

- > Port size: DN 8 ... 50, G1/4 ... 2 (ISO G/NPT)
- > High flow rate
- > Damped operation
- > Functional compact design
- > Solenoid interchangeable without tools (Click-on®)
- > International approvals



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

Differential pressure:

0,1 bar (1,45 psi) required

Fluid temperature:

-10 ... +90°C (+14 ... +194°F)

Ambient temperature:

-10 ... +50°C (+14 ... +122°F)

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 | Valve length | Flow kv value *1) | Operating pressure *2) | | Weight | Model |
|--------|-----------|---------|--------------|-------------------|------------------------|------------------------|--------|--------------------|
| | | (mm) | (mm) | (m³/h) | (bar) | (psi) | | |
| | G1/4 | 8 | 60 | 1,9 | 0,1 ... 16 | 1,45 ... 232 | 0,47 | 8240000.9101.xxxxx |
| | 1/4 NPT | 8 | 60 | 1,9 | 0,1 ... 16 | 1,45 ... 232 | 0,47 | 8241000.9101.xxxxx |
| | G3/8 | 10 | 60 | 3 | 0,1 ... 16 | 1,45 ... 232 | 0,45 | 8240100.9101.xxxxx |
| | 3/8 NPT | 10 | 60 | 3 | 0,1 ... 16 | 1,45 ... 232 | 0,45 | 8241100.9101.xxxxx |
| | G1/2 | 12 | 67 | 3,8 | 0,1 ... 16 | 1,45 ... 232 | 0,5 | 8240200.9101.xxxxx |
| | 1/2 NPT | 12 | 67 | 3,8 | 0,1 ... 16 | 1,45 ... 232 | 0,5 | 8241200.9101.xxxxx |
| | G3/4 | 20 | 80 | 6,1 | 0,1 ... 16 | 1,45 ... 232 | 0,65 | 8240300.9101.xxxxx |
| | 3/4 NPT | 20 | 80 | 6,1 | 0,1 ... 16 | 1,45 ... 232 | 0,65 | 8241300.9101.xxxxx |
| | G1 | 25 | 95 | 9,5 | 0,1 ... 16 | 1,45 ... 232 | 0,95 | 8240400.9101.xxxxx |
| | 1 NPT | 25 | 95 | 9,5 | 0,1 ... 16 | 1,45 ... 232 | 0,95 | 8241400.9101.xxxxx |
| | G1 1/4 | 32 | 132 | 23 | 0,1 ... 10 (16) *3) | 1,45 ... 145 (232) *3) | 2,73 | 8240500.9101.xxxxx |
| | 1 1/4 NPT | 32 | 132 | 23 | 0,1 ... 10 (16) *3) | 1,45 ... 145 (232) *3) | 2,73 | 8241500.9101.xxxxx |
| | G1 1/2 | 40 | 132 | 25 | 0,1 ... 10 (16) *3) | 1,45 ... 145 (232) *3) | 2,53 | 8240600.9101.xxxxx |
| | 1 1/2 NPT | 40 | 132 | 25 | 0,1 ... 10 (16) *3) | 1,45 ... 145 (232) *3) | 2,53 | 8241600.9101.xxxxx |
| | G2 | 50 | 160 | 41 | 0,1 ... 10 (16) *3) | 1,45 ... 145 (232) *3) | 3,85 | 8240700.9101.xxxxx |
| | 2 NPT | 50 | 160 | 41 | 0,1 ... 10 (16) *3) | 1,45 ... 145 (232) *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 mm²/s (cSt)

*3) With Solenoid 9151

Option selector

824*****.*****

| Thread form | Substitute | Frequency | Substitute |
|-----------------------------------|-------------------|-----------------------------------|-------------------|
| ISO G | 0 | See table frequency codes | xx |
| NPT | 1 | Voltage | Substitute |
| Port size | Substitute | See table voltage codes | xxx |
| 1/4 | 0 | Solenoid options | Substitute |
| 3/8 | 1 | G1/4 ... 1 | 9101 |
| 1/2 | 2 | Operating pressure | |
| 3/4 | 3 | 0,1 ... 16 bar (1,45 ... 232 psi) | |
| 1 | 4 | G1 1/4 ... 2 | 9101 |
| 1 1/4 | 5 | Operating pressure | |
| 1 1/2 | 6 | 0,1 ... 10 bar (1,45 ... 145 psi) | |
| 2 | 7 | G1 1/4 ... 2 | 9151 |
| Valve options | Substitute | Operating pressure | |
| Normally open (NO), | 01 | 0,1 ... 16 bar (1,45 ... 232 psi) | |
| from G1 1/4 with solenoid 9151 | | | |
| 0,1 ... 16 bar (1,45 ... 232 psi) | | | |
| Manual override | 02 | | |
| Seat seal FPM, | 03 | | |
| Fluid temperature -5 ... +110°C | | | |
| (+23 ... +230°F) | | | |
| Seat seal EPDM, | 14 | | |
| for hot water, | | | |
| max. fluid temperature +110°C | | | |
| (+230°F) | | | |
| 0,3 ... 16 bar (4,35 ... 232 psi) | | | |
| (up to G1) | | | |
| 0,3 ... 10 bar (4,35 ... 145 psi) | | | |
| (from G1 1/4) | | | |
| Latching system | 50 | | |
| impuls time min. 30 ms | | | |
| only for d.c. 6 V, 12 V and 24 V | | | |
| Version for drinking water | 88 | | |
| with test according to KTW | | | |
| up to max. G1 | | | |
| Version for drinking water | 89 | | |
| with test according to KTW/ | | | |
| NSF-approval | | | |
| Normally open (NO), | | | |
| up to G1 | | | |
| 0,3 ... 16 bar (4,35 ... 232 psi) | | | |

Standard solenoid systems

| Voltage and Frequency Solenoid 9101 *4) | | | | | |
|---|-----------|------------|-----------|-------------------|---------|
| Code | Code | Voltage | Frequency | Power consumption | |
| Voltage | Frequency | | | 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 *4) | | | | | |
| 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 |

*4)  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.

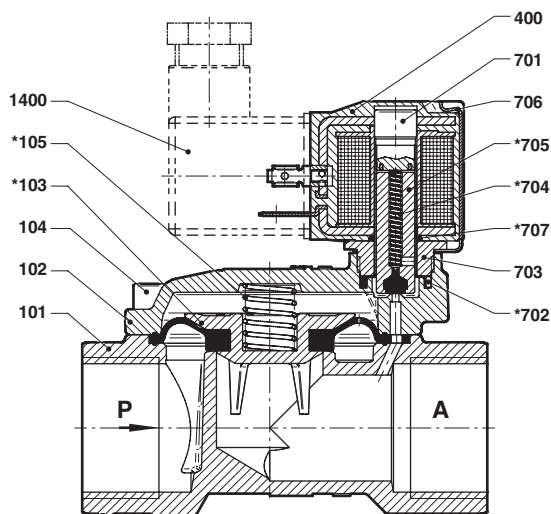
Additional solenoid systems for hazardous areas

| ATEX category | ATEX protection class | IP protection class | Solenoid | Standard voltages |
|----------------|---|---------------------|----------|-----------------------------|
| II 2G II 2D | Ex eb mb IIC T4 Gb Ex mb tb IIIB T125°C Db | IP66 | 6106 | 24 V DC, 110 V AC, 230 V AC |
| II 2G II 2D | Ex eb mb IIC T4 Gb Ex mb tb IIIB T125°C Db | IP66 | 6126 *5) | 24 V DC, 110 V AC, 230 V AC |
| II 3G II 3D | Ex ec IIC T4 Gc Ex tc IIIC T130°C Dc | IP65 | 9116 | 24 V DC, 110 V AC, 230 V AC |
| I 3G II 3D | Ex ec IIC T4 Gc Ex tc IIIC T130°C Dc | IP65 | 9176 | 24 V DC, 110 V AC, 230 V AC |

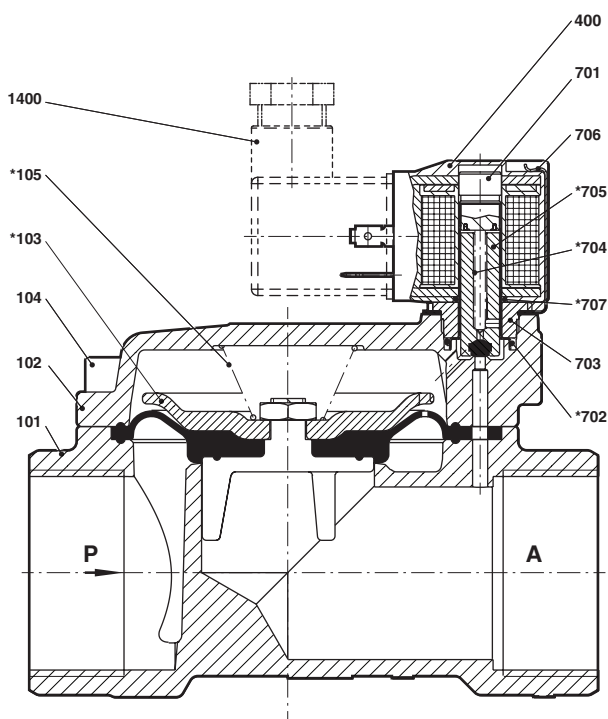
Attention!

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

*5) from G1 1/4 / 1 1/4 NPT (16 bar)

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


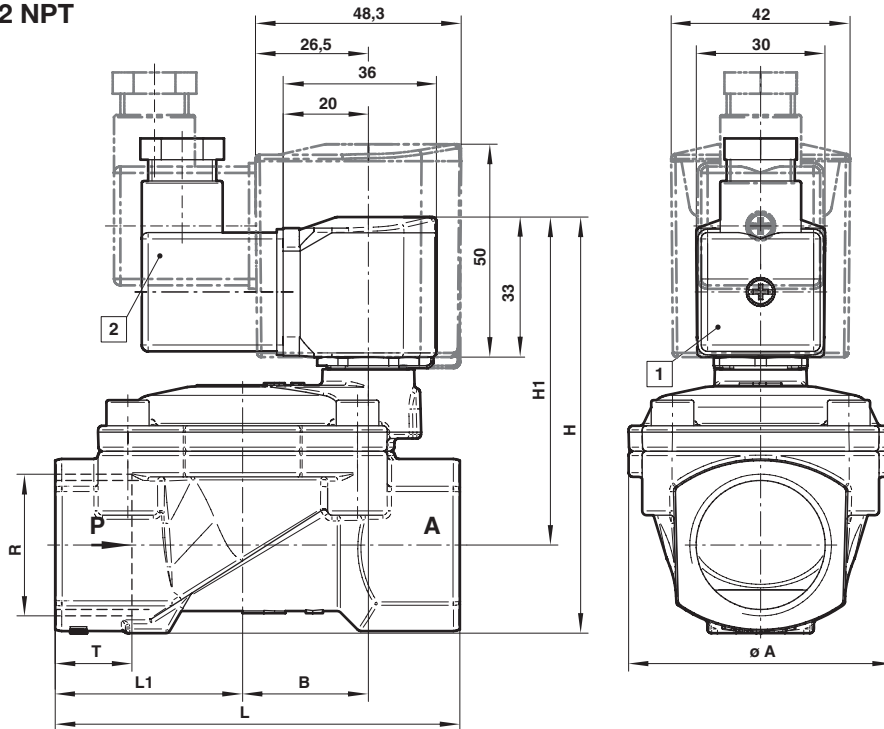
| No. | Description |
|------|-------------------|
| 101 | Valve body |
| 102 | Valve cover |
| *103 | Diaphragm |
| 104 | Allen head screw |
| *105 | Pressure spring |
| 400 | Solenoid |
| 701 | Core tube |
| *702 | O-ring |
| 703 | Screw piece |
| *704 | Pressure spring |
| *705 | Plunger |
| 706 | 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

Dimensions in mm
Projection/First angle



- 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 |
| G1 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 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.