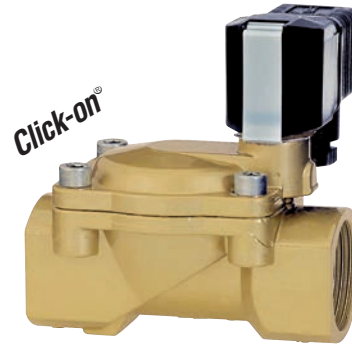


**High flow rate**  
**Damped operation**  
**Functional compact design**  
**Solenoid interchangeable without tools (*Click-on*<sup>®</sup>)**



**Technical features**

**Medium:**  
Neutral gases and liquids  
**Switching function:**  
Normally closed  
**Operation:**  
Indirectly solenoid actuated  
**Mounting position:**  
Optional,  
preferably solenoid  
vertical on top

**Flow direction:**  
Determined  
**Port size:**  
G1/4, G3/8, G1/2, G3/4, G1,  
G1 1/4, G1 1/2, G2  
1/4 NPT, 3/8 NPT, 1/2 NPT  
3/4 NPT, 1 NPT, 1 1/4 NPT,  
1 1/2 NPT, 2 NPT  
**Operating pressure:**  
See table

**Fluid temperature:**  
-10 ... +90°C  
**Ambient temperature:**  
-10 ... +50°C

**Material:**  
Body: Brass (CW617N)  
Seat seal: NBR  
Internal parts: Stainless steel,  
PVDF

For contaminated fluids insertion  
of a strainer is recommended.

**Technical data - standard models**

Symbol	Port size	Orifice (mm)	Valve length (mm)	Flow kv value *1) (m <sup>3</sup> /h)	Operating pressure *2) (bar)	Weight (kg)	Model Solenoid in V d.c./a.c.
	G1/4	8	60	1,9	0,1 ... 16	0,47	8240000.9101.xxxxx
	1/4 NPT	8	60	1,9	0,1 ... 16	0,47	8241000.9101.xxxxx
	G3/8	10	60	3	0,1 ... 16	0,45	8240100.9101.xxxxx
	3/8 NPT	10	60	3	0,1 ... 16	0,45	8241100.9101.xxxxx
	G1/2	12	67	3,8	0,1 ... 16	0,5	8240200.9101.xxxxx
	1/2 NPT	12	67	3,8	0,1 ... 16	0,5	8241200.9101.xxxxx
	G3/4	20	80	6,1	0,1 ... 16	0,65	8240300.9101.xxxxx
	3/4 NPT	20	80	6,1	0,1 ... 16	0,65	8241300.9101.xxxxx
	G1	25	95	9,5	0,1 ... 16	0,95	8240400.9101.xxxxx
	1 NPT	25	95	9,5	0,1 ... 16	0,95	8241400.9101.xxxxx
	G1 1/4	32	132	23	0,1 ... 10 (16) *3)	2,73	8240500.9101.xxxxx
	1 1/4 NPT	32	132	23	0,1 ... 10 (16) *3)	2,73	8241500.9101.xxxxx
	G1 1/2	40	132	25	0,1 ... 10 (16) *3)	2,53	8240600.9101.xxxxx
	1 1/2 NPT	40	132	25	0,1 ... 10 (16) *3)	2,53	8241600.9101.xxxxx
	G2	50	160	41	0,1 ... 10 (16) *3)	3,85	8240700.9101.xxxxx
	2 NPT	50	160	41	0,1 ... 10 (16) *3)	3,85	8241700.9101.xxxxx

xxxxx Please insert voltage and frequency codes

\*1) Cv-value (US) ≈ kv value x 1,2

\*2) For gases and liquid fluids up to 25 mm<sup>2</sup>/s (cSt)

\*3) With Solenoid 9151

Option selector

824\*\*\*\*\*.\*\*\*\*\*

Thread form	Substitute
ISO G	0
NPT	1
Port size	Substitute
1/4	0
3/8	1
1/2	2
3/4	3
1	4
1 1/4	5
1 1/2	6
2	7
Valve options	Substitute
Normally open (NO), from G1 1/4 with solenoid 9151 0,1 ... 16 bar	01
Manual override	02
Seat seal FPM, Fluid temperature -5 ... +110°C	03
Seat seal EPDM, for hot water, max. fluid temperature +110°C 0,3 ... 16 bar (up to G1) 0,3 ... 10 bar (from G1 1/4)	14
Latching system impuls time min. 30 ms only for d.c. 6 V, 12 V and 24 V	50

Frequency	Substitute
See table frequency codes	xx
Voltage	Substitute
See Voltage codes	xxx
Solenoid options	Substitute
G1/4 ... 1 Operating pressure 0,1 ... 16 bar	9101
G1 1/4 ... 2 Operating pressure 0,1 ... 10 bar	9101
G1 1/4 ... 2 Operating pressure 0,1 ... 16 bar	9151

Standard solenoid systems

Voltage and Frequency Solenoid 9101 *1)					
Code Voltage	Code Frequency	Voltage	Frequency	Power consumption	
				Inrush	Holding
024	00	24 V d.c.	-	8 W	8 W
024	50	24 V a.c.	50 Hz	15 VA	12 VA
110	50	110 V a.c.	50 Hz	15 VA	12 VA
120	60	120 V a.c.	60 Hz	15 VA	12 VA
230	50	230 V a.c.	50 Hz	15 VA	12 VA
Voltage and Frequency Solenoid 9151 *1)					
024	00	24 V d.c.	-	18 W	18 W
024	50	24 V a.c.	50 Hz	45 VA	35 VA
110	50	110 V a.c.	50 Hz	45 VA	35 VA
120	60	120 V a.c.	60 Hz	45 VA	35 VA
230	50	230 V a.c.	50 Hz	45 VA	35 VA

Electrical details for all solenoid systems

Design	DIN VDE 0580
Voltage range	±10%
Duty cycle	100% ED
Protection class	EN 60529 IP65
Socket	Form A acc. to DIN EN 175301-803 (included)

According to DIN VDE 0580 at a solenoid temperature of +20°C. At operating state temperature the input power of a coil decreases by up to ca. 30% due to physical reasons.



Additional solenoid systems

ATEX category	Protection class	Solenoid	Standard voltages
II2GD	EEx m II T4 T 130°C with 3 m connection cable	9136	24 V d.c., 110 V a.c., 230 V a.c.

Attention!

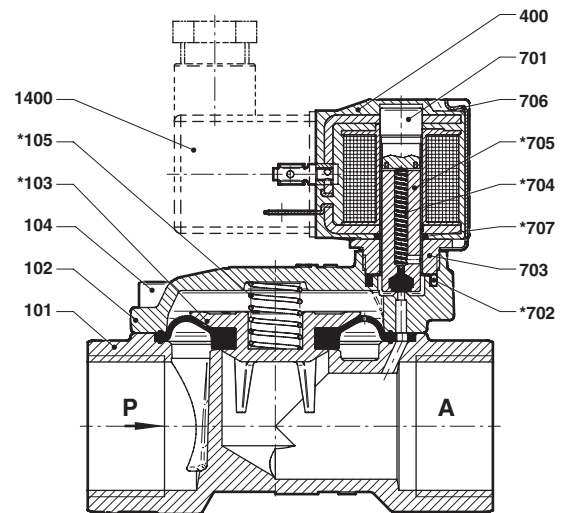
The conditions imposed on the Ex approvals lead to reduction of the permissible standard temperature ranges in the cases of explosion protected solenoids.

\*1) US coil only

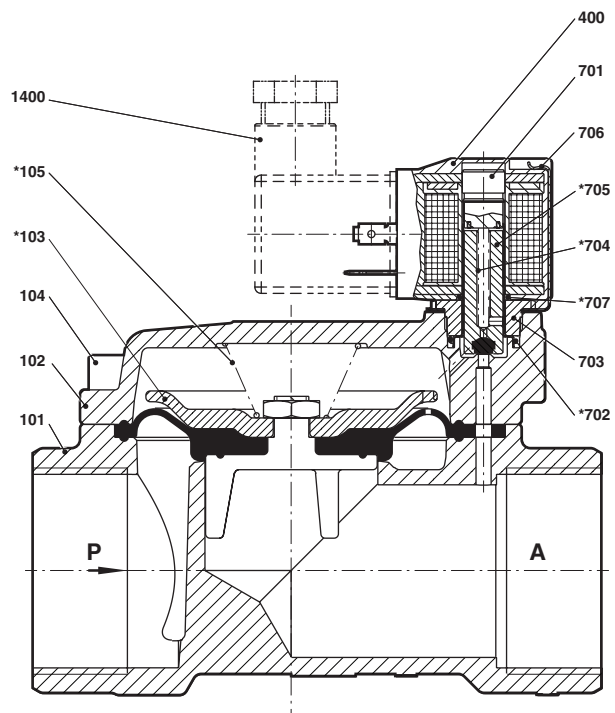
Further versions on request!

**Section View**
**G1/4 ... 1  
1/4 ... 1 NPT**

No.	Description
101	Valve body
102	Valve cover
*103	Diaphragm
104	Allen head screw
*105	Pressure spring
400	Solenoid
701	Core tube
*702	O-ring
703	Screw piece
*704	Pressure spring
*705	Plunger
706	Spring clip
*707	O-ring
1400	Socket (included)


**G1 1/4 ... 2  
1 1/4 ... 2 NPT**

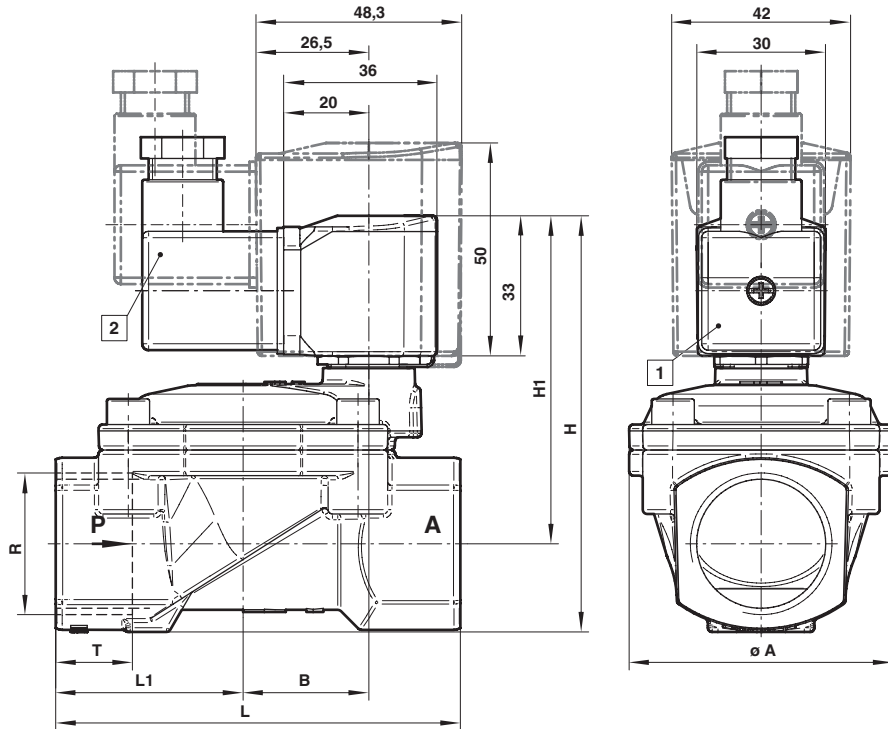
No.	Description
101	Valve body
102	Valve cover
*103	Diaphragm
104	Allen head screw
*105	Pressure spring
400	Solenoid
701	Core tube
*702	O-ring
703	Screw piece
*704	Pressure spring
*705	Plunger
706	Spring clip
*707	O-ring
1400	Socket (included)



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

**Dimensions**

G1/4 ... 2  
1/4 ... 2 NPT



- 1 Solenoid rotatable 360°
- 2 Socket turnable 4 x 90°  
[Socket included]

Port size R	A	B	H	H1	L	L1	T	Typ
G1/4	44	19,5	78,5	67	60	27,5	12	8240000.9101.xxxxx
1/4 NPT	44	19,5	78,5	67	60	27,5	10	8241000.9101.xxxxx
G3/8	44	19,5	78,5	67	60	27,5	12	8240100.9101.xxxxx
3/8 NPT	44	19,5	78,5	67	60	27,5	10,5	8241100.9101.xxxxx
G1/2	44	19,5	81	67	67	31	14	8240200.9101.xxxxx
1/2 NPT	44	19,5	81	67	67	31	13,5	8241200.9101.xxxxx
G3/4	50	24	88	71,5	80	36,5	16	8240300.9101.xxxxx
3/4 NPT	50	24	88	71,5	80	36,5	14	8241300.9101.xxxxx
G1	62	29,5	97,5	77	95	44	18	8240400.9101.xxxxx
1 NPT	62	29,5	97,5	77	95	44	17	8241400.9101.xxxxx
G 1 1/4	92	44,5	124,5	95,5	132	60	20	8240500.9101.xxxxx
1 1/4 NPT	92	44,5	124,5	95,5	132	60	17	8241500.9101.xxxxx
G1 1/2	92	44,5	124,5	95,5	132	60	22	8240600.9101.xxxxx
1 1/2 NPT	92	44,5	124,5	95,5	132	60	17	8241600.9101.xxxxx
G2	109	54,5	142,5	108	160	74	24	8240700.9101.xxxxx
2 NPT	109	54,5	142,5	108	160	74	17,5	8241700.9101.xxxxx

**Note to Pressure Equipment Directive (PED):**

The valves of this series, including the connection size DN 25 [G 1], are according to Art. 3 § 3 of the Pressure Equipment Directive (PED) 97/23/EG. This means interpretation and production are in accordance to engineers practice wellknown in the member countries.

The CE-sign at the valve refers not to the PED. Thus the declaration of conformity is not longer applicable for this directive.

For valves > DN 25 [G 1] Art. 3 § (1) No.1.4 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 [2004/108/EG] satisfied.

- > Port size: DN 8 ... 50, 1/4" ... 2" (ISO G/NPT)
- > Compact build piston valve
- > Functional design
- > High flow rate
- > Damped operation via cone
- > Piston guided in PTFE rings
- > Long lifetime
- > Solenoid interchangeable without tools (*Click-on*)
- > International approvals



### Technical features

**Medium:**  
Neutral gases and liquids

**Switching function:**  
Normally closed

**Operation:**  
Indirectly solenoid actuated

**Mounting:**  
Optional, preferably solenoid vertical on top

**Flow direction:**  
Determined

**Port size:**  
G1/4, G3/8, G1/2, G3/4, G1, G1 1/4, G1 1/2, G2  
1/4 NPT, 3/8 NPT, 1/2 NPT, 3/4 NPT, 1 NPT, 1 1/4 NPT, 1 1/2 NPT, 2 NPT

**Operating pressure:**  
0,5 ... 40 bar (7 ... 580 psi)

**Fluid temperature:**  
-20 ... +90°C (-4 ... +194°F)

**Ambient temperature:**  
-20 ... +50°C (-4 ... +122°F)

**Materials:**  
Body: Brass (CW617N)  
Seat seal: NBR  
Internal parts: Stainless steel, Brass, PTFE/Carbon

For contaminated fluids insertion of a strainer is recommended.

### Technical data – standard models

Symbol	Port size	Orifice (mm)	Flow kv value *1 (m³/h)	Operating pressure *2 (bar) (psi)		Weight (kg)	Model Solenoid in V d.c./a.c.
	G1/4	8	2,2	0,5 ... 40	7,25 ... 580	0,83	8536000.9151.xxxxx
	1/4 NPT	8	2,2	0,5 ... 40	7,25 ... 580	0,83	8537000.9151.xxxxx
	G3/8	10	3,4	0,5 ... 40	7,25 ... 580	0,82	8536100.9151.xxxxx
	3/8 NPT	10	3,4	0,5 ... 40	7,25 ... 580	0,82	8537100.9151.xxxxx
	G1/2	12	4,4	0,5 ... 40	7,25 ... 580	0,85	8536200.9151.xxxxx
	1/2 NPT	12	4,4	0,5 ... 40	7,25 ... 580	0,85	8537200.9151.xxxxx
	G3/4	20	7	0,5 ... 40	7,25 ... 580	1,25	8536300.9151.xxxxx
	3/4 NPT	20	7	0,5 ... 40	7,25 ... 580	1,25	8537300.9151.xxxxx
	G1	25	10,5	0,5 ... 40	7,25 ... 580	1,7	8536400.9151.xxxxx
	1 NPT	25	10,5	0,5 ... 40	7,25 ... 580	1,7	8537400.9151.xxxxx
	G1 1/4	32	25	0,5 ... 40	7,25 ... 580	4,1	8536500.9151.xxxxx
	1 1/4 NPT	32	25	0,5 ... 40	7,25 ... 580	4,1	8537500.9151.xxxxx
	G1 1/2	40	27	0,5 ... 40	7,25 ... 580	3,85	8536600.9151.xxxxx
	1 1/2 NPT	40	27	0,5 ... 40	7,25 ... 580	3,85	8537600.9151.xxxxx
	G2	50	43	0,5 ... 40	7,25 ... 580	5,6	8536700.9151.xxxxx
2 NPT	50	43	0,5 ... 40	7,25 ... 580	5,6	8537700.9151.xxxxx	

xxxxx Please insert voltage and frequency codes

\*1) Cv-value (US) ≈ kv value x 1,2

\*2) For gases and liquid fluids up to 25 mm²/s (cSt)

Option selector

853\*\*\*\*\*.9151.\*\*\*\*\*

Thread form	Substitute
ISO G	6
NPT	7
Port size	Substitute
1/4"	0
3/8"	1
1/2"	2
3/4"	3
1"	4
1 1/4"	5
1 1/2"	6
2"	7
Valve options	Substitute
Normally open (NO), up to DN 25: Operating pressure 0,5 ... 35 bar (7 ... 507 psi) from DN 32: Operating pressure 0,5 ... 25 bar (7 ... 362 psi)	01
Manual override	02
Seat seal FPM, Fluid temperature -10 ... +110°C (+14 ... +230°F)	03
Seat seal PTFE, Fluid temperature -10 ... +110°C (+14 ... +230°F), Operating pressure 1 ... 25 bar (14 ... 362 psi)	06
Seat seal EPDM, for hot water, Fluid temperature -20 ... +110°C (-4 ... +230°F)	14
Version for drinking water on request	

Frequency	Substitute
See table frequency codes	xx
Voltage	Substitute
See Voltage codes	xxx

Standard solenoid systems

Voltage and Frequency Solenoid 9151 *3)					
Code	Voltage	Code	Frequency	Power consumption	
				Inrush	Holding
024	00	24 V d.c.	-	18 W	18 W
024	50	24 V a.c.	50 Hz	45 VA	35 VA
110	50	110 V a.c.	50 Hz	45 VA	35 VA
120	60	120 V a.c.	60 Hz	45 VA	35 VA
230	50	230 V a.c.	50 Hz	45 VA	35 VA

\*3)  US coil only

Further versions on request!

Electrical details for all solenoid systems

Design	DIN VDE 0580
Voltage range	±10%
Duty cycle	100% ED
Protection class	EN 60529 IP65
Socket	Form A acc. to DIN EN 175301-803 (included)

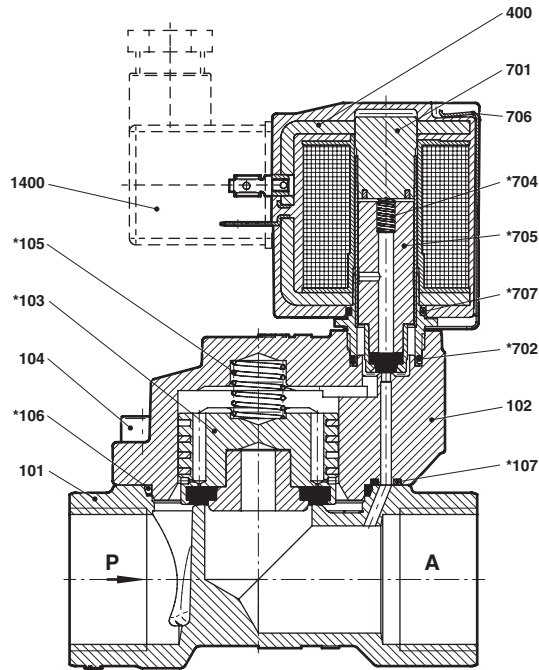
According to DIN VDE 0580 at a solenoid temperature of +20°C.  
At operating state temperature the input power of a coil decreases by up to ca. 30% due to physical reasons.

Additional solenoid systems for hazardous areas

ATEX category	ATEX protection class	IP protection class	Solenoid	Standard voltages
II 3G II 3D	Ex ec IIC T4 Gc Ex tc IIIC T130°C DC	IP65	9176	24 V d.c., 110 V a.c., 230 V a.c.
II 2G II 2D	Ex d mb IIC T4/T5 Gb Ex tb IIIC T130°C/T95°C Db up to DN 25: Operating pressure 0,5 ... 16 bar from DN 32: Operating pressure 0,5 ... 10 bar	IP65	468x	24 V d.c., 110 V a.c., 230 V a.c.
II 2G II 2D	Ex eb mb IIC T4 Gb Ex mb tb IIIB T125°C Db	IP66	6126	24 V d.c., 110 V a.c., 230 V a.c.

Attention!

The conditions imposed on the Ex approvals lead to reduction of the permissible standard temperature ranges in the cases of explosion protected solenoids.

**Section View**
**G1/4 ... 2**  
**1/4 ... 2 NPT**


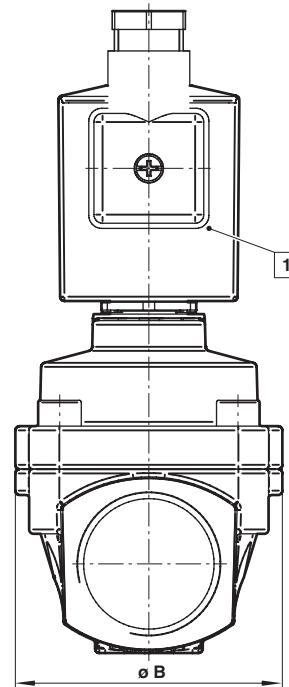
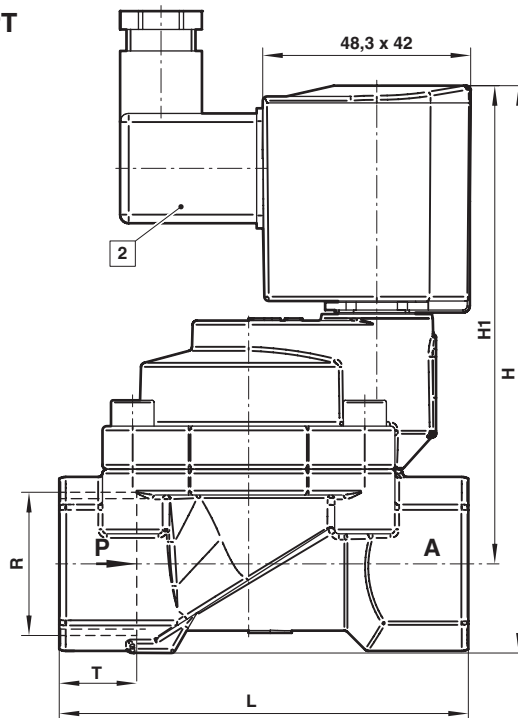
No.	Description
101	Valve body
102	Valve cover
*103	Valve plate
104	Allen head screw
*105	Pressure spring
*106	Gasket
*107	O-ring / gasket
400	Solenoid
701	Core tube
*702	O-ring
*704	Pressure spring
*705	Plunger
706	Spring clip
*707	O-ring
1400	Socket (included)

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

**Dimensions**

**G1/4 ... 2  
1/4 ... 2 NPT**

Dimensions in mm  
Projection/First angle



- 1 Solenoid rotatable 360°
- 2 Socket turnable 4 x 90°  
(Socket included)

Port size R	ø B	H	H1	L	T	Model
G1/4	44	105	93,5	60	12	8536000.9151.xxxxx
1/4 NPT	44	105	93,5	60	12	8537000.9151.xxxxx
G3/8	44	105	93,5	60	12	8536100.9151.xxxxx
3/8 NPT	44	105	93,5	60	12	8537100.9151.xxxxx
G1/2	44	107,5	102,5	67	14	8536200.9151.xxxxx
1/2 NPT	44	107,5	102,5	67	14	8537200.9151.xxxxx
G3/4	50	119	102,5	80	16	8536300.9151.xxxxx
3/4 NPT	50	119	102,5	80	16	8537300.9151.xxxxx
G1	62	131,5	110,5	95	18	8536400.9151.xxxxx
1 NPT	62	131,5	110,5	95	18	8537400.9151.xxxxx
G 1 1/4	92	166	137	132	20	8536500.9151.xxxxx
1 1/4 NPT	92	166	137	132	20	8537500.9151.xxxxx
G1 1/2	92	166	137	132	22	8536600.9151.xxxxx
1 1/2 NPT	92	166	137	132	22	8537600.9151.xxxxx
G2	109	186	151,5	160	24	8536700.9151.xxxxx
2 NPT	109	186	151,5	160	24	8537700.9151.xxxxx

**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) satisfied.

**Note to EAC marking:**

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