

2/2-way valves DN 8 to DN 50

For neutral gases and liquids

Solenoid actuated, with forced lifting

Piston valves

Internal threads G 1/4 to G 2 or 1/4 NPT to 2 NPT

Operating pressure 0 to 25 bar (40 bar)

85700

85710

Click-on®

Description (standard valve)

Solenoid valve for e. g. air, water, oil

Switching function:	normally closed
Flow direction:	determined
Fluid temperature:	–20 °C up to max. +90 °C
Ambient temperature:	–20 °C up to max. +50 °C
Mounting position:	optional, preferably solenoid vertical on top

Material

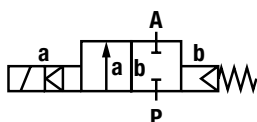
Body:	Brass (CW617N)
Seat seal:	NBR
Internal parts:	Stainless steel, PTFE/Carbon

For contaminated fluids insertion of a strainer is recommended.

Features

- 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
- Stainless steel piston

Symbol



Ordering information

To order, quote model number from table overleaf, e. g. 8570400.9401 for a DN 25 valve.



Characteristic Data

Valves

Part Number Solenoid with ---	Part Number Solenoid with ~	Nominal Diameter (mm)	Connection Size	Operating Pressure *		k _v -value ** (Base m³/h)	Weight Total (kg)
				min.	max. (bar)		
8570000.9401 8571000.9401	8570000.9404 8571000.9404	8	G 1/4 1/4 NPT	0	25	2.2	2.4
8570100.9401 8571100.9401	8570100.9404 8571100.9404	10	G 3/8 3/8 NPT	0	25	3.4	2.4
8570200.9401 8571200.9401	8570200.9404 8571200.9404	12	G 1/2 1/2 NPT	0	25	4.4	2.5
8570300.9401 8571300.9401	8570300.9404 8571300.9404	20	G 3/4 3/4 NPT	0	25	7.0	2.7
8570400.9401 8571400.9401	8570400.9404 8571400.9404	25	G 1 1 NPT	0	25	10.5	3.1
8570500.8401 8571500.8401	8570500.8404 8571500.8404	32	G 1 1/4 1 1/4 NPT	0	25	25.0	5.6
8570600.8401 8571600.8401	8570600.8404 8571600.8404	40	G 1 1/2 1 1/2 NPT	0	25	27.0	5.4
8570700.8401 8571700.8401	8570700.8404 8571700.8404	50	G 2 2 NPT	0	25	43.0	6.8

* for gases and liquid fluids up to 40 mm²/s (cSt)

State voltage [V] and frequency [Hz]

** C_v-value (US) ≈ k_v-value x 1.2

Solenoid 9401 / 9404 and 8401 / 8404

Standard voltage

DC ---	AC ~ 40 Hz – 60 Hz	
24 V	24 V	–
–	110 V	120 V
–	230 V	220 V

Design acc. to DIN VDE 0580

Voltage range ±10 %

100 % duty cycle

Protection class acc. to EN 60529 IP65

Socket Form A acc. to DIN EN 175301-803 (included)

AC with rectifier plug

Power Consumption

According to DIN VDE 0580 at coil temperature of +20 °C. In operation the power consumption of the solenoid decreases by approx. 30 %.

Solenoid	DC ---	AC ~ Inrush	Holding
9401 *	38 W		
9404 *		42 VA	42 VA
8401	40 W		
8404		45 VA	45 VA

*  coil only

(with the exception of solenoid 94xx up to 41 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.




Further Options (Valves)

XXXXX01.XXXX	Normally open, vertical on top, only with solenoid 8400
XXXXX02.XXXX	Manual override
XXXXX03.XXXX	Seat seal FPM, Fluid temperature –10 °C up to max. +110 °C ¹⁾
XXXXX06.XXXX	Seat seal PTFE, Fluid temperature max. + 110 °C ¹⁾ , operating pressure max. 16 bar
XXXXX14.XXXX	Seat seal EPDM, max. Fluid temperature +110 °C
XXXXX17.XXXX	Normally open, Seat seal FPM, Fluid temperature –10 °C up to max. +110 °C ¹⁾ , Mounting position: vertical on top, only with solenoid 8400
XXXXX22.XXXX	max. operating pressure 40 bar
XXXXX23.XXXX	Position indicator with two solenoid sensors, only with solenoid 8400
XXXXX25.XXXX	Seat seal FPM, with larger bleed orifices in the piston, for fluids such as fuel and oil , viscosity max. 80 mm²/s (cSt), Fluid temperature –10 °C up to max. +110 °C
XXXXX92.XXXX	Degreased version, suitable for oxygen operating, the BAM approval up to 25 bar for oxygen is available.

On request

Further versions

Further Options (Solenoids)

XXXXXXXX.8441	Protection class  II 2 GD EEx me II T3 T 140 °C
XXXXXXXX.9426*	Protection class  II 3 GD EEx nA II T4 T 135 °C
XXXXXXXX.8426*	Protection class  II 3 GD EEx nA II T4 T 135 °C

On request

Further versions

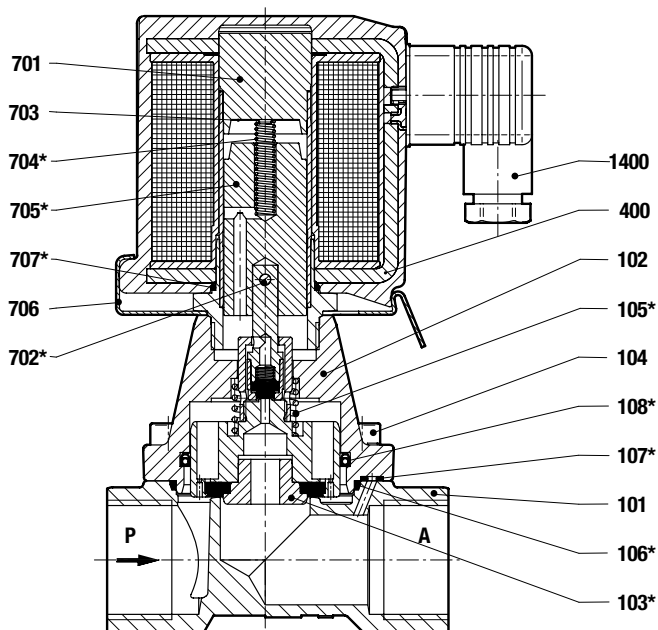
* DC only, for AC solenoids with design inspection certificate acc. to category 2, e. g. xxxxxxx.8441

¹⁾ Up to max. 200 °C fluid temperature with solenoid for higher temperature

Section View

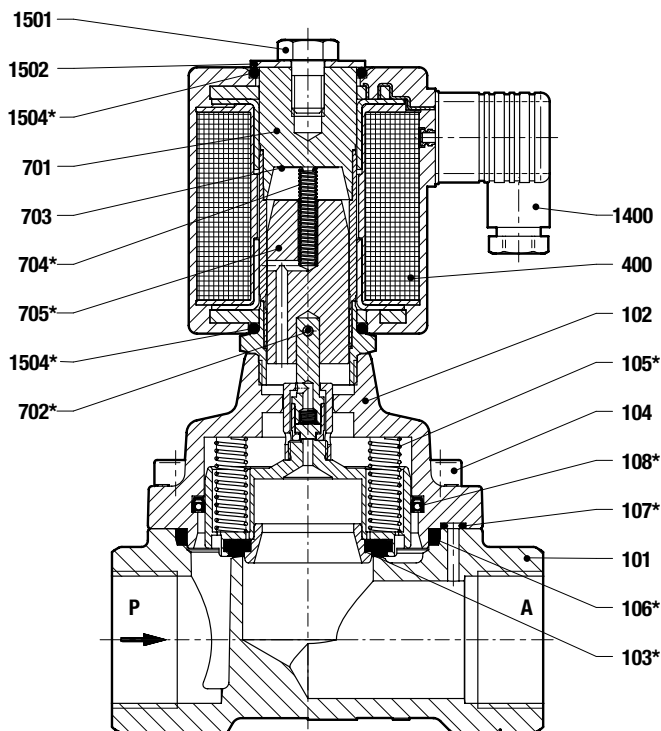
up to G 1 resp. 1 NPT

- 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)



from G 1 1/4 resp. 1 1/4 NPT

- 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)

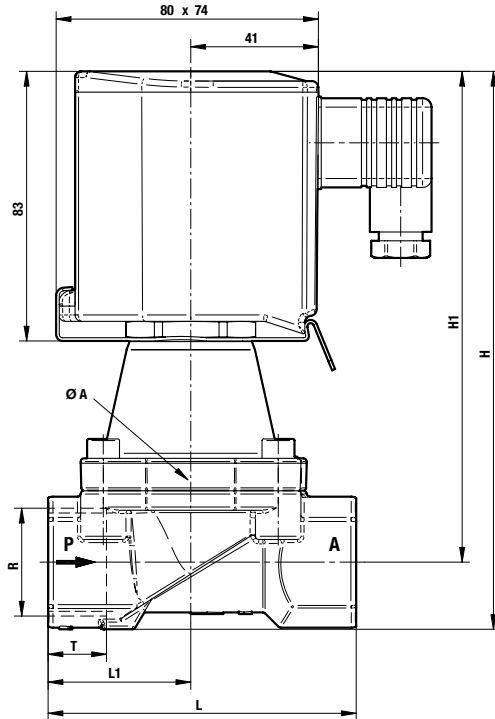


* These individual parts form a complete wearing unit.
When ordering spare parts please state Cat. No. and Series No.

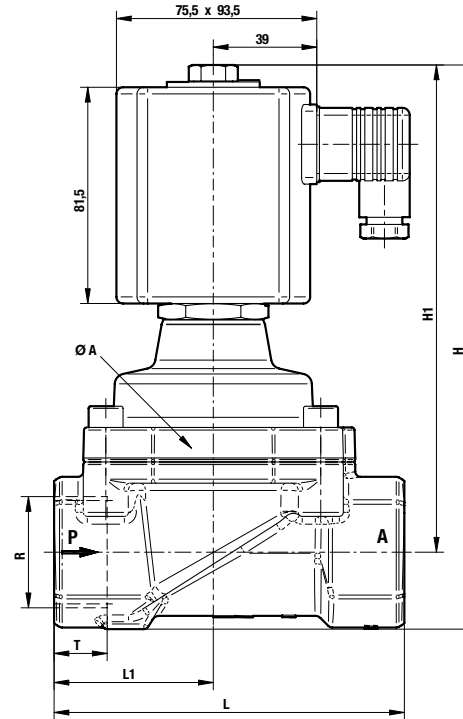
General Dimensions

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

up to G 1 resp. 1 NPT



from G 1 1/4 rep. 1 1/4 NPT



Part Number	Nominal Diameter (mm)	Connection Size	A (mm)	H (mm)	H 1 (mm)	L (mm)	L 1 (mm)	T (mm)
8570000.940x 8571000.940x	8	G 1/4 1/4 NPT	44	152.0	140.5	60	27.5	12.0 10.0
8570100.940x 8571100.940x	10	G 3/8 3/8 NPT	44	152.0	140.5	60	27.5	12.0 10.5
8570200.940x 8571200.940x	12	G 1/2 1/2 NPT	44	154.5	140.5	67	31.0	14.0 13.5
8570300.940x 8571300.940x	20	G 3/4 3/4 NPT	50	162.0	146.5	80	35.5	16.0 14.0
8570400.940x 8571400.940x	25	G 1 1 NPT	62	183.0	162.0	95	44.0	18.0 17.0
8570500.840x 8571500.840x	32	G 1 1/4 1 1/4 NPT	92	212.5	183.5	132	60.0	20.0 17.0
8570600.840x 8571600.840x	40	G 1 1/2 1 1/2 NPT	92	212.5	183.5	132	60.0	22.0 17.0
8570700.840x 8571700.840x	50	G 2 2 NPT	109	226.5	192.0	160	74.0	24.0 17.5

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.