

- > Port size: DN 65 ... 100, flange connection PN 16
- > Flat piston valve
- > High flow rate
- > Damped operation
- > Valve works without minimum pressure differential



Technical features

Medium:

Air, water, oil

Switching function:

Normally closed

Operation:

Solenoid actuated, with forced lifting

Mounting:

Optional, preferably solenoid vertical on top

Flow direction:

Determined

Port size:

Flange PN 16, DN 65 ... DN 100

Operating pressure:

0 ... 16 bar (0 ... 232 psi)

Fluid temperature:

-10 ... +90°C (+14 ... +194°F)

Ambient temperature:

-10 ... +50°C (+14 ... +122°F)

Material:

Body: Grey cast iron

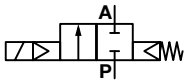
Seat seal: NBR

Cover: Grey cast iron

Internal parts: Stainless steel, brass, gun metal

For contaminated fluids insertion of a strainer is recommended.

Technical data - standard models

| Symbol | 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. |
|---|--------------|--------------------------|------------------------------|-------------|--------------------------|--------------------------|
|  | 65 | 67 | 0 ... 16 | 34 | 8410800.9501.xxxxx | 8410800.9504.xxxxx |
| | 80 | 94 | 0 ... 16 | 42,4 | 8410900.9501.xxxxx | 8410900.9504.xxxxx |
| | 100 | 144 | 0 ... 16 | 61,2 | 8411000.9501.xxxxx | 8411000.9504.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 40 mm²/s (cSt)

Option selector

8410★★★★★★★★

| Port size | Substitute |
|---|------------|
| DN 65 | 8 |
| DN 80 | 9 |
| DN 100 | 10 |
| Valve options | Substitute |
| Normally open (NO) | 01 |
| Manual override | 02 |
| Seat seal FPM, Fluid temperature -10 ... +110°C (+14 ... 230°F) | 03 |
| Seat seal PTFE, Fluid temperatur -10 ... +110°C (+14 ... 230°F), Leakage rate E acc. to EN 12266-1 | 06 |
| Seat seal EPDM, Fluid temperature -10 ... +110°C (+14 ... 230°F) | 14 |
| Normally open (NO), Seat seal FPM, Fluid temperature -10 ... +110°C (+14 ... 230°F) | 17 |
| Electrical position indicator with two solenoid switches, Ex | 40 |
| Electrical position indicator with two solenoid switches | 41 |

| Frequency | Substitute |
|-------------------------------------|------------|
| See table frequency codes | xx |
| Voltage | Substitute |
| See Voltage codes | xxx |
| Solenoid options | Substitute |
| DN 65 ... 100 Solenoid in V d.c. | 9501 |
| DN 65 ... 100 Solenoid in V a.c. | 9504 |

Standard solenoid systems

| Voltage and Frequency Solenoid 9501/9504 | | | | | |
|--|-----------|----------------|--------------|-------------------|---------|
| Code | Code | Voltage | Frequency | Power consumption | |
| Voltage | Frequency | | | Inrush | Holding |
| 024 | 00 | 24 V d.c. | - | 80 W | 80 W |
| 024 | 49 | 24 V a.c. *1) | 40 ... 60 Hz | 89 VA | 89 VA |
| 42 | 49 | 42 V a.c. *1) | 40 ... 60 Hz | 89 VA | 89 VA |
| 110 | 49 | 110 V a.c. *1) | 40 ... 60 Hz | 89 VA | 89 VA |
| 230 | 49 | 230 V a.c. *1) | 40 ... 60 Hz | 89 VA | 89 VA |

*1) AC only with rectifier plug

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.



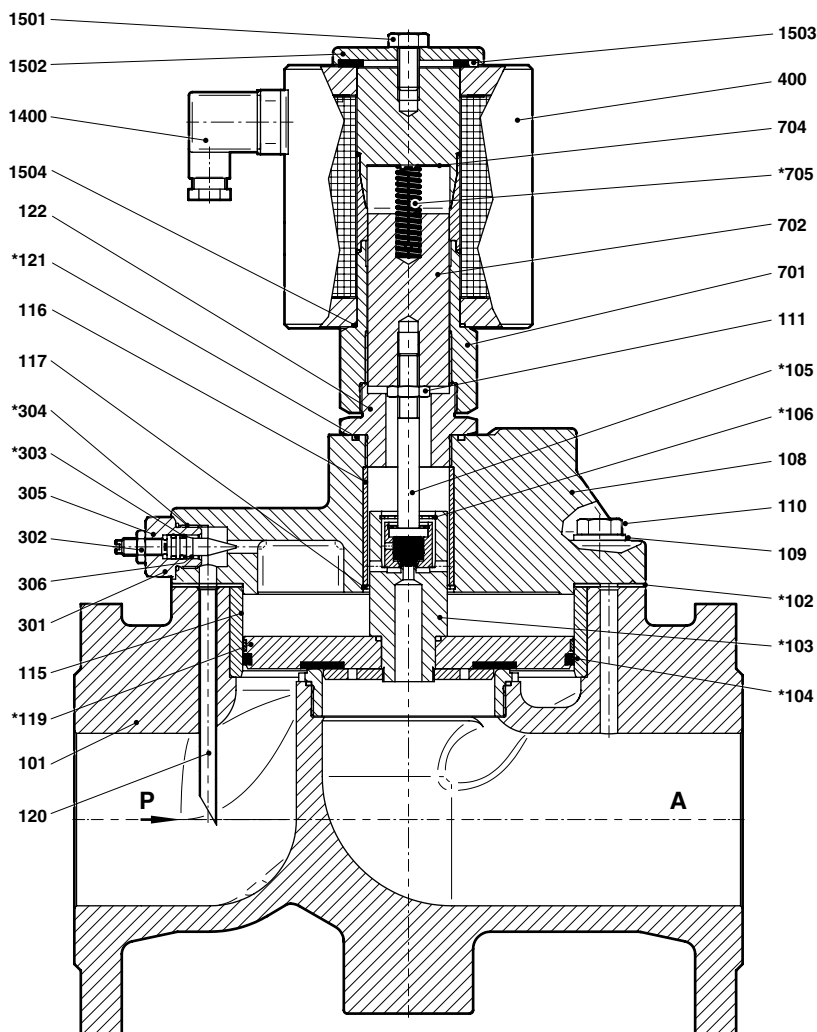
Additional solenoid systems

| ATEX category | Protection class | Solenoid | Standard voltages |
|---------------|--|----------|-----------------------------------|
| II2GD | II 2 G Ex e mb II T3...T4 II 2 D Ex tD A21 IP65 T140°C | 9540 | 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.

Further versions on request!

Section View
DN 65 ... 100


| No. | Description |
|------|-------------------|
| 101 | Valve body |
| *102 | Gasket |
| *103 | Valve piston |
| *104 | Grooved ring |
| *105 | Valve spindle |
| *106 | Locking ring |
| 108 | Body cover |
| 109 | Spring washer |
| 110 | Hexagon screw |
| 111 | Hexagon nut |
| 115 | Bushing |
| 116 | Bushing |
| 117 | Snap ring |
| *119 | Guide foil |
| 120 | Tube |
| *121 | O-ring |
| 122 | Screw piece |
| 301 | Screw piece |
| 302 | Valve spindle |
| *303 | O-ring |
| *304 | O-ring |
| 305 | Hexagon nut |
| 400 | Solenoid |
| 701 | Core tube |
| 702 | Core |
| 704 | Round plate |
| *705 | Pressure spring |
| 1400 | Socket (included) |
| 1501 | Hexagon screw |
| 1502 | Round plate |
| 1503 | Gasket |
| 1504 | O-ring |

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

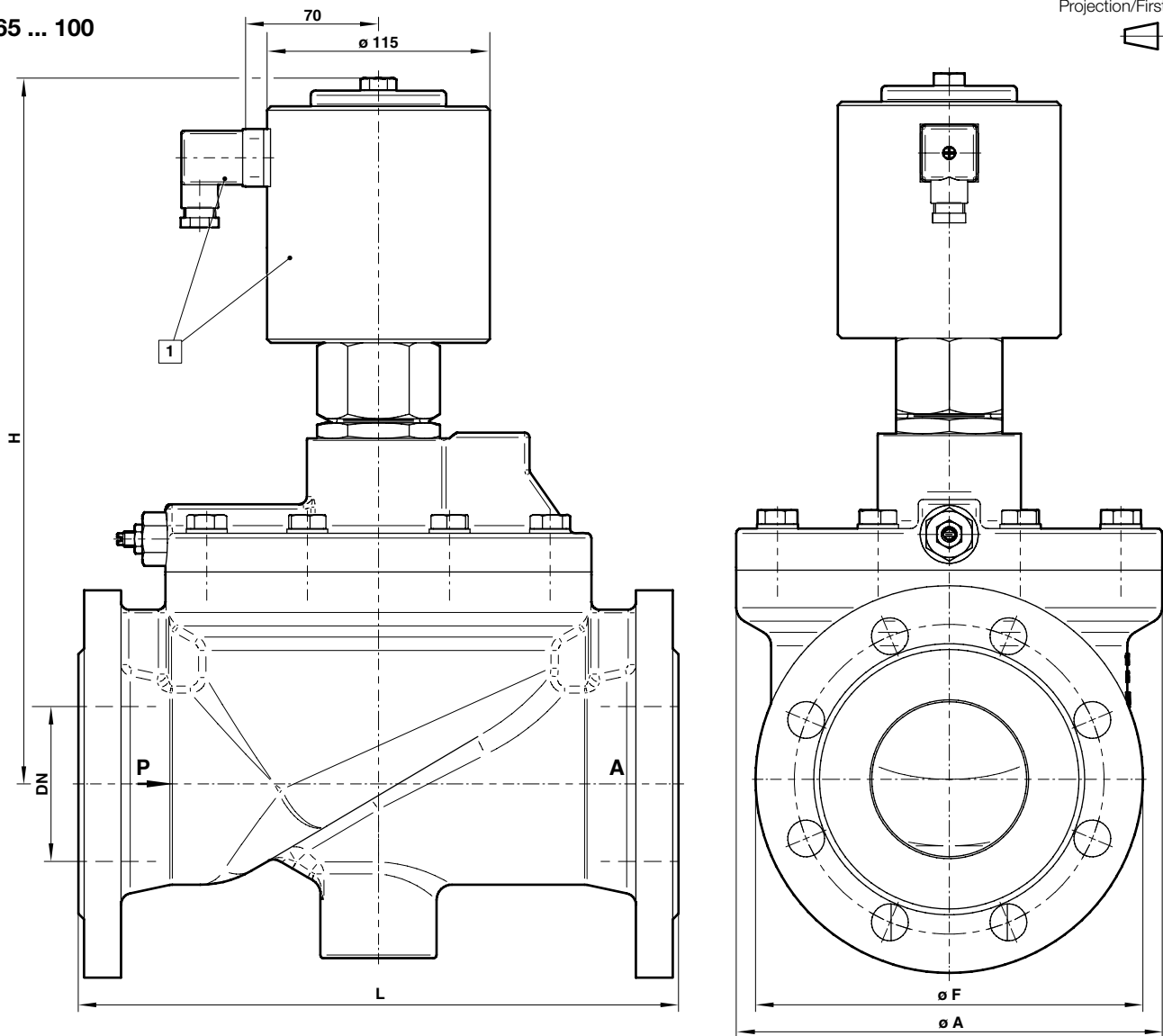
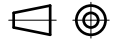
To avoid high shock pressure, you can control the closing time with the adjusting stem pos. 301.

Turning clockwise increase restriction and slows down closing time. A totally closed restriction would result in an malfunction.

Dimensions

DN 65 ... 100

Dimensions in mm
Projection/First angle



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

| Orifice (mm) | L | ø A | H | ø F | Model |
|--------------|-----|-----|-----|-----|--------------------|
| 65 | 290 | 195 | 340 | 185 | 8410800.950x.xxxxx |
| 80 | 310 | 220 | 360 | 200 | 8410900.950x.xxxxx |
| 100 | 350 | 260 | 390 | 220 | 8411000.950x.xxxxx |

Contact face acc. to DIN EN 1092-1/B

Note to Pressure Equipment Directive (PED):

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.