

- > Port size: 1/8" ... 3/8" (ISO G/NPT)
- > 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
- > International approvals

Click-on



Technical features

Medium:
Neutral gases and liquids

Switching function:
Normally closed

Operation:
Directly solenoid actuated

Mounting position:
Optional, preferably solenoid vertical on top

Flow direction:
Determined

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

Operating pressure:
See table

Fluid temperature:
-10° ... +90°C (+14° ... +194°F)

Ambient temperature:
-10° ... +50°C (+14° ... +122°F)

Material:
Body: Brass (CW617N)
Seat seal: NBR
(70 bar version – PTFE)
Internal parts: Stainless steel, Brass

For contaminated fluids insertion of a strainer is recommended.

Technical data – Standard models – Valves normally closed

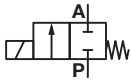
| Symbol | Port size | Orifice (mm) | Flow kv value *1) (m³/h) | Operating pressure *2) (bar) (psi) | | Weight (kg) | Model Solenoid in V d.c. / a.c. |
|--------|-----------|--------------|--------------------------|------------------------------------|------------|-------------|---------------------------------|
| | G1/8 | 1,5 | 0,07 | 0 ... 25 | 0 ... 362 | 0,33 | 8251800.9101.xxxxx |
| | 1/8 NPT | 1,5 | 0,07 | 0 ... 25 | 0 ... 362 | 0,33 | 8252800.9101.xxxxx |
| | G1/4 | 1,5 | 0,07 | 0 ... 25 | 0 ... 362 | 0,33 | 8251000.9101.xxxxx |
| | 1/4 NPT | 1,5 | 0,07 | 0 ... 25 | 0 ... 362 | 0,33 | 8252000.9101.xxxxx |
| | G3/8 | 1,5 | 0,07 | 0 ... 25 | 0 ... 362 | 0,33 | 8251100.9101.xxxxx |
| | 3/8 NPT | 1,5 | 0,07 | 0 ... 25 | 0 ... 362 | 0,33 | 8252100.9101.xxxxx |
| | G1/8 | 1,5 | 0,07 | 0 ... 70 | 0 ... 1015 | 0,57 | 8251807.9151.xxxxx |
| | 1/8 NPT | 1,5 | 0,07 | 0 ... 70 | 0 ... 1015 | 0,57 | 8252807.9151.xxxxx |
| | G1/4 | 1,5 | 0,07 | 0 ... 70 | 0 ... 1015 | 0,57 | 8251007.9151.xxxxx |
| | 1/4 NPT | 1,5 | 0,07 | 0 ... 70 | 0 ... 1015 | 0,57 | 8252007.9151.xxxxx |
| | G3/8 | 1,5 | 0,07 | 0 ... 70 | 0 ... 1015 | 0,57 | 8251107.9151.xxxxx |
| | 3/8 NPT | 1,5 | 0,07 | 0 ... 70 | 0 ... 1015 | 0,57 | 8252107.9151.xxxxx |
| | G1/8 | 2,5 | 0,15 | 0 ... 10 | 0 ... 1015 | 0,33 | 8251820.9101.xxxxx |
| | 1/8 NPT | 2,5 | 0,15 | 0 ... 10 | 0 ... 1015 | 0,33 | 8252820.9101.xxxxx |
| | G1/4 | 2,5 | 0,15 | 0 ... 10 | 0 ... 1015 | 0,33 | 8251020.9101.xxxxx |
| | 1/4 NPT | 2,5 | 0,15 | 0 ... 10 | 0 ... 1015 | 0,33 | 8252020.9101.xxxxx |
| | G3/8 | 2,5 | 0,15 | 0 ... 10 | 0 ... 1015 | 0,33 | 8251120.9101.xxxxx |
| | 3/8 NPT | 2,5 | 0,15 | 0 ... 10 | 0 ... 1015 | 0,33 | 8252120.9101.xxxxx |
| | G1/8 | 2,5 | 0,15 | 0 ... 40 | 0 ... 580 | 0,57 | 8251820.9151.xxxxx |
| | 1/8 NPT | 2,5 | 0,15 | 0 ... 40 | 0 ... 580 | 0,57 | 8252820.9151.xxxxx |
| | G1/4 | 2,5 | 0,15 | 0 ... 40 | 0 ... 580 | 0,57 | 8251020.9151.xxxxx |
| | 1/4 NPT | 2,5 | 0,15 | 0 ... 40 | 0 ... 580 | 0,57 | 8252020.9151.xxxxx |
| | G3/8 | 2,5 | 0,15 | 0 ... 40 | 0 ... 580 | 0,57 | 8251120.9151.xxxxx |
| | 3/8 NPT | 2,5 | 0,15 | 0 ... 40 | 0 ... 580 | 0,57 | 8252120.9151.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)

Technical data – Standard models – Valves normally closed

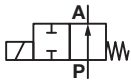
| Symbol | Port size | Orifice (mm) | Flow kv value *3) (m ³ /h) | Operating pressure *4) (bar) (psi) | | Weight (kg) | Typ Solenoid in V d.c. /a.c. |
|---|-----------|--------------|---------------------------------------|------------------------------------|-----------|-------------|------------------------------|
|  | G1/8 | 3 | 0,21 | 0 ... 4 | 0 ... 58 | 0,33 | 8251840.9101.xxxxx |
| | 1/8 NPT | 3 | 0,21 | 0 ... 4 | 0 ... 58 | 0,33 | 8252840.9101.xxxxx |
| | G1/4 | 3 | 0,21 | 0 ... 4 | 0 ... 58 | 0,33 | 8251040.9101.xxxxx |
| | 1/4 NPT | 3 | 0,21 | 0 ... 4 | 0 ... 58 | 0,33 | 8252040.9101.xxxxx |
| | G3/8 | 3 | 0,21 | 0 ... 4 | 0 ... 58 | 0,33 | 8251140.9101.xxxxx |
| | 3/8 NPT | 3 | 0,21 | 0 ... 4 | 0 ... 58 | 0,33 | 8252140.9101.xxxxx |
| | G1/8 | 3 | 0,21 | 0 ... 20 | 0 ... 290 | 0,57 | 8251840.9151.xxxxx |
| | 1/8 NPT | 3 | 0,21 | 0 ... 20 | 0 ... 290 | 0,57 | 8252840.9151.xxxxx |
| | G1/4 | 3 | 0,21 | 0 ... 20 | 0 ... 290 | 0,57 | 8251040.9151.xxxxx |
| | 1/4 NPT | 3 | 0,21 | 0 ... 20 | 0 ... 290 | 0,57 | 8252040.9151.xxxxx |
| | G3/8 | 3 | 0,21 | 0 ... 20 | 0 ... 290 | 0,57 | 8251140.9151.xxxxx |
| | 3/8 NPT | 3 | 0,21 | 0 ... 20 | 0 ... 290 | 0,57 | 8252140.9151.xxxxx |
| | G1/8 | 4 | 0,35 | 0 ... 12 | 0 ... 174 | 0,57 | 8251860.9151.xxxxx |
| | 1/8 NPT | 4 | 0,35 | 0 ... 12 | 0 ... 174 | 0,57 | 8252860.9151.xxxxx |
| | G1/4 | 4 | 0,35 | 0 ... 12 | 0 ... 174 | 0,57 | 8251060.9151.xxxxx |
| | 1/4 NPT | 4 | 0,35 | 0 ... 12 | 0 ... 174 | 0,57 | 8252060.9151.xxxxx |
| | G3/8 | 4 | 0,35 | 0 ... 12 | 0 ... 174 | 0,57 | 8251160.9151.xxxxx |
| | 3/8 NPT | 4 | 0,35 | 0 ... 12 | 0 ... 174 | 0,57 | 8252160.9151.xxxxx |
| | G1/8 | 5 | 0,5 | 0 ... 6 | 0 ... 87 | 0,57 | 8251880.9151.xxxxx |
| | 1/8 NPT | 5 | 0,5 | 0 ... 6 | 0 ... 87 | 0,57 | 8252880.9151.xxxxx |
| | G1/4 | 5 | 0,5 | 0 ... 6 | 0 ... 87 | 0,57 | 8251080.9151.xxxxx |
| | 1/4 NPT | 5 | 0,5 | 0 ... 6 | 0 ... 87 | 0,57 | 8252080.9151.xxxxx |
| | G3/8 | 5 | 0,5 | 0 ... 6 | 0 ... 87 | 0,57 | 8251180.9151.xxxxx |
| | 3/8 NPT | 5 | 0,5 | 0 ... 6 | 0 ... 87 | 0,57 | 8252180.9151.xxxxx |

xxxxx Please insert voltage and frequency codes

*3) Cv-value (US) ≈ kv value x 1,2

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

Technical data – Standard models – Valves normally open

| Symbol | Port size | Orifice (mm) | Flow kv value *5) (m ³ /h) | Operating pressure *6) (bar) | | Weight (kg) | Model Solenoid in V d.c. / a.c. |
|---|-----------|--------------|---------------------------------------|------------------------------|-----------|-------------|---------------------------------|
|  | G1/4 | 1,5 | 0,07 | 0 ... 16 | 0 ... 232 | 0,33 | 8251001.9101.xxxxx |
| | 1/4 NPT | 1,5 | 0,07 | 0 ... 16 | 0 ... 232 | 0,33 | 8252001.9101.xxxxx |
| | G1/4 | 2,5 | 0,15 | 0 ... 6 | 0 ... 87 | 0,33 | 8251021.9101.xxxxx |
| | 1/4 NPT | 2,5 | 0,15 | 0 ... 6 | 0 ... 87 | 0,33 | 8252021.9101.xxxxx |
| | G1/4 | 2,5 | 0,15 | 0 ... 25 | 0 ... 362 | 0,57 | 8251021.9151.xxxxx |
| | 1/4 NPT | 2,5 | 0,15 | 0 ... 25 | 0 ... 362 | 0,57 | 8252021.9151.xxxxx |
| | G1/4 | 3 | 0,21 | 0 ... 3 | 0 ... 43 | 0,33 | 8251041.9101.xxxxx |
| | 1/4 NPT | 3 | 0,21 | 0 ... 3 | 0 ... 43 | 0,33 | 8252041.9101.xxxxx |
| | G1/4 | 3 | 0,21 | 0 ... 16 | 0 ... 232 | 0,57 | 8251041.9151.xxxxx |
| | 1/4 NPT | 3 | 0,21 | 0 ... 16 | 0 ... 232 | 0,57 | 8252041.9151.xxxxx |
| | G1/4 | 4 | 0,35 | 0 ... 8 | 0 ... 116 | 0,57 | 8251061.9151.xxxxx |
| | 1/4 NPT | 4 | 0,35 | 0 ... 8 | 0 ... 116 | 0,57 | 8252061.9151.xxxxx |

xxxxx Please insert voltage and frequency codes

*5) Cv-value (US) ≈ kv value x 1,2

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



Option selector

825*****.*****

| Thread form | Substitute |
|---|------------|
| ISO G | 1 |
| NPT | 2 |
| Port size | Substitute |
| 1/8" | 8 |
| 1/4" | 0 |
| 3/8" | 1 |
| Valve options | Substitute |
| Normally closed (NC), DN 1,5 Operating pressure 0 ... 25 bar (0 ... 362 psi) (with solenoid 9101) | 00 |
| Normally open (NO), DN 1,5 Operating pressure 0 ... 16 bar (0 ... 174 psi) (with solenoid 9101) | 01 |
| Seat seal PTFE | 07 |
| Normally closed (NC), DN 1,5 Operating pressure 0 ... 70 bar (0 ... 1015 psi) (with solenoid 9151) | 20 |
| Normally closed (NC), DN 2,5 Operating pressure 0 ... 10 bar (0 ... 145 psi) (with solenoid 9101) | 20 |
| Normally closed (NC), DN 2,5 Operating pressure 0 ... 40 bar (0 ... 580 psi) (with solenoid 9151) | 21 |
| Normally open (NO), DN 2,5 Operating pressure 0 ... 6 bar (0 ... 87 psi) (with solenoid 9101) | 21 |
| Normally open (NO), DN 2,5 Operating pressure 0 ... 25 bar (0 ... 362 psi) (with solenoid 9151) | 40 |
| Normally closed (NC), DN 3 Operating pressure 0 ... 4 bar (0 ... 58 psi) (with solenoid 9101) | 40 |
| Normally closed (NC), DN 3 Operating pressure 0 ... 20 bar (0 ... 290 psi) (with solenoid 9151) | 41 |
| Normally open (NO), DN 3 Operating pressure 0 ... 3 bar (0 ... 43 psi) (with solenoid 9101) | 41 |
| Normally open (NO), DN 3 Operating pressure 0 ... 16 bar (0 ... 362 psi) (with solenoid 9151) | 60 |
| Normally closed (NC), DN 4 Operating pressure 0 ... 12 bar (0 ... 174 psi) (with solenoid 9151) | 61 |
| Normally open (NO), DN 4 Operating pressure 0 ... 8 bar (0 ... 116 psi) (with solenoid 9151) | 80 |
| Normally closed (NC), DN 5 Operating pressure 0 ... 6 bar (0 ... 87 psi) (with solenoid 9151) | |

| Frequency | Substitute |
|---------------------------|------------|
| See table frequency codes | xx |
| Voltage | Substitute |
| See Voltage codes | xxx |
| Solenoid options | Substitute |
| Solenoid 9101 | 9101 |
| Solenoid 9151 | 9151 |

Standard solenoid systems

| Voltage and Frequency Solenoid 9101 *7) | | | | | |
|---|----------------|------------|-----------|-------------------|---------|
| 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 *7) | | | | | |
|---|----------------|------------|-----------|-------------------|---------|
| Code Voltage | Code Frequency | Voltage | 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 |

*7)  US coil only

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.

Further versions on request!

Additional solenoid systems for hazardous areas

| ATEX category | ATEX protection class | IP protection class | So-lenoid | 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 | 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 |

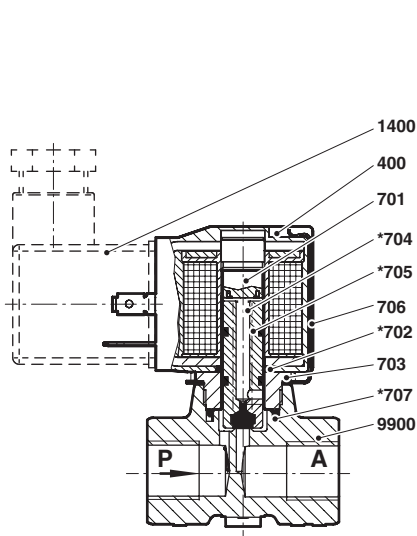
Attention!

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

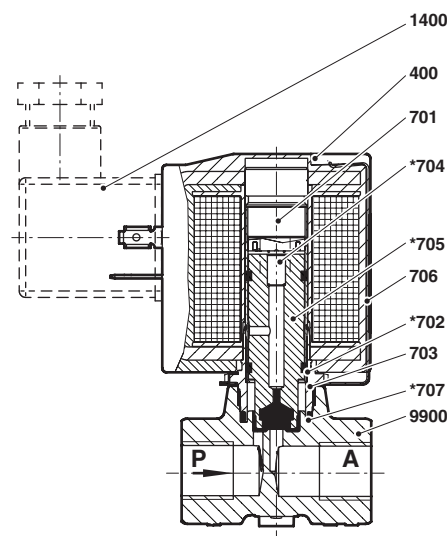
Section view

G1/8 ... 3/8

Solenoid 9101



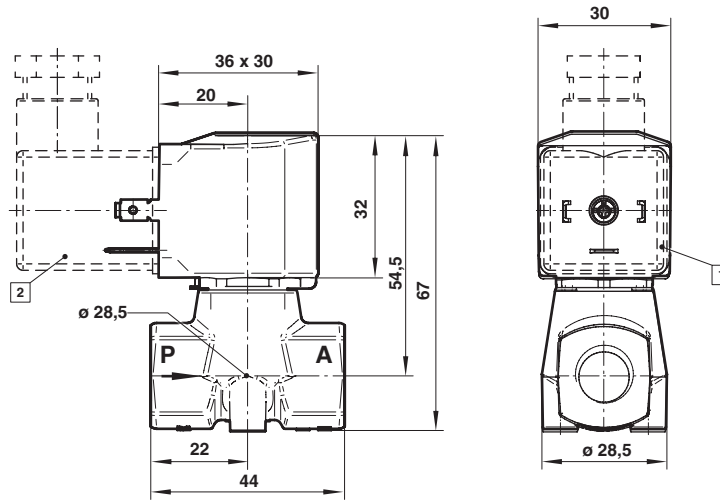
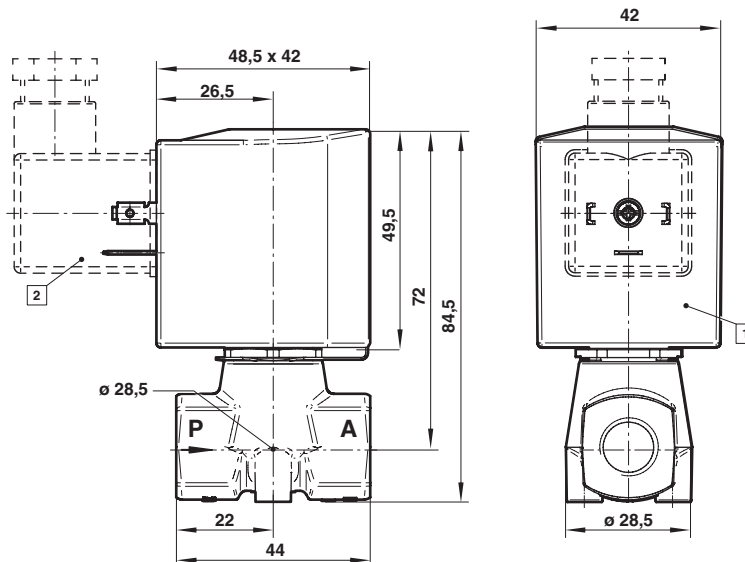
Solenoid 9151



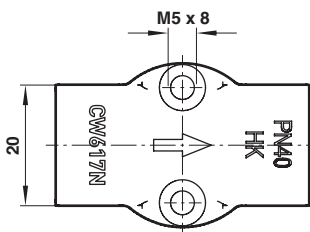
| No. | Description |
|------|-------------------|
| 400 | Solenoid |
| 701 | Core tube |
| 702 | O-ring |
| 703 | Screw piece |
| *704 | Pressure spring |
| *705 | Plunger |
| 706 | Spring clip |
| *707 | O-ring |
| 1400 | Socket (included) |
| 9900 | Valve body |

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

Dimensions
Solenoid 9101

 Dimensions in mm
 Projection/First angle

Solenoid 9151


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


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.