

- > Port size: DN 8 ... 50, 1/4" ... 2" (ISO G/NPT)
- > High flow rate
- > For robust industry solutions
- > Damped operation
- > Suitable for vacuum
- > For systems with low or fluctuating pressure
- > Valve operates without differential pressure
- > Solenoid interchangeable without tools (*Click-on®*) up to G 1 thread

Click-on®


Technical features

Medium:

Slightly aggressive gases and liquids

Switching function:

Normally closed

Operation:

Solenoid actuated, with forced lifting

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 ... 25 bar (0 ... 362 psi)

Fluid temperature:

-20° ... +90°C (-4° ... +194°F)

Ambient temperature:

-20° ... +50°C (-4° ... +122°F)

Material:

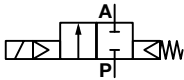
Body: Stainless steel (1.4408)

Seat seal: NBR

Internal parts: Stainless steel, 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) | Weight (kg) | Model Solenoid in V d.c. | Model Solenoid in V a.c. |
|---|-----------|--------------|--------------------------|------------------------------|-------------|--------------------------|--------------------------|
|  | G1/4 | 8 | 2,2 | 0 ... 25 | 2,4 | 8574000.9401.xxxxx | 8574000.9404.xxxxx |
| | 1/4 NPT | 8 | 2,2 | 0 ... 25 | 2,4 | 8575000.9401.xxxxx | 8575000.9404.xxxxx |
| | G3/8 | 10 | 3,4 | 0 ... 25 | 2,4 | 8574100.9401.xxxxx | 8574100.9404.xxxxx |
| | 3/8 NPT | 10 | 3,4 | 0 ... 25 | 2,4 | 8575100.9401.xxxxx | 8575100.9404.xxxxx |
| | G1/2 | 12 | 4,4 | 0 ... 25 | 2,5 | 8574200.9401.xxxxx | 8574200.9404.xxxxx |
| | 1/2 NPT | 12 | 4,4 | 0 ... 25 | 2,5 | 8575200.9401.xxxxx | 8575200.9404.xxxxx |
| | G3/4 | 20 | 7 | 0 ... 25 | 2,7 | 8574300.9401.xxxxx | 8574300.9404.xxxxx |
| | 3/4 NPT | 20 | 7 | 0 ... 25 | 2,7 | 8575300.9401.xxxxx | 8575300.9404.xxxxx |
| | G1 | 25 | 10,5 | 0 ... 25 | 3,1 | 8574400.9401.xxxxx | 8574400.9404.xxxxx |
| | 1 NPT | 25 | 10,5 | 0 ... 25 | 3,1 | 8575400.9401.xxxxx | 8575400.9404.xxxxx |
| | G1 1/4 | 32 | 25 | 0 ... 25 | 5,6 | 8574500.8401.xxxxx | 8574500.8404.xxxxx |
| | 1 1/4 NPT | 32 | 25 | 0 ... 25 | 5,6 | 8575500.8401.xxxxx | 8575500.8404.xxxxx |
| | G1 1/2 | 40 | 27 | 0 ... 25 | 5,4 | 8574600.8401.xxxxx | 8574600.8404.xxxxx |
| | 1 1/2 NPT | 40 | 27 | 0 ... 25 | 5,4 | 8575600.8401.xxxxx | 8575600.8404.xxxxx |
| | G2 | 50 | 43 | 0 ... 25 | 6,8 | 8574700.8401.xxxxx | 8574700.8404.xxxxx |
| | 2 NPT | 50 | 43 | 0 ... 25 | 6,8 | 8575700.8401.xxxxx | 8575700.8404.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

857*****

| Thread form | Substitute |
|--|------------|
| ISO G | 4 |
| NPT | 5 |
| 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), Mounting position: solenoid vertical on top, only with solenoid 8400 | 01 |
| Manual override | 02 |
| Seat seal FPM, Fluid temperature -10 ... +110°C *3) | 03 |
| Seat seal PTFE, max. fluid temperature +110°C *3) | 06 |
| Seat seal EPDM, for hot water, max. fluid temperature +110°C | 14 |
| Normally open (NO), Seat seal FPM, Fluid temperature -10 ... +110°C *3), Mounting position: solenoid vertical on top, only with solenoid 8400 | 17 |
| Max. operating pressure 40 bar | 22 |
| Electrical position indicator with 2 limit switches (Reed contact) only with solenoid 8400 | 23 |
| Seat seal FPM, with larger bleed orifices in the piston, for fluids such as fuel and oil , viscosity max. 80 mm ² /s (cSt), Fluid temperature -10 ... +110°C *3) | 25 |
| Designed for ammonia, Seat seal CR | 75 |
| Version for drinking water on request | |

| Frequency | Substitute |
|------------------------------------|------------|
| See table frequency codes | xx |
| Voltage | Substitute |
| See Voltage codes | xxx |
| Solenoid options | Substitute |
| G1/4 ... 1 Solenoid in V d.c. | 9401 |
| G1 1/4 ... 2 Solenoid in V d.c. | 8401 |
| G1/4 ... 1 Solenoid in V a.c. | 9404 |
| G1 1/4 ... 2 Solenoid in V a.c. | 8404 |

Standard solenoid systems

| Voltage and Frequency Solenoid 9401/9404 *1) | | | | | | |
|--|-----------|------------|--------------|-------------------|---------|--|
| Code | Code | Voltage | Frequency | Power consumption | | |
| Voltage | Frequency | | | Inrush | Holding | |
| 024 | 00 | 24 V d.c. | - | 38 W | 38 W | |
| 024 | 49 | 24 V a.c. | 40 ... 60 Hz | 42 VA | 42 VA | |
| 110 | 49 | 110 V a.c. | 40 ... 60 Hz | 42 VA | 42 VA | |
| 120 | 49 | 120 V a.c. | 40 ... 60 Hz | 42 VA | 42 VA | |
| 230 | 49 | 230 V a.c. | 40 ... 60 Hz | 42 VA | 42 VA | |
| Voltage and Frequency Solenoid 8401/8404 | | | | | | |
| 024 | 00 | 24 V d.c. | - | 40 W | 40 W | |
| 024 | 49 | 24 V a.c. | 40 ... 60 Hz | 45 VA | 45 VA | |
| 110 | 49 | 110 V a.c. | 40 ... 60 Hz | 45 VA | 45 VA | |
| 120 | 49 | 120 V a.c. | 40 ... 60 Hz | 45 VA | 45 VA | |
| 230 | 49 | 230 V a.c. | 40 ... 60 Hz | 45 VA | 45 VA | |

*1) r coil only (with the exception of solenoid 94xx up to 41 V a.c.)

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

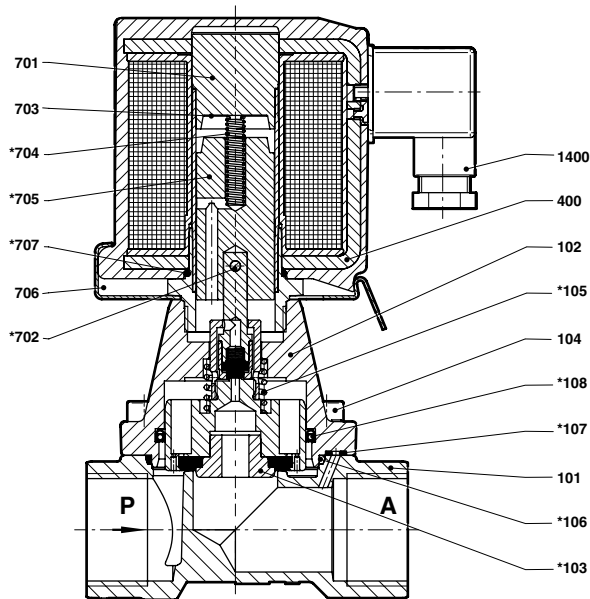
| ATEX category | Protection class | Solenoid | Standard Voltages |
|---------------|------------------------------------|----------|-----------------------------------|
| I12G | Ex me II T3 T 140°C | 8441 | 24 V d.c., 110 V a.c., 230 V a.c. |
| I13G | Ex II 3G Ex nA IIB T4 Gc | 9426 *2) | 24 V d.c., 110 V a.c., 230 V a.c. |
| I13D | Ex II 3D Ex tc IIB T130 °C Dc IP65 | | |
| I13G | Ex II 3G Ex nA IIB T4 Gc | 8426 *2) | 24 V d.c., 110 V a.c., 230 V a.c. |
| I13D | Ex II 3D Ex tc IIB T130 °C Dc IP65 | | |

Attention!

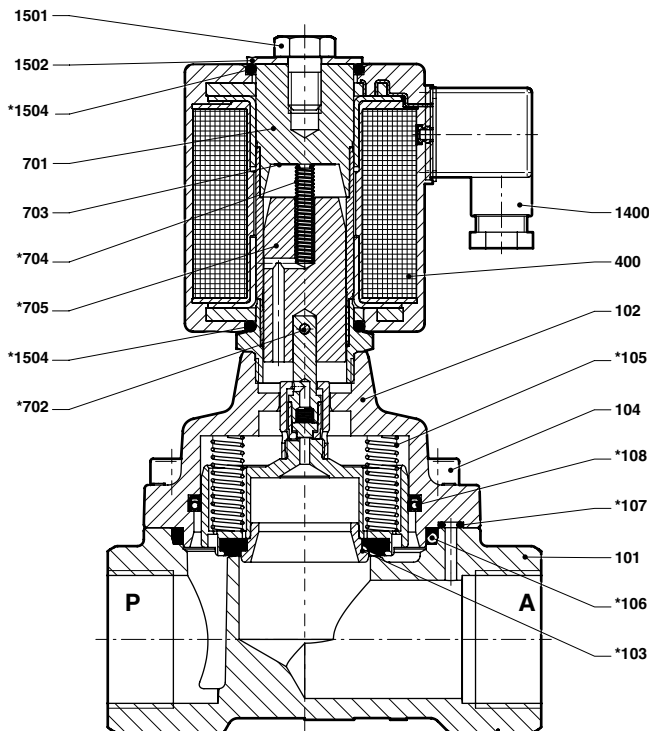
The conditions imposed on the Ex approvals lead to reduction of the permissible standard temperature ranges in the cases of explosion protected solenoids.

*2) d.c. only, for a.c. solenoids with design inspection certificate acc. to category 2, e. g. xxxxxx.8441

*3) Up to max. 200°C fluid temperature with solenoid for higher temperature

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


| No. | Description |
|------|-----------------------|
| 101 | Valve body |
| 102 | Valve cover |
| *103 | Valve piston |
| 104 | Socket head cap screw |
| *105 | Pressure spring |
| *106 | O-ring |
| *107 | O-ring |
| *108 | Grooved ring |
| 400 | Solenoid |
| 701 | Core tube |
| *702 | Straight pin |
| 703 | Round plate |
| *704 | Pressure spring |
| *705 | Core |
| 706 | Spring clip |
| *707 | O-ring |
| 1400 | Socket (included) |

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


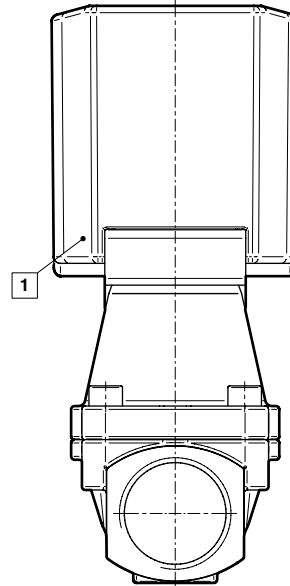
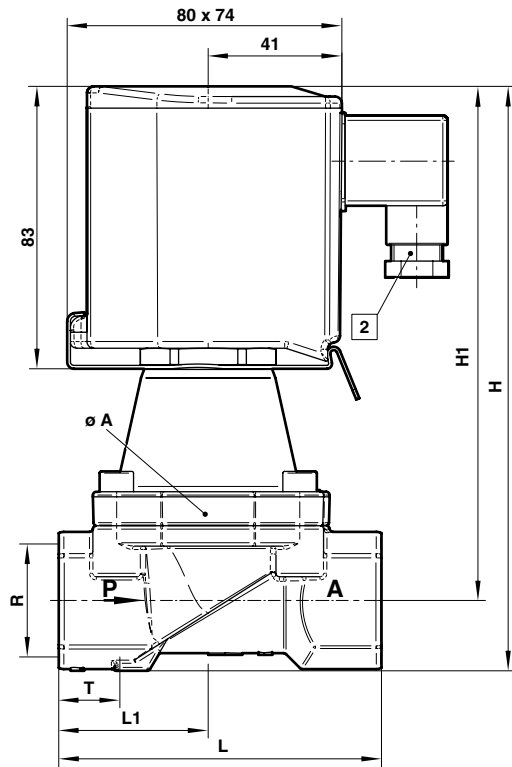
| No. | Description |
|-------|-----------------------|
| 101 | Valve body |
| 102 | Valve cover |
| *103 | Valve piston |
| 104 | Socket head cap screw |
| *105 | Pressure spring (2x) |
| *106 | O-ring |
| *107 | O-ring |
| *108 | Grooved ring |
| 400 | Solenoid |
| 701 | Core tube |
| *702 | Straight pin |
| 703 | Round plate |
| *704 | Pressure spring |
| *705 | Core |
| 1400 | Socket (included) |
| 1501 | Hexagon screw |
| 1502 | Round plate |
| *1504 | O-ring(2x) |

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

Dimensions

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

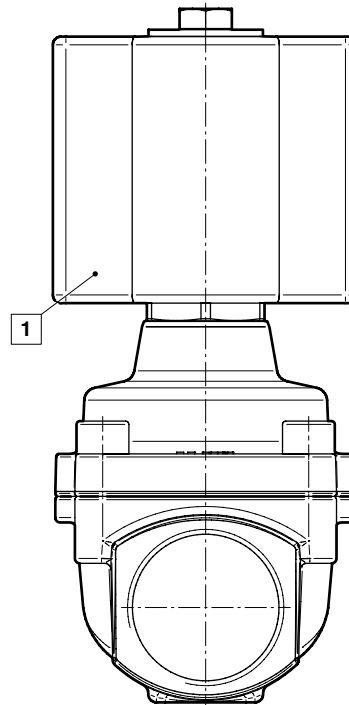
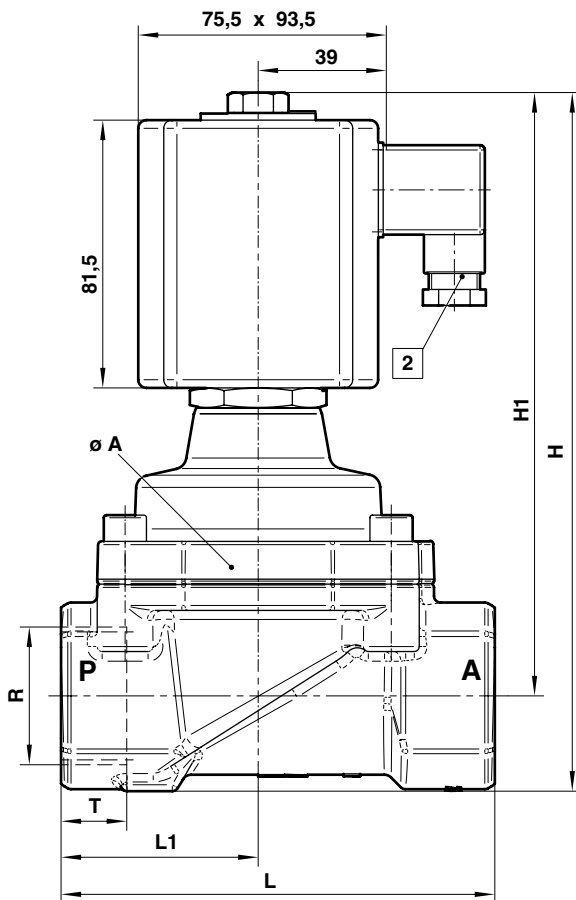
Abmessungen in mm
Projection/First angle



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

| Port size R | ø A | H | H1 | L | L1 | T | Model |
|-------------|-----|-------|-------|----|----|------|--------------------|
| G1/4 | 44 | 152 | 140,5 | 60 | 60 | 12 | 8574000.940x.xxxxx |
| 1/4 NPT | 44 | 152 | 140,5 | 60 | 60 | 10 | 8575000.940x.xxxxx |
| G3/8 | 44 | 152 | 140,5 | 60 | 60 | 12 | 8574100.940x.xxxxx |
| 3/8 NPT | 44 | 152 | 140,5 | 60 | 60 | 10,5 | 8575100.940x.xxxxx |
| G1/2 | 44 | 154,5 | 140,5 | 67 | 67 | 14 | 8574200.940x.xxxxx |
| 1/2 NPT | 44 | 154,5 | 140,5 | 67 | 67 | 13,5 | 8575200.940x.xxxxx |
| G3/4 | 50 | 162 | 146,5 | 80 | 80 | 16 | 8574300.940x.xxxxx |
| 3/4 NPT | 50 | 162 | 146,5 | 80 | 80 | 14 | 8575300.940x.xxxxx |
| G1 | 62 | 183 | 162 | 95 | 95 | 18 | 8574400.940x.xxxxx |
| 1 NPT | 62 | 183 | 162 | 95 | 95 | 17 | 8575400.940x.xxxxx |

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

 Abmessungen in mm
 Projection/First angle


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

| Port size R | ø A | H | H1 | L | L1 | T | Model |
|-------------|-----|-------|-------|-----|-----|------|--------------------|
| G 1 1/4 | 92 | 212,5 | 183,5 | 132 | 132 | 20 | 8574500.840x.xxxxx |
| 1 1/4 NPT | 92 | 212,5 | 183,5 | 132 | 132 | 17 | 8575500.840x.xxxxx |
| G1 1/2 | 92 | 212,5 | 183,5 | 132 | 132 | 22 | 8574600.840x.xxxxx |
| 1 1/2 NPT | 92 | 212,5 | 183,5 | 132 | 132 | 17 | 8575600.840x.xxxxx |
| G2 | 109 | 226,5 | 192 | 160 | 160 | 24 | 8574700.840x.xxxxx |
| 2 NPT | 109 | 226,5 | 192 | 160 | 160 | 17,5 | 8575700.840x.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.