- **Port size: DN 15 ... 50, G1/2 ... 2, (ISO G/NPT)**
- **Large size drain or shut-off valve**
- **High flow rate**
- **Suitable for contaminated process fluids**
- **Damped closing (valves closes against flow direction)**
- **Suitable for vacuum up to max. 90%**
- **Steel operating for higher operating pressure**
- **Wide temperature range**
- **Shock and vibration tested to EN 61373, Category 1, class A and B**

EN 61373

+180°C (+356°F)

-10°C (+14°F)

Technical features

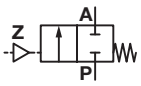
Medium:
Neutral gases and liquids
Pilot fluid:
Neutral gases max. +80°C (+176°F)
Switching function:
Normally closed
Operation:
Pressure actuated by external fluid
Mounting position:
Optional

Flow direction:
Determined
Port size:
G1/2, G3/4, G1, G1 1/4, G1 1/2, G2 1/2 NPT, 3/4 NPT, 1 NPT, 1 1/4 NPT, 1 1/2 NPT, 2 NPT
Pilot connection:
G1/4 res. 1/4 NPT
Operating pressure:
See table
Pilot pressure:
3,8 ... 8 bar (55 ... 116 psi)

Fluid temperature:
–10° ... +180°C (+14° ... +356°F)
Ambient temperature:
–10° ... +60°C (+14° ... +140°F)
Storage temperature:
-40°C (-40°F)
Air supply must be dry enough to avoid ice formation at temperatures below +2°C (+35°F).

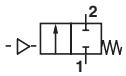
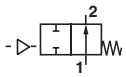
Material:
Process fluid characteristics:
Body: Dezincification Brass (CW617N)
Seat seal: PTFE
Internal parts: Brass, Stainless steel,
Spindle sealing: PTFE / FPM, self-adjustable
Pilot fluid characzeristics:
Body: Stainless steel, Aluminium
Bottom: WEMA–Kor, coated
Seals: NBR
Internal parts: Coated steel

Technical data - standard models

Symbol	Port size	Orifice (mm)	Actuator ø (mm)	Flow kv value *1) (m^3/h)	Operating pressure *2) (bar)	Weight (kg) *3)	Model *3)
	G1/2	15	70	4,8	0 ... 16	1,4	8218200.0000.00000
	1/2 NPT	15	70	4,8	0 ... 16	1,4	8219200.0000.00000
	G3/4	20	70	10	0 ... 10	1,5	8218300.0000.00000
	3/4 NPT	20	70	10	0 ... 10	1,5	8219300.0000.00000
	G1	25	70	14	0 ... 10	1,8	8218400.0000.00000
	1 NPT	25	70	14	0 ... 10	1,8	8219400.0000.00000
	G1 1/4	32	70	23	0 ... 7	2,4	8218500.0000.00000
	1 1/4 NPT	32	70	23	0 ... 7	2,4	8219500.0000.00000
	G1 1/2	40	70	30	0 ... 4,5	2,7	8218600.0000.00000
	1 1/2 NPT	40	70	30	0 ... 4,5	2,7	8219600.0000.00000
	G2	50	70	37	0 ... 3	3,9	8218700.0000.00000
	2 NPT	50	70	37	0 ... 3	3,9	8219700.0000.00000
	G1 1/4	32	125	27	0 ... 16	5,3	8228500.0000.00000
	1 1/4 NPT	32	125	27	0 ... 16	5,3	8229500.0000.00000
	G1 1/2	40	125	37	0 ... 10	5,5	8228600.0000.00000
	1 1/2 NPT	40	125	37	0 ... 10	5,5	8229600.0000.00000
	G2	50	125	53	0 ... 10	7,7	8228700.0000.00000
	2 NPT	50	125	53	0 ... 10	7,7	8229700.0000.00000

*1) Cv-value (US) ≈ kv value x 1,2
*2) For gases and liquid fluids up to 600 mm^2/s (cSt)
*3) Without pilot valve

Special applications

Symbol	Application	Port size	Flow kv value (m3/h)	Operating pressure (bar)	Pilot pressure (bar)	Fluid temperature	Ambient / Pilot temperature	Sealing	Weight (kg)	Model
	Reduced pilot pressure	G1/2	3,8	0 … 5	1,5 … 8	-10 ...+180°C	-10 ...+60°C	PTFE	1,2	8496243.0000.00000
	Tank drain valve	G1	15	0 … 10	3,5 … 8	-10 ...+90°C	-10 ...+60°C	PTFE	1,7	8495584.0000.00000
	Tank drain valve	G1 1/2	30	0 … 10	3,5 … 8	-10 ...+90°C	-10 ...+60°C	PTFE	5,7	8495585.0000.00000
	Normally open valve	G1	16	0 … 10	1 … 6	-10 ...+200°C	-30 ...+60°C	PTFE	2	8496088.0000.00000

Option selector

82★★★★★.0000.00000

Actuator	Substitute
ø 70	1
ø 125	2
Thread form	**Substitute**
ISO G	8
NPT	9
Port size	**Substitute**
1/2"	2
3/4"	3
1"	4
1 1/4"	5
1 1/2"	6
2"	7

Valve options	Substitute
Normally closed (NO), Standard	00
Normally open (NO), closes with pilot pressur and opens with spring force (pilot pressure 1 ... 6 bar)	01
Electrical position indicator with 2 micro-switches protection class IP 67, LED, 2 m cabel LifYY 2 x 0,25 qmm Type: NAMUR DIN EN 60947-5-6	23
Optical position indicator	52
Fluid temperature max. 200°C	59

Notes
for 3/2-way pilot valve 84660 / 84680

Material	Body Aluminium
Pilot fluid temperature	max. +60°C
Pilot pressure	1 ... 10 bar
Standard voltages	24 V d.c., 24 V a.c., 230 V a.c.

Electrical Data
for 3/2-way pilot valve 84660 / 84680

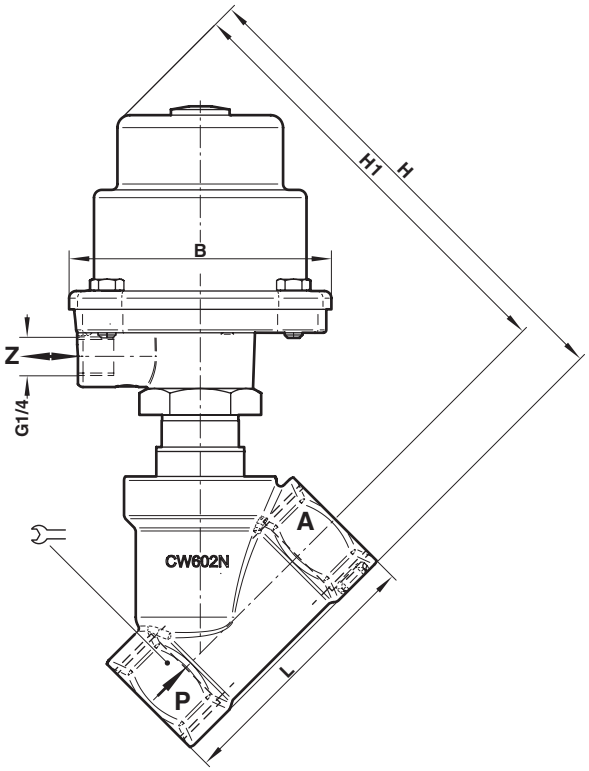
Design acc. to	DIN VDE 0580
Voltage range	±10%
Duty cycle	100% ED
Protection class	EN 60529 IP65 with mounted socket
Socket	Form A acc. to DIN EN 175301-803 (included)
Technical data	See publication N/en 5.8.640

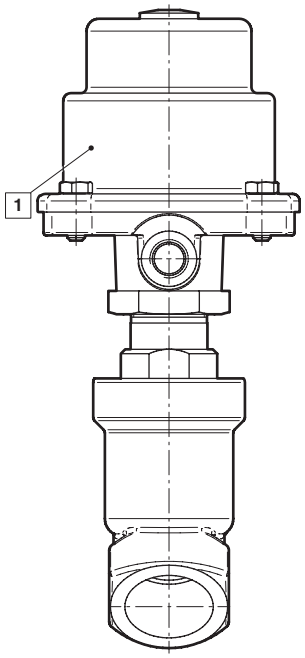
Further versions on request!

Dimensions

G1/2 ... 2
1/2 ... 2 NPT

Dimensions in mm
Projection/First angle





1 Actuator may be rotated 360°

Port size	Actuator ø	B	H	H1	L		Model
G1/2	70	89,5	154	140,5	65	27	8218200.0000.00000
1/2 NPT	70	89,5	154	140,5	65	27	8219200.0000.00000
G3/4	70	89,5	160	144	75	32	8218300.0000.00000
3/4 NPT	70	89,5	160	144	75	32	8219300.0000.00000
G1	70	89,5	171	150,5	90	41	8218400.0000.00000
1 NPT	70	89,5	171	150,5	90	41	8219400.0000.00000
G1 1/4	70	89,5	186	161	110	50	8218500.0000.00000
1 1/4 NPT	70	89,5	186	161	110	50	8219500.0000.00000
G1 1/2	70	89,5	190	162,5	120	55	8218600.0000.00000
1 1/2 NPT	70	89,5	190	162,5	120	55	8219600.0000.00000
G2	70	89,5	206	171	150	70	8218700.0000.00000
2 NPT	70	89,5	206	171	150	70	8219700.0000.00000
G1 1/4	125	163	250	225	110	50	8228500.0000.00000
1 1/4 NPT	125	163	250	225	110	50	8229500.0000.00000
G1 1/2	125	163	255	227,5	120	55	8228600.0000.00000
1 1/2 NPT	125	163	255	227,5	120	55	8229600.0000.00000
G2	125	163	270	235	150	70	8228700.0000.00000
2 NPT	125	163	270	235	150	70	8229700.0000.00000

Warning

These products are intended for use in industrial compressed air and rail transport systems only. Do not use these products where pressures and temperatures can exceed those listed under **»Technical features/data«**.
Before using these products with fluids other than those specified, for non-industrial applications, life-support systems or other applications not within published specifications, consult IMI BUSCHJOST.
Through misuse, age, or malfunction, components used in fluid power systems can fail in various modes.

The system designer is warned to consider the failure modes of all component parts used in fluid power systems and to provide adequate safeguards to prevent personal injury or damage to equipment in the event of such failure.
System designers must provide a warning to end users in the system instructional manual if protection against a failure mode cannot be adequately provided.
System designers and end users are cautioned to review specific warnings found in instruction sheets packed and shipped with these products.

- **Port size: DN 15 ... 50, 1/2" ... 2" (ISO G/NPT)**
- **Large size drain or shut-off valve**
- **High flow rate**
- **Suitable for contaminated process fluids**
- **Damped closing (Valves closes against flow direction)**
- **Suitable for lower case vacuum up to max. 90%**
- **Optical position indicator is standard**
- **Wide temperature range**
- **Shock and vibration tested to EN 61373, Category 1, class A and B**

EN 61373

+180°C (+356°F)

-10°C (+14°F)

Technical features

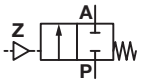
Medium:
Neutral gases and liquids
Pilot fluid:
Neutral gases max. +60°C (+14°F)
Switching function:
Normally closed
Operation:
Pressure actuated by external fluid
Mounting position:
Optional

Flow direction:
Determined
Port size:
G1/2, G3/4, G1, G1 1/4, G1 1/2, G2 1/2 NPT, 3/4 NPT, 1 NPT, 1 1/4 NPT, 1 1/2 NPT, 2 NPT
Pilot connection:
G1/4 or 1/4 NPT
Operating pressure:
See table
Pilot pressure:
3,5 ... 10 bar (51 ... 145 psi)

Fluid temperature:
–10° ... +180°C (+14° ... +356°F)
Ambient temperature:
–10° ... +60°C (+14° ... +140°F)
Storage temperature:
-40°C (-40°F)
Air supply must be dry enough to avoid ice formation at temperatures below +2°C (+35°F).

Material:
Process fluid characteristics:
Body: Dezincification Brass (CW617N)
Seat seal: PTFE
Internal parts: Brass, Stainless steel
Spindle sealing: PTFE / FPM, self-adjustable
Pilot fluid characteristics:
Body: Polyamid 66 with glass fibre 30%
Seat Seals: NBR
Internal parts: Brass, Stainless steel

2/2 way normally closed valves

Symbol	Port size	Orifice (mm)	Flow kv value *1) (m^3/h)	Operating pressure *2) (bar)	Weight (kg) *3)	Model *3)
	G1/2	15	4,8	0 ... 16 (25)	1,4	8450200.0000.00000
	1/2 NPT	15	4,8	0 ... 16 (25)	1,4	8451200.0000.00000
	G3/4	20	10	0 ... 10 (16)	1,5	8450300.0000.00000
	3/4 NPT	20	10	0 ... 10 (16)	1,5	8451300.0000.00000
	G1	25	14	0 ... 10	1,8	8450400.0000.00000
	1 NPT	25	14	0 ... 10	1,8	8451400.0000.00000
	G1 1/4	32	23	0 ... 7	2,4	8450500.0000.00000
	1 1/4 NPT	32	23	0 ... 7	2,4	8451500.0000.00000
	G1 1/2	40	30	0 ... 4,5	2,7	8450600.0000.00000
	1 1/2 NPT	40	30	0 ... 4,5	2,7	8451600.0000.00000
	G2	50	37	0 ... 3	3,9	8450700.0000.00000
	2 NPT	50	37	0 ... 3	3,9	8451700.0000.00000

*1) Cv-value (US) ≈ kv value x 1,2
*2) For gases and liquid fluids up to 600 mm^2/s (cSt)
*3) Without pilot valve

Ex-Note:
For hazardous areas, e. g. Zone 1/2 or 21/22, the kit 1264287 is required.
It contains an additional sign, a silencer as dust shield and a conformity explanation.
The maximum fluid temperature is reduced to 85°C.

Option selector

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Thread form	Substitute
ISO G	**0**
NPT	**1**
Port size	**Substitute**
1/2"	**2**
3/4"	**3**
1"	**4**
1 1/4"	**5**
1 1/2"	**6**
2"	**7**

Further options (Valves)	Substitute
Normally closed (NO), Standard	**00**
Normally open (NO), closes with pilot pressure and opens with spring force (pilot pressure 1 ... 10 bar)	**01**
Double acting; 4/2 or 5/2-way-pilot valve required	**08**
Electrical position indicator with 2 micro-switches protection class IP 67, LED, 2 m cabel LifYY 2 x 0,25 qmm Type: NAMUR DIN EN 60947-5-6	**23**
NAMUR interface plate	**50**

Notes
for 3/2-way pilot valve 84660 / 84680

Material	Body Aluminium
Pilot fluid temperature	max. +60°C
Pilot pressure	1 ... 10 bar
Standard voltages	24 V d.c., 24 V a.c., 230 V a.c.

Electrical Data
for 3/2-way pilot valve 84660 / 84680

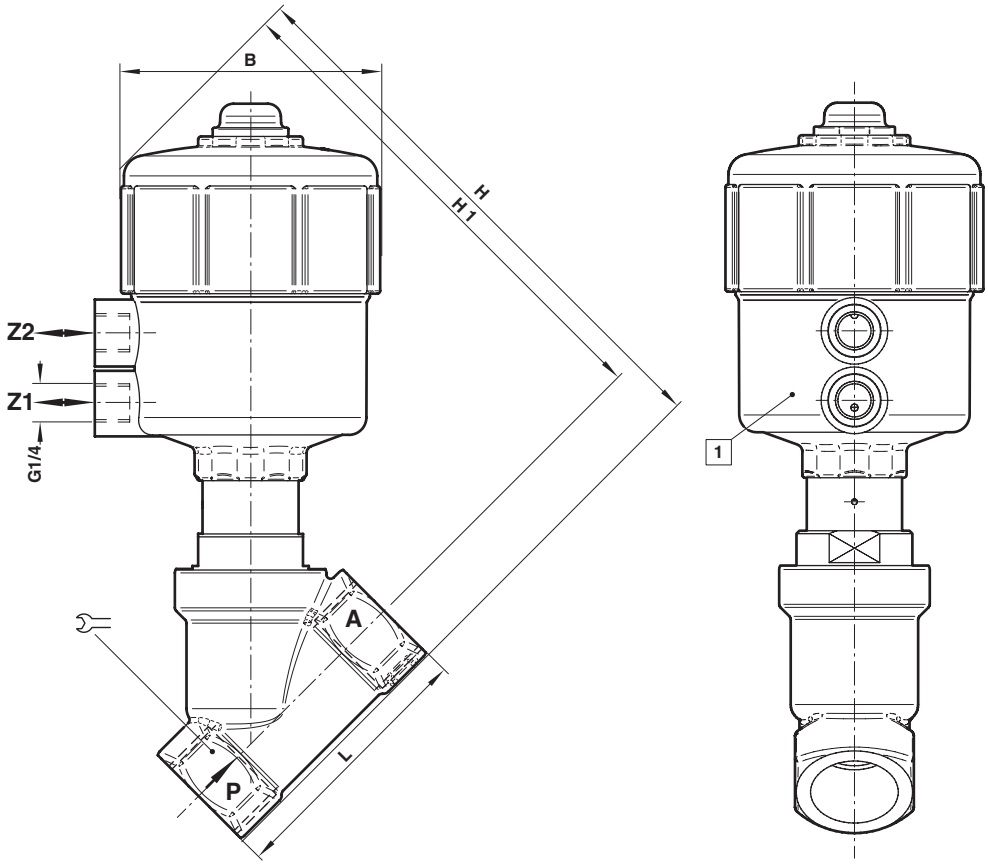
Design acc. to	DIN VDE 0580
Voltage range	±10%
Duty cycle	100% ED
Protection class	EN 60529 IP65 with mounted socket
Socket	Form A acc. to DIN EN 175301-803 (included)
Technical data	See publication N/en 5.8.640

Further versions on request!

Dimensions

G1/2 ... 2
1/2 ... 2 NPT

Dimensions in mm
Projection/First angle



1 Actuator may be rotated 360°

Port size	B	H	H1	L	⌲	Model
G1/2	89,5	177,5	164	65	27	8450200.0000.00000
1/2 NPT	89,5	177,5	164	65	27	8451200.0000.00000
G3/4	89,5	184	168	75	32	8450300.0000.00000
3/4 NPT	89,5	184	168	75	32	8451300.0000.00000
G1	89,5	194,5	174	90	41	8450400.0000.00000
1 NPT	89,5	194,5	174	90	41	8451400.0000.00000
G1 1/4	89,5	209,5	184,5	110	50	8450500.0000.00000
1 1/4 NPT	89,5	209,5	184,5	110	50	8451500.0000.00000
G1 1/2	89,5	208,5	186	120	55	8450600.0000.00000
1 1/2 NPT	89,5	208,5	186	120	55	8451600.0000.00000
G2	89,5	229,5	194,5	150	70	8450700.0000.00000
2 NPT	89,5	229,5	194,5	150	70	8451700.0000.00000

Warning

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Through misuse, age, or malfunction, components used in fluid power systems can fail in various modes.

The system designer is warned to consider the failure modes of all component parts used in fluid power systems and to provide adequate safeguards to prevent personal injury or damage to equipment in the event of such failure.
System designers must provide a warning to end users in the system instructional manual if protection against a failure mode cannot be adequately provided.
System designers and end users are cautioned to review specific warnings found in instruction sheets packed and shipped with these products.

- **Port size: DN 15 ... 25, 1/2" ... 1"(ISO G/NPT)**
- **Optical position indicator is standard**
- **Damped closing (Valves closes against flow direction)**
- **Suitable for contaminated flow fluid**
- **Suitable for vacuum up to max. 90%**
- **Reversed flow direction optional**
- **High flow rate**
- **Option pressure actuated by external liquid fluid**
- **International approvals**

Technical features

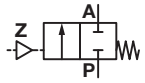
Medium:
Neutral gases and liquids
Pilot fluid:
Neutral gases max. +60°C (+140°F)
Switching function:
Normally closed
Operation:
Pressure actuated
by external fluid
Mounting position:
Optional

Flow direction:
Determined
Port size:
G1/2, G3/4, G1 1/2 NPT,
3/4 NPT, 1 NPT
Pilot connection:
G1/4 or 1/4 NPT
Operating pressure:
See table
Pilot pressure:
3,5 ... 10 bar (51 ... 145 psi)

Fluid temperature:
–10 ... +180°C (+14 ... +356°F)
Ambient temperature:
–10 ... +60°C (+32 ... +140°F)

Material:
Process fluid characteristics:
Body: Dezincification brass (CW602N)
Seat seal: PTFE
Internal parts: Brass, Stainless steel
Spindle sealing: PTFE / FPM; self-adjustable
Pilot fluid characteristics:
Body: Polyamid 66
with glass fibre 30%
Seat Seals: NBR
Internal parts: Brass, Stainless steel

Technical data – standard models

Symbol	Port size	Orifice (mm)	Flow kv value *1) (m^3/h)	Operating pressure *2) (bar)	(psi)	Weight (kg) *3)	Model *3)
	G1/2	15	4,8	0 ... 16	0 ... 232	1,3	8472200.0000.00000
	1/2 NPT	15	4,8	0 ... 16	0 ... 232	1,3	8473200.0000.00000
	G3/4	20	10	0 ... 8	0 ... 116	1,4	8472300.0000.00000
	3/4 NPT	20	10	0 ... 8	0 ... 116	1,4	8473300.0000.00000
	G1	25	14	0 ... 5	0 ... 72	1,7	8472400.0000.00000
	1 NPT	25	14	0 ... 5	0 ... 72	1,7	8473400.0000.00000

*1) Cv-value (US) ≈ kv value x 1,2
*2) For gases and liquid fluids up to 600 mm^2/s (cSt)
*3) Without pilot valve

Option selector

847★★★★.0000.00000

Thread form	Substitute
ISO G	2
NPT	3
Port size	**Substitute**
1/2"	2
3/4"	3
1"	4

Further options (Valves)	Substitute
Normally open (NO), closes with pilot pressure and opens with spring force (pilot pressure 1 ... 10 bar)	01
Double acting, 4/2 or 5/2-way-pilot valve required	08
Electrical position indicator with 2 micro-switches protection class IP 67, LED, 2 m cabel LifYY 2 x 0,25 qmm Type: NAMUR DIN EN 60947-5-6	23
NAMUR interface plate	50

Notes for 3/2-way pilot valve 84660 / 84680

Material	Body Aluminium
Pilot fluid temperature	max. +60°C (+140°F)
Pilot pressure	1 ... 10 bar (14 ... 145 psi)
Standard voltages	24 V d.c., 24 V a.c., 230 V a.c.

Notes for 3/2-way pilot vale 97100 hole pattern NAMUR

Material	Body Aluminium elox
Pilot fluid temperature	–10 ... +50°C (+14 ... +122°F)
Pilot pressure	2 ... 8 bar (29 ... 116 psi)
Standard voltages	24 V d.c., 24 V a.c., 230 V a.c.

Electrical Data for 3/2-way pilot valve 84660 / 84680

Design acc. to	DIN VDE 0580
Voltage range	±10%
Duty cycle	100% ED
Protection class	EN 60529 IP65 with mounted socket
Socket	Form A acc. to DIN EN 175301-803 (included)
Technical data	See publication N/en 5.8.640

Further versions on request!

Electrical Data for 3/2-way pilot valve 97100 hole pattern NAMUR

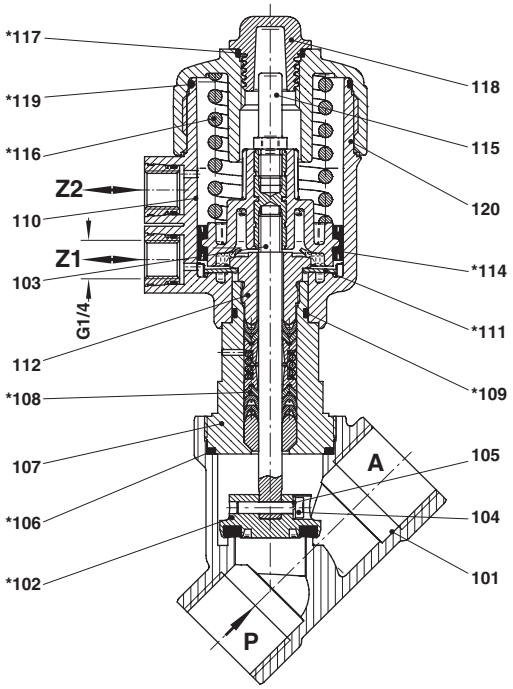
Design acc. to	DIN VDE 0580
Voltage range	±10%
Duty cycle	100% ED
Protection class	EN 60529 IP65 with mounted socket
Socket	Form A acc. to DIN EN 175301-803 (included)
Technical data	See publication N/en 5.4.372

Mounting accessories (NAMUR)

Interface plate NAMUR hole pattern for retrofit
(Part-Number 1256566) consist of:
1x NAMUR-interface plate; 2x Adapter screw; 2x O-ring

Section View

G1/2 ... 1
1/2 ... 1 NPT



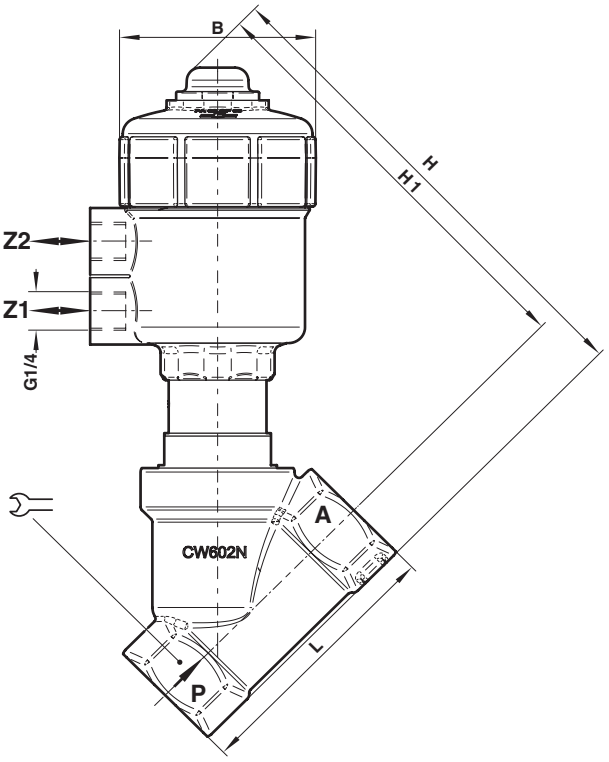
No.	Description
101	Valve body
*102	Valve plate
103	Valve spindle, complete
104	Cheese head cap screw
105	Spring washer
*106	Seal ring
107	Screw piece
*108	Seal packing
*109	O-ring
110	Control head housing cover, bottom part
*111	Cup spring
112	Screw piece
*114	Cylinder packing
115	Signal pin
*116	Pressure spring
*117	O-ring
118	Cover cap
*119	O-ring
120	Control head housing cover

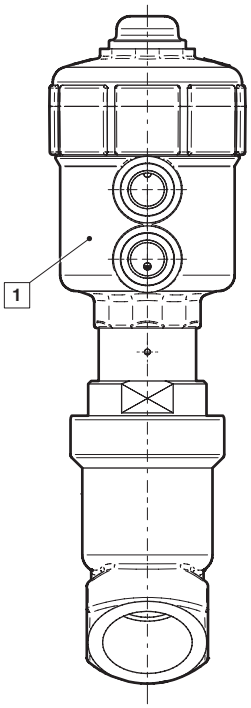
* These individual parts form a complete wearing unit.
When ordering spare parts please state Model No. and Series No.

Dimensions

G1/2 ... 1
1/2 ... 1 NPT

Dimensions in mm
Projection/First angle





1 Actuator may be rotated 360°

Port size	B	H	H1	L		Model
G1/2	66	154	140,5	65	27	8472200.0000.00000
1/2 NPT	66	154	140,5	65	27	8473200.0000.00000
G3/4	66	160	144,5	75	32	8472300.0000.00000
3/4 NPT	66	160	144,5	75	32	8473300.0000.00000
G1	66	171	150,5	90	41	8472400.0000.00000
1 NPT	66	171	150,5	90	41	8473400.0000.00000

Note to Pressure Equipment Directive (PED):

The valves of this series up to and including DN 25 (G1) are according to Art. 4 § 3 of the Pressure Equipment Directive (PED) 2014/68/EU. This means interpretation and production are in accordance to engineers practice wellknown in the member countries. The CE-sign at the valve does not refer to the PED. Thus the declaration of conformity is not longer applicable for this directive.

For valves > DN 25 (G1) Art. 4 § (1) Letter d) applies:

The basic requirements of the Enclosure I of the PED must be fulfilled. The CE-sign at the valve includes the PED. A certificate of conformity of this directive will be available on request.

Note to Electromagnetic Compatibility Guideline (EEC):

The valves shall be provided with an electrical circuit which ensures the limits of the harmonised standards EN 61000-6-3 and EN 61000-6-1 are observed, and hence the requirements of the Electromagnetic Compatibility Guideline (2014/30/EU) satisfield.

Note to EAC marking:

The EAC-marked products comply with the applicable requirements stated in the technical regulations of the Eurasian Economic Union.