	1,7
	T20C4800	BSPP	1/2	10	2,4

* C measured in dm³/(s.bar).



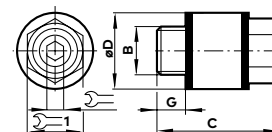


Exhaust Flow Regulator/Silencers

T20 M5, G1/8 ... G1/2

Dimensions

Model	B	C	G	ØD		 1
T20M0500	M5	16	5	–	1,5	8
T20C1800	G1/8	20,5	6	15	2,5	13
T20C2800	G1/4	29	7	18	4	15
T20C3800	G3/8	38	8	24	6	20
T20C4800	G1/2	50	10	30	8	25



Quick Exhaust Valves

T70, S/511, S/513, S/514 G1/8 ... G1/2

- » Enables air to be exhausted quickly from air reservoirs and cylinders
- » Allows higher cylinder speeds to be achieved
- » Simple, compact design and construction
- » Very reliable in operation

Technical Data

Medium:
Compressed air, filtered,
lubricated and non-lubricated

Operating pressure:
0,5 ... 10 bar (T70)
0,7 ... 10 bar (S/511)
0,7 ... 7 bar (S/513, S/514)

Ambient temperature:
-20°C ... +80°C
Air supply must be dry enough
to avoid ice formation at
temperatures below +2°C



Models

Symbol	Model	Port size BSPP	Flow (1 ... 2)** C*	Cv	Flow (2 ... 3)** C*	Cv	Service kit
	T70C1800	G1/8	3,8	0,93	7	1,72	T70C1800K00
	T70C2800	G1/4	7,4	1,8	9,7	2,38	T70C2800K00
	T70C3800	G3/8	14,5	3,55	20,5	5	T70C3800K00
	T70C4800	G1/2	19,7	4,83	25	6,13	T70C4800K00
	S/511	G1/2	21,6	5,3	39	9,56	QS/511/00
	S/513	G1/4	7,6	1,86	13,5	3,3	QS/510/00
	S/514	G1/2	21,6	5,3	39	9,56	QS/511/00

* C = dm³/(s.bar).

** Flow factor measured at 6 bar inlet pressure.



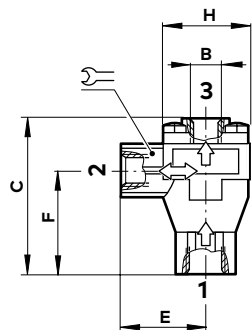


Quick Exhaust Valves

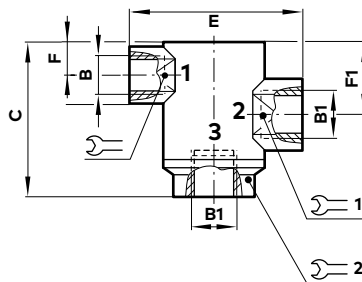
T70, S/511, S/513, S/514 G1/8 ... G1/2

Dimensions

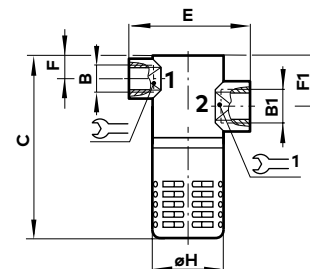
T70



S/511



S/513, S/514



Model - T70	B	C	E	F	
T70C1800	G1/8	53	28	35,5	19
T70C2800	G1/4	53	28	35,5	19
T70C3800	G3/8	73,5	40	48	30
T70C4800	G1/2	73,5	40	48	30

Model - S/511	B	B1	C	E	F	F1			
S/511	G1/2	G3/4	86	100	17	48	30	36	32

Model - S/513, S/514	B	B1	C	E	F	F1	ØH	
S/513	G1/4	G3/8	86,5	58	10	23	34	21 / 23
S/514	G1/2	G3/4	134	100	17	48	47,5	30 / 36



For further information, visit www.norgren.com and use the new improved search function. If you cannot see the option you require please contact us.





Non-Return Valves

T55 In-line G1/8 ... G1/2

- » Permit free flow of air in one direction only
- » Simple, reliable design
- » Light weight
- » Silicone free
- » Low cracking pressure

Technical Data

Medium:
Compressed air, filtered,
lubricated and non-lubricated

Operating pressure:
0,1 ... 10 bar

Ambient temperature:
-20°C ... +80°C
Air supply must be dry enough
to avoid ice formation at
temperatures below +2°C

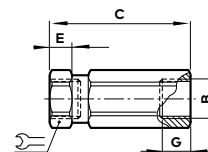
Models

Symbol	Model	Port size	Flow factor C*	CV
	T55C1800	1/8	2,4	0,59
	T55C2800	1/4	5,5	1,35
	T55C3800	3/8	9,0	2,20
	T55C4800	1/2	15,0	3,70

* C: measured in dm³/(s.bar).

Dimensions

Model	B	C	E	G	
T55C1800	G1/8	42,5	7	7	14
T55C2800	G1/4	54	8	10	17
T55C3800	G3/8	63	9	13,5	24
T55C4800	G1/2	77	12	13,5	27





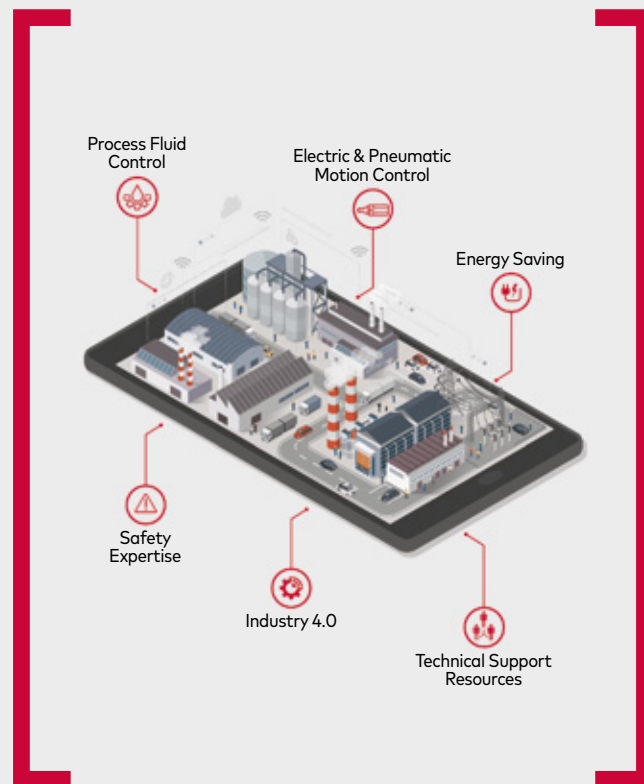
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Non-Return Valve

C00GL, C01G2, C02G2, C01G3, C02G3 Ø4 ... 12, M5, G1/8 ... G1/2, R1/8 ... R1/4

- » High flow performance
- » Nickel plated brass components provide corrosion and contamination resistance and an extended life (C01G2, C02G2, C01G3, C02G3)
- » Pre applied thread sealant on all taper threads and recessed captive O-ring on parallel threads provides optimum rapid sealing (C01G2, C02G2, C01G3, C02G3)

Technical Data

Medium:
Compressed air, filtered,
lubricated and non-lubricated

Operating pressure:
10 bar max.

Ambient temperature:
0°C ... +60°C
Air supply must be dry enough
to avoid ice formation at
temperatures below +2°C

Tube sizes:
4 ... 12 mm

**Thread options (C01G2,
C02G2, C01G3, C02G3):**
M5, 1/8, 1/4, 3/8 and
1/2 ISO G and ISO R

Tubing types:
Nylon 11 or 12.
Polyurethane 85, 95 or 98
durometer.



Models - taper thread

Symbol	Model Non-return (in)	Model Non-return (out)	O/D Tube	Thread
	C01G20418	C01G30418	4	R1/8
	C01G20618	C01G30618	6	R1/8
	C01G20828	C01G30828	8	R1/4

Models - tube to tube

Symbol	Model	Model	O/D Tube
	C00GL0400	–	4
	C00GL0600	–	6
	C00GL0800	–	8
	–	C00GL1000	10
	–	C00GL1200	12





Non-Return Valve

C00GL, C01G2, C02G2, C01G3, C02G3 Ø4 ... 12, M5, G1/8 ... G1/2, R1/8 ... R1/4

Models - parallel thread

Symbol	Model Non-return (in)	Model Non-return (out)	O/D Tube	Thread
				
	C02G20405	C02G30405	4	M5
	C02G20418	C02G30418	4	G1/8
	C02G20618	C02G30618	6	G1/8
	C02G20828	C02G30828	8	G1/4
	C02G21038	C02G31038	10	G3/8
	C02G21248	C02G31248	12	G1/2





Non-Return Valves

T50P Ø4 ... 12 mm PIF

- » Allow free flow in one direction only
- » Simple reliable design
- » Low weight
- » Low cracking pressure
- » High operating pressure

Technical Data

Medium:
Compressed air, filtered,
lubricated or non-
lubricated, vacuum

Operation:
Non-return valve

Operating pressure:
-0,9 ... 16 bar

Cracking pressure:
0,03 ... 0,05 bar

O/D tube:
Ø4, 6, 8, 10, 12 mm

Ambient temperature:
-20°C ... +80°C max.
Air supply must be dry enough
to avoid ice formation at
temperatures below +2°C

Tubing types:
PA 11 or 12, PUR and other
plasticised or unplasticised
tubing which conforms to
the tolerances specified in
BS 5409, Part 1, 1976, light
and normal duty, DIN 73378,
DIN 74234, NFE 49-100



Models

Symbol	Model	Ø Tube (mm)	Flow factor C *1)	b *2)	Cv	Flow at 6 » 5 bar (dm³/min)
	T50P0004	4	0,4	0,23	0,1	96
	T50P0006	6	1,45	0,36	0,36	349
	T50P0008	8	2,9	0,3	0,7	699
	T50P0010	10	5,1	0,35	1,25	1229
	T50P0012	12	8,4	0,42	2,1	2024

*1) Measured in dm³/(s.bar).

*2) b = critical pressure ratio.





Non-Return Valves

T50P Ø4 ... 12 mm PIF

Dimensions

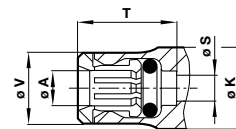
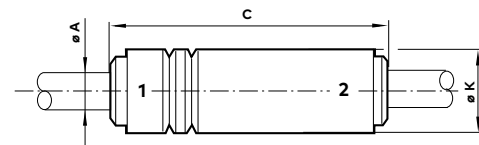
T50P

Model	ØA	C	ØK
T50P0004	4	49	11
T50P0006	6	56,5	13
T50P0008	8	61	15
T50P0010	10	77,5	20
T50P0012	12	88,5	22

*1) Dimensions here and in the individual tables refer to the collet being in the 'IN' position.

Collet

ØA O/D tube	ØS	ØT *1)	V	ØK
4	2,8	14	7,5	10
5	3,4	15	10	11
6	4,4	15,5	11	12
8	6	16,5	13	14
10	7,6	21	14,5	17
12	9,6	24,5	18	20,5





Heavy Duty Non-Return Valve

S/520 G1/8 ... G1

- » Allows free flow in one direction only
- » Simple reliable design
- » High operating pressure and temperature
- » Spares kit available

Technical Data

Medium:
Compressed air, filtered,
lubricated and non-lubricated

Operation:
Heavy duty non-return valves

Operating pressure:
0,3 ... 16 bar

Cracking pressure:
< 0,1 bar (1 psi)

Port sizes:
G1/8 ... G1

Mounting:
Line mounted

Ambient temperature:
Standard
-20°C ... +80°C max.
For high temperature
applications +150°C
Air supply must be dry enough
to avoid ice formation at
temperatures below +2°C



Models

Symbol	Model	Port size	Flow factor C *1)	CV	Service kit
	S/520	G1/8	2,4	0,6	QS/520/00
	S/521	G1/4	4,3	1	QS/521/00
	S/532	G3/8	10,5	2,6	QS/532/00
	S/522	G1/2	17	4,2	QS/522/00
	S/523	G3/4	42	10,3	QS/523/00
	S/524	G1	55,5	13,6	QS/524/00

*1) Measured in dm³/(s.bar).



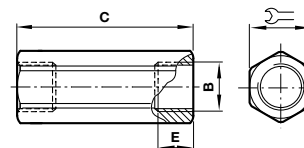


Heavy Duty Non-Return Valve

S/520 G1/8 ... G1

Dimensions

Model	B	C	B	E	
S/520	G1/8	43	1/8	10	14
S/521	G1/4	48	1/4	11	19
S/532	G3/8	62	3/8	13	22
S/522	G1/2	76	1/2	17	27
S/523	G3/4	92	3/4	18	36
S/524	G1	124	1	25	49



Options

- » Alternative threads
- » High temperature versions





Shuttle Valve

T65 G1/8 & G1/4

- » Allow two independent signal sources to be connected to a common pilot line
- » Can be used to perform an 'OR' logic function
- » Can be combined to operate from three or more sources
- » Valves can be ganged together

Technical Data

Medium:
Compressed air, filtered,
lubricated or non-lubricated,
inert gas

Operation:
Shuttle valve ('OR' logic
function)

Operating pressure:
0,7 ... 10 bar

Port size:
G1/8, G1/4

Mounting:
Line mounted

Ambient temperature:
-20°C ... +80°C max.
Air supply must be dry enough
to avoid ice formation at
temperatures below +2°C



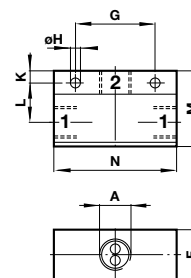
Models

Symbol	Model	A	F	ØH	K	L	M	N
	T65C1800	G1/8	15	5,25	6	10	25	36
	T65C2800	G1/4	20	5,25	8	12	30	50

Dimensions

Model	Port size	Flow factor C *1)	Cv	Flow at 6 - 1 bar (dm³/min)
T65C1800	G1/8	1,7	0,42	412
T65C2800	G1/4	2,6	0,64	631

*1) Measured in dm³/(s.bar).





Blocking Valve

101GA, 102GA 1/8 ... 1/2 BSP threads

- » Very compact units
- » Safer pneumatic systems

Technical Data

Medium:
Compressed air

Operating pressure:
1 ... 10 bar

Thread size:
1/8" ... 1/2" BSP taper
and BSP parallel
Ambient temperature:
0°C ... +60°C

101GA



102GA

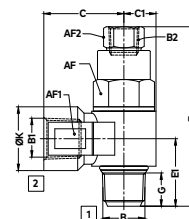


Models

Pilot operated check valve, BSP taper

101GA

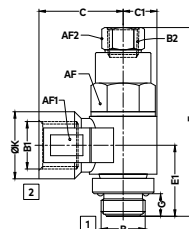
Symbol	Model	B	B1	B2	C	C1	E	E1	C	ØK	AF	AF1	AF2	Weight (g)
	101GA1818	R1/8	Rc1/8	M5	18.2	7.3	40.8	15.4	18.2	14.5	12	15	8	34.5
	101GA2828	R1/4	Rc1/4	Rc1/8	26.5	9.5	48.9	21.1	26.5	18.0	17	19	12	74.6
	101GA3838	R3/8	Rc3/8	Rc1/8	30.8	11.6	56.7	24.8	30.8	23.0	20	24	12	123.4
	101GA4848	R1/2	Rc1/2	Rc1/4	38.7	14.0	70.6	31.0	38.7	26.5	24	28	17	207.2



Pilot operated check valve, BSP parallel

102GA

Symbol	Model	B	B1	B2	C	C1	E	E1	G	ØK	AF	AF1	AF2	Weight (g)
	102GA1818	G1/8	G1/8	M5	40.8	7.3	40.8	16.2	5.1	14.5	12	15	8	35.4
	102GA2828	G1/4	G1/4	G1/8	48.9	9.5	48.9	21.3	6.6	18.0	17	19	12	77.3
	102GA3838	G3/8	G3/8	G1/8	56.7	11.6	56.7	24.8	7.2	23.0	20	24	12	127.7
	102GA4848	G1/2	G1/2	G1/4	70.6	14.0	70.6	29.6	8.7	26.5	24	28	17	218.8





In-Line Excess Flow Shut-Off Valves

T60 Air fuses G1/4 ... G1 1/2

- » Assists in complying with safety regulations
- » Tamper proof
- » Compact and safe design
- » Low pressure drop
- » Automatically resets after failure correction
- » High corrosion resistance
- » High air pressure rating

Technical Data

Medium:

Compressed air, filtered, lubricated and non-lubricated and inert gases

Operating pressure:

Maximum 16 bar, minimum according to hose length

Ambient temperature:

-20°C ... +80°C

Air supply must be dry enough to avoid ice formation at temperatures below +2°C



Models

Symbol	Model	Port size BSPP	Drop pressure at shut off flow (bar)	Shut off flow rate at 7 bar (dm³/s) ±10%	Flow at 7 bar Δ P 0,07 bar (dm³/s)
1—  —2	T60C2890	1/4	0,14	8,3	6,5
	T60C2891	1/4	0,3	14	6,5
	T60C3890	3/8	0,14	19,4	13,5
	T60C3891	3/8	0,3	32,2	13,5
	T60C4890	1/2	0,14	32,2	23,2
	T60C4891	1/2	0,3	48,3	23,2
	T60C6890	3/4	0,14	48,3	43
	T60C6891	3/4	0,3	80	43
	T60C8890	1	0,14	92	68
	T60C8891	1	0,3	128	68
	T60CB890	1 1/2	0,14	186	145
	T60CB891	1 1/2	0,3	268	145

Flow and pressure test conducted according to ISO 6358 test circuit. Mean measured flow values are provided at standard reference conditions.



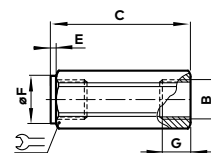


In-Line Excess Flow Shut-Off Valves

T60 Air fuses G1/4 ... G1 1/2

Dimensions

Model	B	C	E	ØF	G	
T60C2890	G1/4	51	3	21	11	21
T60C2891	G1/4	51	3	21	11	21
T60C3890	G3/8	62	5	24	14	24
T60C3891	G3/8	62	5	24	14	24
T60C4890	G1/2	78	5	32	15	32
T60C4891	G1/2	78	5	32	15	32
T60C6890	G3/4	90	5	32	19	32
T60C6891	G3/4	90	5	32	19	32
T60C8890	G1	118	5	51	25,5	51
T60C8891	G1	118	5	51	25,5	51
T60CB890	G1 1/2	145	5	64	25,5	64
T60CB891	G1 1/2	145	5	64	25,5	64





Solenoid Plugs And Cables

15 mm, 22 mm & 30 mm

15 mm plugs according to DIN EN175301-803 form C

Connector	Model	Connector type	Cable length	Voltage		Features	Suppression	Protection class	Gland size	Power consumption
				a.c.	d.c.					
Plug with moulded cable 	V10013-D01	DIN EN175301-803	1000 mm	–	–	–	–	IP 65	PG-7	–
	V10013-D03	DIN EN175301-803	3000 mm	–	–	–	–	IP 65	PG-7	–
Plug with cable gland 	V10027-D00	DIN EN175301-803	–	–	–	–	–	IP 65	PG-7	–
Indicator plug 	V10012-D13	DIN EN175301-803	–	12 ... 24 V	12 ... 24 V	LED,VDR	•	IP 65	PG-7	0,25W
	V10012-D18	DIN EN175301-803	–	110 V	110 V	LED,VDR	•	IP 65	PG-7	0,25W
	V10012-D19	DIN EN175301-803	–	220 V	220 V	LED,VDR	•	IP 65	PG-7	0,25W
Indicator plug with moulded cable 	V10014-D03	DIN EN175301-803	3000 mm	24 V	24 V	LED,VDR	•	IP 65	PG-7	0,25W
	V10015-D03	DIN EN175301-803	3000 mm	110 V	110 V	LED,VDR	•	IP 65	PG-7	0,25W
	V10016-D03	DIN EN175301-803	3000 mm	220 V	220 V	LED,VDR	•	IP 65	PG-7	0,25W

22 mm plugs according to Industrial standard or DIN EN175301-803 form B

Connector	Model	Connector type	Cable length	Voltage		Features	Suppression	Protection class	Gland size	Power consumption
				a.c.	d.c.					
Plug with moulded cable 	M/P43313/1	22 mm Industrial std.	1000 mm	–	–	–	–	IP 65	PG-9	–
	M/P43313/3	22 mm Industrial std.	3000 mm	–	–	–	–	IP 65	PG-9	–
Plug with cable gland 	M/P19063	22 mm Industrial std.	–	–	–	–	–	IP 65	PG-9	–
Indicator plug 	M/P24121/1	22 mm Industrial std.	–	12 ... 24 V	12 ... 24 V	LED,VDR	•	IP 65	PG-9	0,25W
	M/P24121/2	22 mm Industrial std.	–	110 V	110 V	LED,VDR	•	IP 65	PG-9	0,25W
	M/P24121/3	22 mm Industrial std.	–	220 V	220 V	LED,VDR	•	IP 65	PG-9	0,25W
Indicator plug with moulded cable 	M/P43314/13	22 mm Industrial std.	3000 mm	24 V	24 V	LED,VDR	•	IP 65	PG-9	0,25W
	M/P43314/23	22 mm Industrial std.	3000 mm	110 V	110 V	LED,VDR	•	IP 65	PG-9	0,25W
	M/P43314/33	22 mm Industrial std.	3000 mm	220 V	220 V	LED,VDR	•	IP 65	PG-9	0,25W





Solenoid Plugs And Cables

15 mm, 22 mm & 30 mm

30 mm plugs according to DIN EN175301-803 form A

Connector	Model	Connector type	Cable length	Voltage		Features	Suppression	Protection class	Gland size	Power consumption
				a.c.	d.c.					
Plug with moulded cable 	M/P43315/1	DIN EN175301-803	1000 mm	–	–	–	–	IP 65	PG-11	–
	M/P43315/3	DIN EN175301-803	3000 mm	–	–	–	–	IP 65	PG-11	–
Plug with cable gland 	M/P15737	DIN EN175301-803	–	250 V	300 V	–	–	IP 65	PG-11	–
	M/P19117	DIN EN175301-803	–	–	240 V	–	–	IP 65	PG-11	–
	0570275000000000	DIN EN175301-803	–	250 V	300 V	–	–	IP 65	PG-11	–
	0663303000000000	DIN EN175301-803	–	12 ... 250 V	12 ... 250 V	–	–	IP 65	PG-11	–
	0570110000000000	DIN EN175301-803	–	12 ... 240 V	12 ... 240 V	–	–	IP 65	PG-11	–
Indicator plug 	M/P24120/1	DIN EN175301-803	–	10 ... 50 V	10 ... 50 V	LED,VDR	•	IP 65	PG-11	0,25W
	M/P24120/2	DIN EN175301-803	–	70 ... 115 V	70 ... 115 V	LED,VDR	•	IP 65	PG-11	0,25W
	M/P24120/3	DIN EN175301-803	–	150 ... 240 V	150 ... 240 V	LED,VDR	•	IP 65	PG-11	0,25W
Indicator plug with moulded cable 	M/P43316/13	DIN EN175301-803	3000 mm	24 V	24 V	LED,VDR	•	IP 65	PG-11	0,25W
	M/P43316/23	DIN EN175301-803	3000 mm	110 V	110 V	LED,VDR	•	IP 65	PG-11	0,25W
	M/P43316/33	DIN EN175301-803	3000 mm	220 V	220 V	LED,VDR	•	IP 65	PG-11	0,25W



Designing customised solutions

With our dedicated team of field engineers, sector specialists and key account managers as well as our global manufacturing capability and technical centres of excellence, we are committed to providing excellent service to our customers and dedicated to developing and testing new high performance products to meet precise industry and application needs.

Norgren works closely with customers develops customised solutions to increase the productivity and efficiency of the customer's equipment. With a true understanding of the issues in the different industries, we help our customers to achieve their goals by working with them as a partner, not just a supplier.





[Air Preparation]

5

Going right back to 1927 when Carl Norgren first sketched out the design for the original FRL, Norgren have been at the forefront of air preparation products.

In this section you will find a whole family of air preparation products. From your ring main distribution and factory air needs to point of use, there is a comprehensive offering of filter types(air Purity to ISO8573), bowl materials and drain types for general purpose and precision pressure control, and list units for general purpose use and more specialised applications - precision regulators, items for safety critical situations, etc.

Use the fast find guide to speed you to the right product to get the job done, pdf datasheets are available online via the webstore or call the team for rapid quotation and delivery.



Fast Find Guide

Please note: These products represent only part of the Norgren Air Preparation range. If you can't see the option you require please contact us.

Excelon® Plus – Standard Modular System

Combination Shut-Off Valve, Filter-Regulators and Lubricators BL82, BL84 G1/4 ... G3/4  Page 5-008	General Purpose Filters F82G, F84G G1/4 ... G3/4  Page 5-010	'Puraire'® High Efficiency Oil Removal Filters F82C, F84C G1/4 ... G3/4  Page 5-012	'Ultraire'® High Efficiency Oil Vapour Removal Filters F82V, F84V G1/4 ... G3/4  Page 5-014	Pressure Regulators R82G, R84G G1/4 ... G3/4  Page 5-016
Filter-Regulators B82G, B84G G1/4 ... G3/4  Page 5-019	Lubricators L82, L84 G1/4 ... G3/4  Page 5-022	Manual Shut-Off Valves T82T, T84T G1/4 ... G3/4  Page 5-024	Solenoid/Air Operated Shut-Off Valves P82C, P84C G1/4 ... G3/4  Page 5-026	Solenoid/Air Operated Shut-Off Valves P82F, P84F G1/4 ... G3/4  Page 5-029
Accessories  Page 5-032				





Fast Find Guide

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Excelon® Plus – Modular System for Harsh Environments and Extended Temperatures

Combination Shut-Off Valve, Filter-Regulators And Lubricators HBL84 G3/8 ... G3/4  Page 5-036	General Purpose Filters HF84G G3/8 ... G3/4  Page 5-038	Extreme Temperature Oil Removal Filters HF84C G3/8 ... G3/4  Page 5-040	Extreme Temperature Oil Vapour Removal Filters HF84V G3/8 ... G3/4  Page 5-042	Pressure regulators HR84G G3/8 ... G3/4  Page 5-044
Filter-Regulators HB84G G3/8 ... G3/4  Page 5-046	Lubricators HL84 G3/8 ... G3/4  Page 5-048	Shut-Off Valves HT84T G3/8 ... G3/4  Page 5-050	Accessories  Page 5-052	





Fast Find Guide

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Olympian Plus – Plug-in, Quick Change System

Combination Shut-Off Valve, Filter-Regulators And Lubricators BL68 G3/4 ... G1 1/2  Page 5-054	General Purpose Filters F68G G3/4 ... G1 1/2  Page 5-056	High Efficiency Oil Removal Filters F68H G3/4 ... G1 1/2  Page 5-058	Oil Vapour Removal (Adsorbing) Filter F68V, F68Y G1/2 ... G1  Page 5-060	Pressure Regulators R68G G3/4 ... G1 1/2  Page 5-062
Filter-Regulators B68G G3/4 ... G1 1/2  Page 5-064	Lubricators L68M G3/4 ... G1 1/2  Page 5-066	Pressure Relief Valves V68H G3/4 ... G1 1/2  Page 5-068	Shut-off & Lockout Valves T68 G3/4 ... G1 1/2  Page 5-070	Soft Start/Dump Valves P68F G3/4 ... G1 1/2  Page 5-072
Accessories  Page 5-074				

Large Capacity Series Units

General Purpose Filters F18 G1 1/2 & 2"  Page 5-092	Oil Removal Filters F47 G1 1/2 ... G2  Page 5-094	Pilot Operated and Pilot Regulators 11-808, R18, 11-400 G1/4 ... G2  Page 5-096
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Special Purpose

Pre-Set Regulator R16 G1/4  Page 5-099	Precision and Instrument Regulator 11-818, R27 G1/4  Page 5-100
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Fast Find Guide

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Miniature Series, General Purpose

Filter-Regulators and Lubricators P1H G1/8, G1/4  Page 5-076	General Purpose Filters F07 G1/8, G1/4  Page 5-078	Purair® Oil Removal Filters F39 G1/8, G1/4  Page 5-080	Pressure Regulators R07 G1/8, G1/4  Page 5-082	Filter-Regulators B07 G1/8, G1/4  Page 5-084
Lubricators L07 G1/8, G1/4  Page 5-086	Pressure Relief Valves – Diaphragm Type V07 G1/8, G1/4  Page 5-088	Accessories  Page 5-090		

Stainless Steel - General Purpose and Precision

Filters, Pressure Regulators, L. Lubricators F22, R22, L22 1/2" NPTF  Page 5-102	General Purpose High Flow Filter/Regulator B52G/B54G 3/8" ... 3/4" PTF  Page 5-105
Precision Regulator & Filter Regulator R38, B38 1/4" NPTF  Page 5-107	General Purpose Regulators & Filter Regulator R05, B05 1/4" PTF  Page 5-110

Accessories

Gauges  Page 5-112	Auto Drains  Page 5-114
Drip Leg Drains  Page 5-114	





Range	Thread Form	Port Size								
		1/8"	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
Precision	ISOG/NPT									
18 Series	ISOG/NPT									
Olympian 68	ISOG/NPT									
Excelon® Plus TR	ISOG/NPT									
Excelon® Plus 84	ISOG/NPT									
Excelon® Plus 82	ISOG/NPT									
Minature	ISOG/NPT									

Combination Units	Filter Types			Regulators	Filter-regulators	Lubricators	Shut-Off Valves			Accessories
	General Purpose	Coalescing	Vapour				Manual	Solenoid	Air Operated	
P1H	F07	F39		R07	B07	L07				See general accessories on pages 5-090 and 5-091
BL82	F82G	F82C	F82V	R82G	B82G	L82M	T82T	P82	P82	82 Series
BL84	F84G	F84C	F84V	R84G	B84G	L84M	T84T	P84	P84	84 Series
HBL84	HF84G	HF84C	HF84V	HR84G	HB84G	HL84M	HT84T			TR Series
BL68	F68G	F68H	F68V F68Y	R68G	B68G	L68M	T68	P68F		Olympian Series
	F18	F47		R18						
				11-818 R27						

For further information, visit www.norgren.com and use the new improved search function. If you cannot see the option you require please contact us.





Excelon® Plus ½" 84 Series with Integrated Electronic Pressure Sensor

A Complete Air Preparation Solution with IO-Link

Excelon® Plus Air Preparation has been designed with flexibility and safety in mind, offering built in, tamper proof features and a unique double lock mechanism on the bowls. Maintenance of the unit is simplified with the new system where the element assembly is removed together with the bowl. The flexible design also allows in-line installation, or modular installation with other Excelon® Plus products.

Excelon® Plus ½" 84 Series is IO-Link enabled, offering the perfect solution for remote diagnostics, simplified installation and automated parameter setting.



The IO Link version of the 84 Series Regulator or Filter Regulator is a standard selectable option. This can be found on the configurator www.norgren.com/uk/en/technical-support/configurators/air-preparation on in the part number tree on the datasheets www.norgren.com/uk/en/technical-support/product-datasheets or see the part numbers listed on pages 5-017 & 5-020 in this catalogue.

- » Three thread sizes (3/8", 1/2", 3/4") and two thread forms (ISO G, NPT)
- » Air Purity to ISO8573 class 6&7, 1 and 0
- » Two regulator variants with three spring choices
- » Filter-regulators
- » Two lubricator variants
- » Combination units - standard & IO-Link connected
- » Several valve options (Manual, dump, soft start dump)
- » As standard with two modes of operation (A digital output pressure switch or IO-Link enabled)

Product Highlights:

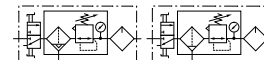
- » Simple Set-up
- » Fully Integrated Design
- » IO-Link
- » Robust
- » Excellent visual management
- » Standard M8 connection



Visit our website for IODD



Visit our website for Quick Start Guide and users manual



Excelon® Plus Modular System

Combination shut-off valve, filter-regulators and lubricators BL82, BL84 – G1/4 ... G3/4

- » Unique Quikclamp connection system offers full modularity
- » 40µm particle and high efficiency water removal
- » Double safety lock on bowl
- » Integrated gauge
- » Shut off valve, regulator and filter regulator with tamper resistance feature
- » Metal bowl with prismatic liquid level indicator lens
- » Light weight polycarbonate bowl
- » Easy to read flush mounted integrated pressure gauge as standard
- » All round (360°) visibility of sightdome for ease of drip rate setting
- » High Corrosion resistance: Body and Metal bowl with electrophoretic paint finish

Technical Data

Medium:
Compressed air only

Maximum supply pressure:
BL82:
Polycarbonate bowl: 10 bar
Metal bowl: 17 bar
BL84:
Polycarbonate bowl: 10 bar
Metal bowl: 20 bar

Filter element:
40µm

Ambient temperature:
Polycarbonate bowl:
-10°C ... +60°C
Metal bowl: -20°C ... +65°C
Air supply mu be dry enough to avoid ice formation at temperatures below +2°C

Pressure range:
0,3 ... 10 bar
Note: Outlet pressure can be adjusted in excess of and also less than those listed

BL82



BL84



 Visit our website for ATEX certificate

 Visit our website for Configurator & CAD

Models

Boxed sets including shut-off valve, gauge and mounting bracket

Auto drain Model	Manual drain Model	Port size	Element (µm)	Lubricator	Bowl
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BL82-201G	BL82-221G	G1/4	40	Micro-fog®	Guarded Polycarbonate
BL82-301G	BL82-321G	G3/8	40	Micro-fog®	Guarded Polycarbonate
BL84-301G	BL84-321G	G3/8	40	Micro-fog®	Guarded Polycarbonate
BL84-401G	BL84-421G	G1/2	40	Micro-fog®	Guarded Polycarbonate
BL84-601G	BL84-621G	G3/4	40	Micro-fog®	Guarded Polycarbonate

Accessories

Integral Gauge* (0 ... 10 bar)	Port Adaptors	Element Kit	Elastomer Kit
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* For Integrated Electronic Pressure Sensor see B84G series.

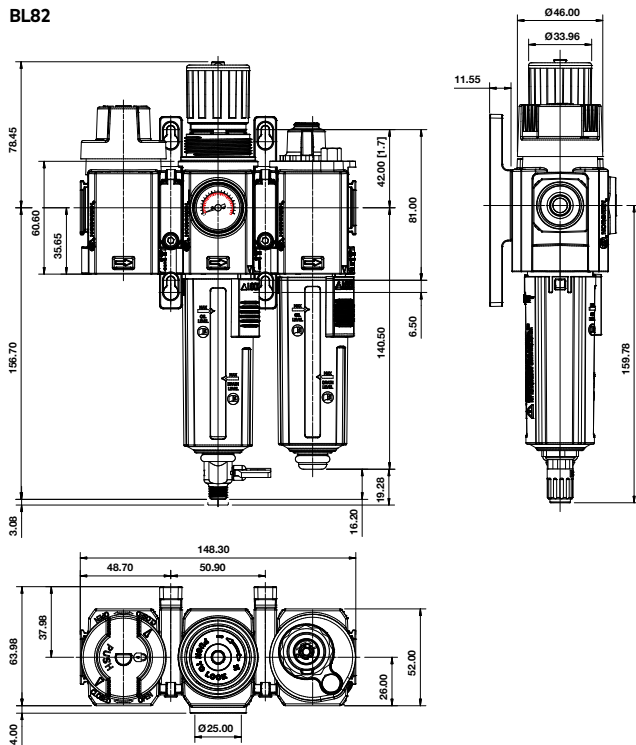
For further information, visit www.norgren.com and use the new improved search function. If you cannot see the option you require please contact us.

More Info

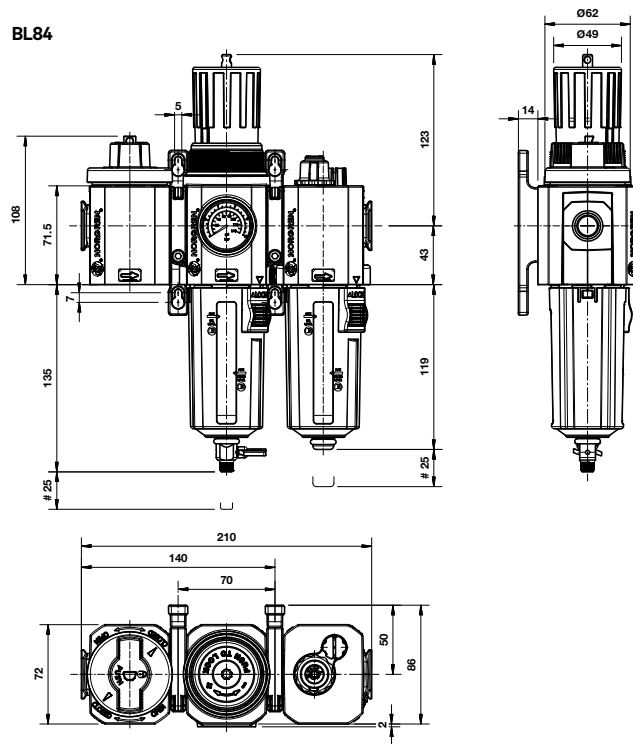


Combination shut-off valve, filter-regulators and lubricators BL82, BL84 – G1/4 ... G3/4

BL82



BL84

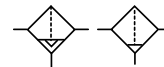


Minimum clearance required to remove bowl



For further information, visit www.norgren.com and use the new improved search function. If you cannot see the option you require please contact us.





Excelon® Plus Modular System

General purpose filters F82G, F84G – G1/4 ... G3/4

- » Excelon® Plus design allows in-line installation or modular installation with other Excelon® Plus products
- » 5 or 40µm particle and high efficiency water removal (> 98%)
- » Double safety lock bowl
- » Metal bowl with prismatic liquid level indicator lens
- » Light weight polycarbonate bowl
- » Air purity classes in accordance to ISO8573-1:2010: 7:8:4 (40µm), 6:8:4 (5µm)
- » High Corrosion resistance: Body and Metal bowl with electrophoretic paint finish
- » Ex DoC in accordance with 2014/34/EU/ATEX

Technical Data

Medium:
Compressed air only

Maximum supply pressure:
F82G:
Polycarbonate bowl: 10 bar
Metal bowl: 17 bar
F84G:
Polycarbonate bowl: 10 bar
Metal bowl: 20 bar

Filter element:
40µm

Atex:
Filters F82/F84 are in conformity with Atex 2014/34/EU
II 2 GD
Ex h IIC T6 Gb
EX h IIIC T85°C Db

Ambient temperature:
-10°C ... +65°C
Air supply must be dry enough to avoid ice formation at temperatures below +2°C

F82G



F84G



Models

F82G & F84G series						Accessories				Service Kit	
Auto drain Model	Manual drain Model	Port size	Flow* (dm³/s)	Element (µm)	Bowl	Wall mounting bracket	Quikclamp	Quikclamp with bracket	Port Adaptors	Element Kit 5µm	40µm
											
F82G-2GN-AP3	F82G-2GN-QP3	G1/4	23	40	Guarded Polycarbonate	820024-50KIT	820014-51KIT	820014-52KIT	820015-08KIT	820038-50KIT	820038-51KIT
F82G-3GN-AP3	F82G-3GN-QP3	G3/8	27	40	Guarded Polycarbonate	820024-50KIT	820014-51KIT	820014-52KIT	820015-09KIT	820038-50KIT	820038-51KIT
F84G-3GN-AP3	F84G-3GN-QP3	G3/8	78	40	Guarded Polycarbonate	840024-50KIT	840014-51KIT	840014-52KIT	840015-10KIT	840038-50KIT	840038-51KIT
F84G-4GN-AP3	F84G-4GN-QP3	G1/2	78	40	Guarded Polycarbonate	840024-50KIT	840014-51KIT	840014-52KIT	840015-11KIT	840038-50KIT	840038-51KIT
F84G-6GN-AP3	F84G-6GN-QP3	G3/4	78	40	Guarded Polycarbonate	840024-50KIT	840014-51KIT	840014-52KIT	840015-12KIT	840038-50KIT	840038-51KIT

* Typical flow with 6,3 bar inlet pressure and 0,5 bar pressure drop.

For other styles of mounting bracket and accessories, please refer to page 5-032.

NOTE: End connectors required for use with Quikclamps if directly mounting to pipework / fittings – contact us for further details.





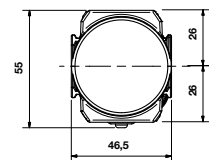
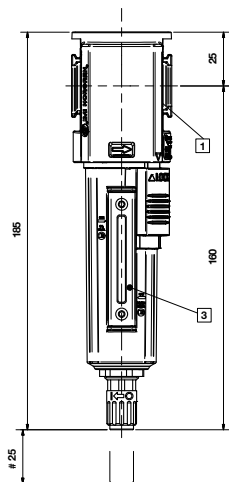
Excelon® Plus Modular System

General purpose filters F82G, F84G – G1/4 ... G3/4

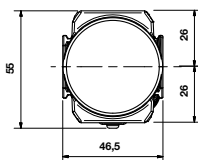
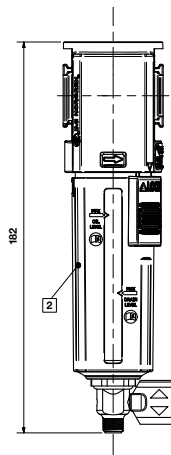
Dimensions

F82G

Auto drain

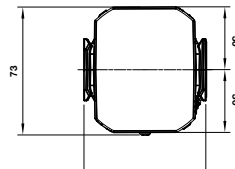
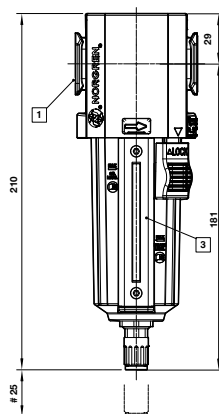


Manual drain

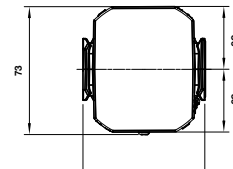
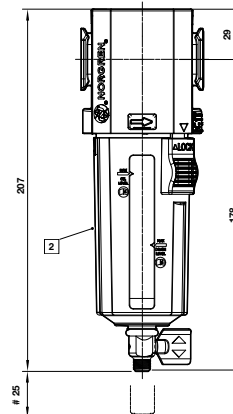


F84G

Auto drain



Manual drain



Minimum clearance required to remove bowl

1 Main ports:

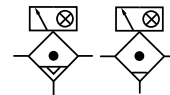
1/4 & 3/8" (ISO G) (82 series)

3/8", 1/2" or 3/4" (ISO G) (84 series)

2 Transparent bowl with guard

3 Metal bowl with liquid level indicator lens





Excelon® Plus Modular System

'Puraire'® high efficiency oil removal filters F82C, F84C – G1/4 ... G3/4

- » Excelon® Plus design allows in-line installation or modular installation with other Excelon® Plus products
- » High efficiency oil and particle removal
- » Double safety lock bowl
- » Metal bowl with prismatic liquid level indicator lens
- » Light weight Polycarbonate bowl
- » Service indicator standard
- » Air purity class in accordance with ISO8573-1:2010: 1:7.1*
*Tested in accordance with the methods laid out in ISO 12500-1 using an inlet oil aerosol concentration of 4mg/m³
- » High Corrosion resistance: Body and Metal bowl with electrophoretic paint finish
- » DoC in accordance with 2014/34/EU/ATEX

Technical Data

Medium:
Compressed air only

Maximum operating pressure:
Polycarbonate bowl: 10 bar
F82C:
Metal bowl: 17 bar
F84C:
Metal bowl: 20 bar

Remaining oil content:
0,01 mg/m³ at +21°C

Filter element:
0,01 µm

Atex:
Filters F82/F84 are in conformity with
Atex 2014/34/EU
II 2 GD
Ex h IIC T6 Gb
EX h IIC T85°C Db

Ambient temperature:
-10°C ... +65°C
Air supply must be dry enough
to avoid ice formation at
temperatures below +2°C

F82C



F84C



Models

F82C & F84C series					Accessories				Service Kit
Auto drain Model	Manual drain Model	Port size	Flow* (dm³/s)	Bowl	Wall mounting bracket	Quickclamp	Quickclamp with bracket	Port Adaptors	Element
F82C-2GD-AP0	F82C-2GD-QP0	G1/4	5.5	Guarded Polycarbonate	820024-50KIT	820014-51KIT	820014-52KIT	820015-08KIT	820044-50KIT
F82C-3GD-AP0	F82C-3GD-QP0	G3/8	5.5	Guarded Polycarbonate	820024-50KIT	820014-51KIT	820014-52KIT	820015-09KIT	820044-50KIT
F84C-3GD-AP0	F84C-3GD-QP0	G3/8	25	Guarded Polycarbonate	840024-50KIT	840014-51KIT	840014-52KIT	840015-10KIT	840044-50KIT
F84C-4GD-AP0	F84C-4GD-QP0	G1/2	25	Guarded Polycarbonate	840024-50KIT	840014-51KIT	840014-52KIT	840015-11KIT	840044-50KIT
F84C-6GD-AP0	F84C-6GD-QP0	G3/4	25	Guarded Polycarbonate	840024-50KIT	840014-51KIT	840014-52KIT	840015-12KIT	840044-50KIT

* To maintain stated oil content at 6,3 bar inlet pressure.

For other styles of mounting bracket and accessories, please refer to page 5-032.

NOTE: End connectors required for use with Quickclamps if directly mounting to pipework / fittings – contact us for further details.



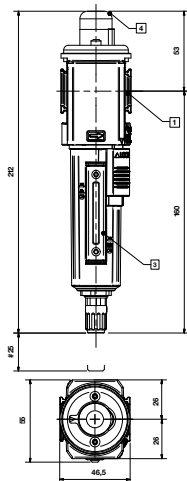
Excelon® Plus Modular System

'Puraire'® high efficiency oil removal filters F82C, F84C – G1/4 ... G3/4

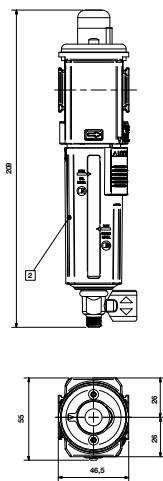
Dimensions

F82C

Auto drain

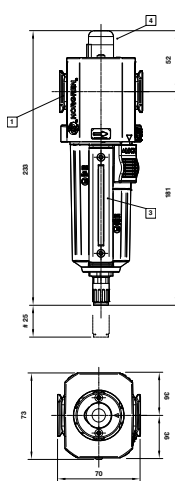


Manual drain

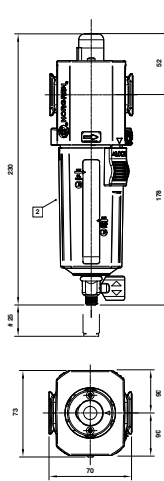


F84C

Auto drain



Manual drain



Minimum clearance required to remove bowl

1 Main ports:

1/4 & 3/8" (ISO G) (82 series)

3/8", 1/2" or 3/4" (ISO G) (84 series)

2 Transparent bowl with guard

3 Metal bowl with liquid level indicator lens

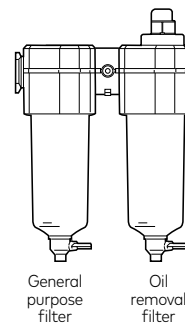
4 Service indicator

Typical performance characteristics

Inlet pressure (bar)	Maximum flow (dm ³ /s)*	
	F82C	F84C
2,5	2,6	12
4	3,7	17
6,3	5,5	25
8	6,8	30
10	8,3	35

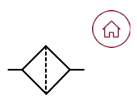
* Maximum flow to maintain stated oil removal performance.

High efficiency filters must be protected upstream by a general purpose filter (5 µm)



Excelon® Plus Modular System

'Ultraire'® high efficiency oil vapour removal filters F82V, F84V – G1/4 ... G3/4



- » Excelon® Plus design allows in-line installation or modular installation with other Excelon® Plus products
- » Adsorbing type activated carbon element removes oil vapours and most hydrocarbon odours
- » Double safety lock bowl
- » Light weight Polycarbonate bowl
- » Metal bowl option
- » Air purity class in accordance with ISO8573-1:2010: -7:0*
*Tested in accordance with the methods laid out in ISO 12500-1 using an inlet oil aerosol concentration of 0,018 mg/m³
- » High Corrosion resistance: Body and Metal bowl with electrophoretic paint finish
- » DoC in accordance with 2014/34/EU/ATEX

Technical Data

Medium:
Compressed air only

Maximum operating pressure:
Polycarbonate bowl: 10 bar
F82V:
Metal bowl: 17 bar
F84V:
Metal bowl: 20 bar

Remaining oil content:
0,003 mg/m³ max. at +21°C

Atex:
Filters F82/F84 are in conformity with
Atex 2014/34/EU
II 2 GD
Ex h IIC T6 Gb
EX h IIIC T85°C Db

Ambient temperature:
Polycarbonate bowl:
-10°C ... +60°C
Metal bowl: -20°C ... +65°C
Air supply must be dry enough to avoid ice formation at temperatures below +2°C

F82V



F84V



Models

F82C & F84C series Guarded Transparent Bowl Model	Metal Bowl Model	Port size	Flow* (dm³/s)
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F82V-2GN-EPA	F82V-2GN-EMA	G1/4	4
F82V-3GN-EPA	F82V-3GN-EMA	G3/8	4
F84V-3GN-EPA	F84V-3GN-EMA	G3/8	25
F84V-4GN-EPA	F84V-4GN-EMA	G1/2	25
F84V-6GN-EPA	F84V-6GN-EMA	G3/4	25

Accessories

Wall mounting bracket	Quikclamp	Quikclamp with bracket	Port Adaptors	Element
-----------------------	-----------	------------------------	---------------	---------



820024-50KIT	820014-51KIT	820014-52KIT	820015-08KIT	820041-50KIT
820024-50KIT	820014-51KIT	820014-52KIT	820015-09KIT	820041-50KIT
840024-50KIT	840014-51KIT	840014-52KIT	840015-10KIT	840041-50KIT
840024-50KIT	840014-51KIT	840014-52KIT	840015-11KIT	840041-50KIT
840024-50KIT	840014-51KIT	840014-52KIT	840015-12KIT	840041-50KIT

* To maintain stated oil content at 6,3 bar inlet pressure.

For other styles of mounting bracket and accessories, please refer to page 5-032.

NOTE: End connectors required for use with Quikclamps if directly mounting to pipework / fittings – contact us for further details.



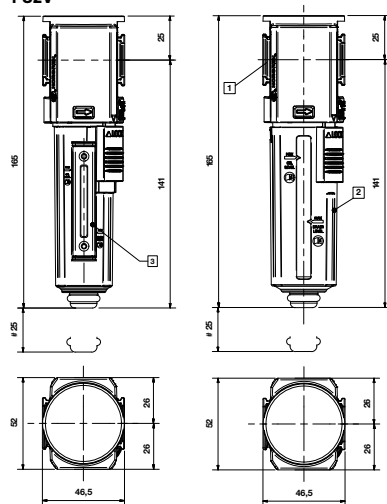


Excelon® Plus Modular System

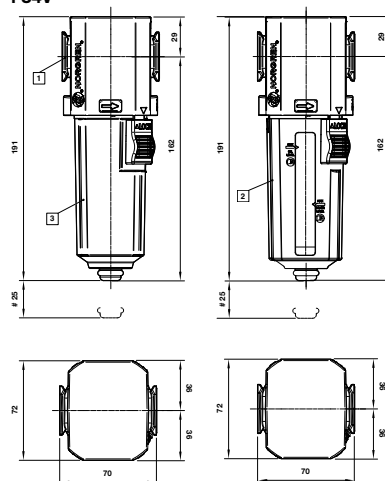
'Ultraire® high efficiency oil vapour removal filters F82V, F84V – G1/4 ... G3/4

Dimensions

F82V



F84V



Typical performance characteristics

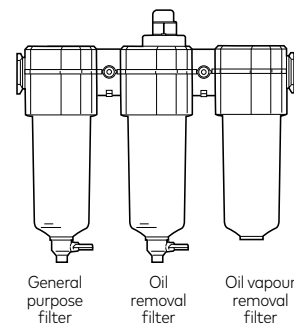
Inlet pressure (bar)	Maximum flow (dm ³ /s)*	
	F82V	F84V
2,5	1,9	15
4	2,8	20
6,3	4	25
8	5	28
10	6,1	30

* Maximum flow to maintain stated oil removal performance.

Minimum clearance required to remove bowl

- 1 Main ports:
1/4 & 3/8" (ISO G) (82 series)
3/8", 1/2" or 3/4" (ISO G) (84 series)
- 2 Transparent bowl with guard
- 3 Metal bowl

Oil vapour removal filters must be protected upstream by an oil removal filter. A typical assembly:



Excelon® Plus Modular System

Pressure regulators R82G, R84G – G1/4 ... G3/4

- » Excelon® Plus design allows in-line installation or modular installation with other Excelon® Plus products
- » Push to lock adjusting knob with built in tamper resistant feature
- » Easy to read flush mounted integrated pressure gauge as standard
- » High Corrosion resistance: Body and Metal bowl with electrophoretic paint finish
- »  DoC in accordance with 2014/34/EU/ATEX

Technical Data

Medium:
Compressed air only

Maximum supply pressure:
20 bar

Outlet pressure ranges:
0,3 ... 10 bar
0,3 ... 4 bar (optional)
0,7 ... 17 bar (optional)
For further information please contact us.

Ambient temperature:
-20°C ... +65°C
Air supply must be dry enough to avoid ice formation at temperatures below +2°C

Atex:
Regulators R82/R84 are in conformity with ATEX 2014/34/EU II 2 GD
Ex h IIC T6 Gb
EX h IIC T85°C Db
excluding all versions with electronic pressure sensor

R82G



R84G



Models

Accessories

Service Kit

R82G & R84G series				Panel mounting ring		Neck Mounting bracket (Including Panel mounting ring)		Quickclamp	Quickclamp with bracket	Port Adaptors	Integral Gauge (0 ... 10 bar)	Elastomer Kit
Model	Port size	Pressure range (bar)	Flow* (dm³/s)									
												
R82G-2GK-RMG	G1/4	03 ... 10	125	820048-89KIT	820068-51KIT	820014-51KIT	820014-52KIT	820015-08KIT	820073-01KIT	FRLB82-KIT		
R82G-3GK-RMG	G3/8	03 ... 10	125	820048-89KIT	820068-51KIT	820014-51KIT	820014-52KIT	820015-09KIT	820073-01KIT	FRLB82-KIT		
R84G-3GK-RMG	G3/8	03 ... 10	125	840048-89KIT	840068-51KIT	840014-51KIT	840014-52KIT	840015-10KIT	840073-01KIT	FRLB84-KIT		
R84G-4GK-RMG	G1/2	03 ... 10	125	840048-89KIT	840068-51KIT	840014-51KIT	840014-52KIT	840015-11KIT	840073-01KIT	FRLB84-KIT		
R84G-6GK-RMG	G3/4	03 ... 10	125	840048-89KIT	840068-51KIT	840014-51KIT	840014-52KIT	840015-12KIT	840073-01KIT	FRLB84-KIT		

* Typical flow with 10 bar inlet pressure and 1 bar droop from set pressure of 6,3 bar.

For other styles of mounting bracket and accessories, please refer to page 5-032.

NOTE: End connectors required for use with Quickclamps if directly mounting to pipework / fittings – contact us for further details.





Excelon® Plus Modular System

Pressure regulators R82G, R84G – G1/4 ... G3/4

Models

R84G - Pressure regulators with integrated electronic pressure sensor				
Model*	Port size	Pressure range (bar)	Adjustment	Integrated gauge (bar)
				
R84G-3GK-RME	G3/8	03 ... 10	Knob	0 ... 10
R84G-4GK-RME	G1/2	03 ... 10	Knob	0 ... 10
R84G-6GK-RME	G3/4	03 ... 10	Knob	0 ... 10

* All models shown here are supplied with integrated pressure sensor applicable for flow direction left to right.

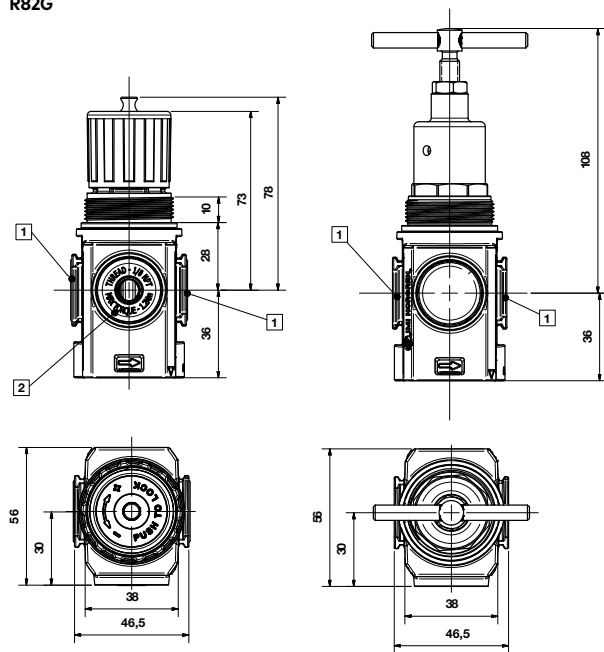


Excelon® Plus Modular System

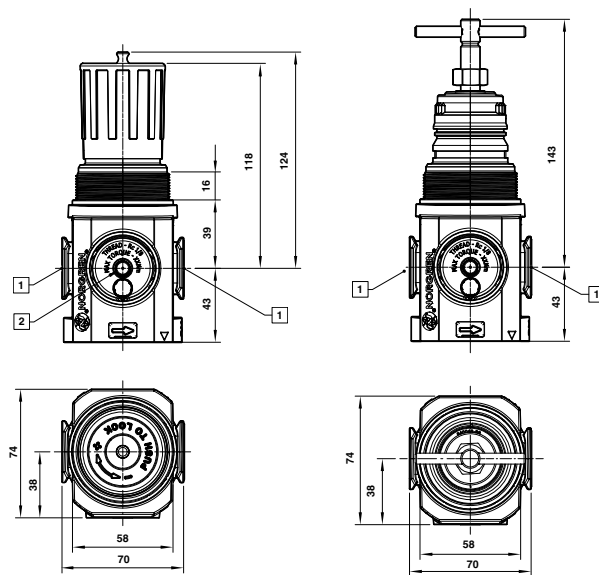
Pressure regulators R82G, R84G – G1/4 ... G3/4

Dimensions

R82G



R84G

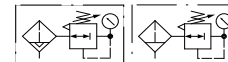


- ① Main ports:
1/4 & 3/8" (ISO G) (82 series)
3/8", 1/2" or 3/4" (ISO G) (84 series)
② Gauge Port Rc 1/8



Excelon® Plus Modular System

Filter-regulators B82G, B84G – G1/4 ... G3/4



- » Excelon® Plus design allows in-line installation or modular installation with other Excelon® Plus products
- » 5 or 40µm particle and high efficiency water removal
- » Double safety lock bowl
- » Push to lock adjusting knob with built in tamper resistant feature
- » Metal bowl with prismatic liquid level indicator lens
- » Light weight Polycarbonate bowl with guard
- » Easy to read flush mounted integrated pressure gauge
- » Air purity classes in accordance to ISO8573-1:2010: 7:8:4 (40µm), 6:8:4 (5µm)
- » High Corrosion resistance: Body and Metal bowl with electrophoretic paint finish
- » DoC in accordance with 2014/34/EU/ATEX

Technical Data

Medium:
Compressed air only

Maximum supply pressure:
Polycarbonate bowl: 10 bar
B82G:
Metal bowl: 17 bar
B84G:
Metal bowl: 20 bar

Outlet pressure ranges:
0,3 ... 10 bar
0,3 ... 4 bar (optional)
0,7 ... 17 bar (optional)
For further information please contact us.

Filter element:
40µm

Atex:
Filters B82/B84 are in conformity with Atex 2014/34/EU II 2 GD
Ex h IIC T6 Gb
EX h IIIC T85°C Db

Ambient temperature:
-10°C ... +65°C
Air supply must be dry enough to avoid ice formation at temperatures below +2°C

B82G



B84G



Models

B82G & B84G series							Panel mounting ring	Neck Mounting bracket (Including Panel mounting ring)	Quikclamp	Quikclamp with bracket	Port Adaptors	Integral Gauge (0 ... 10 bar)	Element Kit 5µm	40µm	Elastomer Kit
Auto drain Model	Manual drain Model	Port size	Pressure range (bar)	Flow* (dm³/s)	Element (µm)	Bowl									
															
B82G-2GK-AP3-RMG	B82G-2GK-QP3-RMG	G1/4	03 ... 10	100	40	GP**	820048-89KIT	820068-51KIT	820014-51KIT	820014-52KIT	820015-08KIT	820073-01KIT	820038-50KIT	820038-51KIT	FRLB82-KIT
B82G-3GK-AP3-RMG	B82G-3GK-QP3-RMG	G3/8	03 ... 10	100	40	GP**	820048-89KIT	820068-51KIT	820014-51KIT	820014-52KIT	820015-09KIT	820073-01KIT	820038-50KIT	820038-51KIT	FRLB82-KIT
B84G-3GK-AP3-RMG	B84G-3GK-QP3-RMG	G3/8	03 ... 10	100	40	GP**	840048-89KIT	840068-51KIT	840014-51KIT	840014-52KIT	840015-10KIT	840073-01KIT	840038-50KIT	840038-51KIT	FRLB84-KIT
B84G-4GK-AP3-RMG	B84G-4GK-QP3-RMG	G1/2	03 ... 10	100	40	GP**	840048-89KIT	840068-51KIT	840014-51KIT	840014-52KIT	840015-11KIT	840073-01KIT	840038-50KIT	840038-51KIT	FRLB84-KIT
B84G-6GK-AP3-RMG	B84G-6GK-QP3-RMG	G3/4	03 ... 10	100	40	GP**	840048-89KIT	840068-51KIT	840014-51KIT	840014-52KIT	840015-12KIT	840073-01KIT	840038-50KIT	840038-51KIT	FRLB84-KIT

** GP = Guarded Polycarbonate bowl.

* Typical flow with 10 bar inlet pressure and 1 bar drop from set pressure of 6,3 bar.

For other styles of mounting bracket and accessories, please refer to page 5-032.

NOTE: End connectors required for use with Quikclamps if directly mounting to pipework / fittings – contact us for further details.





Excelon® Plus Modular System

Filter-regulators B82G, B84G – G1/4 ... G3/4

Models

B84G - Filter/regulator with integrated electronic pressure sensor					
Model*	Port size	Drain	Pressure range (bar)	Filter element (µm)	Bowl
					
B84G-3GK-AP3-RME	G3/8	Auto	0,3 ... 10	40	Guarded polycarbonate
B84G-4GK-AP3-RME	G1/2	Auto	0,3 ... 10	40	Guarded polycarbonate
B84G-6GK-AP3-RME	G3/4	Auto	0,3 ... 10	40	Guarded polycarbonate
B84G-3GK-AD3-RME	G3/8	Auto	0,3 ... 10	40	Metal with level indicator
B84G-4GK-AD3-RME	G1/2	Auto	0,3 ... 10	40	Metal with level indicator
B84G-6GK-AD3-RME	G3/4	Auto	0,3 ... 10	40	Metal with level indicator
B84G-3GK-QP3-RME	G3/8	Manual	0,3 ... 10	40	Guarded polycarbonate
B84G-4GK-QP3-RME	G1/2	Manual	0,3 ... 10	40	Guarded polycarbonate
B84G-6GK-QP3-RME	G3/4	Manual	0,3 ... 10	40	Guarded polycarbonate
B84G-3GK-QD3-RME	G3/8	Manual	0,3 ... 10	40	Metal with level indicator
B84G-4GK-QD3-RME	G1/2	Manual	0,3 ... 10	40	Metal with level indicator
B84G-6GK-QD3-RME	G3/4	Manual	0,3 ... 10	40	Metal with level indicator

* All models shown here are supplied with integrated pressure sensor applicable for flow direction left to right





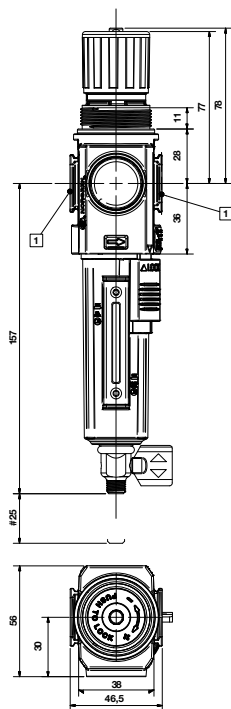
Excelon® Plus Modular System

Filter-regulators B82G, B84G – G1/4 ... G3/4

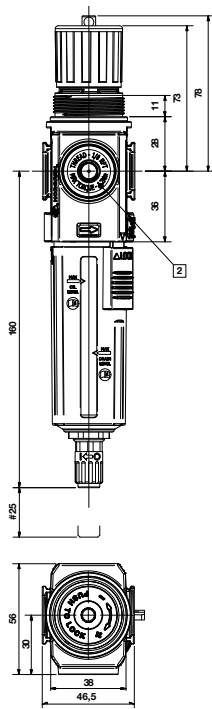
Dimensions

B82G

Auto drain

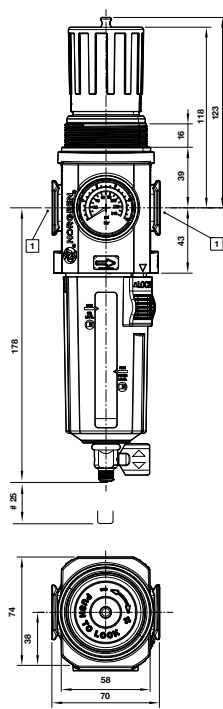


Manual drain

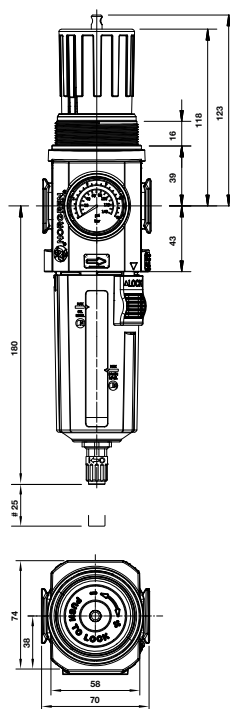


B84G

Auto drain



Manual drain



Minimum clearance required to remove bowl

1 Main ports:

1/4 & 3/8" (ISO G) (82 series)

3/8", 1/2" or 3/4" (ISO G) (84 series)

2 Gauge Port Rc 1/8





Excelon® Plus Modular System

Lubricators L82, L84 – G1/4 ... G3/4

- » Excelon® Plus design allows in-line installation or modular installation with other Excelon® Plus products
- » Flow sensor provides a nearly constant oil/air ratio over a wide range of flows
- » Double safety lock bowl
- » Metal bowl with prismatic liquid level indicator lens
- » Light weight Polycarbonate bowl
- » All round (360°) visibility of sightdome for ease of drip rate setting
- » Choice of two oil delivery systems
- » High Corrosion resistance: Body and Metal bowl with electrophoretic paint finish

Technical Data

Medium:
Compressed air only

Maximum supply pressure:
Polycarbonate bowl: 10 bar
L82M:
Metal bowl: 17 bar
L84M:
Metal bowl: 20 bar

Start point:
Oil-fog L82C: 0.5 dm³/s
Micro-fog® L82M: 1.2 dm³/s
L84M, L84C: 0.94 dm³/s
Minimum flow required for lubricator operation at 6,3 bar inlet pressure

Ambient temperature:
-10°C ... +65°C
Air supply must be dry enough to avoid ice formation at temperatures below +2°C

L82M



L84M



Models

L82C, L82M & L84C, L84M series					Wall mounting bracket	Quikclamp	Quikclamp with bracket	Quikclamp with bracket	Service Kit	
Model	Lubricator	Port size	Flow* (dm³/s)	Bowl					Lubricator sight dome kit Micro-fog® (red)	Oil-fog (green)
	Micro-fog®	G1/4	22	Guarded Polycarbonate	820024-50KIT	820014-51KIT	820014-52KIT	820015-08KIT	840055-50KIT	840055-51KIT
L82M-3GP-EPN	Micro-fog®	G3/8	21	Guarded Polycarbonate	820024-50KIT	820014-51KIT	820014-52KIT	820015-09KIT	840055-50KIT	840055-51KIT
L82C-2GP-EPN	Oil-fog	G1/4	26	Guarded Polycarbonate	820024-50KIT	820014-51KIT	820014-52KIT	820015-08KIT	840055-50KIT	840055-51KIT
L82C-3GP-EPN	Oil-fog	G3/8	24	Guarded Polycarbonate	820024-50KIT	820014-51KIT	820014-52KIT	820015-09KIT	840055-50KIT	840055-51KIT
L84M-3GP-EPN	Micro-fog®	G3/8	73	Guarded Polycarbonate	840024-50KIT	840014-51KIT	840014-52KIT	840015-10KIT	840055-50KIT	840055-51KIT
L84M-4GP-EPN	Micro-fog®	G1/2	73	Guarded Polycarbonate	840024-50KIT	840014-51KIT	840014-52KIT	840015-11KIT	840055-50KIT	840055-51KIT
L84M-6GP-EPN	Micro-fog®	G3/4	73	Guarded Polycarbonate	840024-50KIT	840014-51KIT	840014-52KIT	840015-12KIT	840055-50KIT	840055-51KIT
L84C-3GP-EPN	Oil-fog	G3/8	91	Guarded Polycarbonate	840024-50KIT	840014-51KIT	840014-52KIT	840015-10KIT	840055-50KIT	840055-51KIT
L84C-4GP-EPN	Oil-fog	G1/2	91	Guarded Polycarbonate	840024-50KIT	840014-51KIT	840014-52KIT	840015-11KIT	840055-50KIT	840055-51KIT
L84C-6GP-EPN	Oil-fog	G3/4	91	Guarded Polycarbonate	840024-50KIT	840014-51KIT	840014-52KIT	840015-12KIT	840055-50KIT	840055-51KIT

* Typical flow with 6,3 bar inlet pressure and 0,5 bar pressure drop.

For other styles of mounting bracket and accessories, please refer to page 5-032.

NOTE: End connectors required for use with Quikclamps if directly mounting to pipework / fittings - contact us for further details.



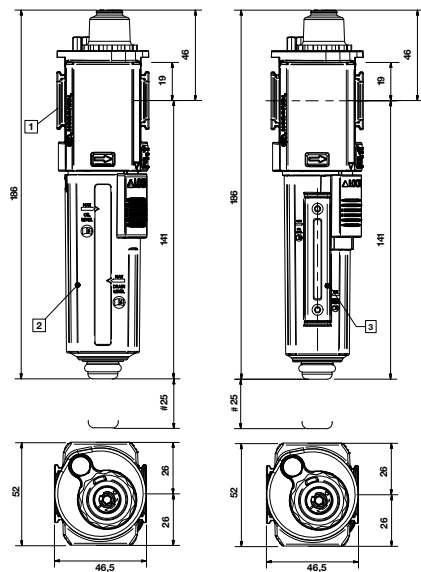


Excelon® Plus Modular System

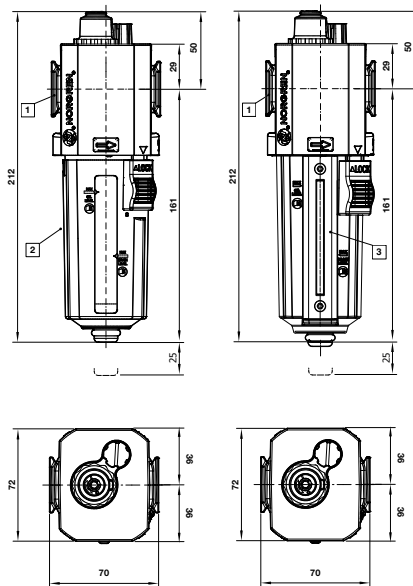
Lubricators L82, L84 – G1/4 ... G3/4

Dimensions

L82



L84



Minimum clearance required to remove bowl

① Main ports:

1/4 & 3/8" (ISO G) (82 series)

3/8", 1/2" or 3/4" (ISO G) (84 series)

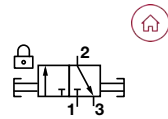
② Transparent bowl with guard

③ Metal bowl with liquid level indicator lens



Excelon® Plus Modular System

Manual shut-off valves T82T, T84T – G1/4 ... G3/4



- » Excelon® Plus design allows in-line installation or modular installation with other Excelon® Plus products
- » 3/2 way function
- » Threaded exhaust port
- » Lockable in closed position with padlock
- » High Corrosion resistance: Body and Metal bowl with electrophoretic paint finish
- » DoC in accordance with 2014/34/EU/ATEX

Technical Data

Medium:
Compressed air only

Maximum supply pressure:
T82T: 17 bar
T84T: 20 bar

Atex:
Shut-off valves T82/84 are in conformity with
Atex 2014/34/EU
II 2 GD
Ex h IIC T6 Gb
EX h IIIC T85°C Db

Ambient temperature:
-20°C ... +65°C
Air supply must be dry enough to avoid ice formation at temperatures below +2°C

T82T



T84T



Models

T82T & T84T series Model	Port Size	Function	Exhaust Port
--------------------------	-----------	----------	--------------



T82T-2GA-B1N	G1/4	3/2	G1/4
T82T-3GA-B1N	G3/8	3/2	G1/4
T84T-3GA-B1N	G3/8	3/2	G1/4
T84T-4GA-B1N	G1/2	3/2	G1/4
T84T-6GA-B1N	G3/4	3/2	G1/4

Accessories

Wall mounting bracket	Quikclamp	Quikclamp with bracket	Port Adaptors	Silencer	Plastic silencer
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820024-50KIT	820014-51KIT	820014-52KIT	820015-08KIT	T40C2800	0146000000000000
820024-50KIT	820014-51KIT	820014-52KIT	820015-09KIT	T40C2800	0146000000000000
840024-50KIT	840014-51KIT	840014-52KIT	840015-10KIT	T40C2800	0146000000000000
840024-50KIT	840014-51KIT	840014-52KIT	840015-11KIT	T40C2800	0146000000000000
840024-50KIT	840014-51KIT	840014-52KIT	840015-12KIT	T40C2800	0146000000000000

For other styles of mounting bracket and accessories, please refer to page 5-032.
NOTE: End connectors required for use with Quikclamps if directly mounting to pipework / fittings – contact us for further details.



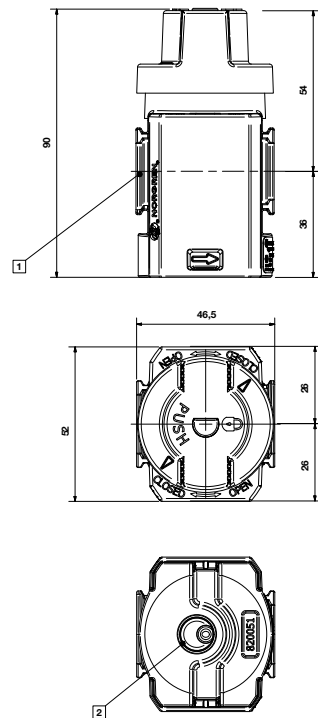


Excelon® Plus Modular System

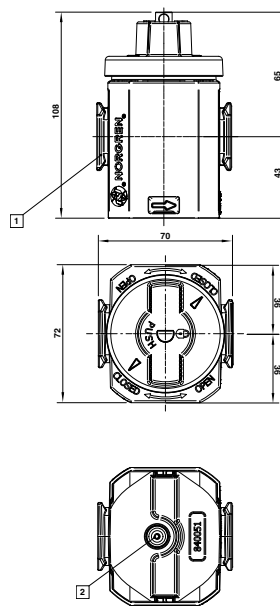
Manual shut-off valves T82T, T84T – G1/4 ... G3/4

Dimensions

T82T



T84T



- 1 Main ports:
1/4 & 3/8" (ISO G) (82 series)
3/8", 1/2" or 3/4" (ISO G) (84 series)
2 Exhaust Port G1/4



Excelon® Plus Modular System

Solenoid/Air Operated shut-off valves P82C, P84C – G1/4 ... G3/4

- » Excelon® Plus design allows in-line installation or modular installation with other Excelon® Plus products
- » 3/2 way function, normally closed
- » High forward flow capacity
- » Fast Exhausting
- » Solenoid and air pilot options
- » For use as components in safety-related systems according to DIN EN ISO13849 up to a Performance Level (PL)c Cat. 1

Technical Data

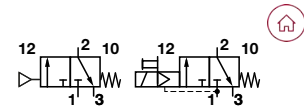
Medium:
Compressed air only

Maximum supply pressure:
10 bar

Minimum operating pressure:
3 bar

Flow*:
P82C:
20 dm³/s at port size 1/4"
P84C:
58 dm³/s at port size 1/2"
*Full flow P1 to P2 at 6,3 bar inlet, with 0,5 bar pressure drop
P82C: P2 to P3 = 20 dm³/s
P84C: P2 to P3 = 63 dm³/s.

Ambient/Media temperature:
-20°C ... +65°C
Air supply must be dry enough to avoid ice formation at temperatures below +2°C



P82C



P84C



Models

P82C & P84C series					Plug with cable gland	Plug with cable gland and indicator			Quickclamp	Quickclamp with bracket	Port Adaptors
Solenoid/spring Voltage 24 V.d.c	Air/spring	Port size	Function	Exhaust Port		12-24 V a.c. / d.c., c/w LED / VDR	110 V a.c. / d.c., c/w LED / VDR	220 V a.c. / d.c., c/w LED / VDR			
											
P82C-2GT-PFN	P82C-2GA-NNN	G1/4	3/2	G1/4	V10027-D00	V10012-D13	V10012-D18	V10012-D19	820014-51KIT	820014-52KIT	820015-08KIT
P82C-3GT-PFN	P82C-3GA-NNN	G3/8	3/2	G1/4	V10027-D00	V10012-D13	V10012-D18	V10012-D19	820014-51KIT	820014-52KIT	820015-09KIT
P84C-3GT-PFN	P84C-3GA-NNN	G3/8	3/2	G1/2	V10027-D00	V10012-D13	V10012-D18	V10012-D19	840014-51KIT	840014-52KIT	840015-10KIT
P84C-4GT-PFN	P84C-4GA-NNN	G1/2	3/2	G1/2	V10027-D00	V10012-D13	V10012-D18	V10012-D19	840014-51KIT	840014-52KIT	840015-11KIT
P84C-6GT-PFN	P84C-6GA-NNN	G3/4	3/2	G1/2	V10027-D00	V10012-D13	V10012-D18	V10012-D19	840014-51KIT	840014-52KIT	840015-12KIT





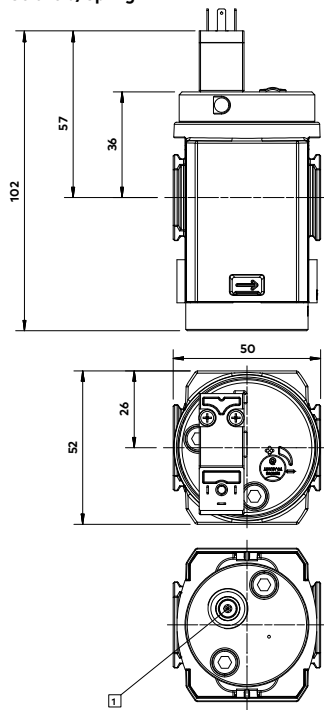
Excelon® Plus Modular System

Solenoid/Air Operated shut-off valves P82C, P84C – G1/4 ... G3/4

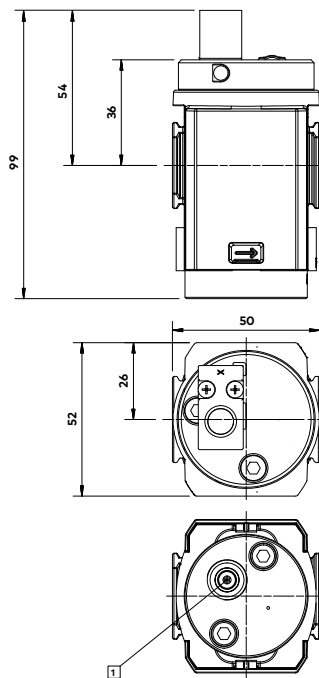
Dimensions

P82C

Solenoid/Spring



Air/spring



1 1/4" exhaust port (ISO G)





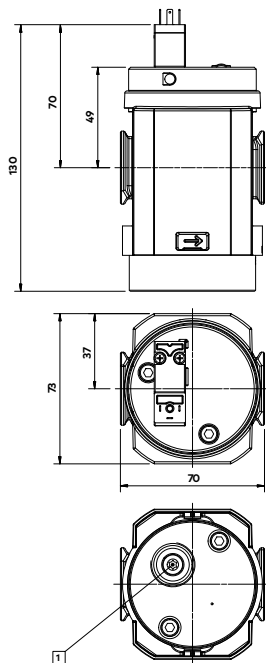
Excelon® Plus Modular System

Solenoid/Air Operated shut-off valves P82C, P84C – G1/4 ... G3/4

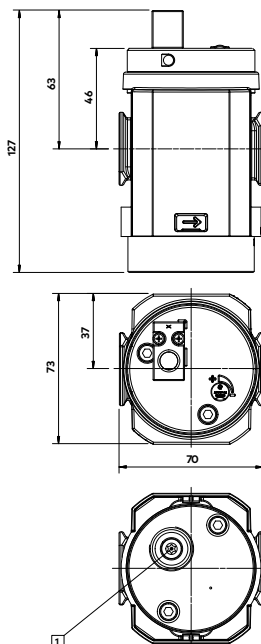
Dimensions

P84C

Solenoid/Spring



Air/spring



1 1/2" exhaust port (ISO G)



Excelon® Plus Modular System

Solenoid/Air Operated shut-off valves P82F, P84F – G1/4 ... G3/4

- » Excelon® Plus design allows in-line installation or modular installation with other Excelon® Plus products
- » 3/2 way function
- » High forward flow capacity
- » Fast Exhausting
- » Variable Snap Adjustment
- » Solenoid and air pilot options
- » For use as components in safety-related systems according to DIN EN ISO13849 up to a Performance Level (PL) Cat. 1

Technical Data

Medium:
Compressed air only

Maximum supply pressure:
10 bar

Minimum operating pressure:
3 bar

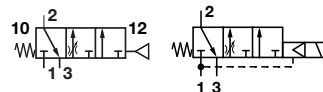
Flow*:

P82F:
21 dm³/s at port size 1/4"
P84F:
51 dm³/s at port size 1/2"
*Full flow P1 to P2 at 6,3 bar inlet, with 0,5 bar pressure drop
P82F: P2 to P3 = 18 dm³/s
P84F: P2 to P3 = 65 dm³/s

Ambient/Media

temperature:
-20°C ... +65°C

Air supply must be dry enough to avoid ice formation at temperatures below +2°C



P82F



P84F



Models

P82F & P84F series					Plug with cable gland	Plug with cable gland and indicator			Quikclamp	Quikclamp with bracket	Port Adaptors
Solenoid/spring Voltage 24 V.d.c	Air/spring	Port size	Function	Exhaust Port		12-24 V a.c. / d.c., c/w LED / VDR	110 V a.c. / d.c., c/w LED / VDR	220 V a.c. / d.c., c/w LED / VDR			
											
P82F-2GT-PFN	P82F-2GA-NNN	G1/4	3/2	G1/4	V10027-D00	V10012-D13	V10012-D18	V10012-D19	820014-51KIT	820014-52KIT	820015-08KIT
P82F-3GT-PFN	P82F-3GA-NNN	G3/8	3/2	G1/4	V10027-D00	V10012-D13	V10012-D18	V10012-D19	820014-51KIT	820014-52KIT	820015-09KIT
P84F-3GT-PFN	P84F-3GA-NNN	G3/8	3/2	G1/2	V10027-D00	V10012-D13	V10012-D18	V10012-D19	840014-51KIT	840014-52KIT	840015-10KIT
P84F-4GT-PFN	P84F-4GA-NNN	G1/2	3/2	G1/2	V10027-D00	V10012-D13	V10012-D18	V10012-D19	840014-51KIT	840014-52KIT	840015-11KIT
P84F-6GT-PFN	P84F-6GA-NNN	G3/4	3/2	G1/2	V10027-D00	V10012-D13	V10012-D18	V10012-D19	840014-51KIT	840014-52KIT	840015-12KIT





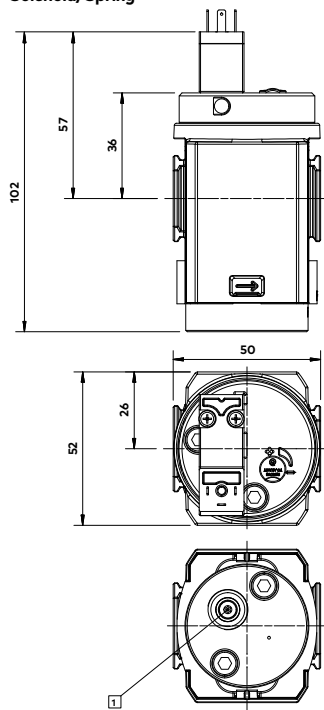
Excelon® Plus Modular System

Solenoid/Air Operated shut-off valves P82F, P84F – G1/4 ... G3/4

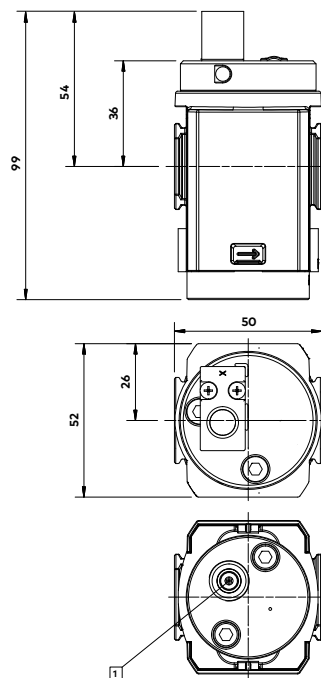
Dimensions

P82F

Solenoid/Spring



Air/spring



1 1/4" exhaust port (ISO G)





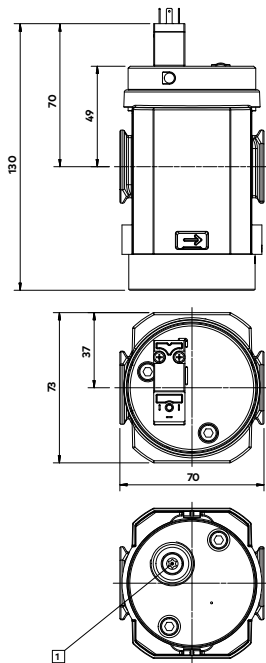
Excelon® Plus Modular System

Solenoid/Air Operated shut-off valves P82F, P84F – G1/4 ... G3/4

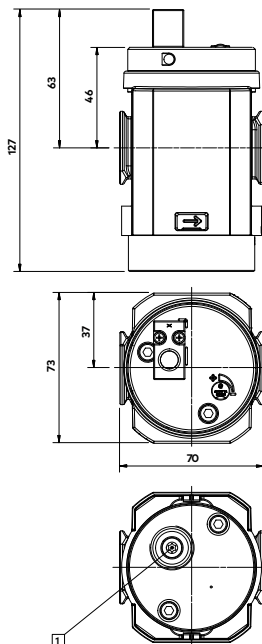
Dimensions

P84F

Solenoid/Spring



Air/spring



1 1/2" exhaust port (ISO G)



Excelon® Plus Modular System

Accessories

Wall Mounting Bracket

- » Provides secure wall mounting for individual Excelon® Plus products

Quikclamp

- » Allows easy connection of one Excelon® Plus unit to another
- » Uniquely, connected products can be rotated in 90° increments

Quikclamps and Wall Brackets

- » Allows easy connection of one Excelon® Plus unit to another
- » Uniquely, connected products can be rotated in 90° increments
- » Secure mounting to a wall, panel or machine surface

Panel Mounting Ring

- » Allows bonnets with panel mounting thread to be directly mounted

Full Flow Manifold Block

- » Provides a manifolding capability for up to 3 products, with G3/4 ports
- » Ideal for right-angled piping

Pressure Sensing Block

- » Provides 3 G1/4 auxiliary air outlets
- » Ideal for adding a pressure switch to allow pressure sensing
- » When placed between a filter-regulator and lubricator allows branching off to systems requiring a non-lubricated supply

Quikclamp		Quikclamp with bracket assembled		Neck mounting bracket and panel nut		Panel mounting nut	Mounting bracket	
								
82 Series	820014-51KIT		820014-52KIT		820068-51KIT	820048-89KIT		820024-50KIT
84 Series	840014-51KIT		840014-52KIT		840068-51 Kit with plastic nut 840068-51 Kit with metal nut	840048-89KIT Plastic nut 840048-01KIT Metal nut		840024-50KIT





Excelon® Plus Modular System

Accessories

Hybrid Quikclamp *1		Hybrid Quikclamp with bracket assembled *1		4 bar	Integrated gauge 10 bar	20 bar	Gauge adaptor kit R 1/8	Padlock	Lockout device
82 Series	—	—	—	820073-03KIT	820073-01KIT	820073-02KIT	820100-02KIT	840055-01KIT	840055-02KIT
84 Series	840014-61	840014-62	—	—	840073-01KIT	840073-02KIT	840100-02KIT	840055-01KIT	840055-02KIT

Porting block G3/8	Full flow porting block horizontal, G3/4	Full flow porting block vertical, G3/4"	Pressure switch interface block (18D pressure switch) G1/4	Pressure sensing block G1/4	Port Adaptors
82 Series	820028-53KIT	—	—	820016-51KIT	82 Series
84 Series	—	840028-53KIT	840028-69KIT	840016-51KIT	84 Series
			0523109000000000		G1/4 820015-08KIT 840015-09KIT
			0337717000000000		G3/8 820015-09KIT 840015-10KIT
					G1/2 — 840015-11KIT
					G3/4 — 840015-12KIT

Pressure switch 18D (0,5 ... 8 bar) *2		Digital pressure switch 51D (-1 ... 10 bar)	Gauges (For regulators with gauge port instead of integrated port)			
			Center back connection, white face			
82 Series	0881300	0860810	Pressure range (bar)*3	Ø	Thread size	Model
84 Series	—	—	0 ... 6	0 ... 0,6	40 mm	R1/8 18-015-885
			0 ... 10	0 ... 1	40 mm	R1/8 18-015-989
			0 ... 25	0 ... 2,5	40 mm	R1/8 18-015-908
			0 ... 6	0 ... 0,6	50 mm	R1/8 18-015-012
			0 ... 10	0 ... 1	50 mm	R1/8 18-015-013
			0 ... 25	0 ... 2,5	50 mm	R1/8 18-015-014

*1) To connect new Excelon® Plus to old Excelon® 74/73 units. Having the same hole centres as 74 Series mounting bracket. A Quikclamp adds 13.6 mm to the overall width of a combination unit.

*2) Flanged version.

*3) Primary scale.



TR Series for harsh environments and extended temperatures

Available in 1/2" (84 Series) body size, the Excelon® Plus TR Series is suitable for applications in harsh environments or extended temperatures. The L variants are approved for S & V Cat 2 Rail applications, and the H variant is approved for extreme temperatures from -40°C to +80°C.

Available variants

- » **Filter** LF84, HF84 - General Purpose, Coalescing, Vapour removal filters
 - Metal Bowl only
 - Drain mechanisms as per standard Olympian 64 Series
- » **Regulator** LR84, HR84
 - 4, 10 & 17 Bar spring options
 - Relieving and Non-Relieving options
 - Metal Bonnet
- » **Filter-regulator** LB84, HB84
 - 4, 10 & 17 Bar spring options
 - Metal Bonnet
 - Metal Bowl only
 - Drain mechanisms as per standard Olympian 64 Series
- » **Lubricator** HL84 only
 - Metal Bowl only
- » **Shut-off valve** HT84 only

Product Highlights:

- » Metal bonnet with T-Bar Adjustment
- » Relieving and non-relieving regulator options with a choice of 3 spring ranges
- » HL84 with Micro-fog® (M) or Oil-fog options as per standard 64/74/84 series
- » High impact resistance cover material
- » Metal bowl with or without sight glass
- » Reliable 3000 series Auto-Drain
- » Lockable exhausting full flow ball valve



Find out more
norgren.com



Energy Saving in Compressed Air Systems

Compressed air is often wrongly assumed to be a cheap or even 'free' source of power. It is not.

Numerous independent studies confirm that industry wastes around 30% of the compressed air it generates. The aim of Norgren is to help the end user minimise wastage, by improving existing installed systems. It will highlight key areas for savings, and offer practical advice on an action plan.

Sources of energy loss in compressed air systems:

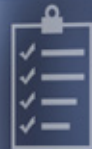
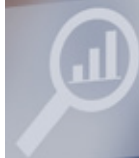
- » Leakage
- » Misuse
- » Over pressurisation
- » Pressure drop

Components that can help energy saving:

- » Energy and safety: components fitted for safety reasons, such as preset regulators and shut off valves
- » Generation: the correct selection of control equipment to multiple compressor set ups, attention to inlet cooling and after treatment of the compressed air can realise good energy savings. Regular and correct maintenance of compressors, filters and dryers is also vital.

Benefits:

- » Reducing energy costs
- » Saving money
- » Increasing safety
- » Maximising efficiency





Excelon® Plus TR Modular System (For Extreme Temperature applications)

Combination shut-off valve, filter-regulators and lubricators HBL84 – G3/8 ... G3/4

- » Unique Quikclamp connection system offers full modularity
- » 40µm particle and high efficiency water removal
- » Double safety lock on bowl
- » Integrated gauge
- » Shut off valve, regulator and filter-regulator with tamper resistance feature
- » Metal bowl with prismatic liquid level indicator
- » Easy to read flush mounted integrated pressure gauge as standard
- » All round (360°) visibility of sightdome for ease of drip rate setting
- » High Corrosion resistance: Body and Metal bowl with electrophoretic paint finish
- » Salt Spray compliant to ISO 9227
- » ABS cover with High impact properties

Technical Data

Medium:
Compressed air only

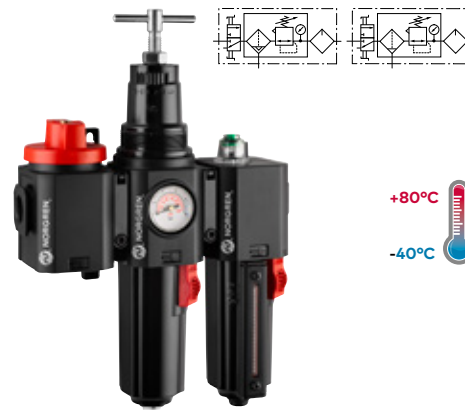
Maximum supply pressure:
Metal bowl: 20 bar

Filter element:
40µm

Ambient temperature:
-20°C ... +65°C

Air supply must be dry enough to avoid ice formation at temperatures below +2°C

Pressure range:
0,3 ... 10 bar
Note: Outlet pressure can be adjusted in excess of and also less than those listed



Models

Boxed sets including shut-off valve, gauge and mounting bracket

Auto drain Model	Manual drain Model	Port size	Element (µm)	Lubricator	Bowl
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HBL84-351G	HBL84-371G	G3/8	40	Micro-fog®	Metal
HBL84-451G	HBL84-471G	G1/2	40	Micro-fog®	Metal
HBL84-651G	HBL84-671G	G3/4	40	Micro-fog®	Metal

Accessories

Gauge adaptor kit R1/8



Port Adaptors



Service Kit

Element Kit

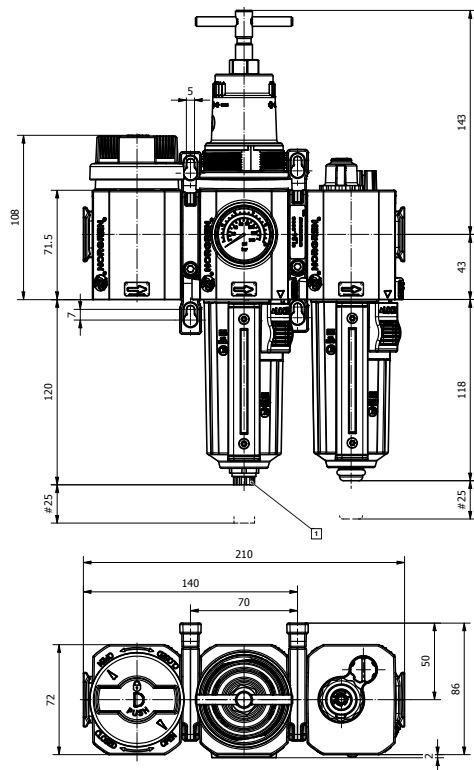




Excelon® Plus TR Modular System (For Extreme Temperature applications)

Combination shut-off valve, filter-regulators and lubricators HBL84 – G3/8 ... G3/4

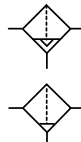
Dimensions



Minimum clearance required to remove bowl

□ Port size automatic drain: G1/8





Excelon® Plus TR Modular System (For Extreme Temperature applications)

General purpose filters HF84G – G3/8 ... G3/4

- » Excelon® Plus design allows in-line installation or modular installation with other Excelon® Plus products
- » 40µm particle and high efficiency water removal
- » Double safety lock bowl
- » Metal bowl with prismatic liquid level indicator lens
- » Air purity classes in accordance to ISO8573-1:2010: 7:8:4 (40µm), 6:8:4 (5µm)
- » High Corrosion resistance: Body and Metal bowl with electrophoretic paint finish
- » DoC in accordance with 2014/34/EU/ATEX
- » Salt Spray compliant to ISO 9227
- » ABS cover with High impact properties

Technical Data

Medium:
Compressed air only

Maximum supply pressure:
20 bar

Atex:
Filters HF84 are in conformity with Atex 2014/34/EU II 2 GD
Ex h IIC T6 Gb
EX h IIIC T85°C Db

Filter element:
40µm

Ambient temperature:
-40°C ... +80°C
Air supply must be dry enough to avoid ice formation at temperatures below +2°C



Models

HF84G series						Accessories				Service Kit	
Auto drain Model	Manual drain Model	Port size	Flow* (dm³/s)	Element (µm)	Bowl	Wall mounting bracket	Quickclamp	Quickclamp with bracket	Port Adaptors	Element Kit 5µm	40µm
HF84G-3GN-AD3	HF84G-3GN-MD3	G3/8	78	40	Metal	840024-50KIT	H840014-51KIT	H840014-52KIT	H840015-10KIT	H840038-50KIT	H840038-51KIT
HF84G-4GN-AD3	HF84G-4GN-MD3	G1/2	78	40	Metal	840024-50KIT	H840014-51KIT	H840014-52KIT	H840015-11KIT	H840038-50KIT	H840038-51KIT
HF84G-6GN-AD3	HF84G-6GN-MD3	G3/4	78	40	Metal	840024-50KIT	H840014-51KIT	H840014-52KIT	H840015-12KIT	H840038-50KIT	H840038-51KIT

* Typical flow with 6,3 bar inlet pressure and 0,5 bar pressure drop.

For other styles of mounting bracket and accessories, please refer to page 5-052.

NOTE: End connectors required for use with Quickclamps if directly mounting to pipework / fittings – contact us for further details.



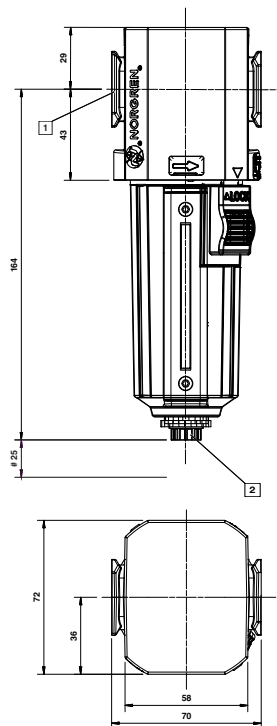


Excelon® Plus TR Modular System (For Extreme Temperature applications)

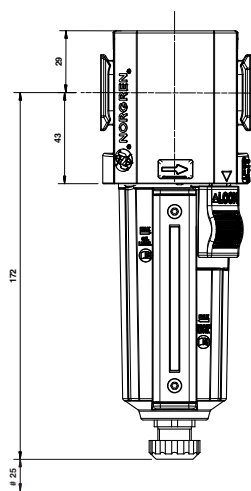
General purpose filters HF84G – G3/8 ... G3/4

Dimensions

Auto drain



Manual drain



Minimum clearance required to remove bowl

1 Main ports 3/8", 1/2" or 3/4" (ISO G)

2 Port size automatic drain: G1/8



Excelon® Plus TR Modular System (For Extreme Temperature applications)

'Puraire'® high efficiency oil removal filters HF84C – G3/8 ... G3/4

- » Excelon® Plus design allows in-line installation or modular installation with other Excelon® Plus products
- » High efficiency oil and particle removal
- » Double safety lock bowl
- » Metal bowl with prismatic liquid level indicator lens
- » Service indicator standard
- » Air purity class in accordance with ISO8573-1:2010: 1:7:1*
*Tested in accordance with the methods laid out in ISO 12500-1 using an inlet oil aerosol concentration of 4mg/m³
- » High Corrosion resistance: Body and Metal bowl with electrophoretic paint finish
- »  DoC in accordance with 2014/34/EU/ATEX
- » Salt Spray compliant to ISO 9227
- » ABS cover with High impact properties

Technical Data

Medium:
Compressed air only

Maximum operating pressure:
20 bar

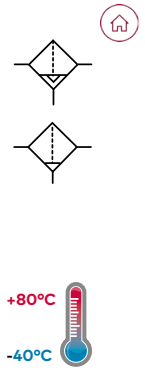
Remaining oil content:
0,01 mg/m³ at +21°C

Filter element:
To 0,01 µm

Atex:
Filters HF84 are in conformity with Atex 2014/34/EU II 2 GD

Ex h IIC T6 Gb
EX h IIIC T85°C Db

Ambient temperature:
-40°C ... +80°C
Air supply must be dry enough to avoid ice formation at temperatures below +2°C



Models

HF84C series				
Auto drain Model	Manual drain Model	Port size	Flow* (dm³/s)	Bowl
				
HF84C-3GN-ADO	HF84C-3GN-MDO	G3/8	25	Metal
HF84C-4GN-ADO	HF84C-4GN-MDO	G1/2	25	Metal
HF84C-6GN-ADO	HF84C-6GN-MDO	G3/4	25	Metal

Accessories

Wall mounting bracket	Quikclamp	Quikclamp with bracket	Port Adaptors
			
840024-50KIT	H840014-51KIT	H840014-52KIT	H840015-10KIT
840024-50KIT	H840014-51KIT	H840014-52KIT	H840015-11KIT
840024-50KIT	H840014-51KIT	H840014-52KIT	H840015-12KIT

Service Kit

Element

H840044-50KIT
H840044-50KIT
H840044-50KIT

* To maintain stated oil content at 6,3 bar inlet pressure.

For other styles of mounting bracket and accessories, please refer to page 5-052.
NOTE: End connectors required for use with Quikclamps if directly mounting to pipework / fittings – contact us for further details.



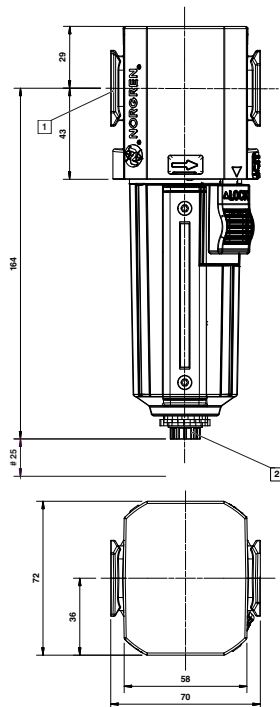


Excelon® Plus TR Modular System (For Extreme Temperature applications)

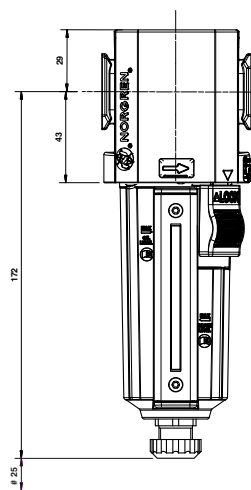
'Puraire'® high efficiency oil removal filters HF84C – G3/8 ... G3/4

Dimensions

Auto drain



Manual drain



Typical performance characteristics

Inlet pressure (bar)	Maximum flow (dm ³ /s)*
2,5	12
4	17
6,3	25
8	30
10	35

* Maximum flow to maintain stated oil removal performance.

Minimum clearance required to remove bowl

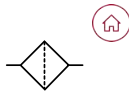
□ Main ports 3/8", 1/2" or 3/4" (ISO G)

□ Port size automatic drain: G1/8



Excelon® Plus TR Modular System (For Extreme Temperature applications)

'Ultraire'® high efficiency oil vapour removal filters HF84V – G3/8 ... G3/4



- » Excelon® Plus design allows in-line installation or modular installation with other Excelon® Plus products
- » Adsorbing type activated carbon element removes oil vapours and most hydrocarbon odours
- » Double safety lock bowl
- » Metal bowl option
- » Air purity class in accordance with ISO8573-1:2010: -7:0*
*Tested in accordance with the methods laid out in ISO 12500-1 using an inlet oil aerosol concentration of 0.018mg/m³
- » High Corrosion resistance: Body and Metal bowl with electrophoretic paint finish
- » DoC in accordance with 2014/34/EU/ATEX
- » Salt Spray compliant to ISO 9227
- » ABS cover with High impact properties

Technical Data

Medium:
Compressed air only

Maximum operating pressure:
20 bar

Remaining oil content:
0,003 mg/m³ max. at +21°C

Atex:
Filters HF84 are in conformity with
Atex 2014/34/EU
II 2 GD
Ex h IIC T6 Gb
EX h IIIC T85°C Db

Ambient temperature:
-40°C ... +80°C
Air supply must be dry enough to avoid ice formation at temperatures below +2°C



Models

HF84V series Metal Bowl Model	Port size	Flow* (dm³/s)	Bowl
	G3/8	25	Metal
HF84V-4GN-EMA	G1/2	25	Metal
HF84V-6GN-EMA	G3/4	25	Metal

* To maintain stated oil content at 6,3 bar inlet pressure.

Accessories

Wall mounting bracket	Quikclamp	Quikclamp with bracket	Port Adaptors	Element
840024-50KIT	H840014-51KIT	H840014-52KIT	H840015-10KIT	H840041-50KIT
840024-50KIT	H840014-51KIT	H840014-52KIT	H840015-11KIT	H840041-50KIT
840024-50KIT	H840014-51KIT	H840014-52KIT	H840015-12KIT	H840041-50KIT

For other styles of mounting bracket and accessories, please refer to page 5-052.
NOTE: End connectors required for use with Quikclamps if directly mounting to pipework / fittings – contact us for further details.

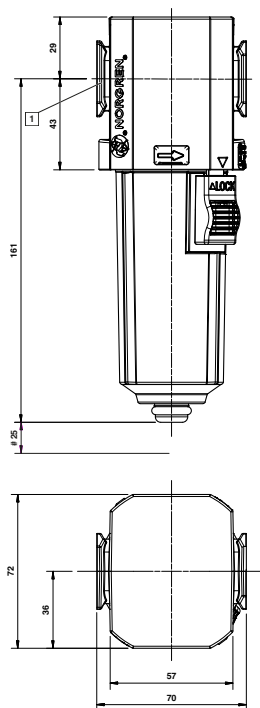




Excelon® Plus TR Modular System (For Extreme Temperature applications)

'Ultraire® high efficiency oil vapour removal filters HF84V – G3/8 ... G3/4

Dimensions



Typical performance characteristics

Inlet pressure (bar)	Maximum flow (dm³/s)*
2,5	15
4	20
6,3	25
8	28
10	30

* Maximum flow to maintain stated oil removal performance.

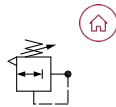
Minimum clearance required to remove bowl

□ Main ports 3/8", 1/2" or 3/4" (ISO G)



Excelon® Plus TR Modular System (For Extreme Temperature applications)

Pressure regulators HR84G – G3/8 ... G3/4



- » Excelon® Plus design allows in-line installation or modular installation with other Excelon® Plus products
- » Push to lock adjusting knob with built in tamper resistant feature
- » Easy to read flush mounted integrated pressure gauge as standard
- » High Corrosion resistance: Body and Metal bowl with electrophoretic paint finish
- » DoC in accordance with 2014/34/EU/ATEX
- » Salt Spray compliant to ISO 9227
- » ABS cover with High impact properties

Technical Data

Medium:
Compressed air only

Maximum supply pressure:
20 bar

Outlet pressure ranges:
0,3 ... 10 bar,

Atex:
Filters HR84 are in conformity with Atex 2014/34/EU II 2 GD Ex h IIC T6 Gb EX h IIIC T85°C Db

Ambient temperature:
-40°C ... +80°C
Air supply must be dry enough to avoid ice formation at temperatures below +2°C



Models

HR84G series Model	Port size	Pressure range (bar)	Flow* (dm³/s)
--------------------	-----------	----------------------	---------------



HR84G-3GT-RMN	G3/8	03 ... 10	116
HR84G-4GT-RMN	G1/2	03 ... 10	116
HR84G-6GT-RMN	G3/4	03 ... 10	116

Accessories

Panel mounting ring	Neck Mounting bracket (Including Panel mounting ring)	Quikclamp	Quikclamp with bracket	Gauge adaptor kit R 1/8	Port Adaptors
---------------------	---	-----------	------------------------	-------------------------	---------------



840048-89KIT	840068-51KIT	H840014-51KIT	H840014-52KIT	H840143-02KIT	H840015-10KIT
840048-89KIT	840068-51KIT	H840014-51KIT	H840014-52KIT	H840143-02KIT	H840015-11KIT
840048-89KIT	840068-51KIT	H840014-51KIT	H840014-52KIT	H840143-02KIT	H840015-12KIT

* Typical flow with 10 bar inlet pressure and 1 bar droop from set pressure of 6,3 bar.

For other styles of mounting bracket and accessories, please refer to page 5-052.

NOTE: End connectors required for use with Quikclamps if directly mounting to pipework / fittings – contact us for further details.

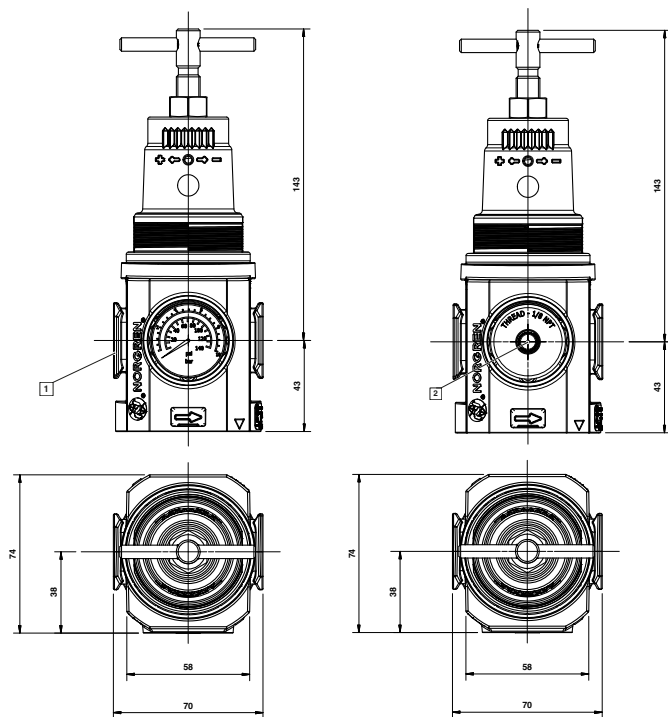




Excelon® Plus TR Modular System (For Extreme Temperature applications)

Pressure regulators HR84G – G3/8 ... G3/4

Dimensions



- 1 Main ports 3/8", 1/2" or 3/4" (ISO G)
- 2 Gauge Port Rc 1/8



Excelon® Plus TR Modular System (For Extreme Temperature applications)

Filter-regulators HB84G – G3/8 ... G3/4

- » Excelon® Plus design allows in-line installation or modular installation with other Excelon® Plus products
- » 40µm particle and high efficiency water removal
- » Double safety lock bowl
- » Push to lock adjusting knob with built in tamper resistant feature
- » Metal bowl with prismatic liquid level indicator lens
- » Easy to read flush mounted integrated pressure gauge
- » Air purity classes in accordance to ISO8573-1:2010: 7:8:4 (40µm), 6:8:4 (5µm)
- » High Corrosion resistance: Body and Metal bowl with electrophoretic paint finish
- » DoC in accordance with 2014/34/EU/ATEX
- » Salt Spray compliant to ISO 9227
- » ABS cover with High impact properties
- » Easy filter maintenance system. Element is removed together with the bowl for faster and cleaner servicing.

Technical Data

Medium:

Compressed air only

Maximum supply pressure:

Metal bowl: 20 bar

Outlet pressure ranges:

0,3 ...10 bar
0,3 ... 4 bar (optional)
0,7 ... 17 bar (optional)

Atex:

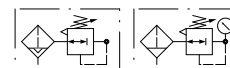
Filters HB84 are in conformity with
Atex 2014/34/EU
II 2 GD
Ex h IIC T6 Gb
EX h IIIC T85°C Db

Filter element:

40µm

Ambient temperature:

-40°C ... +80°C
Air supply must be dry enough
to avoid ice formation at
temperatures below +2°C



Models

HB84G series							Accessories						
Auto drain Model	Manual drain Model	Port size	Pressure range (bar)	Flow* (dm³/s)	Element (µm)	Bowl	Panel mounting ring	Neck Mounting bracket (Including Panel mounting ring)	Quikclamp	Quikclamp with bracket	Gauge adaptor kit R 1/8	Port Adaptors	Element Kit
													
HB84G-3GT-AD3-RMN	HB84G-3GT-MD3-RMN	G3/8	03 ... 10	103	40	Metal	840048-89KIT	840068-51KIT	H840014-51KIT	H840014-52KIT	H840143-02KIT	H840015-10KIT	HFRLB84-KIT
HB84G-4GT-AD3-RMN	HB84G-4GT-MD3-RMN	G1/2	03 ... 10	103	40	Metal	840048-89KIT	840068-51KIT	H840014-51KIT	H840014-52KIT	H840143-02KIT	H840015-11KIT	HFRLB84-KIT
HB84G-6GT-AD3-RMN	HB84G-6GT-MD3-RMN	G3/4	03 ... 10	103	40	Metal	840048-89KIT	840068-51KIT	H840014-51KIT	H840014-52KIT	H840143-02KIT	H840015-12KIT	HFRLB84-KIT

* Typical flow with 10 bar inlet pressure and 1 bar droop from set pressure of 6,3 bar.

For other styles of mounting bracket and accessories, please refer to page 5-052.

NOTE: End connectors required for use with Quikclamps if directly mounting to pipework / fittings – contact us for further details.



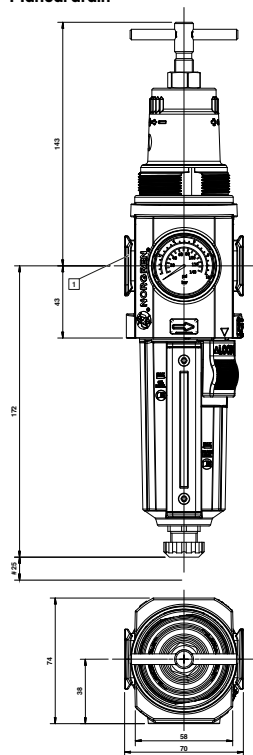


Excelon® Plus TR Modular System (For Extreme Temperature applications)

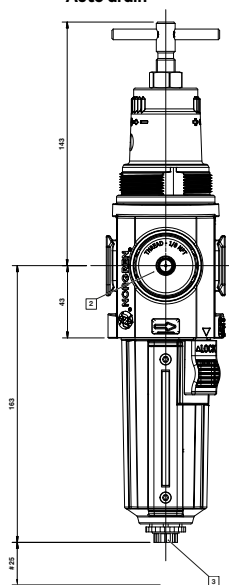
Filter-regulators HB84G – G3/8 ... G3/4

Dimensions

Manual drain



Auto drain



Minimum clearance required to remove bowl

1 Main ports 3/8", 1/2" or 3/4" (ISO G)

2 Gauge Port Rc 1/8

3 Port size automatic drain: G1/8



Excelon® Plus TR Modular System (For Extreme Temperature applications)

Lubricators HL84 – G3/8 ... G3/4



- » Excelon® Plus design allows in-line installation or modular installation with other Excelon® Plus products
- » Flow sensor provides a nearly constant oil/air ratio over a wide range of flows
- » Double safety lock bowl
- » Metal bowl with prismatic liquid level indicator lens
- » All round (360°) visibility of sightdome for ease of drip rate setting
- » Choice of two oil delivery systems
- » High Corrosion resistance: Body and Metal bowl with electrophoretic paint finish
- » Salt Spray compliant to ISO 9227
- » ABS cover with High impact properties

Technical Data

Medium:
Compressed air only

Maximum supply pressure:
Metal bowl: 20 bar

Start point:
94 dm³/s

Ambient temperature:
-34°C ... +80°C
Air supply must be dry enough to avoid ice formation at temperatures below +2°C



Models

HL84C series				
Model	Type	Port size	Flow* (dm³/s)	Bowl
				
HL84M-3GP-EDN	Micro-fog®	G3/8	73	Metal
HL84M-4GP-EDN	Micro-fog®	G1/2	73	Metal
HL84M-6GP-EDN	Micro-fog®	G3/4	73	Metal
HL84C-3GP-EDN	Oil-fog	G3/8	91	Metal
HL84C-4GP-EDN	Oil-fog	G1/2	91	Metal
HL84C-6GP-EDN	Oil-fog	G3/4	91	Metal

* Typical flow with 6,3 bar inlet pressure and 0,5 bar pressure drop.

Accessories

Wall mounting bracket	Quikclamp	Quikclamp with bracket	Port Adaptors
			
840024-50KIT	H840014-51KIT	H840014-52KIT	H840015-10KIT
840024-50KIT	H840014-51KIT	H840014-52KIT	H840015-11KIT
840024-50KIT	H840014-51KIT	H840014-52KIT	H840015-12KIT
840024-50KIT	H840014-51KIT	H840014-52KIT	H840015-10KIT
840024-50KIT	H840014-51KIT	H840014-52KIT	H840015-11KIT
840024-50KIT	H840014-51KIT	H840014-52KIT	H840015-12KIT

For other styles of mounting bracket and accessories, please refer to page 5-052.
NOTE: End connectors required for use with Quikclamps if directly mounting to pipework / fittings – contact us for further details.



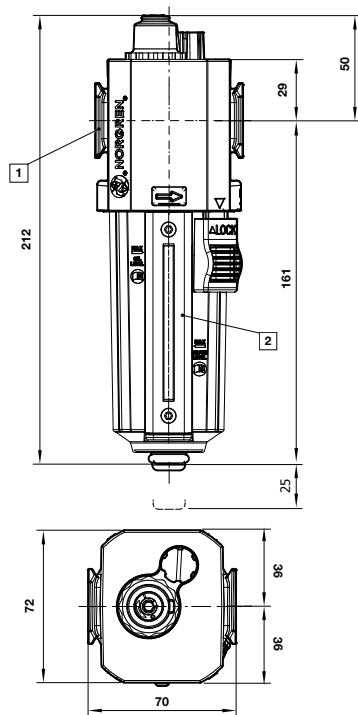


Excelon® Plus TR Modular System (For Extreme Temperature applications)

Lubricators HL84M – G3/8 ... G3/4

Dimensions

Plugged bowl



- 1 Main ports 3/8", 1/2" or 3/4" (ISO G)
- 2 Metal bowl with liquid level indicator lens



Excelon® Plus TR Modular System (For Extreme Temperature applications)

Shut-off valves HT84T – G3/8 ... G3/4

- » Excelon® Plus design allows in-line installation or modular installation with other Excelon® Plus products
- » 3/2 way function
- » Threaded exhaust port
- » Lockable in closed position with padlock
- » High Corrosion resistance: Body and Metal bowl with electrophoretic paint finish
- » DoC in accordance with 2014/34/EU/ATEX
- » Salt Spray compliant to ISO 9227
- » ABS cover with High impact properties

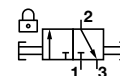
Technical Data

Medium:
Compressed air only

Maximum supply pressure:
20 bar

Atex:
Shut-off valves HT84 are in conformity with
Atex 2014/34/EU
II 2 GD
Ex h IIC T6 Gb
EX h IIIC T85°C Db

Ambient temperature:
-20°C ... +80°C
Air supply must be dry enough to avoid ice formation at temperatures below +2°C



Models

HT84T series									
Model	Port Size	Function	Exhaust Port	Wall mounting bracket	Quikclamp	Quikclamp with bracket	Port Adaptors	Silencer	Plastic silencer
HT84T-3GA-B1N	G3/8	3/2	G1/4	840024-50KIT	H840014-51KIT	H840014-52KIT	H840015-10KIT	T40C2800	M/S2
HT84T-4GA-B1N	G1/2	3/2	G1/4	840024-50KIT	H840014-51KIT	H840014-52KIT	H840015-11KIT	T40C2800	M/S2
HT84T-6GA-B1N	G3/4	3/2	G1/4	840024-50KIT	H840014-51KIT	H840014-52KIT	H840015-12KIT	T40C2800	M/S2

For other styles of mounting bracket and accessories, please refer to page 5-052.

NOTE: End connectors required for use with Quikclamps if directly mounting to pipework / fittings – contact us for further details.

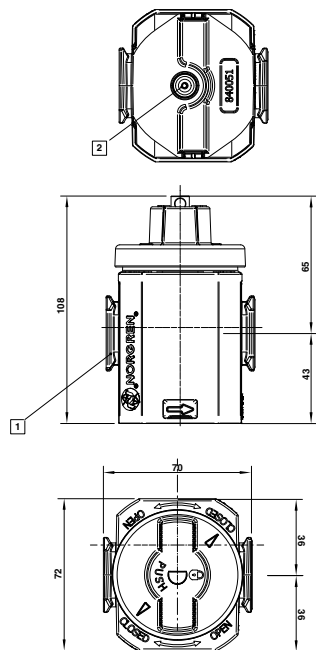




Excelon® Plus TR Modular System (For Extreme Temperature applications)

Shut-off valves HT84T – G3/8 ... G3/4

Dimensions



- 1 Main ports 3/8", 1/2" or 3/4" (ISO G)
- 2 Exhaust Port G1/4





Excelon® Plus TR Modular System (For Extreme Temperature applications)

Accessories

Wall Mounting Bracket

- » Provides secure wall mounting for individual Excelon® Plus products

Quikclamp

- » Allows easy connection of one Excelon® Plus unit to another
- » Uniquely, connected products can be rotated in 90° increments

Quikclamps And Wall Brackets

- » Allows easy connection of one Excelon® Plus unit to another
- » Uniquely, connected products can be rotated in 90° increments
- » Secure mounting to a wall, panel or machine surface

Full Flow Manifold Block

- » Provides a manifolding capability for up to 3 products, with G3/4 ports
- » Ideal for right-angled piping

Pressure Sensing Block

- » Provides 3 G1/4 auxiliary air outlets
- » Ideal for adding a pressure switch to allow pressure sensing
- » When placed between a filter-regulator and lubricator allows branching off to systems requiring a non-lubricated supply





Excelon® Plus TR Modular System (For Extreme Temperature applications)

Accessories

Quickclamp	Quickclamp with bracket assembled	Neck mounting bracket and panel nut	Panel mounting nut	Mounting bracket	Gauge adaptor kit R 1/8
					
H840014-51KIT	H840014-52KIT	840068-51KIT	840048-89KIT	840024-50KIT	H840143-02KIT

Full flow porting block horizontal G3/4	Full flow porting block vertical G3/4"	Pressure sensing block G1/4	Pressure switch interface block (18D pressure switch) G1/4	Pressure switch 18D (0,5 ... 8 bar) *1	Digital pressure switch 51D (-1 ... 10 bar) *2
					
H840028-53KIT	H840014-52KIT	H840016-51KIT	0337717000000000	0881300	0860810

*1) -10°C ... +85°C

*2) -20°C ... +60°C

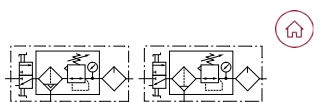
Maintenance/Service

Port Adaptors	Filter cartridge 5µm	Filter cartridge 40µm	Auto drain kit with metal Nut	HR84 / HB84 Elastomer Kit
				
G3/8 H840015-10KIT G1/2 H840015-11KIT G3/4 H840015-12KIT	H840028-53KIT	H840014-52KIT	H840016-51KIT	0337717000000000



Olympian Plus Plug-In System

Combination shut-off valve, filter-regulators and lubricators BL68 – G1



- » Shut off valve for safe isolation of supply
- » General purpose filter removing condensate and particle contamination
- » Regulator ensuring optimum working pressure for economy and safety
- » Lubricator to deliver a correct level of oil lubrication into the downstream system optimising life expectancy of other products
- » Sturdy bracket for correct mounting
- » Pressure gauge for constant monitoring of output pressure
- » High Corrosion resistance: Body and Metal bowl with electrophoretic paint finish

Technical Data

Medium:
Compressed air only

Maximum inlet pressure:
17 bar

Gauge ports:
Rc1/8

Filter element:
40µm

Ambient temperature:
-20°C ... +80°C
Air supply must be dry enough to avoid ice formation at temperatures below +2°C

Pressure range:
0,4 ... 8 bar

BL68



Models

Boxed sets BL68 with shut-off valve			Accessories	Service Kit	
Auto drain Model	Manual drain Model	Port size		Service kits Auto drain	Manual drain
					
BL68-801	BL68-821	G1			





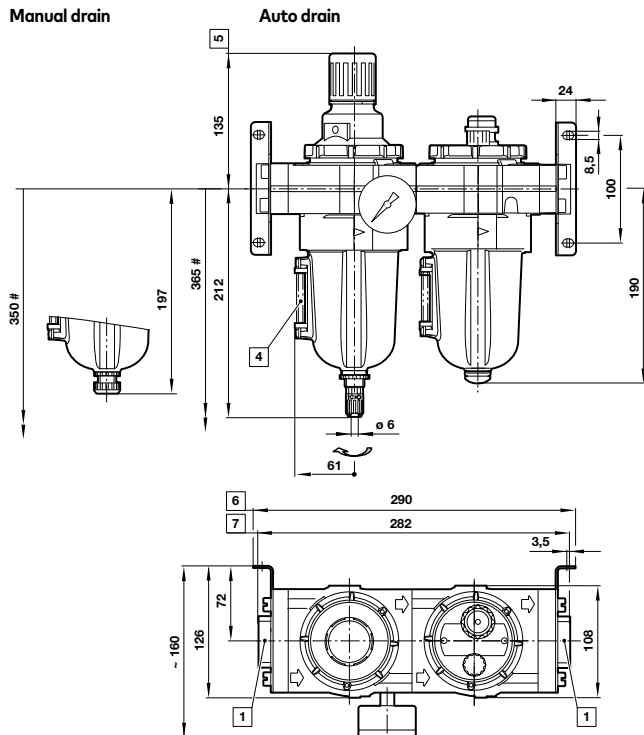
Olympian Plus Plug-In System

Combination shut-off valve, filter-regulators and lubricators BL68 – G1/2 & G1

Dimensions

BL68

Manual drain



Minimum clearance required to remove bowl

1 Main ports 3/4", 1", 1 1/4" or 1 1/2"

4 Sight glass

5 Reduces by 4 mm with knob in locked position

6 Plus 10 mm for ports 1 1/4"

7 Plus 10 mm for ports 1 1/4" and 5 mm for 1 1/2"



Olympian Plus Plug-In System

General purpose filters F68G – G1

- » Effective liquid removal and positive solid filtration
- » Large filter element area for minimum pressure drop
- » High Corrosion resistance: Body and Metal bowl with electrophoretic paint finish
- »  DoC in accordance with 2014/34/EU/ATEX

Technical Data

Medium:
Compressed air only

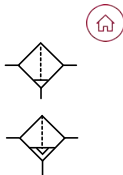
Maximum inlet pressure:
17 bar

Filter element:
40µm

Atex:
Filters F68 are in conformity with Atex 2014/34/EU II 2 GD
Ex h IIC T6 Gb
EX h IIC T85°C Db

Ambient temperature:
-20°C ... +80°C
Air supply must be dry enough to avoid ice formation at temperatures below +2°C

F68G



Models

F68G series Auto drain Model	Manual drain Model	Port size	Flow* (dm³/s)	Element (µm)
		G1	190	40
F68G-NNN-AR3	F68G-NNN-MR3	without	190	40

Accessories

Wall mounting bracket	Single yoke G1
	
18-001-979	–
–	Y68A-8GN-N1N

Service Kit

Auto drain	Manual drain
	
F68G-KITA40	F68G-KITM40
F68G-KITA40	F68G-KITM40

* Typical flow with 6,3 bar inlet pressure and 0,5 bar pressure drop.

For other styles of mounting bracket and accessories, please refer to page 5-074.





Olympian Plus Plug-In System

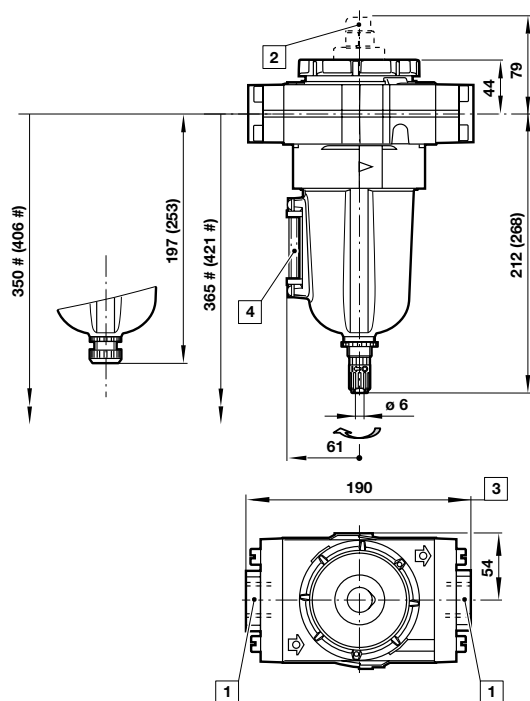
General purpose filters F68G – G1/2 ... G1

Dimensions

F68G

Manual drain

Auto drain



Minimum clearance required to remove bowl
() values for 1 litre bowl

- ① Main ports 3/4", 1", 1 1/4" or 1 1/2"
- ② Service life indicator optional
- ③ Plus 10 mm for ports 1 1/4" or 1 1/2"
- ④ Sight glass



Olympian Plus Plug-In System

'Puraire'® high efficiency oil removal filters F68H – G1

- » High efficiency coalescing filters
- » Coalescing element removes sub-micron particles and converts oil and water mist to liquid form to drain away
- » Service indicator standard
- » High Corrosion resistance: Body and Metal bowl with electrophoretic paint finish
- »  DoC in accordance with 2014/34/EU/ATEX

Technical Data

Medium:
Compressed air only

Maximum inlet pressure:
17 bar

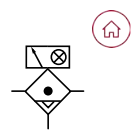
Remaining oil content:
0,01 mg/m³ max at 21°C

Filter element:
To 0,01 µm

Atex:
Filters F68 are in conformity with Atex 2014/34/EU II 2 GD
Ex h IIC T6 Gb
EX h IIC T85°C Db

Ambient temperature:
-20°C ... +65°C
Air supply must be dry enough to avoid ice formation at temperatures below +2°C

F68H



Models

F68H series Auto drain Model	Port size	Flow* (dm³/s)
	G1	60
F68H-NND-AU0	without	60

Accessories

Wall mounting bracket	Single yoke G1	Auto drain
		
18-001-979	–	F68H-KITAOC
–	Y68A-8GN-N1N	F68H-KITAOC

* To maintain stated oil content at 6,3 inlet pressure.

For other styles of mounting bracket and accessories, please refer to page 5-074.





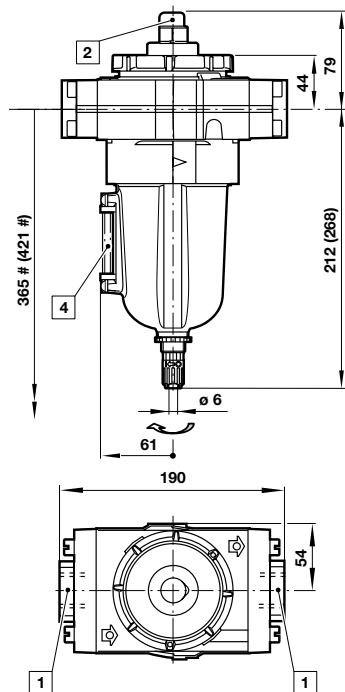
Olympian Plus Plug-In System

'Puraire'® high efficiency oil removal filters F68H – G1/2 ... G1

Dimensions

F68H

Auto drain



Typical performance characteristics

Inlet pressure (bar)	Maximum recommended flow dm ³ /s* F68H
1	24
3	41
5	53
6,3	60
7	63
9	72

* Maximum flow to maintain stated oil removal performance.

Minimum clearance required to remove bowl

() values for 1 litre bowl

1 Main ports 1/2", 3/4" or 1"

2 Service life indicator

4 Sight glass



Olympian Plus Plug-In System

Oil vapour removal (adsorbing) filter F68V, F68Y – G1/2 ... G1

- » Adsorbing type activated carbon element removes oil vapours and most hydrocarbon odours
- » Long service life of filter element. Minimum life of 400 hours when an oil removal filter is installed upstream and the filtration temperature is in the region of 20°C to 26°C.

Technical Data

Medium:
Compressed air only

Maximum inlet pressure:
17 bar

Air quality:
Within ISO 8573-1, Class 1 (oil content) when installed downstream of an oil removal filter

Atex
 II 2G Ex h IIC T6 Gb
II 2D Ex h IIC T85° Db

Ambient temperature:
-20°C ... +65°C
Air supply must be dry enough to avoid ice formation at temperatures below +2°C

Nominal bowl size:
1 litre
0,5 litre

F68V



Models

Oil vapour removal (adsorbing) filter F68V & F68Y			
Bowl	Weight (kg)	Port size	



F68V-4GN-EMA	Standard flow (short element)	2,33	G1/2
F68Y-6GN-ECA	High flow, 1 litre (1 quart) bowl Y	2,61	G3/4
F68Y-8GN-ECA	High flow, 1 litre (1 quart) bowl Y	2,59	G1

Accessories

Wall mounting bracket



18-001-979
18-001-979
18-001-979

Service Kit

Seal & gasket	Replacement element
---------------	---------------------

4380-302	665-72
4380-302	665-70
4380-302	665-70



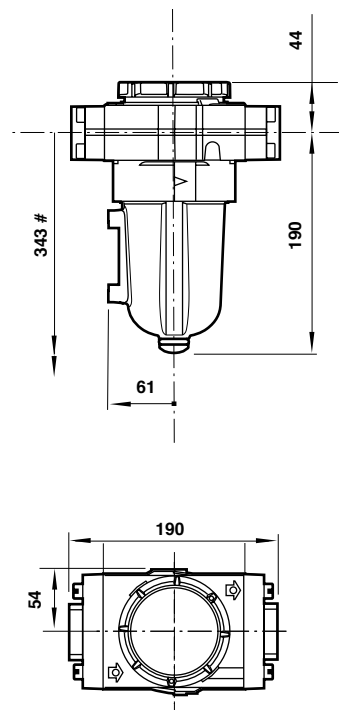


Olympian Plus Plug-In System

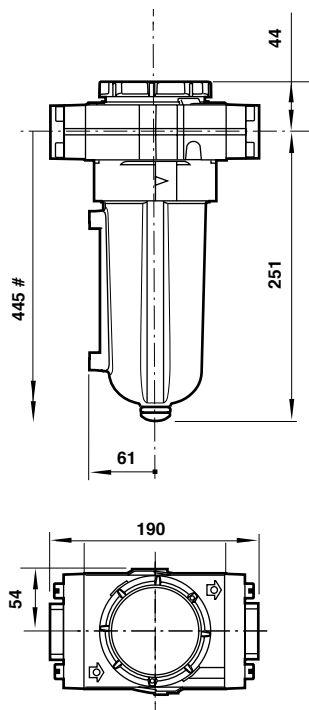
Oil vapour removal (adsorbing) filter F68V, F68Y – G1/2 ... G1

Dimensions

F68V (0,5 litre bowl)



F68Y (1 litre bowl)



Minimum clearance required to remove bowl



Olympian Plus Plug-In System

Pressure regulators R68G – G1

- » Diaphragm and balanced valve design ensure good regulation and flow characteristics
- » Non-rising adjusting knob has snap-action lock
- » High Corrosion resistance: Body and Metal bowl with electrophoretic paint finish
- »  DoC in accordance with 2014/34/EU/ATEX

Technical Data

Medium:
Compressed air only

Maximum inlet pressure:
20 bar

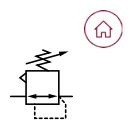
Gauge ports:
Rc1/8

Atex:
Regulators R68 are in conformity with Atex 2014/34/EU II 2 GD
Ex h IIC T6 Gb
Ex h IIIC T85°C Db

Ambient temperature:
-20°C ... +80°C
Air supply must be dry enough to avoid ice formation at temperatures below +2°C

Pressure range:
0,4 ... 8 bar

R68G



Models

R68G series Model	Port size	Pressure range (bar)	Flow* (dm³/s)	Wall mounting bracket	Gauge (0 ... 10bar)	Single yoke G1	Tamper resistant kit	
	G1	0,4 ... 8	170					
R68G-8GK-RLN	G1	0,4 ... 8	170	18-001-979	18-015-013	–	4355-51	R68G-KITR
R68G-NNK-RLN	without	0,4 ... 8	170	–	18-015-013	Y68A-8GN-N1N	4355-51	R68G-KITR

* Typical flow with 10 bar inlet pressure and 1 bar droop from set pressure of 6,3 bar.

For other styles of mounting bracket and accessories, please refer to page 5-074.



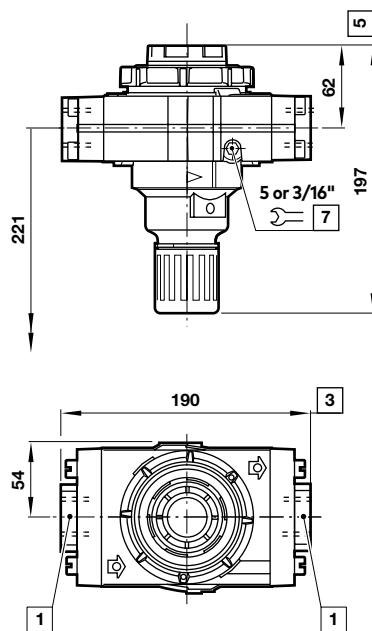


Olympian Plus Plug-In System

Pressure regulators R68G – G1/2 ... G1

Dimensions

R68G Standard



Minimum clearance required to remove unit from yoke

- ① Main ports 3/4", 1", 1 1/4" or 1 1/2"
- ③ Plus 10 mm for ports 1 1/4" or 1 1/2"
- ⑤ Reduces by 4 mm with knob in locked position
- ⑦ Gauge port 1/8"



Olympian Plus Plug-In System

Filter-regulators B68G – G1

- » High efficiency water removal
- » Good flow and characteristics
- » Non-rising adjusting knob has snap-action lock
- » High Corrosion resistance: Body and Metal bowl with electrophoretic paint finish
- »  DoC in conformity with 2014/34/EU/ATEX

Technical Data

Medium:
Compressed air only

Maximum inlet pressure:
17 bar

Gauge ports:
Rc1/8

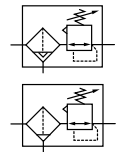
Filter element:
40µm

Atex:
Filter-regulators B68 are in conformity with Atex 2014/34/EU II 2 GD
Ex h IIC T6 Gb
EX h IIC T85°C Db

Ambient temperature:
-20°C ... +80°C
Air supply must be dry enough to avoid ice formation at temperatures below +2°C

Pressure range:
0,4 ... 8 bar

B68G



Models						Accessories				Service Kit	
B68G series Auto drain Model	Manual drain Model	Port size	Pressure range (bar)	Flow* (dm³/s)	Element (µm)	Wall mounting bracket	Gauge (0 ... 10 bar)	Single yoke G1	Tamper resistant kit	Auto drain	Manual drain
											
B68G-8GK-AR3-RLN	B68G-8GK-MR3-RLN	G1	0,4 ... 8	240	40	18-001-979	18-015-013	–	4355-51	B68G-KITA40R	B68G-KITM40R
B68G-NNK-AR3-RLN	B68G-NNK-MR3-RLN	without	0,4 ... 8	240	40	–	18-015-013	Y68A-8GN-N1N	4355-51	B68G-KITA40R	B68G-KITM40R

* Typical flow with 10 bar inlet pressure and 1 bar droop from set pressure of 6,3 bar.

For other styles of mounting bracket and accessories, please refer to page 5-074.





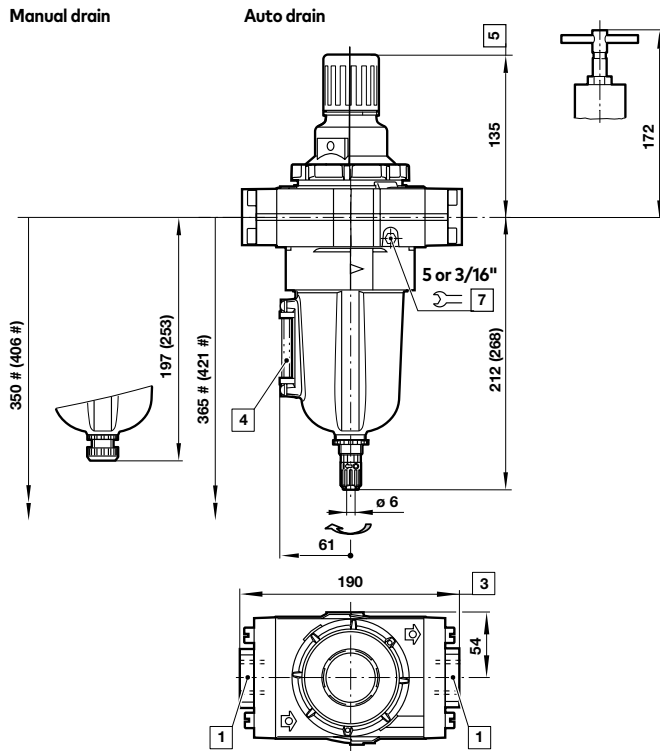
Olympian Plus Plug-In System

Filter-regulators B68G – G1/2 ... G1

Dimensions

B68G

Manual drain



Minimum clearance required to remove bowl
() values for 1 litre bowl

① Main ports 3/4", 1", 1 1/4" or 1 1/2"

② Plus 10 mm for ports 1 1/4" or 1 1/2"

④ Sight glass

⑤ Reduces by 4 mm with knob in locked position

⑦ Gauge port 1/8"



Olympian Plus Plug-In System

Lubricators L68M – G1/2 ... G1



- » Micro-fog® plug-in lubricators for best lubrication in general purpose pneumatic applications
- » High Corrosion resistance: Body and Metal bowl with electrophoretic paint finish

Technical Data

Medium:
Compressed air only

Maximum inlet pressure:
17 bar

Start point:
6 dm³/s

Bowl Capacity:
0,5 l

Ambient temperature:
-20°C ... +80°C
Air supply must be dry enough to avoid ice formation at temperatures below +2°C



Models

L68M series Model	Type	Port size	Flow* (dm³/s)
	Micro-fog®	G1	175
L68M-NNP-ERN	Micro-fog®	Without	175

* Typical flow with 6,3 bar inlet pressure and 0,5 bar pressure drop.

Accessories

Wall mounting bracket	Single yoke G1
	
18-001-979	Y68A-8GN-N1N

Service Kit


L68M-KIT
L68M-KIT

For other styles of mounting bracket and accessories, please refer to page 5-074.



For further information, visit www.norgren.com and use the new improved search function. If you cannot see the option you require please contact us.

More Info



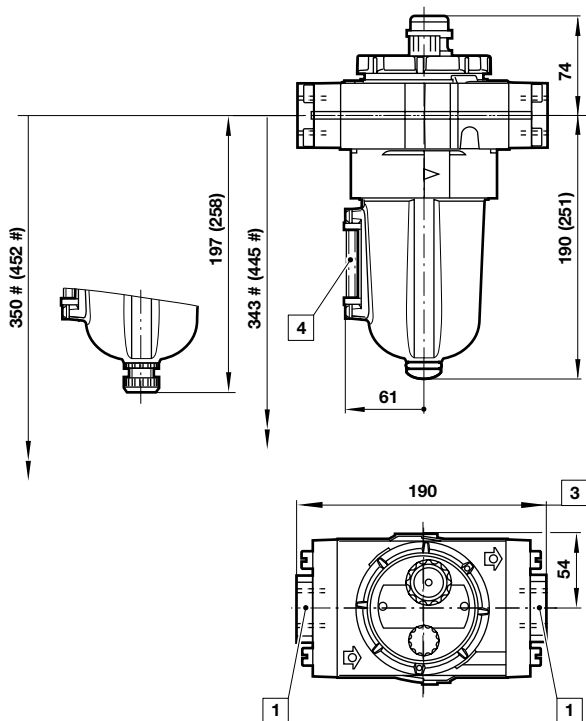


Olympian Plus Plug-In System

Lubricators L68M – G1/2 ... G1

Dimensions

L68M



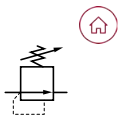
Minimum clearance required to remove bowl
() values for 1 litre bowl

- 1 Main ports 3/4", 1", 1 1/4" or 1 1/2"
- 3 Plus 10 mm for ports 1 1/4" or 1 1/2"
- 4 Sight glass



Olympian Plus Plug-In System

Pressure relief valves V68H – G1



- » Olympian relief valves protect compressed air systems from over-pressurisation
- » High relief capacity, sensitive and accurate
- » Threaded relief port for silencer or piped exhaust
Norgren pressure relief valves comply with category O(S.E.P.) and category 1 of the Pressure Equipment Directive 97/23/EC.
- » High Corrosion resistance: Body and Metal bowl with electrophoretic paint finish
- » DoC in accordance with 2014/34/EU/ATEX

Technical Data

Medium:
Compressed air only

Gauge ports:
Rc1/8

Relief port:
G1

Atex:
Pressure relief valves V68 are in conformity with Atex 2014/34/EU II 2 GD
Ex h IIC T6 Gb
EX h IIIC T85°C Db

Ambient temperature:
-20°C ... +80°C
Air supply must be dry enough to avoid ice formation at temperatures below +2°C

Relief pressure adjustment range:
0,3 ... 10 bar

V68H



Models

Accessories

Service Kit

V68H series Model	Port size	Pressure range (bar)	Wall mounting bracket	Gauge (0 ... 10 bar)	Silencer (relief valve)	Single yoke G1	Tamper resistant kit	
V68H-8GD-RMN	G1	0,3 ... 10	18-001-979	18-015-013	MB008B	–	1581-90	V68H-KIT
V68H-NND-RMN	Without	0,3 ... 10	–	18-015-013	MB008B	Y68A-8GN-N1N	1581-90	V68H-KIT

For other styles of mounting bracket and accessories, please refer to page 5-074.



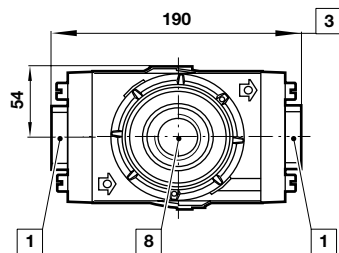
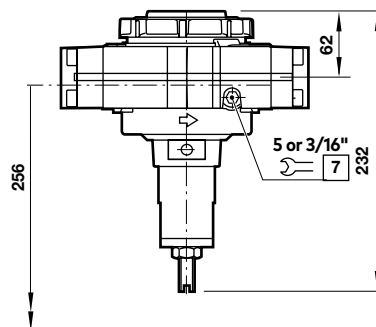


Olympian Plus Plug-In System

Pressure relief valves V68H – G3/4 ... G1 1/2

Dimensions

V68H



Minimum clearance required to remove unit from yoke

- ① Main ports 3/4", 1", 1 1/4" or 1 1/2"
- ③ Plus 10 mm for ports 1 1/4" or 1 1/2"
- ⑦ Gauge port 1/8"
- ⑧ Relief port 1"



Olympian Plus Plug-In System

Shut-off & Lockout valves T68 – G3/4 ... G1 1/2

- » Olympian Plus plug in design
- » Valves can be locked in open or closed position
- » Use upstream or downstream of air processing units
- » High Corrosion resistance: Body and Metal bowl with electrophoretic paint finish
- »  DoC in accordance with 2014/34/EU/ATEX

Technical Data

Medium:
Compressed air only

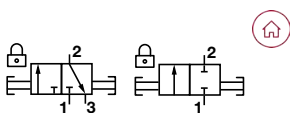
Maximum inlet pressure:
17 bar

Cv factor:
IN to OUT port: 27,5
OUT to EXHAUST port: 0,16

Ambient temperature:
-20°C ... +80°C
Air supply must be dry enough to avoid ice formation at temperatures below +2°C

Standard compliances:
 II 2G Ex h IIC T6 Gb
 II 2D Ex h IIIC T85° Db

Exhaust port:
G1/4



T68



Models

T68 Shut-off & Lockout valves
2-Port/2-Position.
No exhaust

3-Port/2-Position.
Threaded exhaust

Port size



T68A-6GB-B2N
T68A-8GB-B2N
T68A-AGB-B2N
T68A-BGB-B2N

T68H-6GB-B2N
T68H-8GB-B2N
T68H-AGB-B2N
T68H-BGB-B2N

G3/4
G1
G1 1/4
G1 1/2

Accessories

Silencer (T68H only)



T40B2800
T40B2800
T40B2800
T40B2800





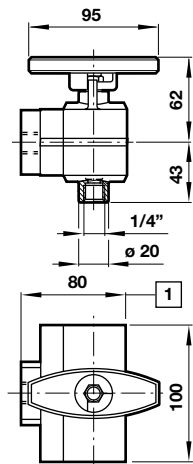
Olympian Plus Plug-In System

Shut-off & Lockout valves T68 – G3/4 ... G1 1/2

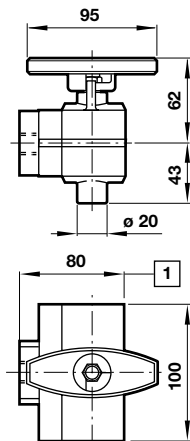
Dimensions

T68

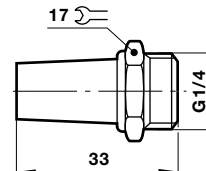
Threaded



No exhaust



Silencer



□ For 1 1/2" ported yokes add 5 mm



Olympian Plus Plug-In System

Soft start dump valve P68F – G1

- » Assists machine designers in complying with the European Machineries Directive
- » Can help existing machinery to comply with PUWER (Provision and Use of Work Equipment Regulations)
- » Controlled increase of downstream pressure on start up
- » Solenoid, air pilot or manual operator
- » High forward flow capacity
- » High flow dump facility
- » High Corrosion resistance: Body and Metal bowl with electrophoretic paint finish

Technical Data

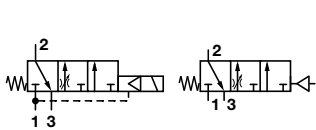
Medium:
Compressed air only

Maximum operating pressure:
For solenoid operated versions: 10 bar
For pilot operated versions: 17 bar

Minimum operating pressure:
3 bar

Ambient temperature:
-20°C ... +80°C
(solenoid version up to +50°C)
Air supply must be dry enough to avoid ice formation at temperatures below +2°C

Snap pressure:
Full flow when downstream pressure reaches 50-80% of inlet pressure



P68F



Models

P68F series – 24V d.c. Solenoid pilot operated Model	Air pilot operated Model	Port size	Wall mounting bracket	Silencer (dump valve)	Single yoke G1	Basic solenoid plug
						
P68F-8GC-PFN	P68F-8GB-NNN	G1	18-001-979	MB008B	–	0657868000000000
P68F-NGC-PFN	P68F-NGB-NNN	Without	–	MB008B	Y68A-8GN-N1N	0657868000000000

For other styles of mounting bracket and accessories, please refer to page 5-074.



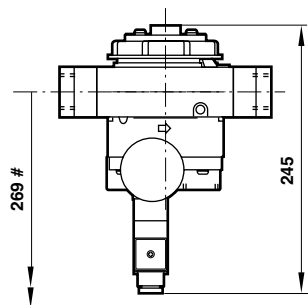


Olympian Plus Plug-In System

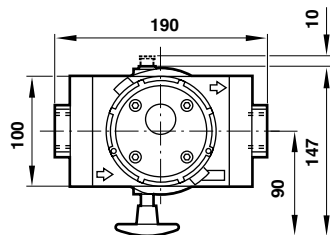
Soft start dump valve P68F – G1/2 ... G1

Dimensions

P68F



Minimum clearance required to remove unit





Olympian Plus Plug-In System

Accessories

Yokes

- » When installed, enables Olympian basic units to be 'plugged in' or removed without disturbing connecting pipework



Models

Single Unit Model	Double Unit Model	Series	Port size
Y68A-6GN-N1N	Y68A-6GN-N2N	68	G3/4
Y68A-8GN-N1N	Y68A-8GN-N2N	68	G1
Y68A-AGN-N1N	Y68A-AGN-N2N	68	G1 1/4
Y68A-BGN-N1N	Y68A-BGN-N2N	68	G1 1/2

Yokes may be installed in a pipe system in advance of the selection or fitment of the basic units.

Yoke Connector Kit

- » Allows quick and easy connection of one Olympian Plus product/accessory to another



Models

Model	Series
18-026-987	68



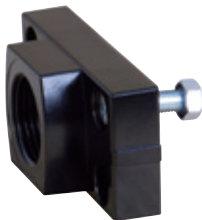


Olympian Plus Plug-In System

Accessories

End Connector

- » Provides a threaded end to an assembly



Models

Model	Series	Port size
5524-55	68	G3/4
5524-52	68	G1
5523-52	68	G1 1/4
5523-93	68	G1 1/2

Porting Blocks

- » Provides 3 auxiliary air outlets



Models

Model	Series	Top port	Side port
18-026-986	68	G1/2	G1/4

Porting blocks may be used as spacers, gauge ports or as auxiliary air outlets. When placed as first or last component of a boxed set, an additional end connector is necessary.



Miniature Units, General Purpose

Combination filter-regulators and lubricators P1H – G1/8, G1/4

- » Pre-assembled boxed sets
- » Extremely compact
- » Micro-fog® versions for optimum lubrication

Technical Data

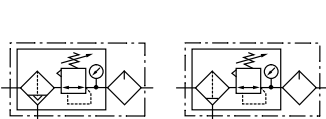
Medium:
Compressed air only

Maximum inlet pressure:
10 bar

Filter element:
40µm

Ambient temperature:
-20°C ... +50°C
Air supply must be dry enough to avoid ice formation at temperatures below +2°C

Pressure range:
0,3 ... 7 bar



Models

P1H series Auto drain Model	Manual drain Model	Port size	Neck mounting bracket and nut	Gauge (0 ... 10 bar)	Auto drain	Manual drain
						
P1H-100-A3QG	P1H-100-M3QG	G1/8	18-025-003	18-015-989	B07-KITA40R & L07-KIT	B07-KITM40R & L07-KIT
P1H-200-A3QG	P1H-200-M3QG	G1/4	18-025-003	18-015-989	B07-KITA40R & L07-KIT	B07-KITM40R & L07-KIT

* Typical flow with 10 bar inlet pressure and 1 bar droop from set pressure of 6,3 bar.



Combination filter-regulators and lubricators P1H – G1/8, G1/4



Miniature Units, General Purpose

Filter F07 – G1/8, G1/4

- » Direct ported filters with high water removal efficiency
- » Automatic drains supplied as standard
- » High flow miniature unit
- » Transparent bowl for 360° visibility
- »  DoC in accordance with 2014/34/EU/ATEX

Technical Data

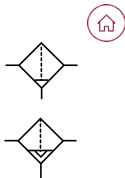
Medium:
Compressed air only

Maximum inlet pressure:
10 bar

Filter element:
40µm

Atex:
Filters F07 are in conformity with Atex 2014/34/EU II 2 GD
Ex h IIC T6 Gb
EX h IIC T85°C Db

Ambient temperature:
-34°C ... +50°C
Air supply must be dry enough to avoid ice formation at temperatures below +2°C



Models

F07 series		Port size	Flow* (dm³/s)	Element (µm)
Auto drain Model	Manual drain Model			
		G1/8	9	40
F07-200-A3TG	F07-200-M3TG	G1/4	11,5	40

Accessories

Wall mounting bracket

5939-06
5939-06

Service Kit

Auto drain	Manual drain
	
F07-KITA40	F07-KITM40
F07-KITA40	F07-KITM40

* Typical flow with 6,3 bar inlet pressure and 0,5 bar pressure drop.



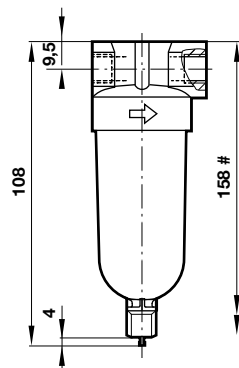


Miniature Units, General Purpose

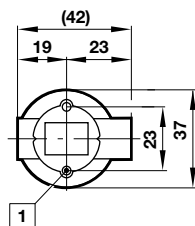
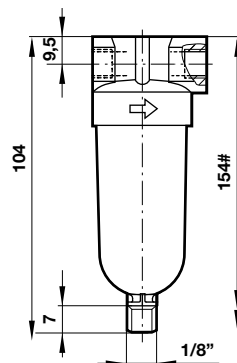
Filter F07 – G1/8, G1/4

Dimensions

Manual drain



Auto drain



Minimum clearance required to remove bowl
□ Mounting holes, Ø4 mm, 13 mm deep



Miniature Units, Puraire® Oil Removal

High-efficiency filters F39 – G1/8, G1/4

- » Very compact unit
- » Highly efficient particle removal to 0,01µm
- »  DoC in accordance with 2014/34/EU/ATEX

Technical Data

Medium:
Compressed air only

Maximum inlet pressure:
10 bar Transparent bowl

Filter element:
0,01 µm

Remaining oil content:
0,01 ppm at +21°C

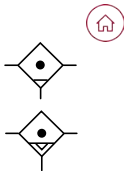
Bowl size:
31 ml

Atex:
Filters F39 are in conformity with Atex 2014/34/EU II 2 GD
Ex h IIC T6 Gb
EX h IIIC T85°C Db

Ambient/Media temperature:
Transparent bowl
-34°C ... +50°C

Air supply must be dry enough to avoid ice formation at temperatures below +2°C

Note: Install an F07 filter with a 5 µm filter element upstream of the F39 filter for maximum service life.



Models

F39 series		Port size	Flow* (dm³/s)	Element (µm)
Auto drain Model	Manual drain Model			
		G1/8	2,8	0,01
F39-200-A0TG	F39-200-M0TG	G1/4	3	0,01

Accessories

Wall mounting bracket

5939-06
5939-06

Service Kit

Auto drain	Manual drain
	
F39-KIT0C	F39-KIT0C
F39-KIT0C	F39-KIT0C

* Max. recommended flow to maintain stated oil content at 6,3 inlet pressure.



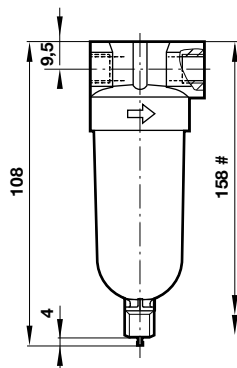


Miniature Units, Puraire® Oil Removal

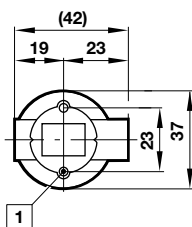
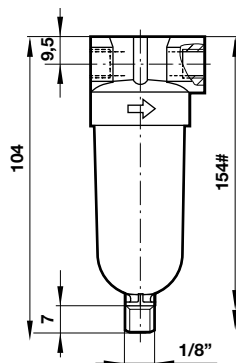
High-efficiency filters F39 – G1/8, G1/4

Dimensions

Manual drain



Auto drain



Typical performance characteristics

Inlet pressure (bar)	Maximum recommended flow* (dm ³ /s)
1	1,2
3	2
5	2,7
6,3	3
7	3,1
9	3,6

* Maximum recommended flow to maintain stated oil removal performance.

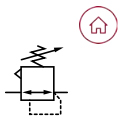
Minimum clearance required to remove bowl

□ Mounting holes, Ø4 mm, 13 mm deep



Miniature Units, General Purpose

Pressure regulator R07 – G1/8, G1/4



- » Ported regulators for general purpose pneumatic applications
- » Relieving operation as standard
- » Non-rising adjusting knob with snap-action lock
- » DoC in accordance with 2014/34/EU/ATEX

Technical Data

Medium:
Compressed air only

Maximum inlet pressure:
20 bar

Gauge ports:
Rc1/8

Atex:
Regulators R07 are in conformity with Atex 2014/34/EU II 2 GD
Ex h IIC T6 Gb
EX h IIC T85°C Db

Ambient temperature:
-34°C ... +65°C
Air supply must be dry enough to avoid ice formation at temperatures below +2°C

Pressure range:
0,3 ... 7 bar



Models

				Accessories			Service Kit	
R07 series Model	Port size	Outlet pressure range (bar)	Flow* (dm ³ /s)	Neck mounting bracket (incl. nut)	Mounting nut only plastic	Mounting nut only metal	Gauge (0 ... 10 bar)	
								
R07-100-RNKG	G1/8	0,3 ... 7	6,5	18-025-003	2962-89	2962-04	18-015-989	R07-KITR
R07-200-RNKG	G1/4	0,3 ... 7	6,5	18-025-003	2962-89	2962-04	18-015-989	R07-KITR

* Typical flow with 10 bar inlet pressure and 1 bar droop from set pressure of 6,3 bar.

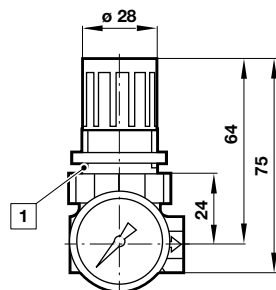




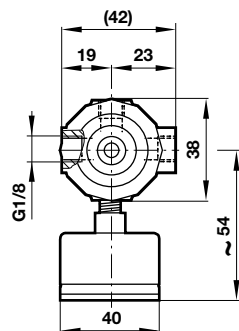
Miniature Units, General Purpose

Pressure regulator R07 – G1/8, G1/4

Dimensions



1 Panel mounting hole Ø31 mm



Miniature Units, General Purpose

Filter regulator B07 – G1/8, G1/4

- » Filter-regulators for all general purpose pneumatic applications
- » High performance design provides high flow with minimum pressure drop
- » Non-rising adjusting knob has snap-action lock
- » Transparent bowl for 360° visibility
- »  DoC in accordance with 2014/34/EU/ATEX

Technical Data

Medium:
Compressed air only

Maximum inlet pressure:
10 bar

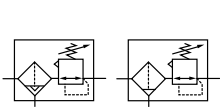
Gauge ports:
Rc1/8

Filter element:
40µm

Atex:
Filter regulator B07 are in conformity with Atex 2014/34/EU II 2 GD
Ex h IIC T6 Gb
EX h IIC T85°C Db

Ambient temperature:
-34°C ... +50°C
Air supply must be dry enough to avoid ice formation at temperatures below +2°C

Pressure range:
0,3 ... 7 bar



Models						Accessories				Service Kit	
B07 series											
Auto drain Model	Manual drain Model	Port size	Pressure range (bar)	Flow* (dm³/s)	Element (µm)	Wall mounting bracket (incl. nut)	Panel mounting nut only plastic	Panel mounting nut only metal	Gauge (0 ... 10 bar)	Auto drain	Manual drain
											
B07-101-A3KG	B07-101-M3KG	G1/8	0,3 ... 7	6,2	40	18-025-003	2962-89	2962-04	18-015-989	B07-KITA40R	B07-KITM40R
B07-201-A3KG	B07-201-M3KG	G1/4	0,3 ... 7	6,5	40	18-025-003	2962-89	2962-04	18-015-989	B07-KITA40R	B07-KITM40R

* Typical flow with 10 bar inlet pressure and 1 bar droop from set pressure of 6,3 bar.



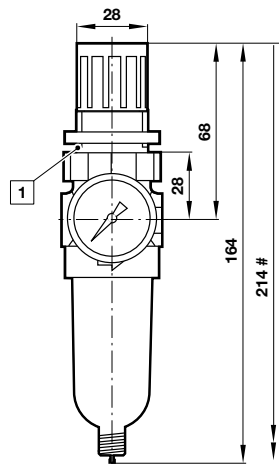


Miniature Units, General Purpose

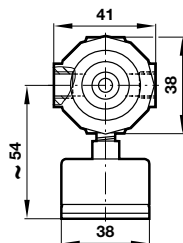
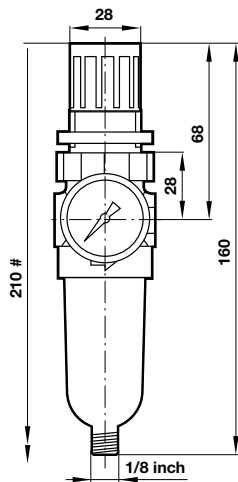
Filter regulator B07 – G1/8, G1/4

Dimensions

Manual drain



Auto drain



Minimum clearance required to remove bowl
□ Panel mounting hole Ø31 mm



Miniature Units, General Purpose

Lubricators L07 – G1/8, G1/4



- » Micro-fog® lubricators provide a fine mist for most general purpose pneumatic applications
- » Transparent bowl for 360° visibility

Technical Data

Medium:
Compressed air only

Maximum inlet pressure:
10 bar

Start point:
0,24 dm³/s
Minimum flow required for
lubricator operation at 6,3 bar
inlet pressure

Atex:
Lubricators L07 are in
conformity with
Atex 2014/34/EU
II 2 GD
Ex h IIC T6 Gb
EX h IIIC T85°C Db

Ambient temperature:
-20°C ... +50°C
Air supply must be dry enough
to avoid ice formation at
temperatures below +2°C



Models

L07 series Model	Port size	Flow* (dm³/s)
---------------------	-----------	------------------



L07-100-MPQG	G1/8	5
L07-200-MPQG	G1/4	6,7

Accessories

Neck mounting bracket and nut



18-025-003
18-025-003

Service Kit



L07-KIT
L07-KIT

* Typical flow with 6,3 bar inlet pressure and 0,5 bar pressure drop.

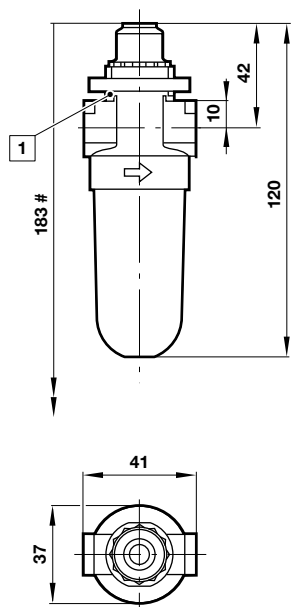




Miniature Units, General Purpose

Lubricators L07 – G1/8, G1/4

Dimensions



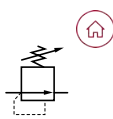
Minimum clearance required to remove bowl

1 Panel mounting hole Ø31 mm



Miniature Units, General Purpose

Pressure relief valve – Diaphragm type V07 – G1/8, G1/4



- » Protect compressed air systems from over-pressurisation
- Norgren pressure relief valves comply with category O(S.E.P.) and category 1 of the Pressure Equipment Directive 97/23/EC.

Technical Data

Medium:
Compressed air only

Gauge ports:
Rc1/8

Relief port:
As inlet port

Ambient temperature:
-34°C ... +65°C
Air supply must be dry enough to avoid ice formation at temperatures below +2°C

Relief pressure adjustment range:
0,3 ... 7 bar



Models

V07 series				Accessories	
Model	Port size	Inlet Pressure (bar)	Relief Pressure (bar)	Neck mounting bracket and nut	Gauge 0 ... 10 bar
					
V07-100-NNKG	G1/8	20	0,3 ... 7	18-025-003	18-015-989
V07-200-NNKG	G1/4	20	0,3 ... 7	18-025-003	18-015-989

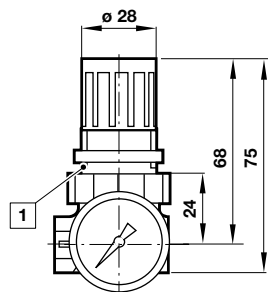




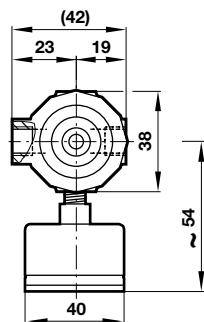
Miniature Units, General Purpose

Pressure relief valve – Diaphragm type V07 – G1/8, G1/4

Dimensions



1 Panel mounting hole Ø31 mm





Miniature Series, General Purpose

Accessories

For a comprehensive range of accessories including brackets and connecting clamps to best suit your application needs.

Wall mounting bracket

- » Provides a stable and secure mounting solution, ensuring that it is properly aligned and anchored to the wall
- » Reduces the risk of damage or failure due to vibration or movement

Panel nut

- » Helps ensure that the unit is securely mounted and properly aligned with the downstream equipment
- » Prevents leaks, vibration, and other issues that can lead to equipment damage or failure
- » Options: Metal or plastic material

Tamper resistant field modification

Prevents accidental or intentional adjustments to the settings and prevents the equipment damage and improve safety

Tamper resistant seal wire for lubricator

Special feature of the tamper resistant only for lubricator units

Gauge Ø40 mm

Monitor pressures in a compressed air system for optimum efficiency





Miniature Series, General Purpose

Accessories

Series	Wall mounting bracket and panel nut	Wall mounting bracket	Panel nut	Tamper resistant field modification	Tamper resistant seal wire for lubricator	Gauge Ø40 mm
						
F07	-	5939-06	-	-	-	18-015-990 (0 ... 4 bar)
F39	-	5939-06	-	-	-	18-015-989 (0 ... 10 bar)
PIH	18-025-003 (with plastic nut) 18-025-004 (with metal nut)	-	6700-30	2962-04 (Metal) 2962-89 (Plastic)	18-001-092	2117-01
R07	18-025-003 (with plastic nut) 18-025-004 (with metal nut)	-	-	2962-04 (Metal) 2962-89 (Plastic)	18-001-092	-
B07	18-025-003 (with plastic nut) 18-025-004 (with metal nut)	-	-	2962-04 (Metal) 2962-89 (Plastic)	18-001-092	-
L07	18-025-003 (with plastic nut) 18-025-004 (with metal nut)	-	-	2962-04 (Metal) 2962-89 (Plastic)	-	-
V07	18-025-003 (with plastic nut) 18-025-004 (with metal nut)	-	-	2962-04 (Metal) 2962-89 (Plastic)	18-001-092	-





Large Capacity General Purpose Units

General purpose filters F18 – G1 1/2 & G2

- » Direct ported filter with high water removal efficiency
- » High flow with minimal pressure drop
- » Highly visible prismatic liquid level indicator lens
- » DoC in accordance with 2014/34/EU/ATEX

Technical Data

Medium:
Compressed air only

Maximum pressure:
17 bar

Filter element:
40 µm

Atex:
Filters F18 are in conformity with Atex 2014/34/EU II 2 GD
Ex h IIC T6 Gb
EX h IIIC T85°C Db

Ambient temperature:
-34°C ... +80°C



Models

F18 series Auto drain	Port size	Flow* (dm³/s)	Element (µm)	Bowl	Service Kit
F18-B00-A3DG	G1 1/2	765	40 µm	Metal	F18-100A
F18-C00-A3DG	G2	765	40 µm	Metal	F18-100A

*Typical flow with 6,3 bar inlet pressure and 0,5 bar pressure drop.



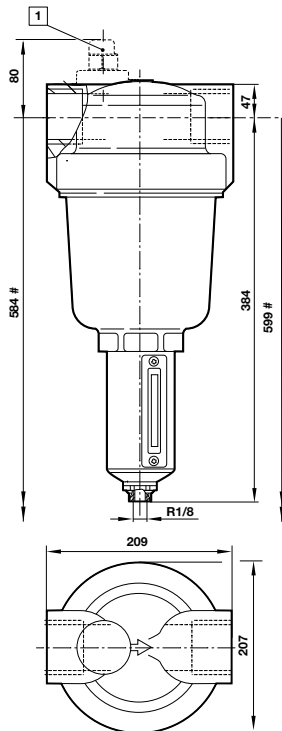


Large Capacity General Purpose Units

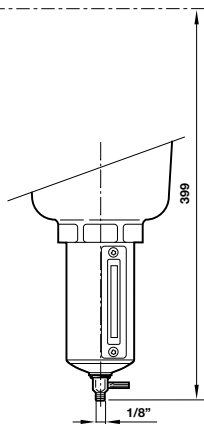
General purpose filters F18 – G1 1/2 & G2

Dimensions

Auto drain



Manual drain



Min clearance required to remove intermediate body and bowl

□ Services indicator optional



Large Capacity Series Units

Oil removal filters F47 – G1 1/2 & G2

- » High efficiency oil and particle removal
- » Standard service life indicator turns from green to red when the filter element needs to be replaced

Automatic drain operating conditions (float operated):

Bowl pressure required to close drain: > 0,35 bar
Bowl pressure required to open drain: ≤ 0,2 bar
Minimum air flow required to close drain: 0,1 dm³/s
Manual operation: depress pin inside drain outlet to drain bowl.

Technical Data

Medium:
Compressed air only

Maximum operating pressure:
17 bar

Particle removal:
0,01 µm

Remaining oil content:
0,01mg/m³ maximum

Drain:
Automatic or manual

Ambient/Media temperature:
-34°C ... 80°C

Air supply must be dry enough to avoid ice formation at temperatures below 2°C

Note: Install an F18 filter with 5 µm filter element upstream of the F47 filter for maximum service life.

F47



Models

F47 series Oil removal filters with automatic drain			
	Bowl	Flow *1) (dm³/s)	Port size
			
F47-B01-A0DG	Metal	118 (standard flow)	G 1 1/2
F47-C01-A0DG	Metal	156 (standard flow)	G 2
F47-C21-A0DG	Metal (long)	284 (high flow)	G 2

*1) Maximum flow with 6,3 bar inlet pressure to maintain stated oil removal performance.





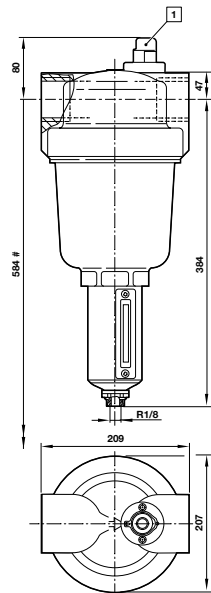
Large Capacity Series Units

Oil removal filters F47 – G1 1/2 & G2

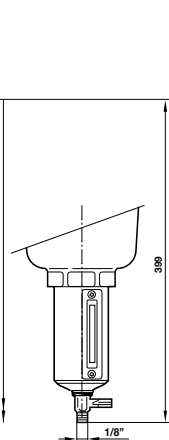
Dimensions

Standard flow element

Auto drain

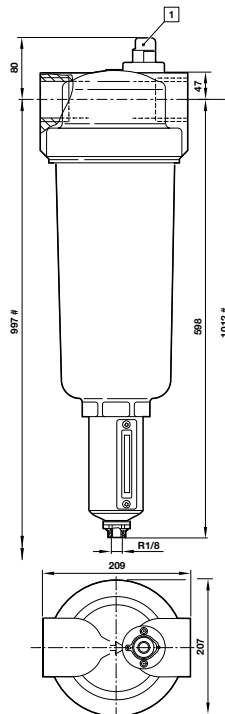


Manual drain

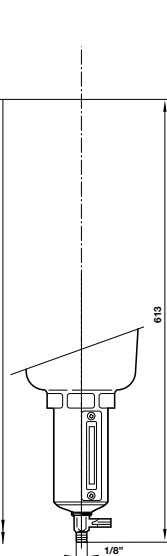


High flow element

Auto drain



Manual drain



Min clearance required to remove intermediate body and bowl.

1 Services indicator



Large Capacity Pilot Operated and Pilot Regulators

11-808, R18, 11-400/11-204 – G1/4 ... G2

- » Can be installed at any point in the compressed air system without regard to accessibility – pilot regulator can be installed in the most convenient location
- » Can be used with conventional or feedback pilot regulator
- » Feedback pilot regulator senses downstream pressure and automatically adjusts pilot operated regulator outlet pressure
- » DoC in conformity with 2014/34/EU/ATEX

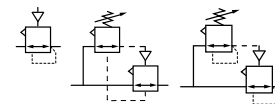
Technical Data

Medium:
Compressed air only

Maximum inlet pressure:
11-808: 20 bar
11-400: 25 bar
R18: 31 bar

Atex:
Regulators 11-808 & R18 are in conformity with Atex 2014/34/EU II 2 GD
Ex h IIC T6 Gb
EX h IIC T85°C Db

Ambient temperature:
-20°C ... +80°C
Air supply must be dry enough to avoid ice formation at temperatures below +2°C



11-808



R18



R18
integral pilot



Models

R18 remote pilot					Accessories			Service Kit
Model	Port size	Flow* (dm³/s)	Pressure range (bar)	Operation	Exhaust silencer	Gauge adaptor	Gauge** (0 ... 25bar)	
R18-B00-RNXG	G1 1/2	944	0,16 ... 17	Non-relieving	MB006B	150232818	18-015-014	R18-100R
R18-C00-RNXG	G2	944	0,16 ... 17	Non-relieving	MB006B	150232818	18-015-014	R18-100R

R18 integral pilot					Accessories			Service Kit
Model	Port size	Flow* (dm³/s)	Pressure range (bar)	Operation	Exhaust silencer	Gauge adaptor	Gauge** (0 ... 25bar)	
R18-B05-RNLG	G1 1/2	944	0,3 ... 8,5	Non-relieving	MB006B	150232818	18-015-013	R18-100R & 5945-41
R18-C05-RNLG	G2	944	0,3 ... 8,5	Non-relieving	MB006B	150232818	18-015-013	R18-100R & 5945-41

* Max. flow with 7 bar inlet pressure. 6,3 bar outlet pressure and a droop of 1 bar from set.

Alternative models available – contact Norgren's technical service.



Large Capacity Pilot Operated and Pilot Regulators

11-808, R18, 11-400/11-204 – G1/4 ... G2

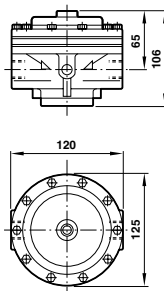
11-808 remote pilot Model	Port size	Flow* (dm ³ /s)	Pressure range (bar)	Operation	Wall mounting bracket	Gauge** (0 ... 25 bar)	
							
11-808-960	G3/4	180	20 Max.	Non-relieving	18-001-027	18-015-014	11-908-100
11-808-980	G1	180	20 Max.	Non-relieving	18-001-027	18-015-014	11-908-100

* Max. flow with 8 bar inlet pressure, 6,3 bar outlet pressure and a droop of 1 bar from set.

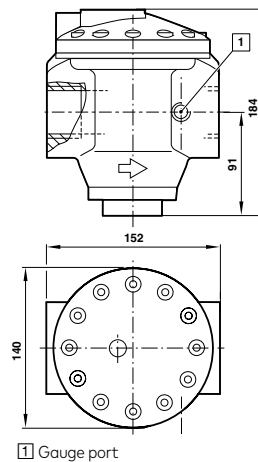
** Alternative gauges available see page 5-112.

Dimensions

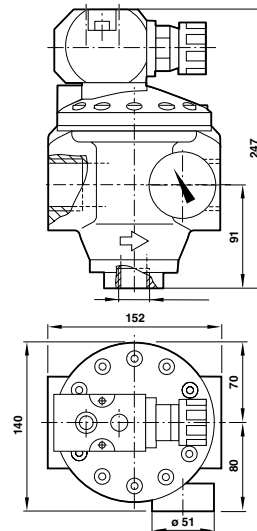
11-808 remote pilot



R18 remote pilot



R18 integral pilot



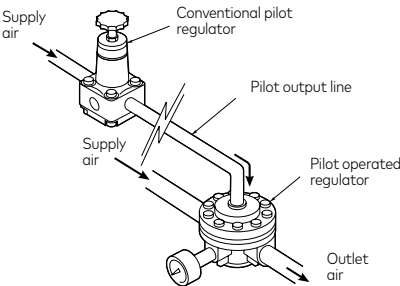


Large Capacity Pilot Operated and Pilot Regulators

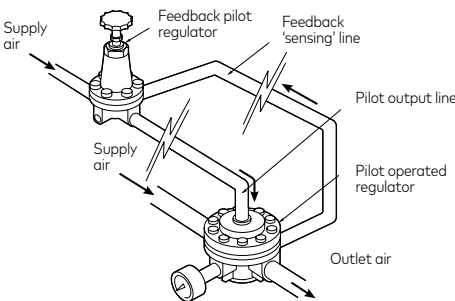
11-808, R18, 11-400/11-204 – G1/4 ... G2

11-400/11-204

Conventional pilot

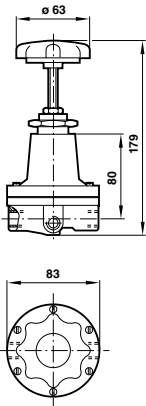


Feedback pilot



Feedback pilot regulators give more sensitive control and quicker reaction to downstream pressure changes
Feedback 'sensing' line to be kept to minimum length (<200 mm)

Dimensions



Model Conventional pilot regulators

Accessories

Service Kit

11-400, 20AL series					Accessories		Service Kit
Model	Port size	Pressure range (bar)	Operation	Mounting	Bracket	Gauge	
							
11400-2G-PC100	G1/4	0,06 ... 2	Relieving	Bracket	18-001-005	18-015-010	11400-100-20AL
11400-2G-PE100	G1/4	0,06 ... 4	Relieving	Bracket	18-001-005	18-015-011	11400-100-20AL
11400-2G-PG100	G1/4	0,16 ... 7	Relieving	Bracket	18-001-005	18-015-012	11400-100-20AL
20AL-X2G-PK100	G1/4	7 ... 20	Relieving	Bracket	18-001-005	18-015-014	11400-100-20AL





Pre-Set Regulator

R16 – G1/4

- » Factory pre-set and sealed to give a regulated pressure of 2 bar
- » Tamper resistant
- » Compact

Technical Data

Medium:
Compressed air only

Maximum pressure:
28 bar

Ambient temperature:
-20°C ... +80°C
Air supply must be dry enough
to avoid ice formation at
temperatures below +2°C

**Typical Setting Accuracy of
Regulator with 7 bar inlet
pressure and zero flow:**
2 bar (+0,07 bar, - 0,2 bar)

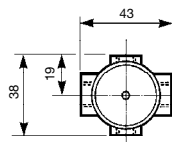
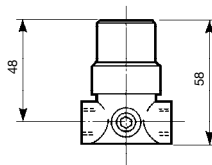
Gauge ports:
Rc 1/8



Models

Model	Port size	Pre-set pressure
R16-200-R30G	G1/4	2 bar

Dimensions



Precision & Instrument Regulator

Pressure regulator R27-200, 11-818 – G1/4



R27-200:

- » High precision regulator using a control chamber instead of a spring, so increasing its sensitivity to any variations and eliminating any spring hysteresis
- » Perfect for dead-end applications
- » Excellent long term stability

11-818:

- » Precision instruments with integral pilot to ensure very close pressure control in a compact form
 - » Unit double filters air before reaching pilot valve to help prevent leakage and malfunction
 - » Panel mounting facility
- * Not recommended for dead-end applications

Technical Data

Medium:
Dry, oil free air,
filtered to 5µm

Maximum inlet pressure:
R27: 10 bar
11-818 (0,02 ... 0,5 bar): 8 bar
11-818 (0,07 ... 4 bar): 10 bar
11-818 (0,4 ... 10 bar): 14 bar

Ambient temperature:
R27: -20°C ... +70°C
11-818: 0°C ... +70°C

R27-200



11-818



Models

11-818 series							Panel mounting nut
Model	Port size	Pressure range (bar)	Flow* (dm³/s)	Accuracy # (bar)	Operation	Gauge ports	
11-818-999	G1/4	0,02 ... 0,50 (low)		0,01	Relieving	–	3081-01
11-818-100	G1/4	0,07 ... 4 (standard)	8	0,03	Relieving	–	3081-01
11-818-110	G1/4	0,4 ... 10 (high)		0,05	Relieving	–	3081-01
11-818-987	G1/4	0,02 ... 0,50 (low)		0,01	Relieving	R1/4	3081-01
11-818-993	G1/4	0,07 ... 4 (standard)	8	0,03	Relieving	R1/4	3081-01
11-818-991	G1/4	0,4 ... 10 (high)		0,05	Relieving	R1/4	3081-01

* Typical flow with 8 bar inlet pressure and 0,05 bar droop from set pressure of 4 bar # Typical mid range variance from set pressure with 7 bar inlet at 2 dm³/s flow.
Note: 11-818 pressure regulator with low air consumption in dead-end applications (0 flow). No air consumption under flow conditions.

Accessories

R27-200 series							
Model	Port size	Pressure range (bar)	Flow* (dm³/s)	Hysteresis/ repeatability#	Sensitivity	Operation	Gauge ports
R27-200-RNCG	G1/4	0,14 ... 2,0	8	< 0,05%	> 0,3 mbar	Relieving	G1/4
R27-200-RNFG	G1/4	0,14 ... 4,0	8	< 0,05%	> 0,3 mbar	Relieving	G1/4
R27-200-RNLG	G1/4	0,14 ... 8,0	8	< 0,05%	> 0,3 mbar	Relieving	G1/4

* Maximum flow achieved under ideal conditions. # Typical values at mid range.
Note: R27 regulators are designed as constant bleed devices and consume air, typically less than 0,016 dm³/s.



For further information, visit www.norgren.com and use the new improved search function. If you cannot see the option you require please contact us.

More Info



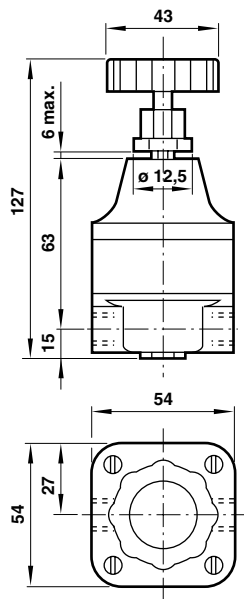


Precision & Instrument Regulator

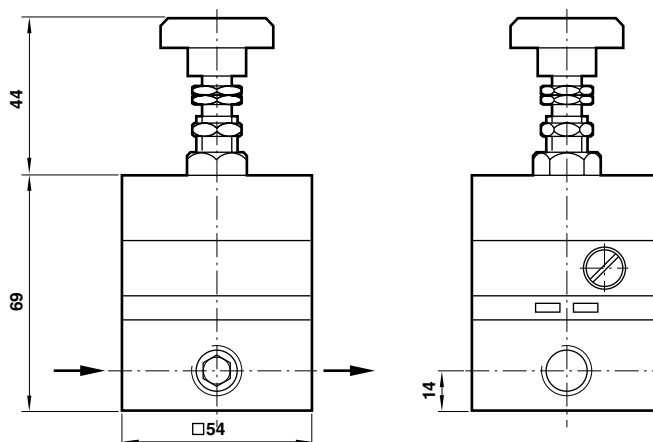
Pressure regulator R27-200, 11-818 – G1/4

Dimensions

11-818



R27-200



Filters, pressure regulators, lubricators F22, R22, L22 – 1/2" NPTF

- * National Association of Corrosion Engineers – recognised oil-field recommendation for resistance to sulphide stress cracking common in well-head and other corrosive environments

Note: Outlet pressure can be adjusted in excess of and also less than those listed

Air supply must be dry enough to avoid ice formation at temperatures below +2°C



F22-KITM25





Stainless Steel General Purpose

Filters, pressure regulators, lubricators F22, R22, L22 – 1/2" NPTF

Models

R22 series				Accessories			Service Kit
Model	Port size	Flow* (dm ³ /s)	Pressure range (bar)	Wall mounting bracket	Neck mounting bracket	Gauge**	
							
R22-401-RNMA	1/2 PTF	50	0,4 ... 10	18-001-962	18-001-959	18-015-909	R22-KITR

* Typical flow with 10 bar inlet pressure and 1 bar droop from set pressure of 6,3 bar.

** Not to NACE standard.

L22 series			Wall mounting bracket	
Model	Port size	Flow* (dm ³ /s)		
				
L22-400-OP8A	1/2 PTF	48	18-001-962	L22-KIT

* Typical flow with 10 bar inlet pressure and 0,5 bar pressure drop.

Options - Filter

- » Stainless steel element
- » 5 µm element

Options - Regulator

- » Alternative outlet pressure ranges
- » Non-relieving operation



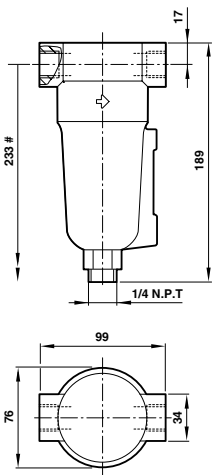


Stainless Steel General Purpose

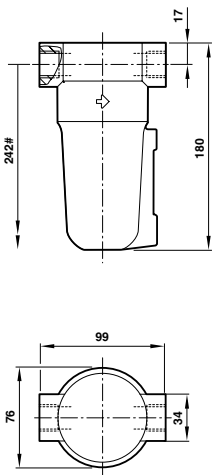
Filters, pressure regulators, lubricators F22, R22, L22 – 1/2" NPTF

Dimensions

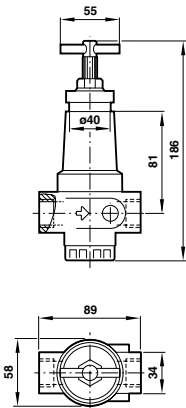
F22 Auto drain



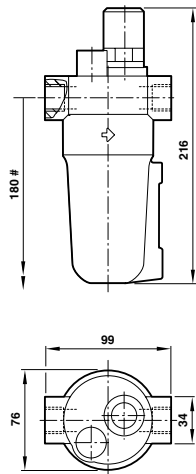
F22 Manual drain



R22



L22



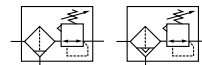
Minimum clearance required to remove bowl





Stainless Steel General Purpose

High flow filter/regulator B52G/B54G – 3/8 ... 3/4 PTF



- » High flow filter/regulator designed for use in corrosive environment
 - » Applications include marine environment, oil and gas productions
 - » ATEX approved
 - » Metallic parts meet NACE* Standard MR-01-75
- * National Association of Corrosion Engineers – recognised oil-field recommendation for resistance to sulphide stress cracking common in well-head and other corrosive environments

Technical Data

Medium:
Compressed air only

Maximum inlet pressure:
Autodrain: 17 bar
Manual drain: 31 bar

Flow:
40 dm³/s, 75 dm³/s
or 100 dm³/s

Gauge ports:
1/4" PTF

Relief port:
1/8" PTF

Ambient temperature:

FPM seals:
-20°C ... +80°C

NBR seals:
-40°C ... +80°C

Air supply must be dry enough to avoid ice formation at temperatures below +2°C



Models

B52G & B54G series							Accessories			Service kits	
Auto drain Model	Manual drain Model	Port size	Pressure range (bar)	Flow* (dm ³ /s)	Operation	Element	Neck mounting bracket & nut	Gauge	Plastic adjusting knob	Filter element	Valve assembly and diaphragm
											
B52G-3AD-AC1-FMK	B52G-3AD-DG1-FMK	3/8 NPT	0,5 ... 10	40	Relieving	5 µm	A1923-201	18-015-909	74630-04	A080874-03	A1923-S01
B54G-4AD-AC3-RKK	B54G-4AD-DM3-RKK	1/2 NPT	0,5 ... 7	100	Relieving	5 µm	A1923-201	18-015-909	74630-04	5984-01	A1923-S01
B52G-2AD-AC1-FMK	B52G-2AD-DG1-FMK	1/4 NPT	0,5 ... 10	40	Relieving	5 µm	A1923-201	18-015-909	74630-04	A080874-03	A1923-S01

* Typical flow with 10 bar inlet pressure, 6,3 bar set pressure and a 1 bar drop from set.



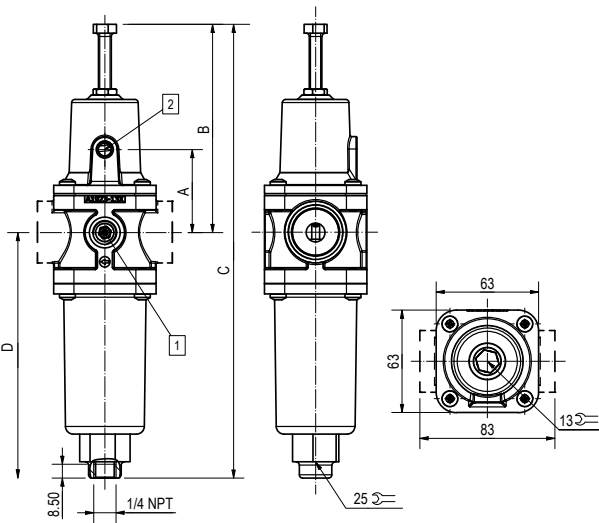


Stainless Steel General Purpose

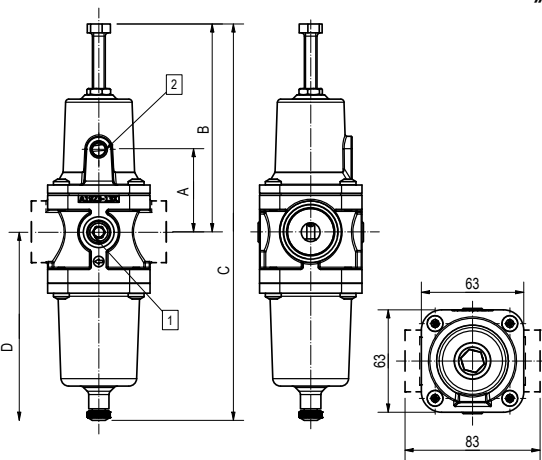
Filter/regulator B52/B54 – 3/8 ... 3/4 PTF

Dimensions

Auto drain



Manual drain



Minimum clearance required to remove bowl

1 1/4 NPT Gauge port

2 1/8 NPT Exhaust port

Note: Dash line is for 1/2" - 1" only

Options

- » 25µm element
- » 40µm element

Port size	Drain type	bracket	A (mm)	B (mm)	C (mm)	D (mm)
1/4	Auto	Without	48	117	251	172
3/8	Auto	Without	48	117	251	172
1/2	Auto	Without	52	125	278	190
1	Auto	Without	52	125	278	190

Port size	Drain type	bracket	A (mm)	B (mm)	C (mm)	D (mm)
1/4	Manual	Without	48	117	200	113
3/8	Manual	Without	48	117	200	113
1/2	Manual	Without	52	125	226	153
1	Manual	Without	52	125	226	153





Stainless Steel

Precision regulators and filter/regulators R38, B38 – 1/4 NPTF

- » Designed for use in corrosive environments
- » Applications include marine environment, oil and gas production, chemical and food processing, medical analysis
- » Model for precision regulation and high flow
- » Metallic parts meet NACE* Standard MR-01-75

* National Association of Corrosion Engineers – recognised oil-field recommendation for resistance to sulphide stress cracking common in well-head and other corrosive environments

Technical Data

Medium:

Compressed air only

Maximum inlet pressure:

R38 - 31 bar

B38 Manual drain - 31 bar

B38 Auto drain - 17 bar

Gauge ports:

1/4" PTF

Pressure range:

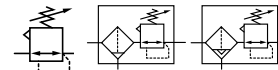
See table below

Note: Outlet pressure can be adjusted in excess of and also less than those listed

Ambient temperature:

-40°C ... +80°C

Air supply must be dry enough to avoid ice formation at temperatures below +2°C



R38



B38



Models

R38 series Precision pressure regulator				Neck mounting bracket & nut	Gauge	Plastic adjusting knob	Service kit
Model	Port size	Pressure range (bar)	Flow* (dm ³ /s)				
							
R38-240-RNCA	1/4 PTF	0,04 ... 2	8	18-001-973	18-015-913	74630-04	R38-100R
R38-240-RNFA	1/4 PTF	0,07 ... 4	8	18-001-973	18-015-913	74630-04	R38-101R
R38-240-RNMA	1/4 PTF	0,40 ... 10	8	18-001-973	18-015-909	74630-04	R38-102R

* Typical flow with 7 bar inlet pressure and 0,05 bar drop from set pressure of 1 bar.





Stainless Steel

Precision regulators and filter/regulators R38, B38 – 1/4 NPTF

Models

Accessories

Service kit

B38 series Precision pressure regulator						Accessories			Service kit		
Model	Port size	Pressure range (bar)	Flow* (dm ³ /s)	Drain	Element	Neck mounting bracket & nut	Gauge	Plastic adjusting knob	Filter element	Service kit	Drain kit
											
B38-244-B1FA	1/4 PTF	0,07 ... 4	8	Manual	5 µm	18-001-973	18-015-913	74630-04	B38-100S(5)	R38-101R	-
B38-244-A1FA	1/4 PTF	0,07 ... 4	8	Automatic	5 µm	18-001-973	18-015-913	74630-04	B38-100S(5)	R38-101R	3000-90
B38-244-B1KA	1/4 PTF	0,25 ... 7	8	Manual	5 µm	18-001-973	18-015-909	74630-04	B38-100S(5)	R38-101R	-
B38-244-A1KA	1/4 PTF	0,25 ... 7	8	Automatic	5 µm	18-001-973	18-015-909	74630-04	B38-100S(5)	R38-101R	3000-90
B38-244-B1MA	1/4 PTF	0,5 ... 10	8	Manual	5 µm	18-001-973	18-015-909	74630-04	B38-100S(5)	R38-102R	-
B38-244-A1MA	1/4 PTF	0,5 ... 10	8	Automatic	5 µm	18-001-973	18-015-909	74630-04	B38-100S(5)	R38-102R	3000-90

* Typical flow with 7 bar inlet pressure and 0,05 bar droop from set pressure of 1 bar.



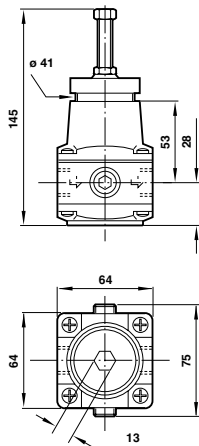


Stainless Steel

Precision regulators and filter/regulators R38, B38 – 1/4 NPTF

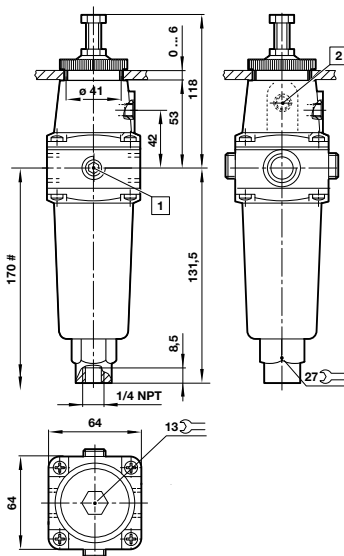
Dimensions

R38

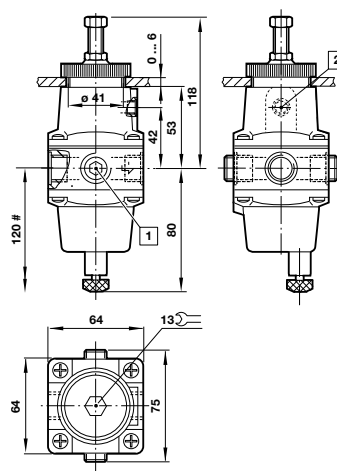


B38

Auto drain



Manual drain, short bowl



Options

- » Non relieving operation
- » 25 μ m element (B38)

Minimum clearance required to remove bowl

- 1 1/4 PTF Gauge port
- 2 1/8 PTF Relief port



Stainless Steel General Purpose

Regulators and filter-regulator B05, R05 – 1/4" PTF

- » Metallic parts meet NACE* recommendations
- » Miniature high corrosion resistant design
- » Adjusting knob has snap-action lock
- » Particularly suitable for marine, petro-chemical, food processing, medical, dental and similar applications
- » Panel mounting facility

* National Association of Corrosion Engineers - recognised oil-field recommendation for resistance to sulphide stress cracking common in well-head and other corrosive environments.

Technical Data

Medium:

Compressed air only

Maximum inlet pressure:

20 bar

Gauge ports:

1/8" PTF

Pressure range:

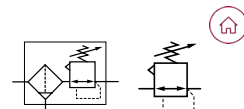
0,3 ... 8,5 bar

Ambient temperature:

Acetal knob: -25°C ... +66°C

T-bar: -25°C ... +80°C

Air supply must be dry enough to avoid ice formation at temperatures below +2°C



B05



R05



Models

B05 series					Accessories		Service Kit
Model	Port size	Pressure range (bar)	Flow* (dm³/s)	Bonnet	Gauge**	Mounting nut	Auto drain
							
B05-233-A1LA	1/4 PTF	0,3 ... 8,5	7	Knob	18-015-844	2962-89	3820-08
B05-238-A1LA	1/4 PTF	0,3 ... 8,5	7	T-bar	18-015-844	2962-89	3820-08
R05 series					Accessories		Service Kit
Model	Port size	Pressure range (bar)	Flow* (dm³/s)	Bonnet	Gauge**	Mounting nut	Auto drain
							
R05-200-RNLA	1/4 PTF	0,3 ... 8,5	7	Knob	18-015-844	2962-89	R05-KITR
R05-232-RNLA	1/4 PTF	0,3 ... 8,5	7	T-bar	18-015-844	2962-89	R05-KITR

* Typical flow with 10 bar inlet pressure and 1 bar droop from set pressure of 6,3 bar.

** Not NACE standard.





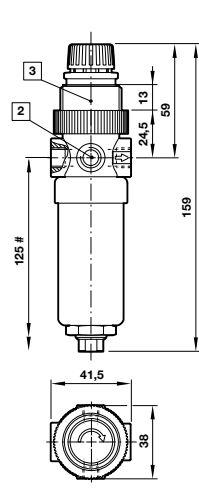
Stainless Steel General Purpose

Regulators and filter-regulator B05, R05 – 1/4" PTF

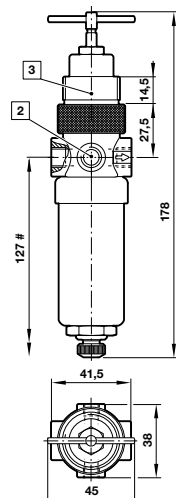
Dimensions

B05

Filter/Regulator with acetal knob with autodrain

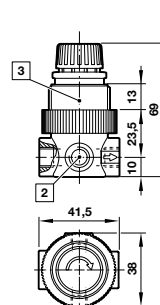


Filter/Regulator with T bar and automatic drain

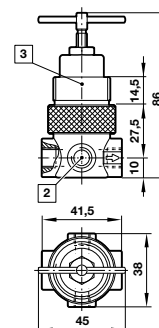


R05

Regulator with acetal bonnet



Regulator with stainless steel T-handle



Options

- » Non relieving operation
- » Alternative output range
- » 40 µm element (B05)
- » Manual drain (B05)

- ☐ Gauge port: 1/8 PTF, standard units are shipped with two plugs for sealing gauge ports.
- ☐ Panel mounting hole diameter 30 mm, Panel thickness 0 ... 6 mm



Air Preparation Accessories

Gauges, Auto-Drain, Drip Leg Drain

Gauges

- » Monitor pressures in a compressed air system for optimum efficiency
- » Choice of pressure ranges
- » Direct or panel mounted



Standard Steel and plastic

Model	Pressure range (bar)	Nominal diameter (mm)	Connection type / mounting	Port connection
18-015-887	0 ... 1	40	Centre Back	R1/8
18-015-991	0 ... 1,6	40	Centre Back	R1/8
18-015-886	0 ... 2,5	40	Centre Back	R1/8
18-015-990	0 ... 4	40	Centre Back	R1/8
18-015-885	0 ... 6	40	Centre Back	R1/8
18-015-989	0 ... 10	40	Centre Back	R1/8
18-015-884	0 ... 16	40	Centre Back	R1/8
18-015-908	0 ... 25	40	Centre Back	R1/8
18-015-010	0 ... 1,6	50	Centre Back	R1/8
18-015-011	0 ... 4	50	Centre Back	R1/8
18-015-012	0 ... 6	50	Centre Back	R1/8
18-015-013	0 ... 10	50	Centre Back	R1/8
18-015-014	0 ... 25	50	Centre Back	R1/8
18-015-893	0 ... 1	63	Centre Back	R1/8
18-015-892	0 ... 2,5	63	Centre Back	R1/8
18-015-856	0 ... 10	63	Centre Back	R1/8
18-015-855	0 ... 16	63	Centre Back	R1/8
18-015-888	0 ... 25	63	Centre Back	R1/8
18-015-879	0 ... 1,6	40	Panel Mounted	G1/8A
18-015-878	0 ... 6	40	Panel Mounted	G1/8A
18-015-877	0 ... 10	40	Panel Mounted	G1/8A
18-015-858	0 ... 6	50	Panel Mounted	G1/8A
18-015-857	0 ... 10	50	Panel Mounted	G1/8A
18-015-883	0 ... 1,6	63	Panel Mounted	G1/4A
18-015-882	0 ... 6	63	Panel Mounted	G1/4A
18-015-852	0 ... 10	63	Panel Mounted	G1/4A
18-015-851	0 ... 16	63	Panel Mounted	G1/4A
18-015-024	0 ... 1,6	50	Bottom	R1/8
18-015-025	0 ... 4	50	Bottom	R1/8
18-015-026	0 ... 6	50	Bottom	R1/8
18-015-027	0 ... 10	50	Bottom	R1/8
18-015-028	0 ... 25	50	Bottom	R1/8
18-015-854	0 ... 10	63	Bottom	G1/4A
18-015-853	0 ... 16	63	Bottom	G1/4A



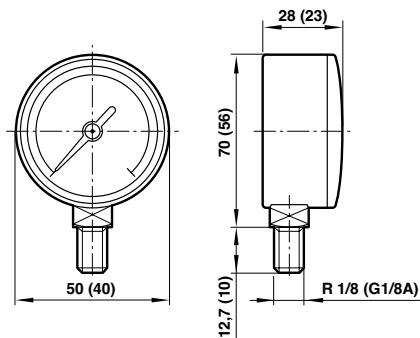


Air Preparation Accessories

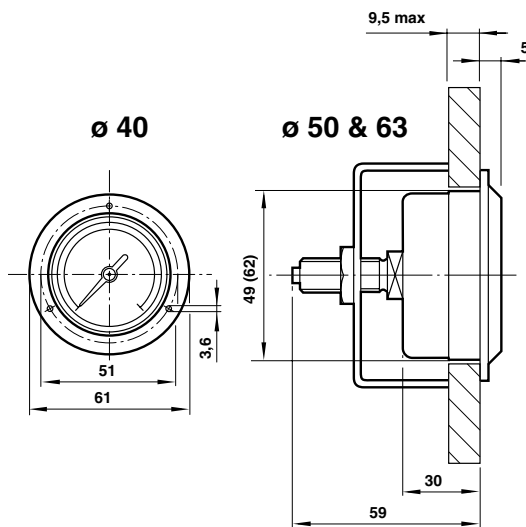
Gauges, Auto-Drain, Drip Leg Drain

Dimensions

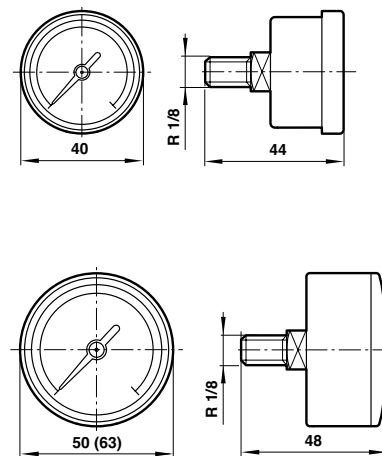
Bottom



Panel mounting



Centre back





Air Preparation Accessories

Gauges, Auto-Drain, Drip Leg Drain

Auto-Drain

- » Spare parts for filters and filter-regulators



Models

Model	Bowl
4000-50R	Excelon® 72
4000-51R	Excelon® 73
3000-97	Excelon® 74
6000-50	Olympian 64, 68

Drip Leg Drain

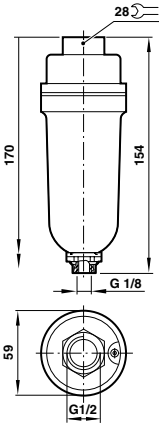
- » Fully automatic unit that can drain liquid from low points in compressed air systems



Models

Model	Port size	Bowl
17-816-998	G1/2	Metal
17-816-999	G1/2	Transparent

Dimensions





[Pressure Switches]

6

A comprehensive range of Pressure Switches, providing a range of different options for converting pressure changes into an electrical signal. The range includes electromechanical and electronic switches suitable for pneumatic and all fluid applications.





Fast Find Guide

Please note: These products represent only part of the Norgren pressure switch range. If you can't see the option you require please contact us.

Electro-Mechanical Pressure Switches

18D Pneumatic
-1 ... 30 bar



Page 6-004

18D Hydraulic
5 ... 420 bar



Page 6-006

20D
Low pressure, Allfluid
and ATEX
0,5 ... 16 bar



Page 6-008

Electronic Pressure Switches and Sensors

54D Pneumatic
-1 ... 16 bar



Page 6-010

**34D Pneumatic/
Hydraulic/Allfluid**
-1 ... 10 bar



Page 6-013

Q84G Pneumatic
0 ... 10 bar



Page 6-018

51D Pneumatic
-1 ... 10 bar



Page 6-022

**60D Pneumatic/
Hydraulic/Allfluid**
1 ... 400 bar



Page 6-024

**60S Pneumatic/
Hydraulic/Allfluid**
1 ... 400 bar



Page 6-027





34D & 54D Electronic Pressure Sensors

34D for Pneumatic and All-Fluid applications, 54D for Pneumatic

Pressure sensing technology is critical when pressure monitoring for plant security, or pressure control for high level functionality are needed in an application.

Pressure switches can be used to automatically monitor pressure levels in a pneumatic system, or be used for more complex monitoring functions in air, water, hydraulic or any All-Fluid applications.

IO-Link enabled sensors makes life easier

- » **Connected** – IO-Link capability allows remote set-up and access to application performance data for improved system monitoring
- » **Simple set-up** – Easy and quick manual set up via 3 buttons or remotely via IO-Link
- » **Easy to use** – Large, highly visible 2 colour programmable 10 mm display, with which the switching status can be easily recognized. The LED status indicators are visible from the back.



Find out more
norgren.com

Electro-Mechanical Pressure Switch

18D Pneumatic -1 ... 30 bar



- » Gold-plated contacts
- » High cycle life
- » Vibration resistant to 15 g
- » Microswitch approved by UL and CSA
- » Intrinsically safe operation

Technical Data

Medium:
For filtered, lubricated
or non lubricated
compressed air, neutral
and incombustible gases

Operation:
Diaphragm

Ambient temperature:
-10°C ... +85°C
except for ATEX versions
Air supply must be dry enough
to avoid ice formation at
temperature below +2°C

Repeatability:
±4%, of full scale



Models

Standard Model	Pressure range (bar)	Fluid connection	Electrical connection	Switching pressure difference (bar)	Max. over pressure (bar)	Plug	Electrical connector M12 x 1	
							Straight x 2 m long	90° x 2 m long
								
0880100000000000	-1 ... 0	G1/4	DIN EN 175301-803 Form A	0,15 ... 0,18	80	-	-	-
0880110000000000	-1 ... 1	G1/4	DIN EN 175301-803 Form A	0,25 ... 0,35	80	-	-	-
0880200000000000	0,2 ... 2	G1/4	DIN EN 175301-803 Form A	0,20 ... 0,35	80	-	-	-
0880300000000000	0,5 ... 8	G1/4	DIN EN 175301-803 Form A	0,35 ... 0,85	80	-	-	-
0880400000000000	1 ... 16	G1/4	DIN EN 175301-803 Form A	0,40 ... 1,20	80	-	-	-
0880600000000000	1 ... 30	G1/4	DIN EN 175301-803 Form A	1,00 ... 5,00	80	-	-	-
0880326000000000*	0,5 ... 8	G1/4	DIN EN 175301-803 Form A	0,35 ... 0,85	80	0570110000000000	-	-
0881200000000000	0,2 ... 2	Flange	DIN EN 175301-803 Form A	0,20 ... 0,35	80	-	-	-
0881300000000000	0,5 ... 8	Flange	DIN EN 175301-803 Form A	0,35 ... 0,85	80	-	-	-
0881400000000000	1 ... 16	Flange	DIN EN 175301-803 Form A	0,40 ... 1,20	80	-	-	-
0880360000000000	0,5 ... 8	G1/4	M12 x 1	0,35 ... 0,85	80	-	0523057000000000	0523058000000000
0880460000000000	1 ... 16	G1/4	M12 x 1	0,40 ... 1,20	80	-	0523057000000000	0523058000000000





Electro-Mechanical Pressure Switch

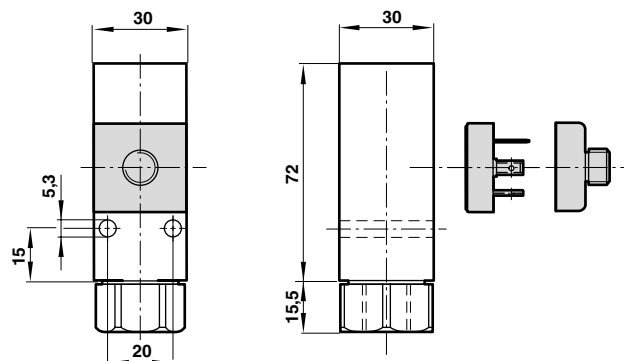
18D Pneumatic -1 ... 30 bar

MODELS FOR WATER APPLICATIONS									
0880323000000000	0,5 ... 8	G1/4	DIN EN 175301-803 Form A	0,35 ... 0,85	80	0570110000000000	-	-	-

MODELS CONFORMING TO ATEX – ZONE 2 AND 22 (Ex II 3G/D)									
0880380000000000	0,5 ... 8	G1/4	DIN EN 175301-803 Form A	0,35 ... 0,85	80	-	-	-	-
0880480000000000	1 ... 16	G1/4	DIN EN 175301-803 Form A	0,40 ... 1,20	80	-	-	-	-

* Switch is LABS free, plug needs to be ordered separately, all other DIN connector versions include standard connector plug.

Dimensions





Electro-Mechanical Pressure Switch

18D Hydraulic 5 ... 420 bar

- » Microswitch with gold plated contacts
- » High number of switching cycles
- » Vibration resistant to 15 g
- » Microswitch approved by UL and CSA
- » Intrinsically safe operation

Technical Data

Medium:
For neutral, self lubricating fluids, e.g. hydraulic oil, lube oil, light fuel oil

Operation:
Piston type sensor system

Ambient/Media temperature:
-25°C ... +80°C
Air supply must be dry enough to avoid ice formation at temperature below +2°C

Media viscosity:
Up to 1000 mm²/s

Repeatability:
±4%, of full scale



Models

Standard Model	Pressure range (bar)	Fluid connection	Electrical connection	Switching pressure difference (bar)	Max. over pressure (bar)	Connector DIN EN 175301-803
0882100000000000	5 ... 70	G1/4	DIN EN 175301-803 Form A	10,5 ... 15	400	0570110000000000 (Form A)
0882200000000000	10 ... 160	G1/4	DIN EN 175301-803 Form A	11 ... 17	400	0570110000000000 (Form A)
0882300000000000	25 ... 250	G1/4	DIN EN 175301-803 Form A	11 ... 17	400	0570110000000000 (Form A)
0882400000000000	40 ... 420	G1/4	DIN EN 175301-803 Form A	17 ... 38	600	0570110000000000 (Form A)

All versions include standard connector plug.

Accessories



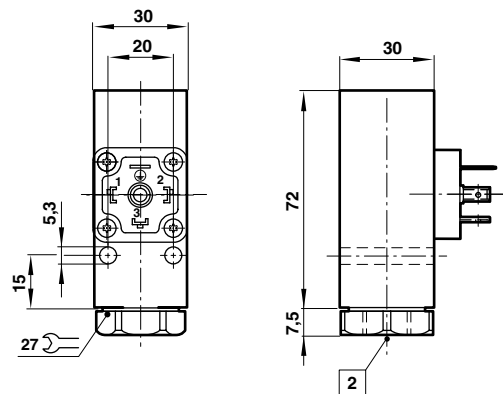


Electro-Mechanical Pressure Switch

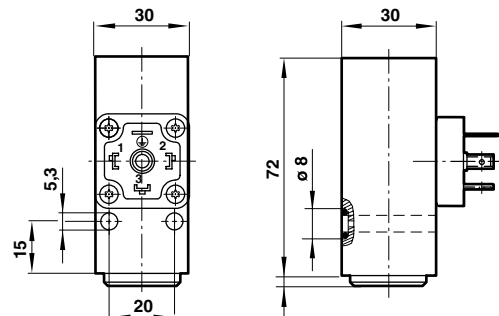
18D Hydraulic 5 ... 420 bar

Dimensions

G1/4



Flange



Electro-Mechanical Pressure Switch

20D Allfluid: 0,5 ... 16 bar – ATEX Allfluid: 0,5 ... 10 bar – Low Pressure: 0 ... 0,25 bar

- » High accuracy
- » Robust metal housing (Standard and Low pressure)
- » Robust metal housing in weather-resisting version (ATEX)

Technical Data

Medium:
For neutral, aggressive
(Standard only), non-
flammable gases and fluids

Operating pressure:
Allfluid: 0,5 ... 16 bar
ATEX Allfluid: 0,5 ... 10 bar
Low Pressure:
-0,025 ... 1,6 bar
(Other ranges available, please
contact us)

**Ambient/Media
temperature:**
Standard and Low pressure:
Ambient: -25°C ... +80°C
Media: -10°C ... +100°C
ATEX:
Ambient: -10°C ... +75°C
Media: -10°C ... +75°C

20D Allfluid



20D ATEX Allfluid



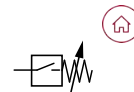
20D Low pressure



Models

Allfluid Model	Pressure range (bar)	Fluid connection	Electrical connection	Switching pressure difference (bar)	Range – Switching pressure difference (bar)			Max. over pressure (bar)	Plug	Bracket – Steel
					Lower	Upper & min.	Upper max.			
										
1801505000000000	0,5 ... 6	G1/2	Gland Pg 13,5	Adjustable	0,80	0,90	5,00	20	–	0574772000000000
1801605000000000	0,5 ... 10	G1/2	Gland Pg 13,5	Adjustable	0,90	1,90	8,00	20	–	0574772000000000
1801615000000000	0,5 ... 10	G1/2	M20 x 1,5	Adjustable	0,90	1,90	8,00	20	–	0574772000000000
1801715000000000	1 ... 16	G1/2	M20 x 1,5	Adjustable	1,70	2,00	12,00	50	–	0574772000000000
1811505000000000	0,5 ... 6	G1/2	Gland Pg 13,5	Fixed	0,30	0,35	–	20	–	0574772000000000
1811605000000000	0,5 ... 10	G1/2	Gland Pg 13,5	Fixed	0,30	0,40	–	20	–	0574772000000000
1811615000000000	0,5 ... 10	G1/2	M20 x 1,5	Fixed	0,30	0,40	–	20	–	0574772000000000
1811715000000000	1 ... 16	G1/2	M20 x 1,5	Fixed	0,70	0,80	–	50	–	0574772000000000

Accessories



Electro-Mechanical Pressure Switch

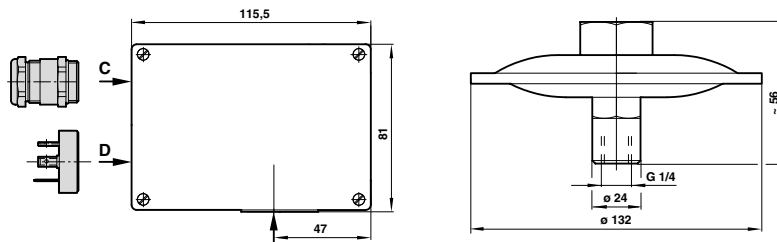
20D Allfluid: 0,5 ... 16 bar – ATEX Allfluid: 0,5 ... 10 bar – Low Pressure: 0 ... 0,25 bar

ATEX Allfluid Model	Pressure range (bar)	Fluid connection	Electrical connection	Switching pressure difference (bar)	Range – Switching pressure difference (bar)			Max. over pressure (bar)	Plug	Bracket – Steel
					Lower	Upper & min.	Upper max.			
										
1841615000000000	0,5 ... 10	G1/2	M20 x 1,5	Fixed	0,70	0,90	–	20	–	0574772000000000
1851615000000000	0,5 ... 10	G1/2	M20 x 1,5	Adjustable	0,70	0,90	8,00	20	–	0574772000000000

Low Pressure Model	Pressure range (bar)	Fluid connection	Electrical connection	Switching pressure difference (bar)	Range – Switching pressure difference (bar)			Max. over pressure (bar)	Plug	Bracket – Steel
					Lower	Upper & min.	Upper max.			
										
1812500000000000	0 ... 0,025	G1/4	DIN EN 175301-803 Form A	Fixed	0,003	0,004	–	0,5	0570110000000000	0574772000000000
1812600000000000	0 ... 0,06	G1/4	DIN EN 175301-803 Form A	Fixed	0,004	0,006	–	0,5	0570110000000000	0574772000000000
1812700000000000	0,004 ... 0,16	G1/4	DIN EN 175301-803 Form A	Fixed	0,004	0,008	–	0,5	0570110000000000	0574772000000000
1812800000000000	0 ... 0,25	G1/4	DIN EN 175301-803 Form A	Fixed	0,004	0,009	–	0,5	0570110000000000	0574772000000000

Note: Other pressure ranges available. Please contact us.

Dimensions



Options

- » Other pressure ranges
- » Other electrical connections



Electronic Pressure Sensor

54D Pneumatic -1 ... 16 bar

- » Compact, robust and light weight with G1/8 port
- » 2 switching outputs or 1 switching output (IO-Link configurable), 1 analogue (4 ... 20mA)
- » Pressure display colour change configurable at switching point (red/green)
- » High overpressure and vacuum resistance
- » Option for set up as a differential pressure sensor
- » Housing: Stainless steel (1.4404 / 316L)

Technical Data

Medium:
Compressed air (filtered/
lubricated/non-lubricated)

Pressure range:
-1 ... 1 bar (-14,5 ... 14,5 psi)
-1 ... 10 bar (-14,5 ... 145 psi)
0 ... 16 bar (0 ... 232 psi)

Pressure type:
Relative, and option for
differential pressure

Display:
Alphanumeric display, 4-digit
(red/green), programmable
pressure units: bar, kPa, psi,
inHg

Total accuracy:
±0,5% of full scale (FS) -
without temperature
sensitivity

**Degree of protection acc.
DIN EN 60529:**
IP65

**Ambient/Media
temperature:**
Ambient:
0 ... +70°C
Media:
0 ... +70°C
Air supply must be dry enough
to avoid ice formation at
temperature below +2°C

Electronic Data

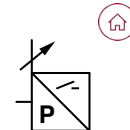
Electrical connection:
M8

Power supply:
UB = 18 ... 32 VDC

Current consumption:
< 50 mA

Switching mode:
PNP
Output signal:
Switching signal; IO-Link
(configurable)

Operating mode:
Hysteresis and window
mode separately selectable
for each output





Electronic Pressure Sensor

54D Pneumatic -1 ... 16 bar

Technical data - Output Signal 2 x PNP

Symbol	Model	Port size	Pressure range		Over pressure*1		Type of Pressure	Output Signal
			(bar)	(psi)	(bar)	(psi)		
	54D-V101G-DD0-AA	G1/8	-1 ... 1	-14,5 ... 14,5	20	290	Relative	2 x PNP
	54D-V110G-DD0-AA	G1/8	-1 ... 10	-14,5 ... 145	20	290	Relative	2 x PNP
	54D-P016G-DD0-AA	G1/8	0 ... 16	0 ... 232	20	290	Relative	2 x PNP

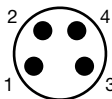
Technical data - Output Signal 1 x PNP (optional to be IO-Link configurable)/ 1 x analogue

Symbol	Model	Port size	Pressure range		Over pressure*1		Type of Pressure	Output Signal
			(bar)	(psi)	(bar)	(psi)		
	54D-V101G-DA1-AA	G1/8	-1 ... 1	-14,5 ... 14,5	20	290	Relative & differential	1 x PNP / 1 x analogue
	54D-V110G-DA1-AA	G1/8	-1 ... 10	-14,5 ... 145	20	290	Relative & differential	1 x PNP / 1 x analogue
	54D-P016G-DA1-AA	G1/8	0 ... 16	0 ... 232	20	290	Relative & differential	1 x PNP / 1 x analogue

*1) Short-term pressure peaks are not allowed to exceed this limit value during operation.
Operative utilization of the over pressure is not permitted. The over pressure corresponds to the maximum testing pressure.

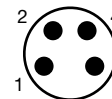
Electrical connection M8 x 1 (2 x PNP)

PIN-No.	Signal	Cable
1	+ UB	brown
2	Out 2 (PNP)	white
3	0 Volt	blue
4	Out 1 (PNP)	black



Electrical connection M8 x 1 (1 x PNP, 1 x analogue)

PIN-No.	Signal	Cable
1	+ UB	brown
2	analogue (4...20 mA)	white
3	0 Volt	blue
4	Out 1 (PNP)/IO-Link	black



Electronic Pressure Sensor

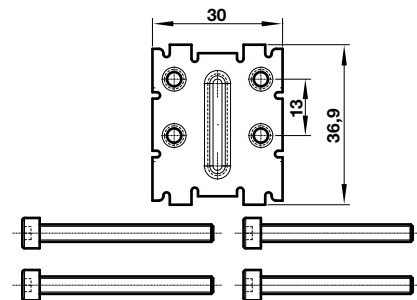
54D Pneumatic -1 ... 16 bar

Accessories

Connector M8 x1	DIN-Railclip
	
0523449000000000 (1,5 m Cable,4-pin)	0523446000000000 (1,5 m Cable,4-pin, 90° angled)
0523447000000000 (5 m Cable,4-pin)	0523448000000000 (5 m Cable,4-pin, 90° angled)
	54D-DINRAIL-CLIP

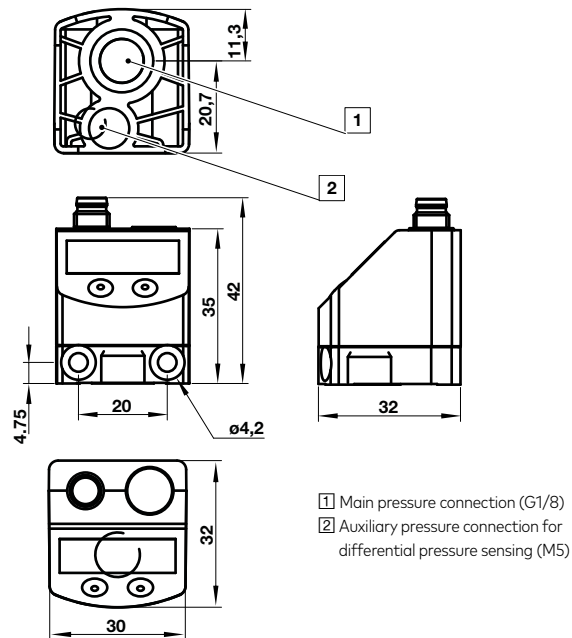
Dimensions accessories

54D-DINRAIL-CLIP



- 1 Mounting screws (Stainless steel, 1.4310/301)
2x M4 x 35
2x M4 x 40

Dimensions pressure switch





Electronic Pressure Sensor

34D Pneumatic/Hydraulic/Allfluid -1 ... 600 bar

- » Port size G1/4 or flange mounting with adapter
- » Two output options; 2 x digital outputs or 1 x digital and 1 x Analogue (both options IO-Link configurable)
- » Multicolour 4-digit display with configurable colour change (red/green) at set point
- » Upper body can be rotated 345° relative to the process connection for easy alignment of the display
- » Suitable for harsh industrial and process control environments
- » Housing: Stainless steel (1.4404 / 316L)

Technical Data

Medium:

For neutral and aggressive, gaseous and liquid fluids

Pressure range:

-1 ... 1 bar (-14,5 ... 14,5 psi)
 -1 ... 10 bar (-14,5 ... 145 psi)
 0 ... 16 bar (0 ... 232 psi)
 0 ... 40 bar (0 ... 580 psi)
 0 ... 100 bar (0 ... 1450 psi)
 0 ... 160 bar (0 ... 2320 psi)
 0 ... 250 bar (0 ... 3626 psi)
 0 ... 400 bar (0 ... 5801 psi)
 0 ... 600 bar (0 ... 8702 psi)

Pressure type:

Relative pressure

Display:

Alphanumeric display, 4-digit (red/green), programmable pressure units: bar, PSI, Mpa

Total accuracy:

±0,5% of full scale (FS) - without temperature sensitivity

Degree of protection acc.

DIN EN 60529:

IP67 (with plug mounted)

Ambient/Media

temperature:

Ambient:

-25 ... +80°C

Media:

-25 ... +80°C

Air supply must be dry enough to avoid ice formation at temperature below +2°C

Electronic Data

Electrical connection:

M12 x 1 (contacts gold plated)

Power supply:

UB = 18 ... 30 VDC

Current consumption:

< 35 mA

Switching mode:

PNP/NPN

Output signal:

Switching signal; IO-Link (configurable)

Operating mode:

Hysteresis and window mode separately selectable for each output





Electronic Pressure Sensor

34D Pneumatic/Hydraulic/Airfluid -1 ... 600 bar

Technical data - Output Signal 2 x PNP (1 x IO-Link, configurable)

Symbol	Model	Port size	Pressure range		Over pressure*1		Output Signal
			(bar)	(psi)	(bar)	(psi)	
	34D-V101G-DD1-AA	G1/4	-1 ... 1	-14.5 ... 14.5	10	145	2 x PNP
	34D-V110G-DD1-AA	G1/4	-1 ... 10	-14.5 ... 145	75	1090	2 x PNP
	34D-P016G-DD1-AA	G1/4	0 ... 16	0 ... 232	85	1225	2 x PNP
	34D-P040G-DD1-AA	G1/4	0 ... 40	0 ... 580	200	2900	2 x PNP
	34D-P100G-DD1-AA	G1/4	0 ... 100	0 ... 1450	300	4350	2 x PNP
	34D-P160G-DD1-AA	G1/4	0 ... 160	0 ... 2320	350	5075	2 x PNP
	34D-P250G-DD1-AA	G1/4	0 ... 250	0 ... 3625	500	7250	2 x PNP
	34D-P400G-DD1-AA	G1/4	0 ... 400	0 ... 5800	800	11580	2 x PNP
	34D-P600G-DD1-AA	G1/4	0 ... 600	0 ... 8700	800	11580	2 x PNP

Technical data - Output Signal 1 x PNP (optional to be IO-Link configurable)/ 1 x analogue

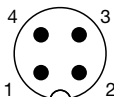
Symbol	Model	Port size	Pressure range		Over pressure*1		Output Signal
			(bar)	(psi)	(bar)	(psi)	
	34D-V101G-DA1-AA	G1/4	-1 ... 1	-14.5 ... 14.5	10	145	1 x PNP / 1 x analogue
	34D-V110G-DA1-AA	G1/4	-1 ... 10	-14.5 ... 145	75	1090	1 x PNP / 1 x analogue
	34D-P016G-DA1-AA	G1/4	0 ... 16	0 ... 232	85	1225	1 x PNP / 1 x analogue
	34D-P040G-DA1-AA	G1/4	0 ... 40	0 ... 580	200	2900	1 x PNP / 1 x analogue
	34D-P100G-DA1-AA	G1/4	0 ... 100	0 ... 1450	300	4350	1 x PNP / 1 x analogue
	34D-P160G-DA1-AA	G1/4	0 ... 160	0 ... 2320	350	5075	1 x PNP / 1 x analogue
	34D-P250G-DA1-AA	G1/4	0 ... 250	0 ... 3625	500	7250	1 x PNP / 1 x analogue
	34D-P400G-DA1-AA	G1/4	0 ... 400	0 ... 5800	800	11580	1 x PNP / 1 x analogue
	34D-P600G-DA1-AA	G1/4	0 ... 600	0 ... 8700	800	11580	1 x PNP / 1 x analogue

*1) Short-term pressure peaks are not allowed to exceed this limit value during operation.

Operative utilization of the over pressure is not permitted. The over pressure corresponds to the maximum testing pressure.

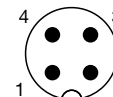
Electrical connection M12 x 1 (2 x PNP)

PIN-No.	Signal	Cable
1	+ UB	brown
2	Out 2 (PNP)	white
3	0 Volt	blue
4	Out 1 (PNP)/ IO-Link	black



Electrical connection M12 x 1 (1 x PNP, 1 x analogue)

PIN-No.	Signal	Cable
1	+ UB	brown
2	analogue (4...20 mA)	white
3	0 Volt	blue
4	Out 1 (PNP)/IO-Link	black





Electronic Pressure Sensor

34D Pneumatic/Hydraulic/Allfluid -1 ... 600 bar

Mounting accessories

Flange adapter	Wall mounting kit	Mounting clamp	Label Tag Holder
			
34D-FLANGE-ADPT	34D-BRKT-ANGLED	34D-BRKT-BODY	34D-LABEL-TAG

Accessories

Connector M12 x 1
4-pin, 90°



0523058000000000 (2 m cable, 4-pin)

0523053000000000 (5 m cable, 4-pin)

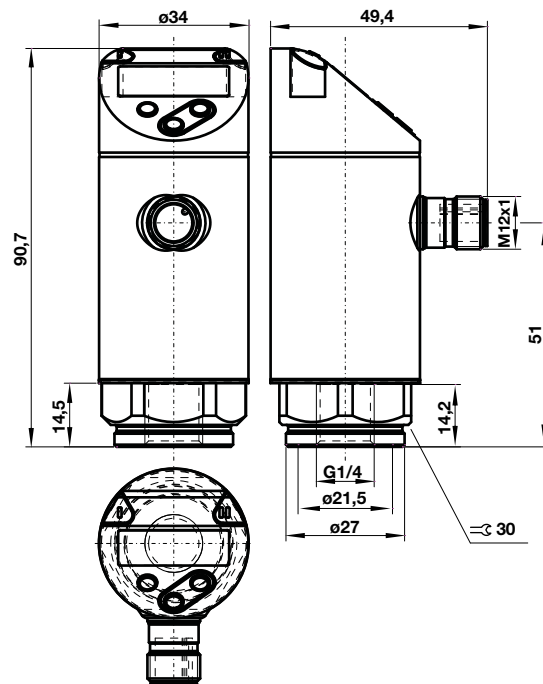
Connector M12 x 1
4-pin, straight



0523057000000000 (2 m cable, 4-pin)

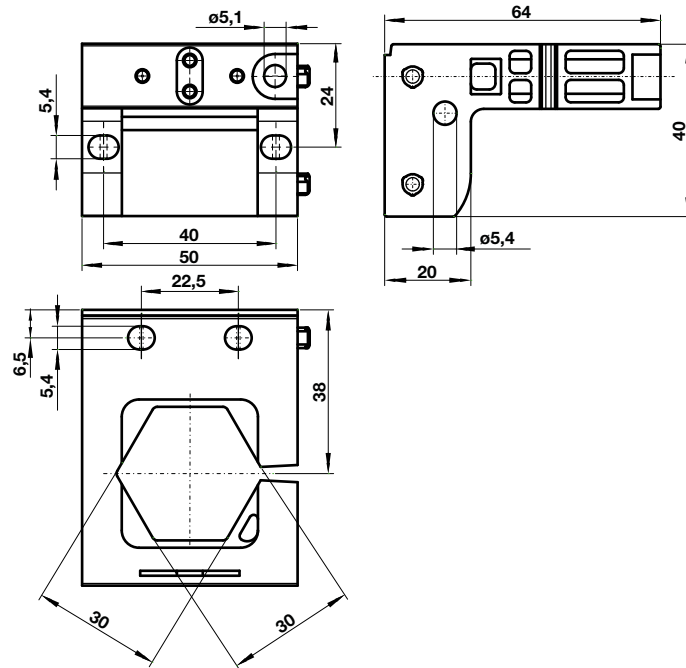
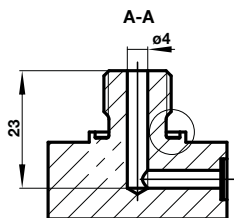
0523052000000000 (5 m cable, 4-pin)

Dimensions pressure switch



34D Pneumatic/Hydraulic/Allfluid -1 ... 600 bar

Flange adapter
34D-FLANGE-ADPT



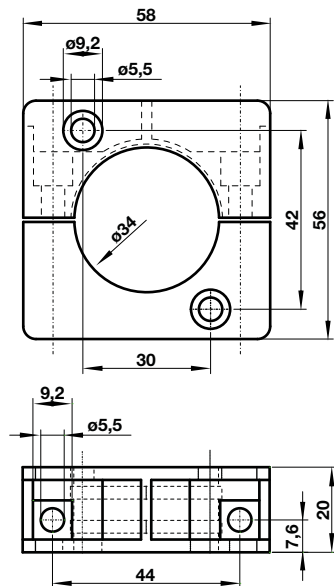


Electronic Pressure Sensor

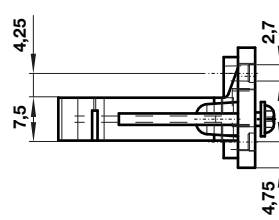
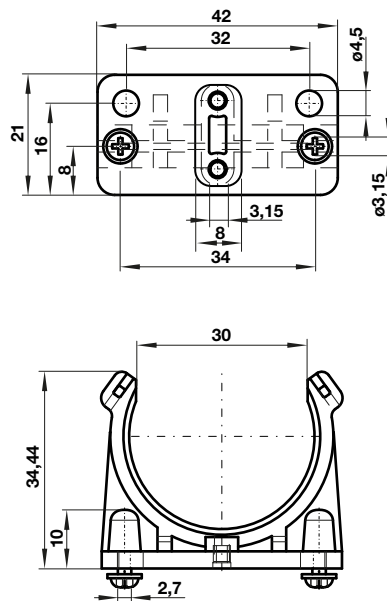
34D Pneumatic/Hydraulic/Airfluid -1 ... 600 bar

Dimensions accessories

Mounting clamp 34D-BRKT-BODY



Label tag holder 34D-LABEL-TAG



Electronic Pressure Sensor

Q84G 0 ... 10 bar

- » 1.44" full colour graphic display.
Excellent Visual Management.
- » Parameter Adjustment via front screen Buttons or Accessed Via IO-Link
- » Configurable switching output
- » Install as a standard digital pressure switch or a pressure sensor with IO-Link
- » Body: Die cast aluminium

Technical Data

Medium:
Compressed air only

Pressure measurement range:
0 ... 10 bar
(0 ... 145 psi, 0 ... 1.0 MPa)

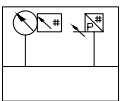
Port size:
G3/8, G1/2, G3/4

Ambient/Media temperature:
-20 ... +65°C
Air supply must be dry enough to avoid ice formation at temperature below +2°C

Display:
1.44" full colour TFT LCD
Text / background colours:
white/green: pressure in range
white/red: pressure out of range
white/amber: error
black white: setting mode

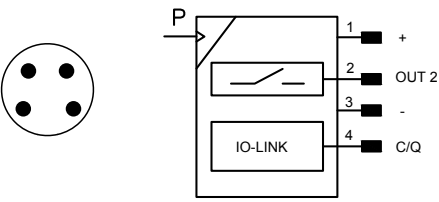
Display fields:
User configurable identifier,
pressure value, pressure units, user configurable message, menu

IO-Link function:
Pressure information
Pressure out of range warnings
Temperature diagnostic
Supply voltage diagnostic
Operating time diagnostic



Electrical connection M8 x 1

PIN-No.	Signal	Cable
1	L+ (24V)	brown
2	Out 2 (switching)	white
3	L- (0V)	blue
4	C/Q (IO-Link)	black



Electrical connection:
M8 x 1

Power supply:
18 ... 30 V d.c.

Current consumption:
20 mA





Electronic Pressure Sensor

Q84G 0 ... 10 bar

Technical data

Symbol	Model	Port size	Pressure range (bar)	Weight (kg)
	Q84G-3GN-NNE	G3/8	0 ... 10	0,36
	Q84G-4GN-NNE	G1/2	0 ... 10	0,36
	Q84G-6GN-NNE	G3/4	0 ... 10	0,36

Accessories

Wall mounting bracket	Quikclamp	Quikclamp with bracket assembled	Hybrid Quikclamp *1	Hybrid Quikclamp with bracket assembled *1
840024-50KIT	840014-51KIT	840014-52KIT	840014-61	840014-62

*1) To connect new Excelon Plus to old Excelon 74/73 units. Having the same hole centres as 74 series mounting bracket.
A Quikclamp adds 13.6 mm to the overall width of a combination unit.

Connection cable M8x1 for intergated digital pressure switch

Model	Description	Cable length (m)
NC-084FS-124MS-A	M8 female to M12 male	0,6
NC-084FS-124MS-1		1,0
NC-084FS-124MS-2		2,0
NC-084FS-124MS-5		5,0
NC-084FS-00000-5	M8 female to free end	5,0

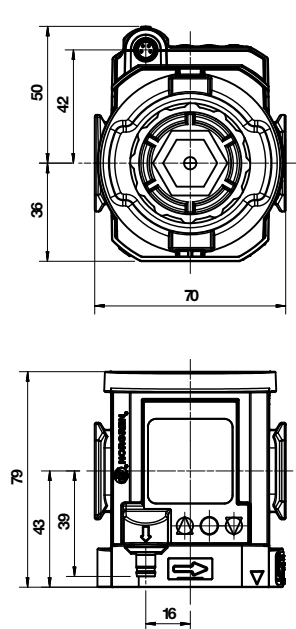


Electronic Pressure Sensor

Q84G 0 ... 10 bar

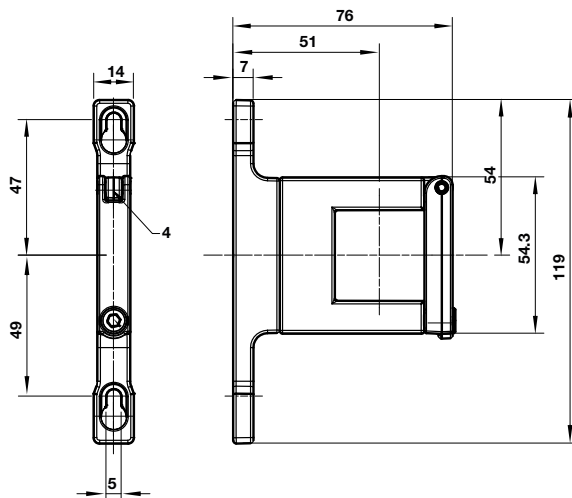
Dimensions

Q84G

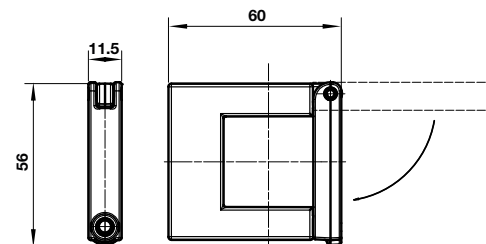


Accessories

Quikclamp with wall bracket



Quikclamp



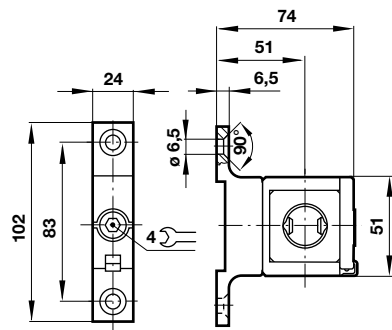


Electronic Pressure Sensor

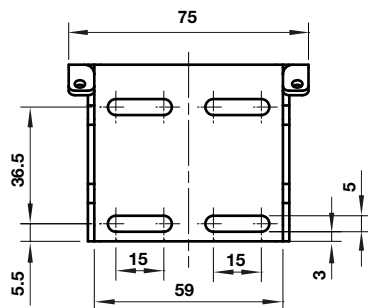
Q84G 0 ... 10 bar

Accessories

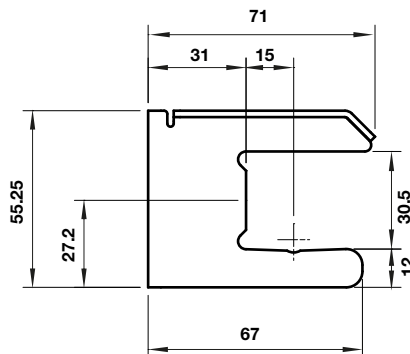
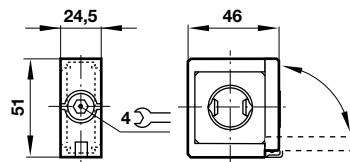
Hybrid-Quikclamp with wall bracket



Mounting bracket



Hybrid-Quikclamp



Electronic Pressure Switch

51D Pneumatic -1 ... 10 bar

- » System pressure (unit bar, psi, Mpa, KPa, kgf/cm², mmHg, InHg or mmH₂O) selectable
- » High accuracy and resolution
- » Switching status indicated by LED

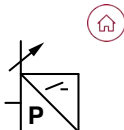
Technical Data

Medium:
For filtered, lubricated or non lubricated compressed air, neutral and incombustible gases

Ambient temperature:
0°C ... +50°C
Air supply must be dry enough to avoid ice formation at temperature below +2°C

Display:
3 1/2 digit LED

Repeatability (switch output):
≤ ±0,2% of full scale (FS) ±1 digit - without temperature sensitivity



Models

Model	Port size	Switching pressure range (bar)	Over pressure (bar)	Output signal
				
0860810000000000	G1/8	-1 ... 10	15	2 x PNP
0860815000000000	G1/8	-1 ... 10	15	2 x NPN
0860820000000000	G1/8	-1 ... 1	3	2 x PNP
0860825000000000	G1/8	-1 ... 1	3	2 x NPN

Accessories

Mounting bracket (wall mounting)	Mounting bracket (bottom mounting)	Panel mounting kit (safety adaptor & panel adaptor)
		
0860000000000000	0860001000000000	0860002000000000 & 0860003000000000
0860000000000000	0860001000000000	0860002000000000 & 0860003000000000
0860000000000000	0860001000000000	0860002000000000 & 0860003000000000
0860000000000000	0860001000000000	0860002000000000 & 0860003000000000

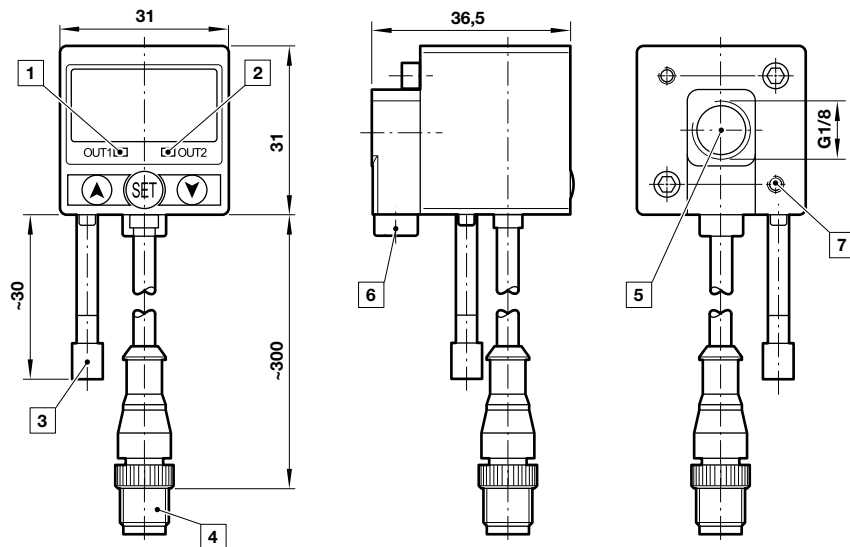




Electronic Pressure Switch

51D Pneumatic -1 ... 10 bar

Dimensions



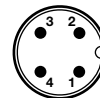
- 1 Switch OUT 1, green LED
- 2 Switch OUT 2, red LED
- 3 Dustproof protector
- 4 Connector M12 x 1
- 5 Inlet port
- 6 Alternative inlet port G1/8 plugged
- 7 Thread for mounting screw

Electrical parameters

Electrical connection:	M12 x 1
Power supply:	12 ... 24 V d.c.
	24 V d.c. (PNP) maximum
	30 V d.c. (NPN) maximum

Electrical connection M12 x 1

PIN-No.	Signal	Cable colour
1	+UB	Brown
2	Out 2	White
3	-	Blue
4	Out 1	Black



Electronic Pressure Switch with IO-Link

60D Pneumatic/Allfluid/Hydraulic -1 ... 400 bar

- » Port size G1/4
- » IO-Link output option
- » Set points parameters set via software
- » Additional application temperature output via IO-Link
- » Robust pressure sensor for pneumatic, allfluid & hydraulic applications
- » Wide temperature range
- » Excellent long life
- » Suitable for harsh industrial environments
- » High over pressure resistance
- » UL listed

Technical Data

Medium:
For neutral and aggressive, gaseous and liquid fluids

Pressure range:
-1 ... 10 bar (-14.5 ... 145 psi)
-1 ... 25 bar (-14.5 ... 360 psi)
0 ... 100 bar (0 ... 1450 psi)
0 ... 250 bar (0 ... 3625 psi)
0 ... 400 bar (0 ... 5800 psi)

Pressure type:
Relative pressure, Vacuum

Mounting position:
Optional

Process connection:
G1/4 external, M5 internal

Vibration resistance:
20 g, 10 ... 2000 Hz,
DIN EN 60068-2-6

Ambient/Media temperature:

Ambient:
-40 ... +90°C

Medium:
-40 ... +90°C

Air supply must be dry enough to avoid ice formation at temperature below +2°C

Protection:
IP67, IP69K, DIN EN 60529

Tightening torque:
25 ... 35 Nm (depends on lubrication, seal and pressure rating)

Electronic Data

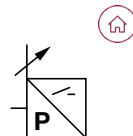
Electrical connection:
M12 x 1 (contacts gold plated)

Power supply:
UB = 18 ... 30 VDC
Reverse-polarity protected

Current consumption:
< 15 mA

Output signal:
2 x Switching signal PNP/
NPN or 1 x Switching signal
+ IO-Link

Communication interface:
IO-Link





Electronic Pressure Switch with IO-Link

60D Pneumatic/Allfluid/Hydraulic -1 ... 400 bar

Technical data

Symbol	Connection	Measuring range		Over pressure*1		Output signal	Model
		(bar)	(psi)	(bar)	(psi)		
	G1/4	-1 ... 10	-14,5 ... 145	25	360	2 x Switched outputs: OUT1 pressure, OUT2 pressure or temp. 1 x IO-Link digital comm. (OUT1), 1 x switched output (OUT2), pressure or temp.	60D-V110G-DD1-AA
	G1/4	-1 ... 25	-14,5 ... 360	65	940	2 x Switched outputs: OUT1 pressure, OUT2 pressure or temp. 1 x IO-Link digital comm. (OUT1), 1 x switched output (OUT2), pressure or temp.	60D-V125G-DD1-AA
	G1/4	0 ... 100	0 ... 1450	250	3625	2 x Switched outputs: OUT1 pressure, OUT2 pressure or temp. 1 x IO-Link digital comm. (OUT1), 1 x switched output (OUT2), pressure or temp.	60D-P100G-DD1-AA
	G1/4	0 ... 250	0 ... 3625	625	9060	2 x Switched outputs: OUT1 pressure, OUT2 pressure or temp. 1 x IO-Link digital comm. (OUT1), 1 x switched output (OUT2), pressure or temp.	60D-P250G-DD1-AA
	G1/4	0 ... 400	0 ... 5800	1000	14500	2 x Switched outputs: OUT1 pressure, OUT2 pressure or temp. 1 x IO-Link digital comm. (OUT1), 1 x switched output (OUT2), pressure or temp.	60D-P400G-DD1-AA

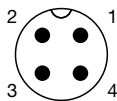
*1) Over pressure, short-term pressure peaks are not allowed to exceed this limit value during operation.

Operative utilization of the over pressure is not permitted. The over pressure corresponds to the maximum testing pressure.

Electrical connection M12 x 1 (A-coding)

PIN-No.	Signal	Cable
1	L+	brown
2	OUT 2 switching output pressure / temperature	white
3	L-	blue
4	OUT 1 switching output pressure / IO-Link	black

Cable colours according to: DIN EN 60947-5-2.

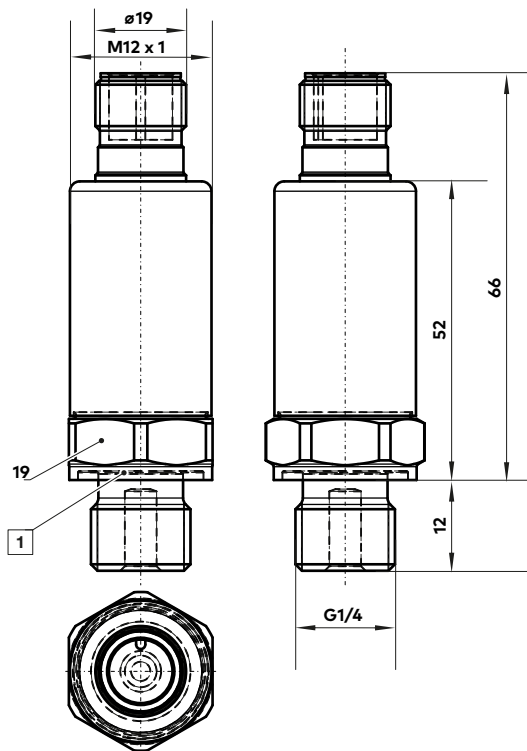




Electronic Pressure Switch with IO-Link

60D Pneumatic/Allfluid/Hydraulic -1 ... 400 bar

Dimensions



1 Seal





Electronic Pressure Sensor

60S Pneumatic/Allfluid/Hydraulic -1 ... 400 bar

- » Port size G1/4
- » Robust pressure sensor for pneumatic, allfluid & hydraulic applications
- » Wide temperature range
- » Excellent long life
- » Suitable for harsh industrial environments
- » High over pressure resistance
- » UL listed

Technical Data

Medium:

For neutral and aggressive, gaseous and liquid fluids

Pressure range:

-1 ... 10 bar (-14.5 ... 145 psi)
 0 ... 6 bar (0 ... 87 psi)
 0 ... 10 bar (0 ... 145 psi)
 0 ... 16 bar (0 ... 230 psi)
 0 ... 25 bar (0 ... 360 psi)
 0 ... 100 bar (0 ... 1450 psi)
 0 ... 250 bar (0 ... 3625 psi)
 0 ... 400 bar (0 ... 5800 psi)

Pressure type:

Relative pressure, Vacuum

Mounting position:

Optional

Process connection:

G1/4 external

Vibration resistance:

20 g, 10 ... 2000 Hz,
 DIN EN 60068-2-6

Ambient/Media temperature:

Ambient:
 -40 ... +90°C

Medium:
 -40 ... +90°C

Air supply must be dry enough
 to avoid ice formation at
 temperature below +2°C

Protection:

IP67, IP69K, DIN EN 60529

Tightening torque:

25 ... 35 Nm (depends on
 lubrication, seal and pressure
 rating)

Electronic Data

Electrical connection:

M12 x 1 (contacts gold plated)

Power supply:

UB = 8,5 ... 36 VDC
 Reverse-polarity protected,
 (acc. EN 50178 SELV/PELV)

Analogue output current:

4 ... 20 mA

Output signal:

1 x Analogue signal





Electronic Pressure Sensor

60S Pneumatic/Allfluid/Hydraulic -1 ... 400 bar

Technical data – Analogue output signal 4 ... 20 mA

Symbol	Connection	Measuring range		Over pressure*1		Output signal	Model
		(bar)	(psi)	(bar)	(psi)		
	G1/4	-1 ... 10	-14,5 ... 145	25	360	4 ... 20 mA	60S-V110G-A42-AA
	G1/4	0 ... 6	0 ... 87	15	215	4 ... 20 mA	60S-P006G-A42-AA
	G1/4	0 ... 10	0 ... 145	25	360	4 ... 20 mA	60S-P010G-A42-AA
	G1/4	0 ... 16	0 ... 230	40	580	4 ... 20 mA	60S-P016G-A42-AA
	G1/4	0 ... 25	0 ... 360	65	940	4 ... 20 mA	60S-P025G-A42-AA
	G1/4	0 ... 100	0 ... 1450	250	3625	4 ... 20 mA	60S-P100G-A42-AA
	G1/4	0 ... 250	0 ... 3625	625	9060	4 ... 20 mA	60S-P250G-A42-AA
	G1/4	0 ... 400	0 ... 5800	1000	14500	4 ... 20 mA	60S-P400G-A42-AA

*1) Over pressure, short-term pressure peaks are not allowed to exceed this limit value during operation.
Operative utilization of the over pressure is not permitted. The over pressure corresponds to the maximum testing pressure.

Electrical connection M12 x 1 (A-coding)

PIN-No.	Signal	Cable
1	+UB	brown
2	Analogue (4 ... 20 mA)	white



Cable colours according to: DIN EN 60947-5-2.

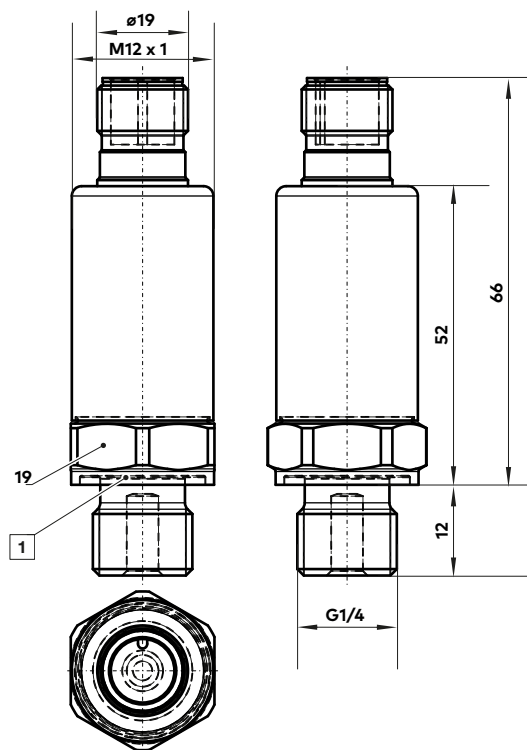




Electronic Pressure Sensor

60S Pneumatic/Allfluid/Hydraulic -1 ... 400 bar

Dimensions



1 Seal



Experts in Customised Control Solutions

From design concept to commissioning support, you can benefit from norgren's expertise in customised electro – pneumatic automation control systems, presenting you with a range of significant benefits.

- » Facilitated procurement process
- » Enhanced quality
- » Increased process safety
- » Reduced inventory holding costs
- » Rapid reaction times
- » Plug-and-play installation on site
- » Efficient handling



[→ Find out more
norgren.com](https://norgren.com)



[Vacuum]

7

Single stage and multi stage vacuum pumps, a wide range of suction cups, plus switches, gauges and silencers. Use the fast find guide to get the part you need to get the job done. For rapid advice or order support, call us today.





Fast Find Guide

Please note: These products represent only part of the Norgren vacuum range. If you can't see the option you require please contact us.

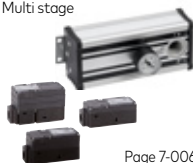
Vacuum Pumps

M/58112
Single stage



Page 7-004

M/58102
Multi stage



Page 7-006

Vacuum Cups & Bellows

M/58300, M/58400
Ø6 ... 150 mm



Page 7-009

**Flexible Connectors
for Vacuum Cups**



Page 7-013

**Level Compensators
for Vacuum Cups**



Page 7-013





Fast Find Guide

Please note: These products represent only part of the Norgren vacuum range. If you can't see the option you require please contact us.

Vacuum Switches

18D Electro-Mechanical
-1 ... 1 bar



Page 7-015

51D Electronic
-1 ... 1 bar



Page 7-016

Accessories

**Flexible Connectors
for Vacuum Cups**



Page 7-013

**Level Compensators
for Vacuum Cups**



Page 7-013

Vacuum Gauges



Page 7-014

Silencers



Page 7-014





Single Stage Vacuum Pumps

M/58112

- » Very high induced air capacity
- » 14% lower air consumption than comparable single stage units
- » No wearing parts
- » Allows direct connection of suction cups and piped exhaust facility

Technical Data

Medium:
Compressed air, filtered
and non-lubricated

Operating pressure:
5 bar optimum
8 bar maximum

Ambient temperature:
-20°C ... +150°C
Air supply must be dry enough
to avoid ice formation at
temperatures below +2°C

Vacuum:
-0,85 bar maximum
(M/58112/09)
-0,90 bar maximum
(M/58112/11)



Induced air (NI/min), free air

Model	0 bar	-0,1 bar	-0,2 bar	-0,3 bar	-0,4 bar	-0,5 bar	-0,6 bar	-0,7 bar	-0,8 bar
M/58112/09	28	24	18	14	11	8	5,5	3	1
M/58112/11	55	47	36	28	23	17	12	6	2,5

Time (sec) for evacuation of 1 litre volume to vacuum

Model	-0,1 bar	-0,2 bar	-0,3 bar	-0,4 bar	-0,5 bar	-0,6 bar	-0,7 bar	-0,8 bar	-0,85 bar	-0,9 bar
M/58112/09	0,27	0,56	0,89	1,44	2,00	2,88	4,31	7,97	14,36	–
M/58112/11	0,15	0,31	0,49	0,72	1,00	1,41	2,08	3,71	5,60	8,11

Note: Values given in the tables are theoretical and apply to an operating pressure of 5 bar.

Recommended tube dimensions (internal diameter)

Model	Compressed air	Vacuum	Exhaust
M/58112/09	> Ø3	> Ø5	> Ø6
M/58112/11	> Ø3	> Ø7	> Ø9



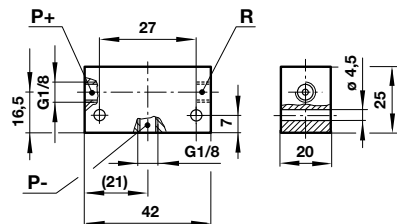


Single Stage Vacuum Pumps

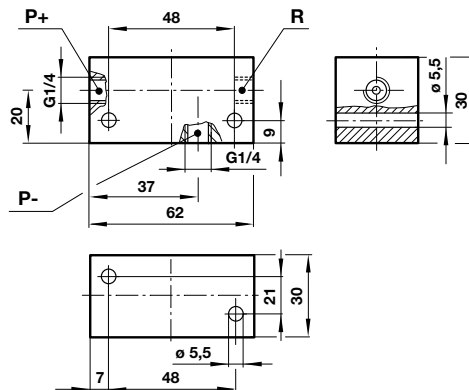
M/58112

Dimensions

M/58112/09



M/58112/11



Multi Stage Vacuum Pumps

M/58102



- » Fast response
- » Compact, lightweight
- » Low sound level
- » Compressed air driven
- » Simple installation
- » Standard and non-return valve types

Technical Data

Medium:
Compressed air, filtered
and non-lubricated

Operating pressure:
6 bar maximum

Ambient temperature:
M/58102/10 ... M/58102/30:
-20°C ... +80°C
M/58102/60 ... M/58102/120:
-20°C ... +60°C

Air supply must be dry enough
to avoid ice formation at
temperatures below +2°C

Vacuum:
-0,87 bar maximum



Models

Model	Silencer*	Induced air (NI/min)**	Air consumption (NI/min)**	kg
M/58102/10	Ported	80	49	0,080
M/58102/20	Ported	160	98	0,095
M/58102/30	Ported	240	144	0,110
M/58102/60	Integral	480	285	0,855
M/58102/90	Integral	708	471	1,105
M/58102/120	Integral	910	528	1,150

* For models with ported silencer, use silencer number M/58019.

** Values given are theoretical and apply to an operating pressure of 6 bar.





Multi Stage Vacuum Pumps

M/58102

Vacuum flow performance

Induced air (nl/min), free air									
Model	0 bar	-0,1 bar	-0,2 bar	-0,3 bar	-0,4 bar	-0,5 bar	-0,6 bar	-0,7 bar	-0,8 bar
M/58102/10	80	55	32	28	25	18	13	5	1,5
M/58102/20	160	110	64	56	50	36	26	10	3
M/58102/30	240	165	96	84	75	54	39	15	4,5
M/58102/60	480	270	182	168	150	108	78	30	9
M/58102/90	708	427	273	252	225	162	117	45	13,5
M/58102/120	910	568	355	336	300	216	156	60	18

Time (sec) for evaluation of 1 litre volume to vacuum

Model	-0,1 bar	-0,2 bar	-0,3 bar	-0,4 bar	-0,5 bar	-0,6 bar	-0,7 bar	-0,8 bar	-0,85 bar
M/58102/10	0,070	0,200	0,450	0,750	1,150	1,730	2,610	4,130	5,820
M/58102/20	0,035	0,100	0,230	0,370	0,570	0,860	1,320	2,070	2,920
M/58102/30	0,023	0,070	0,150	0,250	0,380	0,580	0,870	1,380	1,940
M/58102/60	0,012	0,034	0,080	0,120	0,190	0,290	0,440	0,690	0,970
M/58102/90	0,007	0,023	0,050	0,080	0,130	0,190	0,290	0,460	0,650
M/58102/120	0,006	0,017	0,040	0,060	0,100	0,150	0,220	0,350	0,490

Note: Values given in the tables are theoretical and apply to an operating pressure of 6 bar.

Recommended tube size (internal diameter)

Model	Compressed air	Vacuum	Exhaust
M/58102/10	> Ø3	> Ø7	> Ø9
M/58102/20	> Ø3	> Ø7	> Ø9
M/58102/30	> Ø4	> Ø9	> Ø9
M/58102/60	> Ø4	> Ø19	–
M/58102/90	> Ø5	> Ø19	–
M/58102/120	> Ø5	> Ø22	–

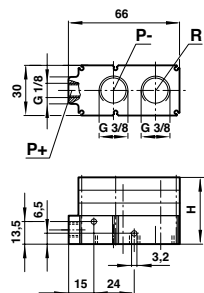


Multi Stage Vacuum Pumps

M/58102

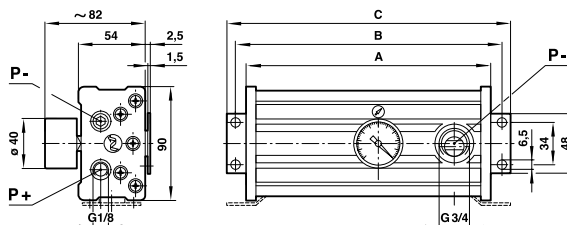
Dimensions

M/58102/10; .../20; .../30



Model	H
M/58102/10	24,5
M/58102/20	32
M/58102/30	39,5

M/58102/60; .../90; .../120



Model	A	B	C
M/58102/60	136	154	168
M/58102/90	196	214	228
M/58102/120	196	214	228

Vacuum gauge supplied with these units.





VACUUM CUPS & BELLOWS

M/58300, M/58400 Ø6 ... 150 mm

- » Flat cups ideal where minimal movement is required for pliable materials
- » Bellows cups ideal where level compensation is required

Technical Data

Medium:
Vacuum

Ambient temperature:

-10°C ... +70°C for NBR
-30°C ... +200°C
for VMQ cups

Air supply must be dry enough
to avoid ice formation at
temperatures below +2°C

Materials

M/58*01:**

Cups: NBR
Connection fittings:
aluminium



Material characteristics

	NBR
Wear resistance	Good
Oil resistance	Excellent
Weather resistance	Good
Ozone resistance	Fair



VACUUM CUPS & BELLOWS

M/58300, M/58400 Ø6 ... 150 mm

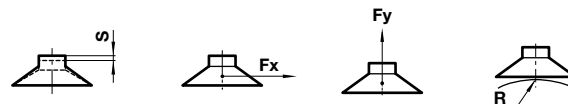
Models

$$F_x = \mu \times F_y$$

Where μ is the frictional coefficient of the material being handled.

An approximate guide:

Plastic: $\mu = 0,4 \dots 0,5$ Steel, oiled: $\mu = 0,1 \dots 0,3$ Glass: $\mu = 0,3 \dots 0,5$



Flat Cups Model NBR	Dia. Ø (mm)	Fy -0,2 bar (N)	Fy -0,6 bar (N)	Fy -0,9 bar (N)	Minimum radius of work surface 'R' (mm)	Maximum movement 'S' (mm)	Volume cm³
M/58301/01	6	0,5	1,5	2,3	5	1,5	0,017
M/58302/01	8	1	2,5	3,5	7	1,5	0,041
M/58303/01	10	1,5	4	6	9	2	0,065
M/58304/01	15	2,7	8	12	12	4	0,330
M/58305/01	20	5	15,5	23	13	2	0,500
M/58306/01	25	9	26,5	40	17,5	2,5	0,750
M/58307/01	30	11	34	51	26	2,5	1,3
M/58308/01	40	19	57,5	86	37	3,5	3
M/58309/01	50	30	91	135	41	4	4,2
M/58310/01	80	86	260	390	100	6	21
M/58311/01	120	180	540	810	365	6	82
M/58312/01	150	280	842	1250	380	9	177

Bellow Cups Model NBR	Dia. Ø (mm)	Fy -0,2 bar (N)	Fy -0,6 bar (N)	Fy -0,9 bar (N)	Minimum radius of work surface 'R' (mm)	Maximum movement 'S' (mm)	Volume cm³
M/58403/01	10	1,5	3,5	5	3	4	0,225
M/58404/01	15	3	6	8	5	6	0,75
M/58405/01	20	6	10	14	8	5	1,4
M/58407/01	30	12	22	28	15	12	4,75
M/58408/01	40	22	40	50	30	10	9,25
M/58409/01	50	34	66	84	40	15	26,25
M/58410/01	75	75	170	230	70	14	76
M/58411/01	110	140	350	460	85	36	111

Note: Theoretical values are given in this table. Always allow a safety factor of >2.





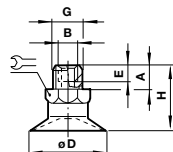
VACUUM CUPS & BELLOWS

M/58300, M/58400 Ø6 ... 150 mm

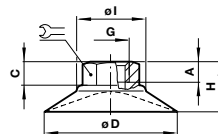
Dimensions

Flat cups

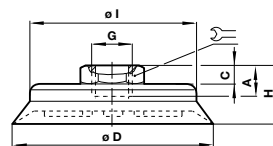
Ø6 ... 30



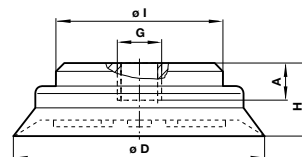
Ø40 & 50



Ø80



Ø120 & 150



Model	ØD	A	C	G	H	ØI	
M/58301/01	6	4,5	–	M 5	15	–	8
M/58302/01	8	4,5	–	M 5	16	–	8
M/58303/01	10	4,5	–	M 5	20	–	8
M/58304/01	15	4,5	–	M 5	21	–	8
M/58305/01	20	8	–	G1/8 A	19,5	–	14
M/58306/01	25	8	–	G1/8 A	20	–	14
M/58307/01	30	8	–	G1/8 A	20,5	–	14
M/58308/01	40	6	9	G1/8	23	24	14
M/58309/01	50	6	11	G1/8	26	26	14
M/58310/01	80	13	3,5	G1/8	21,5	53	19
M/58311/01	120	9,5	–	G1/2	34,5	65	–
M/58312/01	150	9,5	–	G1/2	41,5	65	–





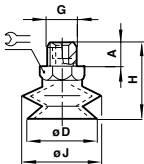
VACUUM CUPS & BELLOWS

M/58300, M/58400 Ø6 ... 150 mm

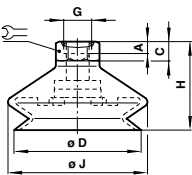
Dimensions

Bellows cups

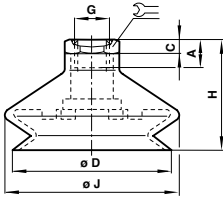
Ø10 ... 30



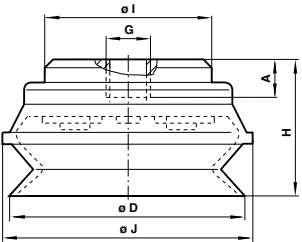
Ø40 & 50



Ø75



Ø110 & 150



Model	Ø	A	C	ØD	G	H	ØI	ØJ	
M/58403/01	10	5	–	11	M 5	26	–	12	7
M/58404/01	15	5	–	16	M 5	29	–	17	7
M/58405/01	20	7,5	–	22	G1/8 A	30,5	–	24	14
M/58407/01	30	7,5	–	33	G1/8 A	39	–	36	17
M/58408/01	40	6	9	43	G1/8	37	–	46	17
M/58409/01	50	6	9	53	G1/8	43	–	59	17
M/58410/01	75	12	4	78	G1/8	50	–	83	21
M/58411/01	110	9,5	–	110	G1/2	66,5	65	122	–
M/58412/01	150	9,5	–	150	G1/2	85,5	65	167	–





Accessories

Flexible Connectors for Vacuum Cups

- » For use where a vertical offset motion is involved on curved surfaces
- » Simple to install

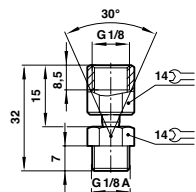


Models

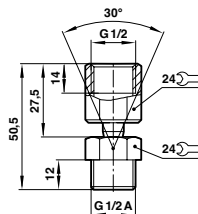
Model	Type	Size
M/58001	Flexible connector	G1/8
M/58002	Flexible connector	G1/2

Dimensions

M/P58001



M/P58002



Level Compensators for Vacuum Cups

- » Allows for variations in product positioning
- » For use with uneven product forms

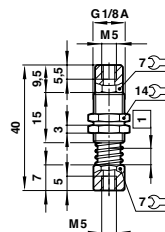


Models

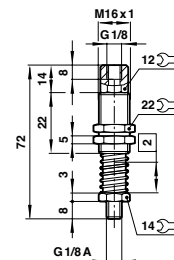
Model	Type	Size
M/58007	Level compensator	M5
M/58008	Level compensator	G1/8
M/58009	Level compensator	G1/2

Dimensions

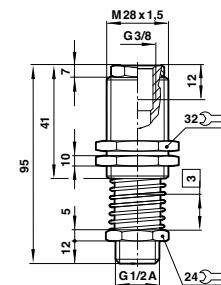
M/58007



M/58008



M/58009



Accessories

Vacuum Gauges

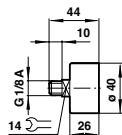


- » 0 ... -1 bar calibration
- » Accurate vacuum level indication

Models

Model	Range
M/58080	0 ... -1 bar

Dimensions



Silencers

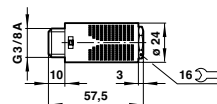


- » Compact
- » Optimum air silencing characteristics

Models

Model	Range
M/58080	0 ... -1 bar

Dimensions





Electro-Mechanical Vacuum Switch

18D Pneumatic -1 ... 1 bar

- » Gold-plated contacts
- » High cycle life
- » Vibration resistant to 15 g
- » Microswitch approved by UL and CSA
- » Intrinsically safe operation

Technical Data

Medium:
For filtered, lubricated or non lubricated compressed air and neutral gases

Operation:
Diaphragm

Operating pressure:
-1 ... 1 bar

Over pressure:
80 bar max.

Ambient temperature:
-10°C ... +80°C
except for ATEX versions
Air supply must be dry enough to avoid ice formation at temperatures below +2°C

Repeatability:
±3%, of full scale



Models

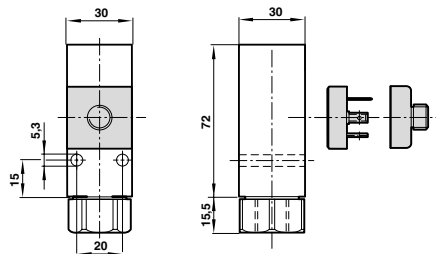
Model	Pressure range (bar)	Fluid connection	Electrical connection	Switching pressure difference (bar)	Max. over pressure (bar)	Connector DIN EN 175301-803	Electrical connector M12 x 1		
							Straight x 2 m long	Straight x 5 m long	90° x 2 m long
	-1 ... 0	G1/4	*DIN EN 175301-803 Form A	0,15 ... 0,18	80	0570110000000000	-	-	-
	-1 ... 1	G1/4	*DIN EN 175301-803 Form A	0,25 ... 0,35	80	0570110000000000	-	-	-
	-1 ... 0	G1/4	M12 x 1	0,15 ... 0,18	80	-	0523057000000000	0523052000000000	0523058000000000

* DIN plug is supplied as standard.

Accessories

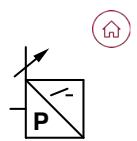


Dimensions



Electronic Vacuum Switch

51D Pneumatic -1 ... 1 bar



- » System pressure (unit bar, psi, Mpa, KPa, kgf/cm², mmHg, InHg or mmH₂O) selectable
- » High accuracy and resolution
- » Switching status indicated by LED

Technical Data

Medium:
For filtered, lubricated or non lubricated compressed air, neutral and incombustible gases

Ambient temperature:
0°C ... +50°C
Air supply must be dry enough to avoid ice formation at temperatures below +2°C

Display:
3 1/2 digit LED



Models

Model	Port size	Switching pressure range (bar)	Over pressure* (bar)	Output signal	Mounting bracket (wall mounting)	Mounting bracket (bottom mounting)	Panel mounting kit
							
0860820000000000	G1/8	-1 ... 1	3	2 x PNP	0860000000000000	0860001000000000	0860005000000000
0860825000000000	G1/8	-1 ... 1	3	2 x NPN	0860000000000000	0860001000000000	0860005000000000

* Short-term pressure peaks are not allowed to exceed this limit value during operation. Operative utilization of the limit value is not permitted. The limit value corresponds to the maximum testing pressure.

Accessories

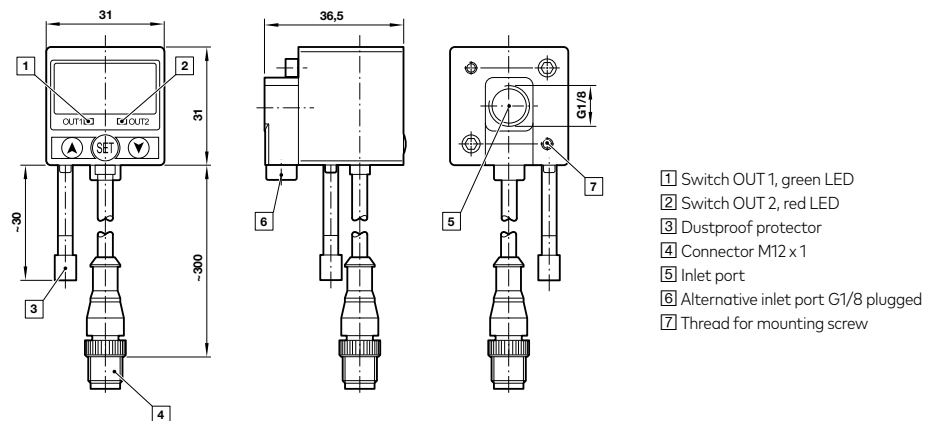




Electronic Vacuum Switch

51D Pneumatic -1 ... 1 bar

Dimensions



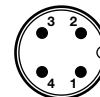
- 1 Switch OUT 1, green LED
- 2 Switch OUT 2, red LED
- 3 Dustproof protector
- 4 Connector M12 x 1
- 5 Inlet port
- 6 Alternative inlet port G1/8 plugged
- 7 Thread for mounting screw

Electrical parameters

Electrical connection:	M12 x 1
Power supply:	12 ... 24 V d.c.
	24 V d.c. (PNP) maximum
	30 V d.c. (NPN) maximum

Electrical connection M12 x 1

PIN-No.	Signal	Cable colour
1	+UB	Brown
2	Out 2	White
3	-	Blue
4	Out 1	Black



Norgren

High quality pneumatic, hydraulic and electrical products

With over 80 years industry experience, the Norgren brand includes a wide range of high quality pneumatic and fluid control products such as actuators, air preparation products, pressure switches, fittings and valves. And we now have our new range of Norgren Elion electric actuators for demanding precision applications.

The Norgren brand also features some of our more specialist technology product ranges including:

- » Precision liquid handling solutions including syringe pumps
- » Products for the commercial vehicle sector
- » Automation solutions including grippers, clamps and vacuum products
- » Specialist high pressure equipment including dome and spring loaded regulators



Find out more
norgren.com



NORGREN

IMI



[Fittings, tubing & accessories]

8

The product group most associated with the 'Enots' brand, fittings are of vital importance, since they are used to connect all other products and make them operate. The Norgren range includes labour saving push in types in composite, brass and stainless steel for all manner of applications.

We then have compression fittings ranges suitable for heavier industry and even a push in fitting suitable for vehicle braking systems.

Add to this a whole selection of BSP connectors, flow regulators, non return valves, air fuses, blow guns, flexible hoses and quick release connectors and you have one of the industries' largest accessory ranges around.



Fast Find Guide

Please note: These products represent only part of the Norgren fittings range. If you can't see the option you require please contact us.

Fittings

Pneufit 10 Push-In Fittings Ø4 ... 14 mm  Page 8-005	Pneufit 12 Push-In Fittings Ø4 ... 12 mm  Page 8-032	Pneufit C Push-In Fittings Ø4 ... 16 mm  Page 8-005	Pneufit C Selection Box  Page 8-031	Pneufit D Push-In Fittings Ø4 ... 12 mm  Page 8-006
Pneufit M Push-In Fittings Ø3 ... 6 mm  Page 8-006	Pneufit S Push-In Fittings Ø4 ... 12 mm  Page 8-007	24 Series Push-On Tube Fittings Ø4/2,5 ... 15/12,5 mm  Page 8-033	43 Series Compression Fittings – External Nut Ø4 ... 22 mm  Page 8-037	BSP & Hose Fittings M5, 1/8" ... 1" BSP  Page 8-043
34 & 36 Series Compression fittings Ø4 ... 28 mm  Page 8-050	97400 Fleetfit Push-In Fittings Ø6 ... 18 mm  Page 8-051			





Fast Find Guide

Please note: These products represent only part of the Norgren fittings range. If you can't see the option you require please contact us.

Tubing & Hoses

Nylon Tubing Ø4 ... 16 mm  Page 8-052	Polyurethane Tubing Ø3 ... 16 mm  Page 8-052	Metal Braided Rubber Hose Ø6 ... 12 mm  Page 8-056	Pneuflex Tubing Ø6 ... 8 mm  Page 8-056	Weld Tubing Ø6 ... 14 mm  Page 8-057
Tube Cutter  Page 8-057	Tubing Channels & Clips Ø6 ... 16 mm  Page 8-057			



Fast Find Guide

Please note: These products represent only part of the Norgren fittings range. If you can't see the option you require please contact us.

Accessories

233 Series Single and double shut off quick release couplings  Page 8-058	238 Series Single shut off quick release couplings  Page 8-059	234 Series Double shut off quick release couplings  Page 8-059	237 Series Single shut off quick release couplings  Page 8-060	M/S & T45 Series Porous plastic silencers M5, G1/8 ... G1  Page 8-064
T40 Series Sintered Bronze Silencers M5, G1/8 ... G1  Page 8-064	M/1500 Series Exhaust Filters G1/8 ... G1  Page 8-065	MA & MB Series Quietaire Heavy Duty Silencers R1/8 ... R1  Page 8-065	CS & MQ0 Series Coalescing Exhaust Silencers M5, G1/8 ... G1/2  Page 8-066	60 & 61 Series Ball Valves 1/8" ... 1 1/2"  Page 8-069
M/7300 Series Sleeve Valve G1/8 ... G1/2  Page 8-071	BG Series Blow Guns  Page 8-072	T65 Shuttle Valves G1/8 ... G1/4  Page 8-073	T70 Quick Exhaust Valves G1/8 ... G1/2  Page 8-074	





Push-In Fittings

Pneufit® C

Metric Ø4 ... 16 mm O/D tube



- » Pneufit® C push in fittings represent one of the industries largest ranges of industrial fittings, with in excess of 1,000 shapes and sizes
- » Assembly times can be reduced to the minimum by using the parallel threaded versions, or choose taper to ensure perfect sealing under less than ideal port conditions
- » Body material is either PBT or nickel plated brass offering good resistance to corrosion or contamination, and all components are retained within the body to make a perfect seal every time
- » In addition to standard shapes, the range also includes manifolds, banjo flow regulators isolating valves and other items to offer maximum benefit from using standard widely available parts

Technical Data

Medium:

Compressed air

Operating pressure:

750 mm Hg to 10 bar

Ambient temperature:

-20°C ... +60°C

Air supply must be dry enough to avoid ice formation at temperatures below +2°C

Tubing:

Nylon 11 or 12, polyurethane 85 to 98

Materials

Body:

PBT

Seals:

NBR (silicone free) u-packing and O-rings

Threaded bodies:

Nickel plated brass

Release sleeve and backing ring:

POM

Grab-ring:

Stainless steel

Collar:

Nickel plated brass

Thread sealant:

Chemitech G-175L

Pneufit® 10

Metric Ø4 ... 14 mm O/D tube



- » Compact units featuring retained collets and positive tube anchorage
- » Silicone free O-ring seals
- » Non-PTFE based thread sealant on all BSP taper threads
- » Easy tube insertion for rapid assembly
- » Internal hexagon on straight adaptors allows assembly in confined spaces
- » Wide range of types available
- » Reliable and corrosion resistant

Technical Data

Medium:

Compressed air

Operating pressure:

Vacuum – 18 bar unless otherwise stated (dependant on tubing specification)

Ambient temperature:

-20°C ... +80°C

Air supply must be dry enough to avoid ice formation at temperatures below +2°C

Tubing:

Nylon 11 or 12, polyurethane 85 to 98

Materials

Body:

Nickel plated brass

Collet:

Nickel plated brass

'O' ring:

Silicone free nitrile rubber

Sealing washer (parallel threads):

Nitrile 'O'-ring

Thread sealant:

Non-PTFE



Push-In Fittings

Pneufit® D

Metric Ø4 ... 12 mm O/D tube



- » Appropriate for inert gas and industrial air applications and suited for use in medical and analytical equipment for fluid and gas control
- » Pneufit® D fittings are manufactured from FDA approved acetal materials
- » Certified by NSF (51 & 61), WRAS and SKZert for use with water and food
- » Fittings are ready to use, offering fast assembly with no need for tools providing optimum flow

Technical Data

Medium:

Air and liquids

Operating pressure:

4 ... 8 mm	-20 ... +20°C	15 bar
10 ... 12 mm	-20 ... +20°C	12 bar
4 ... 8 mm	+20 ... +65°C	10 bar
10 ... 12 mm	+20 ... +65°C	7 bar

Vacuum: 749,3 mmHg

Ambient temperature:

-20°C ... +65°C

Tubing types:

PA, PUR with 85 ... 95
Shore A hardness
PE with 33 ... 52
Shore D hardness

Materials

Body:

Acetal

Seals:

NBR

Release Sleeve:

Acetal

Grab-ring:

Stainless steel

Pneufit® M

Metric Ø3 ... 6 mm O/D tube



- » Pneufit® M fittings are ready to use, offering fast assembly with no need for tools and providing optimum flow
- » Releasable stainless-steel grab ring to grip nylon or polyurethane tube (85 or 95 durometer)
- » Nickel plated brass components provide corrosion and contamination resistance and an extended life
- » Pre applied thread sealant on all taper threads and recessed captive O-ring on parallel threads provides optimum rapid sealing
- » Immediate quality sealing using silicone free U-packing
- » Miniature Pneufit® M is an ultra compact alternative where space is at a premium

Technical Data

Medium:

Compressed air

Operating pressure:

750 mm Hg vacuum, up to 10 bar

Ambient temperature:

-20°C ... +60°C

Air supply must be dry enough to avoid ice formation at temperatures below +2°C

Tubing:

Nylon 11 or 12, polyurethane 85 to 98

Materials

Body:

PBT

Seals:

NBR (silicone free) u-packing and O-rings

Threaded bodies:

Nickel plated brass

Release sleeve and backing ring:

Nitrile POM

Grab-ring:

Stainless steel

Collar:

Nickel plated brass

Thread sealant:

Chemitech G-175L





Push-In Fittings

Pneufit® S

Metric Ø4 ... 12 mm



- » Resistant to aggressive environments
- » Suitable for food and beverage applications
- » Very compact units
- » Easy tube insertion and removal for rapid assembly of pneumatic circuits
- » Positive tube anchorage
- » Straight adaptors feature internal hexagon for allen key
- » Swivel function on all elbows and tees

Technical Data

Medium:

Compressed air

For other media please consult Technical Department

Operating pressure:

Vacuum – 15 bar

(dependent upon operating specification of tubing)

Ambient temperature:

-15°C ... +225°C

Air supply must be dry enough to avoid ice formation at temperatures below +2°C

Tubing types:

Nylon 6, 11 or 12, Polyurethane 85 to 98 Shore A hardness (33 to 52 Shore D) and PTFE tubing

Materials

Body, release sleeve and grab ring:

Aisi 316L (1.4404) stainless steel

'O' ring and thread seal (BSPP):

FPM

Lubricants:

FDA approved



Warning

The push-in tube fittings in this section must not be used in vehicle air braking and ancillary systems. For push-in fittings suitable for these applications please refer to our Fleetfit range on our website.





Push-In Fittings

Straight adaptors and connectors

Straight Adaptor
(External & Internal) Parallel



Metric & BSPP Thread	O/D Tube	Pneufit C	Pneufit 10	Pneufit D	Pneufit M	Pneufit S
M3	3	-	-	-	M02250303	-
M3	4	-	102250403	-	M02250403	-
M5	3	-	-	-	M02250305	-
M5	4	C02250405	102250405	-	M02250405	S02250405
M5	5	-	102250505	-	-	-
M5	6	C02250605	102250605	-	M02250605	-
M6	3	-	-	-	M02250306	S02250418
M6	4	C02250406	-	-	M02250406	-
M6	6	C02250606	-	-	M02250606	-
G1/8	4	C02250418	102250418	D02250418	-	-
G1/8	5	-	102250518	D02250518	-	-
G1/8	6	C02250618	102250618	D02250618	-	S02250618
G1/8	8	C02250818	102250818	D02250818	-	S02250818
G1/8	10	C02251018	102251018	-	-	-
G1/4	4	C02250428	102250428	D02250428	-	S02250428
G1/4	5	-	102250528	D02250528	-	-
G1/4	6	C02250628	102250628	D02250628	-	S02250628
G1/4	8	C02250828	102250828	D02250828	-	S02250828
G1/4	10	C02251028	102251028	D02251028	-	S02251028
G1/4	12	C02251228	102251228	-	-	-
G3/8	4	C02250438	-	-	-	-
G3/8	6	C02250638	-	-	-	-
G3/8	8	C02250838	102250838	D02250838	-	-
G3/8	10	C02251038	102251038	D02251038	-	S02251038
G3/8	12	C02251238	102251238	D02251238	-	S02251238
G3/8	14	-	102251438	-	-	-
G3/8	16	C02251638	-	-	-	-
G1/2	8	C02250848	102250848	-	-	-
G1/2	10	C02251048	102251048	D02251048	-	-
G1/2	12	C02251248	102251248	D02251248	-	S02251248
G1/2	14	-	102251448	-	-	-
G1/2	16	C02251648	-	-	-	-

Straight Adaptor
(External & Internal) Taper



BSPT Thread	O/D Tube	Pneufit C	Pneufit 10	Pneufit D	Pneufit M	Pneufit S
R1/8	4	C01250418	101250418	D01250418	M01250418	S01250418
R1/8	5	-	101250518	D01250518	-	-
R1/8	6	C01250618	101250618	D01250618	M01250618	S01250618
R1/8	8	C01250818	101250818	D01250818	-	S01250818
R1/8	10	C01251018	101251018	D01251018	-	-
R1/8	12	C01251218	-	-	-	-
R1/4	4	C01250428	101250428	D01250428	-	S01250428
R1/4	5	-	101250528	D01250528	-	-
R1/4	6	C01250628	101250628	D01250628	-	S01250628
R1/4	8	C01250828	101250828	D01250828	-	S01250828
R1/4	10	C01251028	101251028	D01251028	-	S01251028
R1/4	12	C01251228	101251228	-	-	-
R3/8	4	C01250438	-	-	-	-
R3/8	6	C01250638	-	D01250638	-	-
R3/8	8	C01250838	101250838	D01250838	-	-
R3/8	10	C01251038	101251038	D01251038	-	S01251038
R3/8	12	C01251238	101251238	D01251238	-	S01251238
R3/8	14	-	101251438	-	-	-
R3/8	16	C01251638	-	-	-	-
R1/2	6	C01250648	-	D01250648	-	-
R1/2	8	C01250848	101250848	-	-	-
R1/2	10	C01251048	101251048	D01251048	-	-
R1/2	12	C01251248	101251248	D01251248	-	S01251248
R1/2	14	-	101251448	-	-	-
R1/2	16	C01251648	-	-	-	-





Push-In Fittings

Straight adaptors and connectors

Straight Adaptor
(Internal Hex Only) Parallel



Metric & BSPP Thread	O/D Tube	Pneufit C	Pneufit M
M3	3	–	M022A0303
M3	4	–	M022A0403
M5	3	–	M022A0305
M5	4	C022A0405	M022A0405
M5	6	C022A0605	M022A0605
M6	3	–	M022A0306
M6	4	C022A0406	M022A0406
M6	6	C022A0606	M022A0606

Straight Adaptor
(Internal Hex Only) Taper



BSPT	O/D Tube	Pneufit C	Pneufit M
R1/8	4	C012A0418	M012A0418
R1/8	6	C012A0618	M012A0618
R1/8	8	C012A0818	–
R1/8	10	C012A1018	–
R1/8	12	C012A1218	–
R1/4	4	C012A0428	–
R1/4	6	C012A0628	–
R1/4	8	C012A0828	–
R1/4	10	C012A1028	–
R1/4	12	C012A1228	–
R3/8	4	C012A0438	–
R3/8	6	C012A0638	–
R3/8	8	C012A0838	–
R3/8	10	C012A1038	–
R3/8	12	C012A1238	–
R1/2	8	C012A0848	–
R1/2	10	C012A1048	–
R1/2	12	C012A1248	–

Straight Union
(Equal)



O/D Tube	O/D Tube	Pneufit C	Pneufit 10	Pneufit D	Pneufit M	Pneufit S
3	3	–	–	–	M00200300	–
4	4	C00200400	100200400	D00200400	M00200400	S00200400
5	5	–	100200500	D00200500	–	–
6	6	C00200600	100200600	D00200600	M00200600	S00200600
8	8	C00200800	100200800	D00200800	–	S00200800
10	10	C00201000	100201000	D00201000	–	S00201000
12	12	C00201200	100201200	D00201200	–	S00201200
14	14	–	100201400	–	–	–
16	16	C00201600	–	–	–	–

Straight Union
(Unequal)



O/D Tube	O/D Tube	Pneufit C	Pneufit D	Pneufit M
4	3	–	–	M00200403
6	3	–	–	M00200603
6	4	C00200604	D00200604	M00200604
6	5	–	D00200605	–
8	4	C00200804	D00200804	–
8	5	–	D00200805	–
8	6	C00200806	D00200806	–
10	4	–	D00201004	–
10	5	–	D00201005	–
10	6	C00201006	D00201006	–
10	8	C00201008	D00201008	–
12	8	C00201208	D00201208	–
12	10	C00201210	D00201210	–
16	12	C00201612	–	–





Push-In Fittings

Straight adaptors and connectors



Bulkhead Connector

O/D Tube	O/D Tube	Bulkhead Thread	Pneufit C	Pneufit 10	Pneufit D	Pneufit S
4		M10x1,0	-	100290400	-	-
4		M12 x 1	C00290400	-	-	S00290400
4		M16x1	-	-	D00290400	-
5		M12x1,0	-	100290500	-	-
5		M16x1	-	-	D00290500	-
6		M14x1	C00290600	-	-	S00290600
6		M14x1,5	-	100290600	-	-
6		M16x1	-	-	D00290600	-
6	10	M20x1,5	-	-	D00290610	-
8		M16x1	C00290800	-	-	S00290800
8		M16x1,5	-	100290800	-	-
10		M20x1	C00291000	-	-	S00291000
10		M20x1,5	-	100291000	D00291000	-
10	6	M20x1,5	-	-	D00291006	-
12		M22x1	C00291200	-	-	S00291200
12		M24x1,5	-	100291200	-	-
12		M27x1,5	-	-	D00291200	-
14		M24x1,5	-	100291400	-	-

Straight Adaptor
(Female Bulkhead Parallel)



Metric & BSPP Thread	O/D Tube	Pneufit C
G1/8	4	C02320418
G1/8	6	C02320618
G1/8	8	C02320818
G1/8	10	-
G1/4	4	C02320428
G1/4	6	C02320628
G1/4	8	C02320828
G1/4	10	C02321028
G1/4	12	C02321228
G3/8	4	C02320438
G3/8	6	C02320638
G3/8	8	C02320838
G3/8	10	C02321038
G3/8	12	C02321238
G3/8	16	-
G1/2	8	-
G1/2	10	C02321048
G1/2	12	C02321248

Female Adaptor
(UNF-V type)



Thread	O/D Tube	Pneufit D
7/16-20	6	D042B062Y
7/16-20	8	D042B082Y
7/16-20	10	D042B102Y
5/8-18	10	D042B104Y

Female Adaptor
(taper)



BSPP Thread	O/D Tube	Pneufit D
G1/8	6	D012C0618
G1/4	6	D012C0628
G1/8	8	D012C0818
G1/4	8	D012C0828
G1/8	10	D012C1018
G1/4	10	D012C1028





Push-In Fittings

Straight adaptors and connectors

Female Adaptor
(flat type)



BSPP Thread	O/D Tube	Pneufit D
G5/8	8	D022C0858
G1/2	10	D022C1048
G5/8	10	D022C1058
G3/8	12	D022C1238
G1/2	12	D022C1248

Female Adaptor
(cone type)



BSPP Thread	O/D Tube	Pneufit D
G3/8	6	D022D0638
G1/2	6	D022D0648
G3/8	8	D022D0838
G1/2	8	D022D0848
G3/8	10	D022D1038
G1/2	10	D022D1048
G5/8	10	D022D1058
G5/8	12	D022D1258

Female Adaptor
(UNS cone type)



Thread	O/D Tube	Pneufit D
7/16-24	6	D042D062W
7/16-24	8	D042D082W
7/16-24	10	D042D102W

Female Adaptor
(UNF cone type)



Thread	O/D Tube	Pneufit D
7/16-20	6	D042D062Y
7/16-20	8	D042D082Y
7/16-20	10	D042D102Y

Straight Adaptor
(Female Thread)



Thread	O/D Tube	Pneufit C	Pneufit	Pneufit M
M3	3	-	-	-
M3	4	-	-	M02260403
M5	3	-	-	M02260305
M5	4	C02260405	102260405	M02260405
M5	5	-	102260505	-
M5	6	-	-	M02260605
M6	3	-	-	M02260306
M6	4	-	-	M02260406
M6	6	-	-	M02260606
Rc1/8	4	-	-	M01260418
Rc1/8	6	-	-	M01260618
G1/8	10	-	-	-
G1/8	4	C02260418	102260418	-
G1/8	5	-	102260518	-
G1/8	6	C02260618	102260618	-
G1/8	8	C02260818	102260818	-
G1/8	10	C02261018	-	-
G1/4	4	C02260428	102260428	-
G1/4	5	-	102260528	-
G1/4	6	C02260628	102260628	-
G1/4	8	C02260828	102260828	-
G1/4	10	C02261028	102261028	-
G1/4	12	C02261228	-	-
G3/8	4	C02260438	-	-
G3/8	6	C02260638	-	-
G3/8	8	C02260838	-	-
G3/8	10	C02261038	102261038	-
G3/8	12	C02261238	102261238	-
G3/8	14	-	-	-
G3/8	16	-	-	-
G1/2	8	C02260848	-	-
G1/2	10	C02261048	-	-
G1/2	12	C02261248	102261248	-



Push-In Fittings

Straight adaptors and connectors

Stem Reducer



O/D Stem	O/D Tube	Pneufit C	Pneufit 10	Pneufit D
5	4	-	100230504	D00230504
6	4	C00230604	100230604	D00230604
6	5	-	100230605	D00230605
8	4	C00230804	100230804	D00230804
8	5	-	100230805	D00230805
8	6	C00230806	100230806	D00230806
10	4	-	100231004	-
10	5	-	100231005	-
10	6	C00231006	100231006	D00231006
10	8	C00231008	100231008	D00231008
12	4	-	100231204	-
12	5	-	100231205	-
12	6	C00231206	100231206	-
12	8	C00231208	100231208	D00231208
12	10	C00231210	100231210	D00231210
14	6	-	100231406	-
14	8	-	100231408	-
14	10	-	100231410	-
14	12	-	100231412	-
16	12	C00231612	-	-

Stem Union
(Equal)



O/D Stem	Pneufit C	Pneufit 10
4	C00220400	100220400
5	-	100220500
6	C00220600	100220600
8	C00220800	100220800
10	C00221000	100221000
12	C00221200	100221200
14	-	100221400
16	C00221600	-

Stem Expander
(Stem/Tube)



O/D Stem	O/D Tube	Pneufit C
4	6	C00230406
6	8	C00230608

Stem Union
(Unequal)



O/D Stem	O/D Stem	Pneufit C
6	4	C00220604
8	6	C00220806
10	8	C00221008
12	10	C00221210
16	12	C00221612

Stem Tailpiece
Adaptor



O/D Stem	Hose Bore	Pneufit 10	Pneufit D
5	6,5	100190505	-
6	4,5	-	D00390604
6	6,5	100190605	-
6	8	100190606	-
8	6,5	-	D00390806
8	8	100190806	-
8	9,6	100190808	-
10	8,5	-	D00391008
10	12	100191010	-
12	10	-	D00391210
12	12	100191210	-
12	15	100191212	-

Straight Stem Adaptor
(Taper)



BSPT Thread	O/D Stem	Pneufit 10	Pneufit D
R1/8	4	101150418	D00150418
R1/8	5	101150518	D00150518
R1/8	6	101150618	D00150618
R1/8	8	101150818	D00150818
R1/8	10	-	-
R1/8	12	-	-
R1/4	4	101150428	D00150428
R1/4	5	101150528	D00150528
R1/4	6	101150628	D00150628
R1/4	8	101150828	D00150828
R1/4	10	101151028	D00151028
R1/4	12	-	-
R3/8	4	-	-
R3/8	6	-	-
R3/8	8	101150838	D00150838
R3/8	10	101151038	D00151038
R3/8	12	101151238	D00151238
R1/2	8	-	-
R1/2	10	-	D00151048
R1/2	12	101151248	D00151248
R1/2	14	101151448	-





Push-In Fittings

Straight adaptors and connectors

Straight Stem Adaptor
(Parallel)



BSP Thread	O/D Stem	Pneufit 10	Pneufit D
G1/8	4	102150418	D02150418
G1/8	5	102150518	D02150518
G1/8	6	102150618	D02150618
G1/8	8	102150818	D02150818
G1/4	4	102150428	D02150428
G1/4	5	102150528	D02150528
G1/4	6	102150628	D02150628
G1/4	8	102150828	D02150828
G1/4	10	102151028	D02151028
G3/8	8	102150838	D02150838
G3/8	10	102151038	D02151038
G3/8	12	102151238	D02151238
G3/8	14	102151438	-
G1/2	10	102151048	D02151048
G1/2	12	102151248	D02151248
G1/2	14	102151448	-

Cap
(Female Plug)



O/D Tube	Pneufit C	Pneufit 10	Pneufit D
4	C00120400	100120400	-
6	C00120600	100120600	D000A0600
8	C00120800	100120800	D000A0800
10	C00121000	100121000	D000A1000
12	C00121200	100121200	D000A1200
16	C00121600	100121600	-

Plug



O/D Tube	Pneufit C	Pneufit D
4	C00040400	D00040400
5	-	D00040500
6	C00040600	D00040600
8	C00040800	D00040800
10	C00041000	D00041000
12	C00041200	D00041200
16	C00041600	-



Push-In Fittings

Elbow adaptors and connectors

Stem Elbow
(Equal)



O/D Tube	O/D Stem	Pneufit C	Pneufit 10	Pneufit D
4	4	C00430400	100430400	D00430400
5	5	–	–	D00430500
6	6	C00430600	100430600	D00430600
8	8	C00430800	100430800	D00430800
10	10	C00431000	–	D00431000
12	12	C00431200	–	D00431200
16	16	C00431600	–	–

Fixed Elbow Adaptor
(Taper)



BSPT Thread	O/D Tube	Pneufit 10	Pneufit D
R1/8	4	101450418	–
R1/8	5	101450518	–
R1/8	6	101450618	D01450618
R1/8	8	101450818	–
R1/8	10	101451018	–
R1/4	4	101450428	–
R1/4	5	101450528	–
R1/4	6	101450628	D01450628
R1/4	8	101450828	D01450828
R1/4	10	101451028	D01451028
R1/4	12	101451228	–
R3/8	6	–	D01450638
R3/8	8	101450838	D01450838
R3/8	10	101451038	D01451038
R3/8	12	101451238	D01451238
R1/2	8	101450848	–
R1/2	10	101451048	–
R1/2	12	101451248	D01451248

90° Swivel Elbow Adaptor
(Parallel)



Metric & BSPP Thread	O/D Tube	Pneufit C	Pneufit 10	Pneufit D	Pneufit M	Pneufit S
M3	3	–	–	–	M02470303	–
M3	4	–	102470403	–	M02470403	–
M5	3	–	–	–	M02470305	–
M5	4	C02470405	102470405	–	M02470405	S02470405
M5	5	–	102470505	–	–	–
M5	6	C02470605	102470605	–	M02470605	–
M6	3	–	–	–	M02470306	–
M6	4	C02470406	–	–	M02470406	–
M6	6	C02470606	–	–	M02470606	–
G1/8	4	C02470418	102470418	D02470418	–	S02470418
G1/8	5	–	102470518	D02470518	–	–
G1/8	6	C02470618	102470618	D02470618	–	S02470618
G1/8	8	C02470818	102470818	D02470818	–	S02470818
G1/8	10	C02471018	102471018	–	–	–
G1/4	4	C02470428	102470428	D02470428	–	S02470428
G1/4	5	–	102470528	D02470528	–	–
G1/4	6	C02470628	102470628	D02470628	–	S02470628
G1/4	8	C02470828	102470828	D02470828	–	S02470828
G1/4	10	C02471028	102471028	D02471028	–	S02471028
G1/4	12	C02471228	102471228	–	–	–
G3/8	4	C02470438	–	–	–	–
G3/8	6	C02470638	–	–	–	–
G3/8	8	C02470838	102470838	D02470838	–	–
G3/8	10	C02471038	102471038	D02471038	–	S02471038
G3/8	12	C02471238	102471238	D02471238	–	S02471238
G3/8	14	–	102471438	–	–	–
G3/8	16	C02471638	–	–	–	–
G1/2	8	C02470848	102470848	–	–	–
G1/2	10	C02471048	102471048	D02471048	–	–
G1/2	12	C02471248	102471248	D02471248	–	S02471248
G1/2	14	–	102471448	–	–	–
G1/2	16	C02471648	–	–	–	–





Push-In Fittings

Elbow adaptors and connectors

90° Swivel Elbow Adaptor
(Taper)



BSPT Thread	O/D Tube	Pneufit C	Pneufit 10	Pneufit D	Pneufit M	Pneufit S
R1/8	4	C01470418	101470418	D01470418	M01470418	S01470418
R1/8	5	–	101470518	D01470518	–	–
R1/8	6	C01470618	101470618	D01470618	M01470618	S01470618
R1/8	8	C01470818	101470818	D01470818	–	S01470818
R1/8	10	C01471018	101471018	–	–	–
R1/8	12	C01471218	–	–	–	–
R1/4	4	C01470428	101470428	D01470428	–	S01470428
R1/4	5	–	101470528	–	–	–
R1/4	6	C01470628	101470628	D01470628	–	S01470628
R1/4	8	C01470828	101470828	D01470828	–	S01470828
R1/4	10	C01471028	101471028	D01471028	–	S01471028
R1/4	12	C01471228	101471228	–	–	–
R3/8	4	C01470438	–	–	–	–
R3/8	6	C01470638	–	–	–	–
R3/8	8	C01470838	101470838	D01470838	–	–
R3/8	10	C01471038	101471038	D01471038	–	S01471038
R3/8	12	C01471238	101471238	D01471238	–	S01471238
R3/8	14	–	101471438	–	–	–
R3/8	16	C01471638	–	–	–	–
R1/2	6	C01470648	–	–	–	–
R1/2	8	C01470848	101470848	–	–	–
R1/2	10	C01471048	101471048	–	–	–
R1/2	12	C01471248	101471248	D01471248	–	S01471248
R1/2	14	–	101471448	–	–	–
R1/2	16	C01471648	–	–	–	–

90° Swivel Elbow Adaptor
(Extended)



Metric & BSPT Thread	O/D Tube	Pneufit C	Pneufit 10
M5	4	C02540405	–
M5	6	C02540605	–
M6	4	C02540406	–
M6	6	C02540606	–
R1/8	4	C01540418	101540418
R1/8	6	C01540618	101540618
R1/8	8	C01540818	101540818
R1/8	10	C01541018	–
R1/8	12	C01541218	–
R1/4	4	C01540428	101540428
R1/4	6	C01540628	101540628
R1/4	8	C01540828	101540828
R1/4	10	C01541028	–
R1/4	12	C01541228	–
R3/8	4	C01540438	101540838
R3/8	6	C01540638	–
R3/8	8	C01540838	–
R3/8	10	C01541038	101541038
R3/8	12	C01541238	–
R3/8	16	C01541638	–
R1/2	6	C01540648	–
R1/2	8	C01540848	–
R1/2	10	C01541048	–
R1/2	12	C01541248	–
R1/2	16	C01541648	–





Push-In Fittings

Elbow adaptors and connectors

Elbow Union
(Equal)



O/D Tube	O/D Tube	Pneufit C	Pneufit 10	Pneufit D	Pneufit M	Pneufit S
3	3	–	–	–	M00400300	–
4	4	C00400400	100400400	D00400400	M00400400	S00400400
5	5	–	100400500	D00400500	–	–
6	6	C00400600	100400600	D00400600	M00400600	S00400600
8	8	C00400800	100400800	D00400800	–	S00400800
10	10	C00401000	100401000	D00401000	–	S00401000
12	12	C00401200	100401200	D00401200	–	S00401200
14	14	–	100401400	–	–	–
16	16	C00401600	–	–	–	–

90° Swivel Elbow Adaptor
(Female)



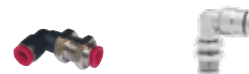
Metric & BSPT Thread	O/D Tube	Pneufit C
M5	4	C02480405
M5	6	C02480605
M6	4	C02480406
M6	6	C02480606
Rc1/8	4	C01480418
Rc1/8	6	C01480618
Rc1/8	8	C01480818
Rc1/4	4	C01480428
Rc1/4	6	C01480628
Rc1/4	8	C01480828
Rc1/4	10	C01481028
Rc1/4	12	C01481228
Rc3/8	6	C01480638
Rc3/8	8	C01480838
Rc3/8	10	C01481038
Rc3/8	12	C01481238
Rc1/2	10	C01481048
Rc1/2	12	C01481248

45° Swivel Adaptor
(Parallel)



BSPP Thread	O/D Stem	Pneufit 10
G1/8	6	102570618
G1/8	8	102570818
G1/4	6	102570628
G1/4	8	102570828

Bulkhead Swivel Elbow Connector



O/D Tube	Bulkhead thread	Pneufit C	Pneufit 10
4	M12 x1,0	C00490400	100490400
5	M12x1,0	–	100490500
6	M14x1,0	C00490600	–
6	M14x1,5	–	100490600
8	M16 x 1	C00490800	–
8	M16x1,5	–	100490800
10	M20 x 1	C00491000	–
10	M22x1,5	–	100491000
12	M22 x 1	C00491200	–
12	M24x1,5	–	100491200





Push-In Fittings

Y and quadruple connectors

Union Y
(Equal)



O/D Tube	O/D Tube	Pneufit C	Pneufit 10	Pneufit D	Pneufit M
3	3	–	–	–	M00820300
4	4	C00820400	100820400	D00820400	M00820400
6	6	C00820600	100820600	D00820600	M00820600
8	8	C00820800	100820800	D00820800	–
10	8	–	–	D00821008	–
10	10	C00821000	100821000	D00821000	–
12	12	C00821200	–	D00821200	–

Union Y
(Unequal)



O/D Tube	O/D Tube	Pneufit C	Pneufit 10	Pneufit M
4	3	–	–	M00820403
4	6	C00820604	–	–
4	8	C00820804	–	–
6	3	–	–	M00820603
6	4	–	100820604	M00820604
6	10	C00821006	–	–
8	6	–	100820806	–
8	10	C00821008	–	–
8	12	C00821208	–	–
10	8	–	100821008	–
10	12	C00821210	–	–

U bend



O/D Tube	Pneufit D
6	D00890600
8	D00890800
10	D00891000
12	D00891200

Swivel Y Adaptor
(Taper)



BSPT Thread	O/D Tube	Pneufit C	Pneufit 10
R1/8	4	C01880418	101880418
R1/8	6	C01880618	101880618
R1/8	8	C01880818	101880818
R1/8	10	C01881018	–
R1/8	12	C01881218	–
R1/4	4	C01880428	–
R1/4	6	C01880628	–
R1/4	8	C01880828	101880828
R1/4	10	C01881028	–
R1/4	12	C01881228	–
R3/8	4	C01880438	–
R3/8	6	C01880638	–
R3/8	8	C01880838	–
R3/8	10	C01881038	101881038
R3/8	12	C01881238	–
R1/2	6	C01880648	–
R1/2	8	C01880848	–
R1/2	10	C01881048	101881048
R1/2	12	C01881248	–





Push-In Fittings

Y and quadruple connectors

Swivel Y Adaptor
(Parallel)



Metric & BSPP Thread	O/D Tube	Pneufit C	Pneufit 10
M5	4	C02880405	102880405
M5	6	C02880605	102880605
M6	4	C02880406	–
M6	6	C02880606	–
G1/8	4	C02880418	–
G1/8	6	C02880618	–
G1/8	8	C02880818	–
G1/8	10	C02881018	–
G1/4	4	C02880428	–
G1/4	6	C02880628	–
G1/4	8	C02880828	–
G1/4	10	C02881028	–
G1/4	12	C02881228	–
G3/8	4	C02880438	–
G3/8	6	C02880638	–
G3/8	8	C02880838	–
G3/8	10	C02881038	–
G3/8	12	C02881238	–
G1/2	6	C02880648	–
G1/2	8	C02880848	–
G1/2	10	C02881048	–
G1/2	12	C02881248	–

Stem Y
(Equal)



O/D Stem	O/D Tube	Pneufit C
4	4	C00840400
6	6	C00840600
8	8	C00840800
10	10	C00841000
12	12	C00841200

Stem Y
(Unequal)



O/D Stem	O/D Tube	Pneufit C
6	4	C00840604
8	6	C00840806
10	8	C00841008
12	10	C00841210

Quadruple Y Adaptor



BSPP & BSPT Thread		O/D Tube	Pneufit C
R1/8		4	C01950418
R1/8		6	C01950618
R1/4		4	C01950428
R1/4		6	C01950628
G1/8		4	C02950418
G1/8		6	C02950618
G1/4		4	C02950428
G1/4		6	C02950628

Quadruple Reducer



O/D Tube	O/D Tube	Pneufit C
6	4	C00960604
8	6	C00960806

Quadruple Reducer



O/D Tube	O/D Tube	Pneufit C
6	4	C00970604
8	6	C00970806





Push-In Fittings

Tee adaptors and connectors

Union Tee
(Equal)



O/D Tube	Pneufit C	Pneufit 10	Pneufit D	Pneufit M	Pneufit S
3	–	–	–	M00600300	–
4	C00600400	100600400	D00600400	M00600400	S00600400
5	–	100600500	D00600500	–	–
6	C00600600	100600600	D00600600	M00600600	S00600600
8	C00600800	100600800	D00600800	–	S00600800
10	C00601000	100601000	D00601000	–	S00601000
12	C00601200	100601200	D00601200	–	S00601200
14	–	100601400	–	–	–
16	C00601600	–	–	–	–

Union Tee
(Unequal)



O/D Tube	O/D Tube	Pneufit C	Pneufit D
4	6	C006A0604	–
6	8	C006A0806	–
6	10	C006A1006	D006A1006
8	10	C006A1008	–
8	12	C006A1208	–
10	12	C006A1210	D006A1210
10	16	C006A1610	–
12	16	C006A1612	–





Push-In Fittings

Tee adaptors and connectors

Swivel Tee Adaptor
(Parallel)



Metric & BSPP Thread	O/D Tube	Pneufit C	Pneufit 10	Pneufit D	Pneufit M	Pneufit S
M3	3	–	–	–	M02670303	–
M3	4	–	–	–	M02670403	–
M5	3	–	–	–	M02670305	–
M5	4	C02670405	102670405	–	M02670405	S02670405
M5	5	–	102670505	–	–	–
M5	6	C02670605	102670605	–	M02670605	–
M6	3	–	–	–	M02670306	–
M6	4	C02670406	–	–	M02670406	–
M6	6	C02670606	–	–	–	–
G1/8	4	C02670418	102670418	D02670418	–	S02670418
G1/8	5	–	102670518	D02670518	–	–
G1/8	6	C02670618	102670618	D02670618	–	S02670618
G1/8	8	C02670818	102670818	D02670818	–	S02670818
G1/8	10	C02671018	–	–	–	–
G1/4	4	C02670428	102670428	D02670428	–	–
G1/4	5	–	–	D02670528	–	–
G1/4	6	C02670628	102670628	D02670628	–	S02670628
G1/4	8	C02670828	102670828	D02670828	–	S02670828
G1/4	10	C02671028	102671028	D02671028	–	S02671028
G1/4	12	C02671228	102671228	–	–	–
G3/8	4	C02670438	–	–	–	–
G3/8	6	C02670638	–	–	–	–
G3/8	8	C02670838	102670838	D02670838	–	–
G3/8	10	C02671038	102671038	D02671038	–	S02671038
G3/8	12	C02671238	102671238	D02671238	–	S02671238
G3/8	14	–	102671438	–	–	–
G3/8	16	C02671638	–	–	–	–
G1/2	8	C02670848	–	–	–	–
G1/2	10	C02671048	–	D02671048	–	S02671048
G1/2	12	C02671248	–	D02671248	–	–
G1/2	14	–	102671448	–	–	–
G1/2	16	C02671648	–	–	–	–

Swivel Tee Adaptor
(Taper)



BSPT Thread	O/D Tube	Pneufit C	Pneufit 10	Pneufit D	Pneufit M	Pneufit S
R1/8	4	C01670418	101670418	D01670418	M01670418	S01670418
R1/8	5	–	101670518	D01670518	–	–
R1/8	6	C01670618	101670618	D01670618	M01670618	S01670618
R1/8	8	C01670818	101670818	D01670818	–	S01670818
R1/8	10	C01671018	–	–	–	–
R1/8	12	C01671218	–	–	–	–
R1/4	4	C01670428	101670428	D01670428	–	–
R1/4	5	–	–	D01670528	–	–
R1/4	6	C01670628	101670628	D01670628	–	S01670628
R1/4	8	C01670828	101670828	D01670828	–	S01670828
R1/4	10	C01671028	101671028	D01671028	–	S01671028
R1/4	12	C01671228	101671228	–	–	–
R3/8	4	C01670438	–	–	–	–
R3/8	6	C01670638	–	–	–	–
R3/8	8	C01670838	101670838	D01670838	–	–
R3/8	10	C01671038	101671038	D01671038	–	S01671038
R3/8	12	C01671238	101671238	D01671238	–	S01671238
R3/8	14	–	101671438	–	–	–
R3/8	16	C01671638	–	–	–	–
R1/2	6	C01670648	–	–	–	–
R1/2	8	C01670848	–	–	–	–
R1/2	10	C01671048	101671048	D01671048	–	S01671048
R1/2	12	C01671248	101671248	D01671248	–	S01671248
R1/2	14	–	101671448	–	–	–
R1/2	16	C01671648	–	–	–	–





Push-In Fittings

Tee adaptors and connectors

Swivel Tee Adaptor
(Female)



Metric & BSPT Thread		O/D Tube	Pneufit C
M5	4		C026C0405
M5	6		C026C0605
M6	4		C026C0406
M6	6		C026C0606
Rc1/8	4		C016C0418
Rc1/8	6		C016C0618
Rc1/8	8		C016C0818
Rc1/8	10		C016C1018
Rc1/4	4		C016C0428
Rc1/4	6		C016C0628
Rc1/4	8		C016C0828
Rc1/4	10		C016C1028
Rc1/4	12		C016C1228
Rc3/8	6		C016C0638
Rc3/8	8		C016C0838
Rc3/8	10		C016C1038
Rc3/8	12		C016C1238
Rc1/2	8		C016C0848
Rc1/2	10		C016C1048
Rc1/2	12		C016C1248

Swivel Side Tee Adaptor
(Parallel)



Metric & BSPP Thread		O/D Tube	Pneufit C	Pneufit 10	Pneufit D	Pneufit M
M3	3		–	–	–	M02680303
M3	4		–	–	–	M02680403
M5	3		–	–	–	M02680305
M5	4		C02680405	102680405	–	M02680405
M5	6		C02680605	–	–	M02680605
M6	3		–	–	–	M02680306
M6	4		C02680406	–	–	M02680406
M6	6		C02680606	–	–	M02680606
G1/8	4		C02680418	102680418	D02680418	–
G1/8	5		–	–	D02680518	–
G1/8	6		C02680618	102680618	D02680618	–
G1/8	8		C02680818	102680818	D02680818	–
G1/8	10		C02681018	–	–	–
G1/4	4		C02680428	–	D02680428	–
G1/4	5		–	–	D02680528	–
G1/4	6		C02680628	102680628	D02680628	–
G1/4	8		C02680828	102680828	D02680828	–
G1/4	10		C02681028	102681028	D02681028	–
G1/4	12		C02681228	102681228	–	–
G3/8	4		C02680438	–	–	–
G3/8	6		C02680638	–	–	–
G3/8	8		C02680838	102680838	D02680838	–
G3/8	10		C02681038	102681038	D02681038	–
G3/8	12		C02681238	102681238	D02681238	–
G3/8	14		–	102681438	–	–
G1/2	8		C02680848	–	–	–
G1/2	10		C02681048	–	D02681048	–
G1/2	12		C02681248	–	D02681248	–
G1/2	14		–	102681448	–	–





Push-In Fittings

Tee adaptors and connectors

Swivel Side Tee
Adaptor - Taper



BSPT Thread	O/D Tube	Pneufit C	Pneufit 10	Pneufit D	Pneufit M
R1/8	4	COK510305	101680418	D01680418	M01680418
R1/8	5	COK510405	101680518	D01680518	-
R1/8	6	-	101680618	D01680618	-
R1/8	8	COK510605	101680818	D01680818	-
R1/8	10	COK510418	101681018	-	-
R1/8	12	-	-	-	-
R1/4	4	COK510618	101680428	D01680428	-
R1/4	5	-	-	D01680528	-
R1/4	6	COK510818	101680628	D01680628	-
R1/4	8	COK510428	101680828	D01680828	-
R1/4	10	COK510628	101681028	D01681028	-
R1/4	12	COK510828	101681228	-	-
R3/8	4	COK511028	-	-	-
R3/8	6	COK511228	-	-	-
R3/8	8	COK510638	101680838	D01680838	-
R3/8	10	COK510838	-	D01681038	-
R3/8	12	COK511038	101681238	D01681238	-
R3/8	14	COK511238	101681438	-	-
R1/2	6	COK510848	-	-	-
R1/2	8	COK511048	-	-	-
R1/2	10	COK511248	-	-	-
R1/2	12	-	101681248	D01681248	-
R1/2	14	-	101681448	-	-

Stem Tee
(Unequal)



O/D Stem	O/D Tube	Pneufit C
6	4	C00630604
8	6	C00630806
10	8	C00631008
12	10	C00631210

Stem Tee
(Unequal)



O/D Stem	O/D Tube	Pneufit C
6	4	C00640604
8	6	C00640806
10	8	C00641008
12	10	C00641210

Stem Tee
(Equal)



O/D Stem	O/D Tube	Pneufit C
4	4	C00630400
6	6	C00630600
8	8	C00630800
10	10	C00631000
12	12	C00631200

Stem Tee
(Equal)



O/D Stem	O/D Tube	Pneufit C
4	4	C00640400
6	6	C00640600
8	8	C00640800
10	10	C00641000
12	12	C00641200





Push-In Fittings

Banjo flow controler and banjo accessories

Banjo Flow Control - Taper
(Regulating In)



Pneufit C		
BSPT Thread	O/D Tube	
R1/8	4	COSA00418
R1/8	8	COSA00618
R1/8	8	COSA00818
R1/4	4	COSA00428
R1/4	6	COSA00628
R1/4	8	COSA00828
R1/4	10	COSA01028
R1/4	12	COSA01228
R3/8	6	COSA00638
R3/8	8	COSA00838
R3/8	10	COSA01038
R3/8	12	COSA01238
R1/2	8	COSA00848
R1/2	10	COSA01048
R1/2	12	COSA01248

Banjo Flow Control - Parallel
(Regulating In)



Pneufit C		
Metric & BSPP Thread	O/D Tube	
M5	3	COL510305
M5	4	COL510405
M5	6	COL510605
G1/8	4	COL510418
G1/8	6	COL510618
G1/8	8	COL510818
G1/4	4	COL510428
G1/4	6	COL510628
G1/4	8	COL510828
G1/4	10	COL511028
G1/4	12	COL511228
G3/8	6	COL510638
G3/8	8	COL510838
G3/8	10	COL511038
G3/8	12	COL511238
G1/2	8	COL510848
G1/2	10	COL511048
G1/2	12	COL511248

Banjo Flow Control - Taper
(Regulating Out)



Pneufit C		
BSPT Thread	O/D Tube	
R1/8	4	COTA00418
R1/8	6	COTA00618
R1/8	8	COTA00818
R1/4	4	COTA00428
R1/4	6	COTA00628
R1/4	8	COTA00828
R1/4	10	COTA01028
R1/4	12	COTA01228
R3/8	6	COTA00638
R3/8	8	COTA00838
R3/8	10	COTA01038
R3/8	12	COTA01238
R1/2	8	COTA00848
R1/2	10	COTA01048
R1/2	12	COTA01248





Push-In Fittings

Banjo flow controller and banjo accessories

Swivel Banjo
(Regulating Out - Taper)



Pneufit C		
BSPT Thread	O/D Tube	
R1/8	4	COT560418
R1/8	6	COT560618
R1/8	8	COT560818
R1/4	4	COT560428
R1/4	6	COT560628
R1/4	8	COT560828
R1/4	10	COT561038
R1/4	12	COT561228
R3/8	6	COT560638
R3/8	8	COT560838
R3/8	10	COT561048
R3/8	12	COT561238
R1/2	8	COT560828
R1/2	10	COT561048
R1/2	12	COT561248

Swivel Banjo Flow Control
(Regulating Out - Parallel)



Pneufit C		
Metric & BSPP Thread	O/D Tube	
M5	4	COK560405
M5	6	COK560605
G1/8	4	COK560418
G1/8	6	COK560618
G1/8	8	COK560818
G1/4	4	COK560428
G1/4	6	COK560628
G1/4	8	COK560828
G1/4	10	COK561038
G1/4	12	COK561228
G3/8	6	COK560638
G3/8	8	COK560838
G3/8	10	COK561048
G3/8	12	COK561238
G1/2	8	COK560828
G1/2	10	COK561048
G1/2	12	COK561248

Banjo Flow Control - Parallel
(Regulating Out)



		Pneufit C		Pneufit 10
Metric & BSPP Thread	O/D Tube			
M5	3	COK510305	–	
M5	4	COK510405		10K510405
M5	5			10K510505
M5	6	COK510605		10K510605
G1/8	4	COK510418		10K510418
G1/8	5			10K510518
G1/8	6	COK510618		10K510618
G1/8	8	COK510818		10K510818
G1/4	4	COK510428	–	
G1/4	6	COK510628		10K510628
G1/4	8	COK510828		10K510828
G1/4	10	COK511028		10K511028
G1/4	12	COK511228	–	
G3/8	6	COK510638	–	
G3/8	8	COK510838		10K510838
G3/8	10	COK511038		10K511038
G3/8	12	COK511238		10K511238
G1/2	8	COK510848	–	
G1/2	10	COK511048	–	
G1/2	12	COK511248		10K511248





Push-In Fittings

Banjo flow controller and banjo accessories

Shrouded Banjo
(Regulating Out - Taper)



Pneufit C		
BSPT Thread	O/D Tube	
R1/8	4	COTB00418
R1/8	6	COTB00618
R1/8	8	COTB00818
R1/4	4	COTB00428
R1/4	6	COTB00628
R1/4	8	COTB00828
R1/4	10	COTB01028
R1/4	12	COTB01228
R3/8	6	COTB00638
R3/8	8	COTB00838
R3/8	10	COTB01038
R3/8	12	COTB01238
R1/2	8	COTB00848
R1/2	10	COTB01048
R1/2	12	COTB01248

Shrouded Banjo
(Regulating Out - Parallel)



Pneufit C		
BSPT Thread	O/D Tube	
M5	4	COKB00405
M5	6	COKB00605
G1/8	4	COKB00418
G1/8	6	COKB00618
G1/8	8	COKB00818
G1/4	4	COKB00428
G1/4	6	COKB00628
G1/4	8	COKB00828
G1/4	10	COKB01028
G1/4	12	COKB01228
G3/8	6	COKB00638
G3/8	8	COKB00838
G3/8	10	COKB01038
G3/8	12	COKB01238
G1/2	8	COKB00848
G1/2	10	COKB01048
G1/2	12	COKB01248

Elbow Banjo Assembly
(Non-Regulating Bolt - Parallel)



Pneufit C		Pneufit 10	
Metric & BSPP Thread	O/D Tube		
M5	4	COA510405	10A510405
M5	5	-	10A510505
M5	6	COA510605	10A510605
G1/8	4	COA510418	10A510418
G1/8	6	COA510618	10A510618
G1/8	8	COA510818	10A510818
G1/4	4	COA510428	-
G1/4	6	COA510628	10A510628
G1/4	8	COA510828	10A510828
G1/4	10	COA511028	10A511028
G3/8	6	COA510638	-
G3/8	8	COA510838	10A510838
G3/8	10	COA511038	10A511038
G3/8	12	COA511238	-
G1/2	8	COA510848	-
G1/2	10	COA511048	-
G1/2	12	COA511248	-

Tee Banjo Assembly
(Non-Regulating Bolt - Parallel)



Pneufit 10	
Metric & BSPP Thread	O/D Tube
M5	4
G1/8	4
G1/8	6
G1/8	8
G1/4	6
G1/4	8

Regulating Out Banjo Parallel
Bolts Single Stacking
(Screwdriver Adjustable - Parallel)



Pneufit 10	
Metric & BSPP Thread	Flow
M5	Reg in
G1/8A	Reg out
G1/8A	Reg in
G1/8A	Bi direc
G1/4A	Reg out
G1/4A	Reg in
G1/4A	Bi direc
G3/8A	Reg in
G1/2A	Bi direc





Push-In Fittings

Banjo flow control and banjo accessories

Elbow banjo
Body - Taper



Pneufit 10		
Bolt Thread	O/D Tube	
M5	4	100S10405
M5	5	100S10505
M5	6	100S10605
G1/8	4	100S10418
G1/8	6	100S10618
G1/8	8	100S10818
G1/4	6	100S10628
G1/4	8	100S10828
G1/4	10	100S11028
G3/8	8	100S10838
G3/8	10	100S11038
G3/8	12	100S11238
G1/2	12	100S11248

Tee Banjo
Body - Taper



Pneufit 10		
Bolt Thread	O/D Tube	
M5	4	100T10405
M5	6	100T10605
G1/8	4	100T10418
G1/8	6	100T10618
G1/8	8	100T10818
G1/4	6	100T10628
G1/4	8	100T10828

Flow Control +
Pilot Check - Taper



Pneufit C		
BSPT Thread	O/D Tube	
R1/8	6	C01GN0618
R1/8	8	C01GN0818
R1/4	6	C01GN0628
R1/4	8	C01GN0828
R3/8	8	C01GN0838
R3/8	10	C01GN1038
R3/8	12	C01GN1238
R1/2	10	C01GN1048
R1/2	12	C01GN1248

Flow Control +
Pilot Check - Parallel



Pneufit C		
BSPP Thread	O/D Tube	
G1/8	6	C02GN0618
G1/8	8	C02GN0818
G1/4	6	C02GN0628
G1/4	8	C02GN0828
G3/8	8	C02GN0838
G3/8	10	C02GN1038
G3/8	12	C02GN1238
G1/2	10	C02GN1048

Banjo Bolt Non-Regulating
Single Stacking - Parallel



Metric & BSPP Thread		Pneufit 10
M5		20A000005
G1/8		20A000018
G1/4		20A000028
G3/8		20A000038
G1/2		20A000048

Banjo Bolt Non-Regulating
Double Stacking - Parallel



Metric & BSPP Thread		Pneufit 10
M5		20B000005
G1/8		20B000018
G1/4		20B000028
G3/8		20B000038
G1/2		20B000048

Banjo Bolt Non-Regulating
Triple Stacking - Parallel



BSPP Thread		Pneufit 10
G1/8		20C000018
G1/4		20C000028
G3/8		20C000038





Push-In Fittings

Cross and manifolds

Union Cross



O/D Tube	Pneufit C	Pneufit D
4	C00900400	D00900400
6	C00900600	D00900600
8	C00900800	D00900800
10	C00901000	D00901000
12	C00901200	D00901200

Stem Manifold



O/D Stem	O/D Tube	O/D Tube	Pneufit C
6	4	6	C00J30604
8	4	8	C00J30804
8	6	8	C00J30806
10	8	10	C00J31008

Manifold Union



O/D Tube Outlet	O/D Tube Inlet	Pneufit C
4	6	C00D30604
4	8	C00D30804
6	8	C00D30806
6	10	C00D31006
8	10	C00D31008

Adaptor Manifold - Taper



BSPT Thread	O/D Tube	O/D Tube	Pneufit C
R1/8	4	6	C01D30418
R1/8	4	8	C01D30428
R1/4	6	8	C01D30628
R3/8	8	10	C01D30838





Push-In Fittings

Banjos

Branch Adaptor
(Female)



Metric & BSPP & BSPT Thread		O/D Tube	Pneufit C
M5		4	COD7K0405
G1/8		6	COE7K0618
G1/4		8	COF7K0828
G1/4		10	COF7K1028
G3/8		10	COG7K1038
G3/8		12	COG7K1238
G1/2		12	COH7K1248
R1/8		6	COE7J0618
R1/4		8	COF7J0828
R1/4		10	COF7J1028
R3/8		10	COG7J1038
R3/8		12	COG7J1238
R1/2		12	COH7J1248

Branch Adaptor
(Male)



Metric & BSPP & BSPT Thread		O/D Tube	Pneufit C
M5		4	COA700405
G1/8		6	COA700618
G1/4		8	COA700828
G1/4		10	COA701028
G3/8		10	COA701038
G3/8		12	COA701238
G1/2		12	COA701248
R1/8		6	CON700618
R1/4		8	CON700828
R1/4		10	CON701028
R3/8		10	CON701038
R3/8		12	CON701238
R1/2		12	CON701248

Banjo with Top
Port - M5 & Taper



Metric & BSPT Thread		O/D Tube	Pneufit C
M5		4	COD510405
M5		6	COD510605
R1/8		4	COE510418
R1/8		6	COE510618
R1/8		8	COE510818
R1/4		4	COF510428
R1/4		6	COF510628
R1/4		8	COF510828
R1/4		10	COF511028
R3/8		6	COG510638
R3/8		8	COG510838
R3/8		10	COG511038





Push-In Fittings

Self sealing adaptors

Elbow Self-Seal



BSPT Thread	O/D Tube	Pneufit C
R1/8	4	C014J0418
R1/8	6	C014J0618
R1/8	8	C014J0818
R1/4	6	C014J0628
R1/4	8	C014J0828
R1/4	10	C014J1028
R3/8	10	C014J1038
R3/8	12	C014J1238
R1/2	10	C014J1048
R1/2	12	C014J1248

Elbow Self-Seal



Metric & BSPP Thread	O/D Tube	Pneufit C
M5	4	C024J0405
M5	6	C024J0605
G1/8	4	C024J0418
G1/8	6	C024J0618
G1/4	6	C024J0628
G1/4	8	C024J0828
G1/4	10	C024J1028
G3/8	8	C024J0838
G3/8	10	C024J1038
G3/8	12	C024J1238
G1/2	10	C024J1048
G1/2	12	C024J1248

Straight Self-Seal - Taper



BSPT Thread	O/D Tube	Pneufit C
R1/8	4	C01240418
R1/8	6	C01240618
R1/4	6	C01240628
R1/4	8	C01240828
R1/4	10	C01241028
R1/4	12	C01241228
R3/8	8	C01240838
R3/8	10	C01241038
R3/8	12	C01241238
R1/2	10	C01241048
R1/2	12	C01241248

Straight Self-Seal - Parallel



BSPP Thread	O/D Tube	Pneufit C
G1/8	4	C02240418
G1/8	6	C02240618
G1/4	6	C02240628
G1/4	8	C02240828
G1/4	10	C02241028
G1/4	12	C02241228
G3/8	8	C02240838
G3/8	10	C02241038
G3/8	12	C02241238
G1/2	10	C02241048
G1/2	12	C02241248

Union Straight Self-Seal



O/D Tube	Pneufit C
4	C002J0400
6	C002J0600
8	C002J0800
10	C002J1000
12	C002J1200





Push-In Fittings

Shut Off Valves

2/2 Shut off valves
(Tube/Tube)



O/D Tube	Pneufit D
6	D00GR0600
10	D00GR1000
12	D00GR1200

3/2 Shut off valves
(Taper Male/Tube)



BSPT Thread	O/D Tube	Pneufit C
R1/8	6	C01GJ0618
R1/8	8	C01GJ0818
R1/4	6	C01GJ0628
R1/4	8	C01GJ0828
R1/4	10	C01GJ1028
R1/4	12	C01GJ1228
R3/8	6	C01GJ0638
R3/8	8	C01GJ0838
R3/8	10	C01GJ1038
R3/8	12	C01GJ1238
R1/2	10	C01GJ1048
R1/2	12	C01GJ1248

3/2 Shut off valves
(Tube/Taper Male)



BSPT Thread	O/D Tube	Pneufit C
R1/8	6	C01GH0618
R1/8	8	C01GH0818
R1/4	6	C01GH0628
R1/4	8	C01GH0828
R1/4	10	C01GH1028
R1/4	12	C01GH1228
R3/8	6	C01GH0638
R3/8	8	C01GH0838
R3/8	10	C01GH1038
R3/8	12	C01GH1238
R1/2	10	C01GH1048
R1/2	12	C01GH1248

3/2 Shut off valves
(Taper Male)



BSPT Thread	Pneufit C
R1/8	C01GG1818
R1/4	C01GG2828
R3/8	C01GG3838
R1/2	C01GG4848

3/2 Shut off valves
(Tube/Tube)



O/D Tube	Pneufit C
6	C00GF0600
8	C00GF0800
10	C00GF1000
12	C00GF1200





Pneufit® C Selection Box

We know that many of our customers use a wide range of fittings, and if they have an emergency, valuable time is wasted looking for a replacement.

Excelon® Plus Air Preparation has been designed with flexibility and safety in mind, offering built in, tamper proof features and a unique double lock mechanism on the bowls. Maintenance of the unit is simplified with the new system where the element assembly is removed together with the bowl. The flexible design also allows in-line installation, or modular installation with other Excelon® Plus products.

Excelon® Plus ½" 84 Series is IO-Link enabled, offering the perfect solution for remote diagnostics, simplified installation and automated parameter setting.

Solve this problem by ordering our selection boxes for immediate use when required. Four kits available covering popular tube sizes:

- » Up to 360 items in each kit – straight connectors, elbows, tees, tube connectors, plugs
- » Includes handy tube cutter ensuring perfect joint
- » Strong moulded carry case
- » Contents identified for easy re-ordering

Model	Type
NE/11152	4 & 6 mm fittings kit
NE/11154	6 & 8 mm fittings kit
NE/11433	8 & 10 mm fittings kit
NE/11376	10 & 12 mm fittings kit



Find out more
[norgren.com](https://www.norgren.com)

Pneufit® 12 Push-In Fittings

Our Pneufit® metal range of push-in fittings are ideal for general pneumatic industrial applications, including applications needing the added advantage of nickel plated brass. Pneufit® is available from **Ø1/8" ... 1/2", Ø4 ... 12 mm tube size, BSP and NPT threads** and can operate in temperatures of -20°C to +80°C and pressures of vacuum to 18 bar.

Product Highlights:

- » Positive tube connection
- » Wide range of types available
- » Reliable and corrosion resistant
- » Very compact units
- » All taper threads pre-coated with non-PTFE based sealant
- » Straight Adaptors feature internal hexagon for Allen key
- » Silicon free, 'O'-rings

Shapes:

- » **Straight Fittings:** Straight Pneufit® metal fittings, including straight adapters, straight unions and bulkhead connectors.
- » **Elbow Fittings:** Elbow Pneufit® metal fittings, including elbow adapters - fixed and swivel, elbow stems and elbow unions.
- » **Tee Shape Fittings:** Tee Shaped Pneufit® metal fittings, including Tee adapters - fixed or swivel and unions tees.
- » **Banjo Fittings:** Banjo Pneufit® metal fittings, including top port connectors, flow controls - regulating in or out and multiple adapters.
- » **Y Shape Fittings:** Y shaped Pneufit® fittings, made from glass filled nylon including Y -adapters - fixed or swivel and Y-unions.



Find out more
[norgren.com](https://www.norgren.com)



NORGREN®

More Info

IMI



Push-On Tube Fitting

24 Series Metric Ø4/2,5 ... 15/12,5 mm OD/ID tube

- » Ideal for use on vacuum systems
- » For simple and quick connection of pneumatic circuits
- » Neat, compact design
- » Precision machined for complete reliability
- » Corrosion resistant
- » Unique barb shape ensures good grip on tube even if fitting is tightened by hand
- » Ideal for use in confined spaces where tight bend radii are required
- » Tubing nuts included

Technical Data

Medium:

Compressed air

Operating pressure:

Vacuum: -15 bar
(dependant on tube operating specification)

Ambient temperature:

-18°C ... +70°C
Air supply must be dry enough to avoid ice formation at temperatures below +2°C

Tube sizes:

4/2,5 mm, 5/3 mm, 6/4 mm, 8/6 mm,
10/8 mm, 12/10 mm, 15/12,5 mm OD/ID

Tube types:

Nylon 11 and 12, polyurethane

Materials

Nut & Body:

Nickel plated brass to OT58 UNI 5705

'O' ring:

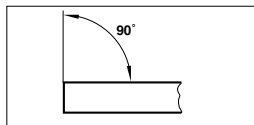
NBR 70

Sealing washer:

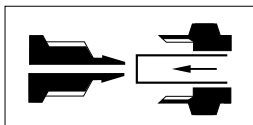
Polyamide 66



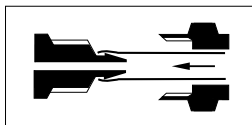
Method of assembly



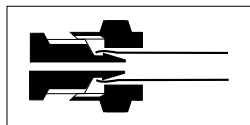
1. Ensure that the end of the tube is cut square and is free from burrs.



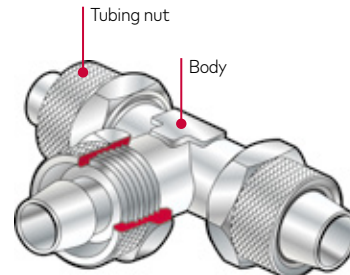
2. Place the knurled nut over the tube.



3. Push the tube over the barbed end of the fitting up to the tube stop.



4. Screw the knurled nut onto the fitting until finger tight. The hexagon on the nut is to aid release.





Push-On Tube Fitting

24 Series Metric Ø4/2,5 ... 15/12,5 mm OD/ID tube

Straight Male Adaptor



Male BSPT	O/D I/D Tube	Model
R1/8	4/2,5	241250418
R1/8	6/4	241250618
R1/8	8/6	241250818
R1/8	10/8	241251018
R1/4	6/4	241250628
R1/4	8/6	241250828
R1/4	10/8	241251028
R3/8	6/4	241250638
R3/8	8/6	241250838
R3/8	10/8	241251038
R3/8	12/10	241251238
R1/2	8/6	241250848
R1/2	10/8	241251048
R1/2	12/10	241251248

Straight Connector



O/D I/D Tube	O/D I/D Tube	Model
4/2,5	4/2,5	240200400
6/4	6/4	240200600
8/6	6/4	240200806
8/6	8/6	240200800
10/8	10/8	240201000
12/10	12/10	240201200

Straight Female Adaptor



Female BSPP	O/D I/D Tube	Model
G1/8	6/4	242260618
G1/8	8/6	242260818
G1/4	6/4	242260628
G1/4	8/6	242260828
G1/4	10/8	242261028
G3/8	6/4	242260638
G3/8	8/6	242260838
G3/8	10/8	242261038
G1/2	8/6	242260848
G1/2	10/8	242261048

Straight Male Adaptor



Male BSPP	O/D I/D Tube	Model
M5	4/2,5	242250405
M5	6/4	242250605
G1/8	4/2,5	242250418
G1/8	6/4	242250618
G1/8	8/6	242250818
G1/8	10/8	242251018
G1/4	8/6	242250828
G1/4	10/8	242251028
G3/8	6/4	242250638
G3/8	8/6	242250838
G3/8	10/8	242251038
G3/8	10/8	242251238
G1/2	6/4	242250648
G1/2	8/6	242250848
G1/2	10/8	242251048
G1/2	10/8	242251248
G1/2	15/12,5	242251548





Push-On Tube Fitting

24 Series Metric Ø4/2,5 ... 15/12,5 mm OD/ID tube

Bulkhead Connector



O/D I/D Tube	Model
4/2,5	240290400
6/4	240290600
8/6	240290806
8/6	240290800
10/8	240291000
12/10	240291200

Elbow Male Adaptor



Male BSPT	O/D I/D Tube	Model
R1/8	4/2,5	241450418
R1/8	6/4	241450618
R1/8	8/6	241450818
R1/8	10/8	241451018
R1/4	6/4	241450628
R1/4	8/6	241450828
R1/4	10/8	241451028
R3/8	6/4	241450638
R3/8	8/6	241450838
R3/8	10/8	241451038
R3/8	12/10	241451238
R1/2	8/6	241450848
R1/2	10/8	241451048
R1/2	12/10	241451248

Equal Cross Connector



O/D I/D Tube	Model
6/4	240900600
8/6	240900800
10/8	240901000
12/10	240901200

Swivel Elbow Adaptor



Male BSPP	O/D I/D Tube	Model
G1/8	6/4	242470618
G1/8	8/6	242470818
G1/4	6/4	242470628
G1/4	8/6	242470828
G1/4	10/8	242471028





Push-On Tube Fitting

24 Series Metric Ø4/2,5 ... 15/12,5 mm OD/ID tube

Tee Connector



O/D I/D Tube	Model
4/2,5	240600400
6/4	240600600
8/6	240600806
8/6	240600800
10/8	240601006
10/8	240601008
10/8	240601000
12/10	240601200

Banjo Flow Regulator Regulating Out



Bolt Thread	O/D I/D Tube	Model
M5	4/2,5	24K510405
M5	6/4	24K510605
G1/8	4/2,5	24K510418
G1/8	6/4	24K510618
G1/8	8/6	24K510818
G1/4	6/4	24K510628
G1/4	8/6	24K510828
G1/4	10/8	24K511028

Elbow Banjo Assembly Non-Regulating



Bolt Thread	O/D I/D Tube	Model
M5	4/2,5	24A510405
M5	6/4	24A510605
G1/8	4/2,5	24A510418
G1/8	6/4	24A510618
G1/8	8/6	24A510818
G1/4	6/4	24A510628
G1/4	8/6	24A510828
G1/4	10/8	24A511028
G3/8	6/4	24A510638
G3/8	8/6	24A510838
G3/8	12/10	24A511238
G1/2	12/10	24A511248

Supplied complete with sealing washer.





Compression Fittings External Nut

43 Series Metric Ø4 ... 22 mm O/D tube

- » Rugged and durable
- » Ideal for most industrial applications
- » Wide range of types and sizes
- » Thread sizes from 1/8" to 1" BSP
- » Supplied assembled with tubing sleeves, nuts and appropriate seals

Technical Data

Medium:

These fittings are designed for use with compressed air, oils, water and other fluids used in pneumatic and low pressure hydraulic applications. Consult our Technical Service for details.

Operating pressure:

The maximum working pressure is limited by the type of tubing being used.

Ambient temperature:

The maximum working temperature is limited by the type of tubing being used.

Tube sizes:

4, 6, 8, 10, 12, 14, 15, 16, 18, 22 mm O/D

Threads used on products conform to:

ISO 71 Taper BSP

ISO 228 Parallel BSP

ISO R/226 metric

Tube types:

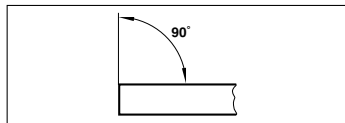
Nylon 11 or 12 and other plasticised or unplasticised tubing and other soft plastic tubing
Copper, annealed and half-hard
Double wall brazed steel tube (Bundy)

Materials

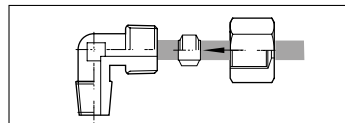
Brass to OT 58 UNI 5705 for all items, except sealing washers which are nylon. All brass items have a nickel plated finish unless otherwise stated.



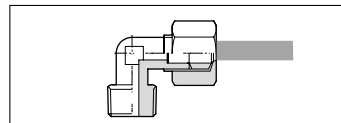
Technical Data



1. Ensure that the tube is cut square and is free from fraze.



2. For larger sizes of metal tubes it is beneficial to lightly oil the tubing nut and sleeve before tightening the joint. Place the tubing nut and sleeve on the tube and push the tube into the fitting until it bottoms on the tube stop.



3. Holding the tube firmly in contact with the tube stop screw the tubing nut down finger tight and then tighten a further 11/4-11/2 full turns. Slacken off the assembly and ensure that the groove made by sleeve is even. Release nut and re-tighten nut an extra quarter turn.

Note

When fitting to curved tubes ensure that section entering the fitting is straight for a minimum of twice the nut height.

The method of preparation and assembly described will ensure leak-proof joints over a wide pressure range, depending upon the size and type of tubing being used. Failure to follow this guide, or over-tightening at any joint, may lead to damage of the fittings or an unsatisfactory seal.





Compression Fittings External Nut

43 Series Metric Ø4 ... 22 mm O/D tube



Straight Male Adaptor

BSPP Thread	O/D Tube	Model
G1/8	4	432250418
G1/8	6	432250618
G1/8	8	432250818
G1/4	6	432250628
G1/4	8	432250828
G1/4	10	432251028
G3/8	8	432250838
G3/8	10	432251038
G3/8	14	432251438
G1/2	14	432251448
G3/4	22	432252268
G1	22	432252288



Straight Connector

O/D Tube	Model
4	430200400
6	430200600
8	430200800
10	430201000
12	430201200
14	430201400
15	430201500
16	430201600
18	430201800
22	430202200



Straight Male Adaptor

BSPT Thread	O/D Tube	Model
R1/8	4	431250418
R1/8	6	431250618
R1/8	8	431250818
R1/4	4	431250428
R1/4	6	431250628
R1/4	8	431250828
R1/4	10	431251028
R1/4	12	431251228
R3/8	6	431250638
R3/8	8	431250838
R3/8	10	431251038
R3/8	12	431251238
R3/8	14	431251438
R1/2	10	431251048
R1/2	12	431251248
R1/2	14	431251448
R1/2	15	431251548
R1/2	16	431251648
R1/2	18	431251848
R1/2	22	431252248
R3/4	16	431251668
R3/4	18	431251868
R3/4	22	431252268





Compression Fittings External Nut

43 Series Metric Ø4 ... 22 mm O/D tube



Straight Female Adaptor

BSPP Thread	O/D Tube	Model
G1/8	4	432260418
G1/8	6	432260618
G1/8	8	432260818
G1/4	6	432260628
G1/4	8	432260828
G1/4	10	432261028
G1/4	12	432261228
G3/8	8	432260838
G3/8	10	432261038
G3/8	12	432261238
G3/8	14	432261438
G1/2	10	432261048
G1/2	12	432261248
G1/2	14	432261448
G1/2	15	432261548
G1/2	16	432261648
G1/2	18	432261848
G3/4	16	432261668
G3/4	18	432261868
G3/4	22	432262268

Bulkhead Connector



O/D Tube	O/D Tube	Model
4	M8x1,0	430290400
6	M10x1,0	430290600
8	M12x1,0	430290800
10	M16x1,5	430291000
12	M18x1,5	430291200
14	M20x1,5	430291400

Minimum bulkhead thickness 3,0 mm.

Straight Stem Adaptor



BSPP Thread	O/D Stem	Model
G1/8	6	432150618
G1/8	8	432150818
G1/4	6	432150628
G1/4	8	432150828
G1/4	10	432151028
G3/8	8	432150838
G3/8	10	432151038
G3/8	14	432151438
G1/2	14	432151448





Compression Fittings External Nut

43 Series Metric Ø4 ... 22 mm O/D tube



Male Elbow Adaptor

BSPT Thread	O/D Tube	Model
R1/8	4	431450418
R1/8	6	431450618
R1/8	8	431450818
R1/4	6	431450628
R1/4	8	431450828
R1/4	10	431451028
R1/4	12	431451228
R3/8	8	431450838
R3/8	10	431451038
R3/8	12	431451238
R3/8	14	431451438
R1/2	10	431451048
R1/2	12	431451248
R1/2	14	431451448
R1/2	15	431451548
R1/2	16	431451648
R1/2	18	431451848
R3/4	18	431451868
R3/4	22	431452268



Male Tee Adaptor

BSPT Thread	O/D Tube	Model
R1/8	4	431650418
R1/8	6	431650618
R1/8	8	431650818
R1/4	6	431650628
R1/4	8	431650828
R1/4	10	431651028
R1/4	12	431651228
R3/8	8	431650838
R3/8	10	431651038
R3/8	12	431651238
R3/8	14	431651438
R1/2	10	431651048
R1/2	12	431651248
R1/2	14	431651448
R1/2	15	431651548
R1/2	16	431651648
R1/2	18	431651848
R3/4	18	431651868
R3/4	22	431652268





Compression Fittings External Nut

43 Series Metric Ø4 ... 22 mm O/D tube

Elbow Connector



O/D Tube	Model
4	430400400
6	430400600
8	430400800
10	430401000
12	430401200
14	430401400
15	430401500
16	430401600
18	430401800
22	430402200



Tee Connector

O/D Tube	Model
4	430600400
6	430600600
8	430600800
10	430601000
12	430601200
14	430601400
15	430601500
16	430601600
18	430601800
22	430602200

Male Tee Adaptor



BSPT Thread	O/D Tube	Model
R1/8	4	431650418
R1/8	6	431650618
R1/8	8	431650818
R1/4	6	431650628
R1/4	8	431650828
R1/4	10	431651028
R1/4	12	431651228
R3/8	8	431650838
R3/8	10	431651038
R3/8	12	431651238
R3/8	14	431651438
R1/2	10	431651048
R1/2	12	431651248
R1/2	14	431651448
R1/2	15	431651548
R1/2	16	431651648
R1/2	18	431651848
R3/4	18	431651868
R3/4	22	431652268

Male Side Tee Adaptor



BSPT Thread	O/D Tube	Model
R1/8	4	431750418
R1/8	6	431750618
R1/8	8	431750818
R1/4	6	431750628
R1/4	8	431750828
R3/8	8	431750838





Compression Fittings External Nut

43 Series Metric Ø4 ... 22 mm O/D tube



Four Way Connector

O/D Tube	Model
4	430900400
6	430900600
8	430900800
10	430901000
12	430901200
14	430901400



Reducing Connector

O/D Tube	O/D Tube	Model
6	4	430280604
8	6	430280806
10	8	430281008
12	10	430281210
14	12	430281412

Natural brass finish for sleeve and reducer.



Universal Tubing Sleeve

O/D Tube	Model
4	430020400
6	430020600
8	430020800
10	430021000
12	430021200
14	430021400
15	430021500
16	430021600
18	430021800
22	430022200

Natural brass finish.



Elbow Banjo Assembly

BSP Thread	O/D Tube	Model
G1/8	4	43A510418
G1/8	6	43A510618
G1/8	8	43A510818
G1/4	6	43A510628
G1/4	8	43A510828
G1/4	10	43A511028
G1/4	14	43A511428
G3/8	8	43A510838
G3/8	10	43A511038
G3/8	14	43A511438
G1/2	14	43A511448
G3/4	22	43A512268



Tube Support

O/D I/D Tube	Model
4/2,7	430330403
6/4	430330604
8/6	430330806
10/8	430331008
12/9	430331209
14/10	430331210
14/12	430331412
15/12,5	430331512
16/13	430331613
18/15	430331815
18/16	430331816
22/18	430332218

Natural brass finish. For use on plastic tubing.





BSP & Hose Fittings

M5, 1/8" ... 1" BSP

- » Bright nickel plated
- » Corrosion resistant
- » Compact design
- » Washers included where necessary

Technical Data

Medium:

Compressed air or any fluids compatible with the materials listed opposite

Operating pressure:

Generally limited by tubing specification, except non regulating banjo bolts (max 18 bar) and regulating banjo bolts (max 10 bar) due to sealing washer

Ambient temperature:

Generally limited by tubing specification except where plastic sealing washers are used (banjo bolts, and M5 units). In these cases temperature is limited to +70°C.

Materials

Bar parts:

Brass to BS 2874:
1986 (CZ 121), bright nickel plated

Stamped parts:

Brass to BS 2872:
1969 (CZ 122), bright nickel plated

Sealing washers:

Copper (Acetal for M5 items)



Sleeve Adaptor (Parallel Threads)

Metric & BSPP Thread	Metric & BSPP Thread	Model
M5	M5	160220505
G1/8	M5	160221805
G1/8	G1/8	160221818
G1/4	G1/8	160222818
G1/4	G1/4	160222828
G3/8	G1/8	160223818
G3/8	G1/4	160223828
G3/8	G3/8	160223838
G1/2	G1/8	160224818
G1/2	G1/4	160224828
G1/2	G3/8	160224838
G1/2	G1/2	160224848
G3/4	G1/2	160226848
G3/4	G3/4	160226868
G1	G3/4	160228868
G1	G1	160228888





BSP & Hose Fittings

M5, 1/8" ... 1" BSP

Reducing Connector (Parallel)



Male BSPP	Female and BSPP Thread	Model
G1/8	M5	160231805
G1/4	G1/8	160232818
G3/8	G1/8	160233818
G3/8	G1/4	160233828
G1/2	G1/8	160234818
G1/2	G1/4	160234828
G1/2	G3/8	160234838
G3/4	G1/4	160236828
G3/4	G3/8	160236838
G3/4	G1/2	160236848

Reducing Connector



Male BSPT	Female BSPP	Model
R1/8	G1/8	150231818
R1/4	G1/8	150232818
R1/4	G1/4	150232828
R3/8	G1/8	150233818
R3/8	G1/4	150233828
R3/8	G3/8	150233838
R1/2	G1/8	150234818
R1/2	G1/4	150234828
R1/2	G3/8	150234838
R1/2	G1/2	150234848
R3/4	G1/4	150236828
R3/4	G3/8	150236838
R3/4	G1/2	150236848
R1	G1/2	150238848
R1	G3/4	150238868

Expanding Connector (Parallel)



Metric & BSPP Thread	Female BSPP	Model
M5	G1/8	160230518
G1/8	G1/4	160231828
G1/8	G3/8	160231838
G1/4	G3/8	160232838
G1/4	G1/2	160232848
G3/8	G1/2	160233848
G1/2	G3/4	160234868

Supplied with sealing washer.

Expanding Connector (Taper)



Male BSPT	Female BSPP	Model
R1/8	G1/4	150231828
R1/8	G3/8	150231838
R1/4	G3/8	150232838
R1/4	G1/2	150232848
R3/8	G1/2	150233848
R3/8	G3/4	150233868
R1/2	G3/4	150234868
R3/4	G1	150236888





BSP & Hose Fittings

M5, 1/8" ... 1" BSP

Adaptor



Female NPTF	Male BSPT	Model
1/8 NPT	R1/8	154231818
1/4 NPT	R1/4	154232828
3/8 NPT	R3/8	154233838
1/2 NPT	R1/2	154234848

Female BSPP	Male NPT	Model
G1/4	1/8 NPT	172232828
G3/8	3/8 NPT	172233838

Nipple Adaptor (Taper Threads)



BSPT Thread	BSPT Thread	Model
R1/8	R1/8	150201818
R1/4	R1/8	150202818
R1/4	R1/4	150202828
R3/8	R1/8	150203818
R3/8	R1/4	150203828
R3/8	R3/8	150203838
R1/2	R1/8	150204818
R1/2	R1/4	150204828
R1/2	R3/8	150204838
R1/2	R1/2	150204848
R3/4	R1/2	150206848
R3/4	R3/4	150206868
R1	R3/4	150208868
R1	R1	150208888

Bulkhead Connector



Metric & BSPP Thread	Male Metric Thread	Model
M5	M10x1,0	160290005
G1/8	M16x1,5	160290018
G1/4	M20x1,5	160290028
G3/8	M26x1,5	160290038
G1/2	M28x1,5	160290048
G3/4	M33x1,5	160290068
G1	M42x1,5	160290088
G1 1/4	M48x1,5	1602900a8

Supplied with locknut.

Flat Union (Taper Threads)



Male BSPT	Model
R1/8	150331818
R1/4	150332828
R3/8	150333838
R1/2	150334848
R3/4	150336868
R1	150338888





BSP & Hose Fittings

M5, 1/8" ... 1" BSP



Nipple Adaptor (Parallel Threads)

Metric & BSPP Thread	Metric & BSPP Thread	Model
M5	M5	160200505
G1/8	M5	160201805
G1/8	G1/8	160201818
G1/4	G1/8	160202818
G1/4	G1/4	160202828
G3/8	G1/4	160203828
G3/8	G3/8	160203838
G1/2	G1/4	160204828
G1/2	G3/8	160204838
G1/2	G1/2	160204848
G3/4	G1/2	160206848
G3/4	G3/4	160206868
G1	G3/4	160208868
G1	G1	160208888

Supplied with sealing washers.



Nipple Adaptor (BSPT/NPTF)

Male BSPT	Male NPTF	Model
R1/8	1/8 NPT	154201818
R1/4	1/8 NPT	154202828
R3/8	3/8 NPT	154203838
R1/2	1/2 NPT	154204848

Adaptor fittings – allow connection between components and system using BSP or NPT threads.



Elbow Connector (Parallel Threads)

Female BSPP	Model
G1/8	160420018
G1/4	160420028
G3/8	160420038
G1/2	160420048
G3/4	160420068



Tee Connector

Male BSPT	Female BSPP	Model
R1/8	G1/8	150690018
R1/4	G1/4	150690028
R3/8	G3/8	150690038
R1/2	G1/2	150690048





BSP & Hose Fittings

M5, 1/8" ... 1" BSP

Plug (Taper Threads)



BSPT Thread	Model
R1/4	150050028
R3/8	150050038
R1/2	150050048
R3/4	150050068
R1	150050088

Plug (Parallel Threads)



Metric & BSPP Threads	Model
M5	160050005
G1/8	160050018
G1/4	160050028
G3/8	160050038
G1/2	160050048
G3/4	160050068
G1	160050088

Supplied with sealing washer.

Elbow Connector



Male BSPT	Female BSPP	Model
R1/8	G1/8	150430018
R1/4	G1/4	150430028
R3/8	G3/8	150430038
R1/2	G1/2	150430048
R3/4	G3/4	150430068

Elbow Connector (Taper Threads)



BSPT Thread	Model
R1/8	150400018
R1/4	150400028
R3/8	150400038
R1/2	150400048





BSP & Hose Fittings

M5, 1/8" ... 1" BSP

Tee Connector (Parallel Threads)



Female BSPP	Model
G1/8	160620018
G1/4	160620028
G3/8	160620038
G1/2	160620048
G3/4	160620068



Tee Connector (Taper Threads)

BSPT Thread	Model
R1/8	150600018
R1/4	150600028
R3/8	150600038
R1/2	150600048
R3/4	150600068
R1	150600088

Hose Adaptor (Taper Threads)



Hose Bore mm	BSPT Thread	Model
4	R1/8	291170418
6	R1/8	291170618
6	R1/4	291170628
7	R1/8	291170718
7	R1/4	291170728
7	R3/8	291170738
8	R1/4	291170828
8	R3/8	291170838
9	R1/8	291170918
9	R1/4	291170928
9	R3/8	291170938
9	R1/2	291170948
10	R1/8	291171018
10	R1/4	291171028
10	R3/8	291171038
12	R3/8	291171238
16	R3/8	291171638
16	R1/2	291171648
16	R3/4	291171668
25	R3/4	291172568
25	R1	291172588
32	R1	291173288





BSP & Hose Fittings

M5, 1/8" ... 1" BSP

Hose Adaptor (Parallel Threads)



Hose Bore mm	BSP Thread	Model
3	M5	292170305
4	G1/8	292170418
6	G1/8	292170618
6	G1/4	292170628
9	G1/8	292170918
9	G1/4	292170928
9	G3/8	292170938
9	G1/2	292170948
19	G3/4	292171968

Supplied with sealing washer.

Elbow Banjo Assembly Non-Regulating (Parallel Threads)



Male BSPP	Female BSPP	Model
G1/8	G1/8	16AS11818
G1/4	G1/4	16AS12828
G3/8	G3/8	16AS13838
G1/2	G1/2	16AS14848

Female parallel BSP thread to male parallel BSP thread.

Elbow Banjo Body (Parallel Threads)



Female BSPP	Bolt Thread	Model
G1/8	1/8"	160511818
G1/4	1/4"	160512828
G3/8	3/8"	160513838
G1/2	1/2"	160514848

Female parallel BSP thread.

Elbow Banjo Assembly Regulating Out (Parallel Threads)



Male BSPP	Female BSPP	Model
G1/8	G1/8	16KS11818
G1/4	G1/4	16KS12828
G3/8	G3/8	16KS13838
G1/2	G1/2	16KS14848

Arrow on bolt hexagon indicates free flow direction.

Pressure range 1 ... 10 bar.



Compression fittings for use under extreme conditions of temperature and pressure – 34 & 36 Series

Norgren full fittings range features 10000+ fittings, probably the most comprehensive range available from a single supplier. The Norgren compression fittings are quick and easy to use. Ideally suited for most general industrial applications.

Product Highlights:

- » Wide range of types and sizes – Metric & imperial
- » Rugged and durable
- » Thread adaptor not required when machining profile is utilised
- » Maximum pressures are often limited by the tubing used



Machining profile available so there is no requirement for thread adaptors

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97400 Fleetfit Push-In Fittings

Ø6 ... 18 mm

Norgren's breadth and depth of industry and applications experience has been used to create a huge range of applications that have helped customers achieve competitive advantage.

Product Highlights:

- » Corrosion resistant
- » Easy identification - All collets marked with tube size
- » Reduced assembly and maintenance times provide time/labour savings
- » Comply with relevant standards and legislation
- » Simple tube connection and disconnection – no tools required
- » Greater reliability and reduced testing
- » Ease of tube insertion in areas of restricted access



Find out more
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Tubing & Hoses

Ø3 ... 16 mm O/D

- » Available in a range of colours for ease of identification
- » In addition to general industrial applications Nylon is suitable for use on air braking systems of commercial vehicles and conforms to DIN 74324. (Applicable sizes; 6, 8, 10, 12, 16 mm O/D)
- » 25 metre lengths supplied in cartons providing good protection and easy storage
- » Polyurethane offers excellent mechanical properties and industry leading flexibility

Technical Data

Medium:

Compressed air. Consult our Technical Service for use with other fluids.

Operating pressure:

See table below

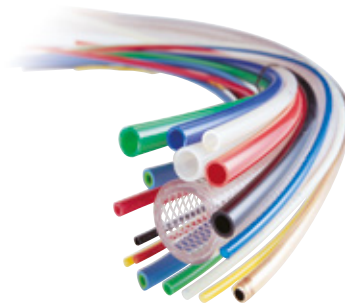
Materials

Nylon tube:

Nylon (polyamide) type PA12 fully plasticised and light stabilised. Conforms to material standard of DIN 74324

Polyurethane tube:

Is light stabilised and has a hardness of Shore D 52 (98 Shore A)



Maximum operating pressures and bend radii

O/D mm		4	5	6	8	10	12	14	16
Max. pressure (bar)* at -40°C ... +20°C	Nylon	31	33	27	19	19	19	16	19
	Polyurethane	10	11	9	9	9	9	–	–
Min. bend radius mm	Nylon	25	25	30	40	60	60	80	95
	Polyurethane	6	7	9	16	17	25	–	–

Maximum continuous working temperature: nylon +80°C, polyurethane +60°C.

* Multiply by factors in table below for use at higher temperatures.





Tubing & Hoses

Ø3 ... 16 mm O/D

Operating pressure/temperature conversion factors

Working temperature	Factor (Nylon)	Factor (Polyurethane)
-40°C ... +20°C	1	1
+30°C	0,83	0,85
+40°C	0,75	0,7
+50°C	0,64	0,6
+60°C	0,57	0,5
+80°C	0,47	-

To calculate working pressures at various temperatures, multiply working pressure at -40°C ... +20°C by factor given in table.

Maximum continuous working temperature: Nylon +80°C, Polyurethane +60°C.

Tube sizes (metric)

O/D mm	3	4	5	6	8	10	12	14	16
Nylon	—	•	•	•	•	•	•	•	•
Polyurethane	•	•	•	•	•	•	•	•	•





Tubing & Hoses

Ø3 ... 16 mm O/D



Nylon tube

Colour	Length (m)	O/D I/D tube 4/2,5*	5/3*	6/4	8/6	10/7,5	12/9	14/11*	16/12
Natural	25	PA2-0004025C	PA2-0005025C	PA2-0006025C	PA2-0008025C	PA2-0010025C	PA2-0012025C	PA2-0014025C	PA2-0016025C
Natural	100	PA2-0004100	–	PA2-0006100	PA2-0008100	PA2-0010100	PA2-0012100	–	–
Red	25	PA2-0104025C	PA2-0105025C	PA2-0106025C	PA2-0108025C	PA2-0110025C	PA2-0112025C	PA2-0114025C	PA2-0116025C
Red	100	PA2-0104100	–	PA2-0106100	PA2-0108100	PA2-0110100	PA2-0112100	–	–
Green	25	PA2-0204025C	PA2-0205025C	PA2-0206025C	PA2-0208025C	PA2-0210025C	PA2-0212025C	PA2-0214025C	PA2-0216025C
Green	100	PA2-0204100	–	PA2-0206100	PA2-0208100	PA2-0210100	PA2-0212100	–	–
Yellow	25	PA2-0304025C	PA2-0305025C	PA2-0306025C	PA2-0308025C	PA2-0310025C	PA2-0312025C	PA2-0314025C	PA2-0316025C
Yellow	100	PA2-0304100	–	PA2-0306100	PA2-0308100	PA2-0310100	PA2-0312100	–	–
Blue	25	PA2-0504025C	PA2-0505025C	PA2-0506025C	PA2-0508025C	PA2-0510025C	PA2-0512025C	PA2-0514025C	PA2-0516025C
Blue	100	PA2-0504100	–	PA2-0506100	PA2-0508100	PA2-0510100	PA2-0512100	–	–
Black	25	PA2-0704025C	PA2-0705025C	PA2-0706025C	PA2-0708025C	PA2-0710025C	PA2-0712025C	PA2-0714025C	PA2-0716025C
Black	100	PA2-0704100	–	PA2-0706100	PA2-0708100	PA2-0710100	PA2-0712100	–	–
Silver	25	PA2-0904025C	PA2-0905025C	PA2-0906025C	PA2-0908025C	PA2-0910025C	PA2-0912025C	PA2-0914025C	PA2-0916025C
Silver	100	PA2-0904100	–	PA2-0906100	PA2-0908100	PA2-0910100	PA2-0912100	–	–

Note: 'C' at last digit in part number indicates packed in a box/carton.

* Tube size does not conform to DIN 74324.





Tubing & Hoses

Ø3 ... 16 mm O/D



Polyurethane tube

Colour	Length (m)	O/D I/D tube 3/2	4/2,5	5/3	6/4	8/5,5	10/7	12/8	16/11
Natural	25	PU2-0003025C	PU2-0004025C	PU2-0005025C	PU2-0006025C	PU2-0008025C	PU2-0010025C	PU2-0012025C	PU2-0016025C
Natural	100	–	PU2-0004100	–	PU2-0006100	PU2-0008100	PU2-0010100	PU2-0012100	–
Red	25	–	PU2-0104025C	PU2-0105025C	PU2-0106025C	PU2-0108025C	PU2-0110025C	PU2-0112025C	–
Red	100	–	PU2-0104100	–	PU2-0106100	PU2-0108100	PU2-0110100	PU2-0112100	–
Green	25	–	PU2-0204025C	PU2-0205025C	PU2-0206025C	PU2-0208025C	PU2-0210025C	PU2-0212025C	–
Green	100	–	PU2-0204100	–	PU2-0206100	PU2-0208100	PU2-0210100	PU2-0212100	–
Yellow	25	–	PU2-0304025C	PU2-0305025C	PU2-0306025C	PU2-0308025C	PU2-0310025C	PU2-0312025C	–
Yellow	100	–	PU2-0304100	–	PU2-0306100	PU2-0308100	PU2-0310100	PU2-0312100	–
Blue	25	PU2-0503025C	PU2-0504025C	PU2-0505025C	PU2-0506025C	PU2-0508025C	PU2-0510025C	PU2-0512025C	PU2-0516025C
Blue	100	–	PU2-0504100	–	PU2-0506100	PU2-0508100	PU2-0510100	PU2-0512100	–
Black	25	–	PU2-0704025C	PU2-0705025C	PU2-0706025C	PU2-0708025C	PU2-0710025C	PU2-0712025C	–
Black	100	–	PU2-0704100	–	PU2-0706100	PU2-0708100	PU2-0710100	PU2-0712100	–
Silver	25	–	PU2-0904025C	–	PU2-0906025C	PU2-0908025C	PU2-0910025C	PU2-0912025C	–
Silver	100	–	PU2-0904100	–	PU2-0906100	PU2-0908100	PU2-0910100	PU2-0912100	–

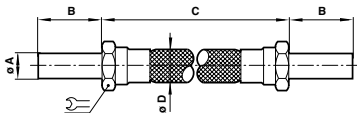
Note: 'C' at last digit in part number indicates packed in a box/carton.





Tubing & Hoses

Ø3 ... 16 mm O/D



Metal braided rubber hose

Pressure (bar)*	O/D mm ØA	B	Length (mm)							
			C	250	300	400	500	600	750	1000
69	6	23	–	–	42004000300	–	–	42004000600	42004000750	42004001000
69	8	26	42005000250	–	–	42005000400	42005000500	42005000600	42005000750	42005001000
69	10	28	42006000250	42006000300	42006000400	42006000500	42006000600	42006000750	42006001000	–
47	12	30	–	42007000300	42007000400	42007000500	42007000600	42007000750	42007001000	–

* Maximum working pressure at -20°C ... +100°C for fluids other than compressed air. Maximum with compressed air is 10 bar.

Installation notes:

- 1. Flexible hose is weakened when installed in a twisted position.
- 2. Ample bend radius should be allowed to avoid collapsing the hose.
- 3. When hose is installed in a flexing application remember that metal end fittings are not part of the flexible portion.
- 4. Use elbows or adaptors to eliminate excess hose bends.
- 5. Not suitable for use with push-in-fittings.



Pneuflex Tubing

Model	O/D tube	Adaptor (thread)	Length of closed spiral	Working length (mm)	Operating pressure (bar)
PU310600218	6	R1/8	165	2000	10
PU310800228	8	R1/4	180	2000	10
PU310800428	8	R1/4	400	4000	10





Tubing & Hoses

Ø3 ... 16 mm O/D

Weld Tubing



Black Model	Blue Model	Diameter (mm)	Length (m)	Operating pressure at 23°C max. (bar)
NORWELD0706050	NORWELD0506050	6	50	25
NORWELD0708050	NORWELD0508050	8	50	25
NORWELD0710050	NORWELD0510050	10	50	15
NORWELD0712050	NORWELD0512050	12	50	12
NORWELD0714050	NORWELD0514050	14	50	12

Ideally suited for use with 10 series pneufit fittings in welding environment applications. Check technical specification for temperature conversion factors.

Tubing Channels



Model	O/D Tube	No. of channels
100HA0600	6	10
100HA0800	8	10
100H61200	12	6

Tube Cutter



Model	Type
M/3314	Cutter
39012010	Replacement blade (pack of 10)

For use on nylon and polyurethane tubing 4 ... 16 mm.

Tube Clips – single sided



Model	O/D
34021802	4
34021804	6
34021805	8
34021806	10
34021807	12
34021508	16





Quick Release Couplings

233 Series

Nominal diameter 5 = 20 mm²



- » Single shut off: The hose connection (plug) has a through bore whilst the upstream coupling shuts off immediately when the connection is broken. The ideal solution for simple air tools or similar.
- » Single handed operation
- » Compact robust construction
- » High flow, low pressure drop

Technical Data

Operating pressure:

0 ... 35 bar

Working temperature:

-20°C ... +100°C

Air supply must be dry enough to avoid ice formation at temperatures below +2°C

Air flow:

560 l/min (6 bar inlet, pressure drop 0,5 bar)

Materials

Coupling:

Body & Sleeve:

Nickel plated brass

Valve:

Brass

Spring & Locking ring/balls:

Stainless steel

Seals:

NBR

Plug:

Body:

Nickel plated steel

233 Series

Nominal diameter 5 = 20 mm²



- » Double shut off: After disconnection the flow stops in both coupling w plug. The medium is retained in both connection lines and pressure is not released.
- » Single handed operation
- » Compact robust construction
- » High flow, low pressure drop
- » Wide range of connections

Technical Data

Operating pressure:

0 ... 35 bar

Working temperature:

-20°C ... +100°C

Air supply must be dry enough to avoid ice formation at temperatures below +2°C

Air flow:

310 l/min (6 bar inlet, pressure drop 0,5 bar)

Materials

Coupling:

Body & Sleeve:

Nickel plated brass

Valve:

Brass

Spring & Locking ring/balls:

Stainless steel

Seals:

NBR

Plug:

Body:

Nickel plated steel





Quick Release Couplings

238 Series

Nominal diameter 7,2 = 40 mm²



- » Single shut off: The hose connection (plug) has a through bore whilst the upstream coupling shuts off immediately when the connection is broken. The ideal solution for simple air tools or similar.
- » Single handed operation
- » European standard industrial coupling
- » High flow rate, low pressure drop
- » Industrial standard profile

Technical Data

Operating pressure:

0 ... 35 bar

Working temperature:

-20°C ... +100°C

Air supply must be dry enough to avoid ice formation at temperatures below +2°C

Air flow:

1000 l/min (input pressure 6 bar, pressure drop 0,5 bar)

Materials

Coupling:

Body & Sleeve:

Nickel plated brass

Valve:

Brass

Spring & Locking ring/balls:

Stainless steel

Seals:

NBR

Plug:

Body:

Nickel plated brass

234 Series

Nominal diameter 7,8 = 48 mm²



- » Single shut off: The hose connection (plug) has a through bore whilst the upstream coupling shuts off immediately when the connection is broken. The ideal solution for simple air tools or similar.
- » Single handed operation
- » Low pressure drop
- » High flow rate

Technical Data

Operating pressure:

0 ... 35 bar

Working temperature:

-20°C ... +100°C

Air supply must be dry enough to avoid ice formation at temperatures below +2°C

Air flow:

1800 l/min (input pressure 6 bar, pressure drop 0,5 bar)

Materials

Coupling:

Body & Sleeve:

Nickel plated steel

Valve:

Brass

Spring & Locking ring/balls:

Stainless steel

Seals:

NBR

Plug:

Body:

Nickel plated steel





Quick Release Couplings

237 Series

Nominal diameter 5,5 = 25 mm²



- » Single shut off: The hose connection (plug) has a through bore whilst the upstream coupling shuts off immediately when the connection is broken. The ideal solution for simple air tools or similar.

Technical Data

Operating pressure:

0 ... 35 bar

Working temperature:

-20°C ... +100°C

Air supply must be dry enough to avoid ice formation at temperatures below +2°C

Air flow:

900 l/min (6 bar inlet pressure, pressure drop 0,5 bar)

Materials

Coupling:**Body & Sleeve:**

Nickel plated brass/steel

Valve:

Brass

Spring & Locking ring/balls:

Stainless steel

Seals:

NBR

Plug:**Body:**

Nickel plated steel





Quick Release Couplings

Coupling with BSPP male thread



	233 Series Single shut off	233 Series Double shut off	238 Series Single shut off	234 Series Single shut off	237 Series Single shut off
Male thread					
G1/8	233210018	-	-	-	-
G1/4	233210028	233410028	238210028	-	-
G3/8	-	-	238210038	-	-
G1/2	-	-	238210048	-	-
R1/4	-	-	-	234210028	237210028
R3/8	-	-	-	234210038	237210038
R1/2	-	-	-	234210048	-

Coupling with BSPP female thread



	233 Series Single shut off	233 Series Double shut off	238 Series Single shut off	234 Series Single shut off	237 Series Single shut off
Female thread					
G1/8	233220018	-	-	-	-
G1/4	233220028	233420028	238220028	234220028	237220028
G3/8	-	-	238220038	234220038	237220038
G1/2	-	-	238220048	234220048	237220048

Coupling with push on fitting



	233 Series Single shut off
O/D I/D Tube	
6/4	233260400
8/6	233260600





Quick Release Couplings

Coupling with metric hose tail



	233 Series Single shut off	233 Series Double shut off	238 Series Single shut off	234 Series Single shut off	237 Series Single shut off
Hose Bore / Hose Barb					
4	233230400	-	-	-	-
6	233230600	233430600	238230600	234230600	237230600
9	233230900	-	238230900	234230900	237230900
13	-	-	238231300	234231300	237231300

Plug with BSPP male thread



	233 Series Single shut off	233 Series Double shut off	238 Series Single shut off	234 Series Single shut off	237 Series Single shut off
Male thread					
G1/8	233110018	-	238110018	-	-
G1/4	233110028	233310028	238110028	-	-
G3/8	-	-	238110038	-	-
G1/2	-	-	238110048	-	-
R1/8	-	-	-	234110018	-
R1/4	-	-	-	234110028	237110028
R3/8	-	-	-	234110038	237110038
R1/2	-	-	-	234110048	237110048





Quick Release Couplings

Plug with BSPP female thread



	233 Series Single shut off	233 Series Double shut off	238 Series Single shut off	234 Series Single shut off	237 Series Single shut off
Female thread					
G1/8	233120018	–	–	–	–
G1/4	233120028	233320028	238120028	234120028	237120028
G3/8	–	–	238120038	234120038	237120038
G1/2	–	–	238120048	234120048	237120048

Plug with metric hose tail



	233 Series Single shut off	233 Series Double shut off	238 Series Single shut off	234 Series Single shut off	237 Series Single shut off
Hose Bore / Tailpiece					
4	233130400	–	–	–	–
6	233130600	233330600	238130600	234130600	237130600
9	233130900	–	238130900	234130900	237130900
13	–	–	238131300	234131300	237131300

Plug with push on fitting



	233 Series Single shut off
O/D I/D Tube	
6/4	233160400
8/6	233160600

Options

- » Couplings with spring guards
- » Self venting couplings





Silencers

Porous Plastic Silencers M/S & T45



- » Reduce the noise levels of pneumatic equipment
- » Compact, efficient and lightweight
- » Operating pressure is -1 ... 10 bar
- » Operating temperature is -20°C ... +80°C

Technical Data

Medium:
Compressed air, filtered 50 µm, lubricated and non lubricated/vacuum, inert gases

Operating pressure:
-1 ... 10 bar maximum (vacuum service)

Media temperature:
-20°C ... +80°C
Air supply must be dry enough to avoid ice formation at temperatures below +2°C

Materials

Body:
UHMW PE porous plastic

Connector base:
PE (black)

Sintered Bronze Silencers T40



- » Reduce the noise levels of pneumatic equipment
- » Compact and efficient
- » Operating pressure is 10 bar max.
- » Operating temperature is -20°C ... +80°C

Technical Data

Medium:
Compressed air, filtered, lubricated or non lubricated, vacuum, Inert gases

Operating pressure:
10 bar maximum

Media temperature:
-20°C ... +80°C
Air supply must be dry enough to avoid ice formation at temperatures below +2°C

Materials

Element:
Sintered bronze

Body:
Brass





Silencers

Exhaust Filters M/1500 Series



- » Prevent the ingress of dirt with minimal flow restriction
- » Robust and compact
- » Operating pressure is 10 bar max.
- » Operating temperature is -20°C ... +80°C

Technical Data

Medium:
Compressed air, filtered, lubricated
or non-lubricated, inert gases

Operating pressure:
10 bar max.

Media temperature:
-20°C ... +80°C
Air supply must be dry enough to avoid ice
formation at temperatures below +2°C

Materials

Body:
Aluminium alloy

Element:
Sintered bronze

Quietaire Heavy Duty Silencers MA & MB Series



- » Reduce the noise levels of pneumatic equipment
- » Prevent open line exhaust dangers
- » Corrosion resistant
- » High flow capacity with low back pressure
- » Brass mesh screen and aluminium construction provide improved flow, longer life and cleanable element
- » Prevent metal chips, abrasive grits, dust and other contaminants from entering open exhaust ports

Technical Data

Medium:
Compressed air, filtered, lubricated
and non-lubricated, inert gases

Operating pressure:
-1 ... 20 bar

Ambient temperature:
-20°C ... +80°C

Operation:
Exhaust silencer

Mounting:
Directly in the exhaust port

Materials

Aluminium body and shell,
brass mesh element





Silencers

Coalescing Exhaust Silencers

CS & MQ0 Series



- » Easily replaceable cartridge element
- » Removal of oil mist from exhaust air provides cleaner work environment
- » Snap-on liquid sump with manual drain to collect coalesced oil
- » Assists in complying with Noise and COSHH regulations
- » Rugged, corrosion resistant construction

Technical Data

Operating temperature:

CS13 and CS15 series: -20°C ... +50°C

MQ series: -20°C ... +50°C

Working pressure range:

0 ... 6 bar

Residual oil:

< 0,1 mg/m³ (1 bar 20°C)

Noise reduction:

As low as 69dBa (dependant on application)

Element replacement at:

2 bar pressure drop

Materials

Body and Yoke:

CS13: Zinc alloy

CS15 & MQ0xxx: Aluminium

Cage:

Aluminium

Element:

Composite materials

Bowl:

PE

Elastomers:

NBR





Silencers

Standard Silencers



	Porous Plastic	Sintered Bronze	Exhaust Filter	Quietaire	
Male Thread					
M5	M/S0	T40M0500	-	-	-
G1/8	M/S1	T40C1800	M/1511	-	-
R1/8	-	T40B1800	-	MB001B	-
G1/4	M/S2	T40C2800	M/1512	-	-
R1/4	-	T40B2800	-	MB002B	-
G3/8	M/S3	T40C3800	-	-	-
R3/8	-	-	-	MBP03B	Short Version
R3/8	-	T40B3800	-	MB003B	-
G1/2	M/S4	T40C4800	M/1514	-	-
R1/2	-	T40B4800	-	MB004B	-
G3/4	M/S6	T40C6800	M/1516	-	-
R3/4	-	-	-	MBP06	Short Version
R3/4	-	T40B6800	-	MB006	-
G1	M/S8	T40C8800	M/1518	-	-
R1	-	T40B8800	-	MB008B	-
R1 1/4	-	-	-	MBP10B	Short Version
Female Thread					
Rc1/8	-	-	-	MA001B	-
Rc1/4	-	-	-	MA002B	-
Rc3/8	-	-	-	MA003B	-
Rc1/2	-	-	-	MA004B	-
Rc3/4	-	-	-	MA006B	-
Rc1	-	-	-	MA008B	-
G1 1/4	-	-	-	MA010C	-
G1 1/2	-	-	-	MA012C	-
G2	-	-	-	MA016C	-
Stems (PIF)					
4 mm Dia.	T45P0004	-	-	-	-
6 mm Dia.	T45P0006	-	-	-	-
8 mm Dia.	T45P0008	-	-	-	-
10 mm Dia.	T45P0010	-	-	-	-
12 mm Dia.	T45P0012	-	-	-	-





Silencers

Coalescing Exhaust Silencers

Port size	CS13	CS15	MQ	Accessories
				Replacement element
				
G1/2	CS13-464-10GG	-	MQ004C	3236-01
G3/4	CS13-664-10GG	-	MQ006C	3236-01
G1	-	CS15-800-10DD	MQ008C	3237-01
Without yoke	-	CS15-000-0000	-	3237-01





Ball Valves

60 & 61 Series Brass 1/8" ... 1 1/2" BSP

- » Precision engineered shut-off valves
- » Minimum resistance to fluid flow
- » Positive quick open/shut action
- » Flow in either direction (except exhaust type)

Technical Data

Medium:

Compressed air, inert gases, water, depending upon valve seat material

Operating pressure:

Refer to tables

Ambient temperature:

Refer to tables

Materials

60 Series:

Nickel plated brass to UNI-5705-65, chromium plated brass, zinc plated steel, PTFE seats and nitrile or Fkm rubber seals

61 Series:

Stainless steel body, stem, ball nut and handle PTFE seats



Standard Full Bore

Model	Female (B)	Maximum pressure (bar)
602112128	Rp1/4	40
602112138	Rp3/8	40
602112148	Rp1/2	40
602112168	Rp3/4	40
602112188	Rp1	40
6021121A8	Rp1 1/4	40
6021121B8	Rp1 1/2	40
6021121C8	Rp2	40

Seats: PTFE (virgin).

Seals: EDPM + HNBR.

Operating temperature: -15°C ... +90°C.

Exhausting Full Bore

Model	Female (B)	Maximum pressure (bar)
602113128EX	G1/4	12
602113138EX	G3/8	12
602113148EX	G1/2	12
602113168EX	G3/4	12
602113188EX	G1	12
6021131A8EX	G1 1/4	12
6021131B8EX	G1 1/2	12

Seats: PTFE (virgin).

Seals: PTFE.

Operating temperature: 0°C ... +60°C.



Ball Valves

60 & 61 Series Brass 1/8" ... 1 1/2" BSP

Lockable Exhausting Full Bore



Model	Female (B)	Maximum pressure (bar)
601812128	G1/4	13,6
601812138	G3/8	13,6
601812148	G1/2	13,6
601812168	G3/4	13,6
601812188	G1	13,6

Seats: PTFE glass filled.

Seals: PTFE carbon filled.

Operating temperature: -10°C ... +100°C.

Note: lever lockable only in closed position. Standard handle accepts Ø7 mm shackle. Test specification differs from standard.



Stainless Steel Ball Valves

Model	Female (B)	Maximum pressure (bar)
615112128	G1/4	100
615112138	G3/8	100
615112148	G1/2	100
615112168	G3/4	64
615112188	G1	64

Operating temperature: -20°C ... +150°C.

* To order 'Tee' handled version change 4th character to 2.

Three Way Full Bore



Model	Female (B)	Maximum pressure (bar)
602114428	G1/4	25
602114438	G3/8	25
602114448	G1/2	25
602114468	G3/4	16

Seats and Seals: PTFE.

Operating temperature: -15°C ... +120°C.



Mini Reduced Bore

Model	Female (B)	Maximum pressure (bar)
601112118	G1/8	10
601112128	G1/4	10
601112138	G3/8	10
601112148	G1/2	10

Model	Female/ Male (B)	Maximum pressure (bar)
601112218	G1/8	10
601112228	G1/4	10
601112238	G3/8	10
601112248	G1/2	10

Seats: PTFE (virgin).

Seals: NBR.

Operating temperature: -10°C ... +90°C.





Manually Actuated Sleeve Valve

M/7300 3/2, G1/8 ... G1/2

- » Sliding sleeve operation
- » Very compact in-line units Easy to install
- » Very simple and reliable operation 3/2 function

Technical Data

Medium:

Compressed air, filtered, lubricated and non-lubricated

Operation:

Sleeve valve, directly actuated, with open exhaust

Operating pressure:

10 bar max.

Mounting:

Concentrically directly in the pipework

Ambient temperature:

-20°C ... +80°C max.

Air supply must be dry enough to avoid ice formation at temperatures below +2°C

Materials

Body:

Chrome-nickel plated brass

Sleeve:

Grey anodised aluminium

Seals:

NBR



Models

Model	Port size	Flow 1 » 2 at 6 » 5 bar (NI/min)
M/7318	G1/8	376
M/7328	G1/4	775
M/7338	G3/8	1590
M/7348	G1/2	3025





Blow Guns

BG Series

- BG4000:**
- » Bright chrome finish
 - » Cushioned corporate vinyl thumb grip
 - » Exhausts air when nozzle is blocked
 - » Complies with O.S.H.A.

- BG5000:**
- » One piece design in moulded high impact plastic
 - » Exhausts air when nozzle is blocked
 - » Complies with O.S.H.A.

Technical Data

Medium:
Non-lubricated compressed air, filtered

Connection:
G1/4 (BG4000 and BG5000)

Operating pressure:
10 bar maximum line pressure
The USA O.S.H.A. recommendations state that nozzle pressures should not exceed 2 bar. This ensures that the blocked end condition pressure will not exceed the 0,4 bar that could penetrate human skin with possibly fatal consequences. Blow guns should always be supplied through a suitable pressure regulator to ensure safe operation

Materials

Body:
BG4000: brass bright chrome finish
BG5000: one piece design in moulded high impact plastic



Models

Model	Port size	Description
BG4000	G1/4	Metal Blow Gun
BG5000	G1/4	Plastic Blow Gun





Shuttle Valves

T65 G1/8 ... G1/4

- » Allow two independent signal sources to be connected to a common pilot line
- » Can be used to perform an 'OR' logic function
- » Can be combined to operate from three or more sources
- » Valves can be ganged together

Technical Data

Medium:

Compressed air, filtered, lubricated or non-lubricated, inert gas

Operation:

Shuttle valve ('OR' logic function)

Operating pressure:

0,7 ... 10 bar

Port size:

G1/8, G1/4

Mounting:

Line mounted

Ambient temperature:

-20°C ... +80°C max.

Air supply must be dry enough to avoid ice formation at temperatures below +2°C

Materials

Body:

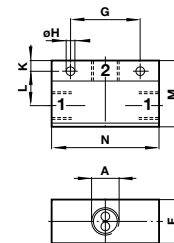
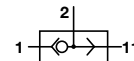
Zinc alloy

Ball:

NBR

Valve Seat:

Brass



Models

Model	A	F	ØH	K	L	M	N
T65C1800	G1/8	15	5,25	6	10	25	36
T65C2800	G1/4	20	5,25	8	12	30	50

Dimensions

Model	Port size	Flow factor C *1)	Cv	Flow at 6 - 1 bar (dm³/min)
T65C1800	G1/8	1,7	0,42	412
T65C2800	G1/4	2,6	0,64	631

*1) Measured in dm³/(s.bar).



Quick Exhaust Valves

T70 G1/8 ... G1/2

- » Enables air to be exhausted quickly from air reservoirs and cylinders
- » Allows higher cylinder speeds to be achieved
- » Simple, compact design and construction
- » Very reliable in operation

Technical Data

Medium:

Compressed air, filtered, lubricated and non-lubricated

Operating pressure:

0,5 ... 10 bar (T70)

Ambient temperature:

-20°C ... +80°C

Air supply must be dry enough to avoid ice formation at temperatures below +2°C

Materials

Body & Cover:

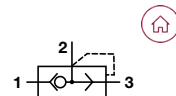
Zinc alloy (T70*1800 & T70*2800), aluminium alloy (T70*3800 & T70*4800)

Seals:

Nitrile (T70)

O-ring:

Nitrile



Models

Model	Port size BSPP	Flow (1 ... 2)**		Flow (2 ... 3)**	
		C*	Cv	C*	Cv



T70C1800	G1/8	3,8	0,93	7	1,72
T70C2800	G1/4	7,4	1,8	9,7	2,38
T70C3800	G3/8	14,5	3,55	20,5	5
T70C4800	G1/2	19,7	4,83	25	6,13

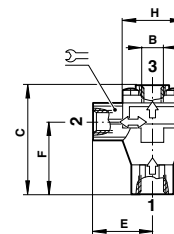
* C = dm³/(s.bar).

** Flow factor measured at 6 bar inlet pressure.

Dimensions

T70

Model	B	C	E	F	Symbol
T70C1800	G1/8	53	28	35,5	19
T70C2800	G1/4	53	28	35,5	19
T70C3800	G3/8	73,5	40	48	30
T70C4800	G1/2	73,5	40	48	30





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