

2/2-way-valves DN 15 to DN 50

For neutral gases and liquid fluids

Solenoid actuated, with forced lifting

Piston valves

Suitable for use in single-channel safety-related systems in accordance with DIN EN 61508 / 61511 up to and including SIL 2 and up to and including SIL 3 in multi-channel systems.

Female threads G 1/2 to G 2 or 1/2 NPT to 2 NPT

Operating pressure 0 to 25 bar



85840

85850

Stainless Steel



Description (standard valve)

Solenoid valve suitable for:

- air
- water
- gases according to DVGW data sheet G 260 with seat seal FPM
- Oils and other fluids on request

Switching function:	normally closed
Flow direction:	determined
Fluid temperature:	-10 °C up to max. +60 °C
Ambient temperature:	-10 °C up to max. +50 °C
Mounting position:	preferably solenoid vertical on top

Material

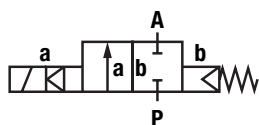
Body:	Stainless steel (1.4408)
Seat seal:	NBR
Internal parts:	Stainless steel, PTFE/carbon

For contaminated fluids insertion of a strainer is recommended (see **Buschjost** - accessories).

Features

- High flow rate
- For robust industry applications
- Damped operation
- For systems with low or fluctuating pressure
- Valve operates without differential pressure

Symbol



Ordering information

To order, quote model number from table overleaf, e.g. 8584400.8401 for a DN 25 valve.

D119102.01
05/11

Buschjost GmbH
Valve Technology and Systems

Detmolder Straße 256 Phone ++49 5731/791-0
D-32545 Bad Oeynhausen Fax ++49 5731/791-179
PO Box 10 02 52-53 www.buschjost.com
D-32502 Bad Oeynhausen mail@buschjost.com



Characteristic data

Valves

Part Number Solenoid with ---	Part Number Solenoid with ~	Nominal Diameter (mm)	Connection size	Operating pressure *		kv-value ** (Base m ³ /h)	Weight (kg)
				min. (bar)	max. (bar)		
8584200.8401 8585200.8401	8584200.8404 8585200.8404	12	G 1/2 1/2 NPT	0	25	3.6	2.8
8584300.8401 8575300.8401	8584300.8404 8585300.8404	20	G 3/4 3/4 NPT	0	25	6.0	3.0
8584400.8401 8585400.8401	8584400.8404 8585400.8404	25	G 1 1 NPT	0	25	8.9	3.4
8584500.8401 8585500.8401	8584500.8404 8585500.8404	32	G 1 1/4 1 1/4 NPT	0	25	22.0	5.6
8584600.8401 8585600.8401	8584600.8404 8585600.8404	40	G 1 1/2 1 1/2 NPT	0	25	22.3	5.4
8584700.8401 8585700.8401	8584700.8404 8585700.8404	50	G 2 2 NPT	0	25	35.0	6.8

* for gases and liquid fluids up to 60 mm²/s (cSt);

State voltage [V] and frequency [Hz]

** C_v-value (US) ≈ kv-value x 1.2

Inspection certificate DIN EN 10204 - 3.1

1272888.0000

Material quality proof for:

- valve body, cover, body screws acc. to DIN EN 10204 - 3.1
- material quality proof for fluid contacted parts acc. to DIN EN 10204 - 2.2
- function and leak test acc. to DIN EN 10204 - 3.1, leakage A acc. to DIN EN 12266-1

Solenoid 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 DIN EN 60529 IP 65

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
8401	40 W	–	–
8404	–	45 VA	45 VA

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
XXXXX02.XXXX	Manual override
XXXXX03.XXXX	Seat seal FPM, fluid temperature –5 °C up to +60 °C
XXXXX17.XXXX	Normally open, Seat seal FPM fluid temperature –5 °C up to +60 °C
XXXXX50.XXXX	Double position indicator with safety barge and HAN® 7D-connector (metal design)
XXXXX52.XXXX	Double position indicator with safety barge and HAN® 7D-connector (metal design) and manual override
On request	Further versions

Further Options (Solenoids)

XXXXXXXX.8441	Protection class ⊕ II 2 GD EEx me II T3 T 140°C
XXXXXXXX.8900	Protection class ⊕ II 2 G Ex de IIC T4/T5 ⊕ II 2 D Ex td A21 IP65 T 130 °C resp. T 95 °C
XXXXXXXX.8920	Protection class ⊕ II 2 G Ex d IIC T4/T5 ⊕ II 2 D Ex td A21 IP65 T 130 °C resp. T 95 °C
XXXXXXXX.8426	Protection class ⊕ II 3 G Ex nA II T4 ⊕ II 3 D Ex td A21 IP65 T 135°C only DC, for AC solenoids with design inspection certificate acc. to category 2, e.g. XXXXXXX.8441

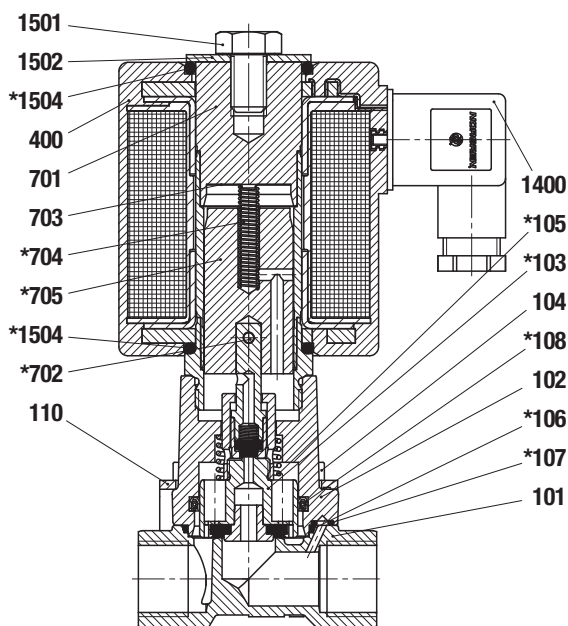
On request

Further versions

Section view

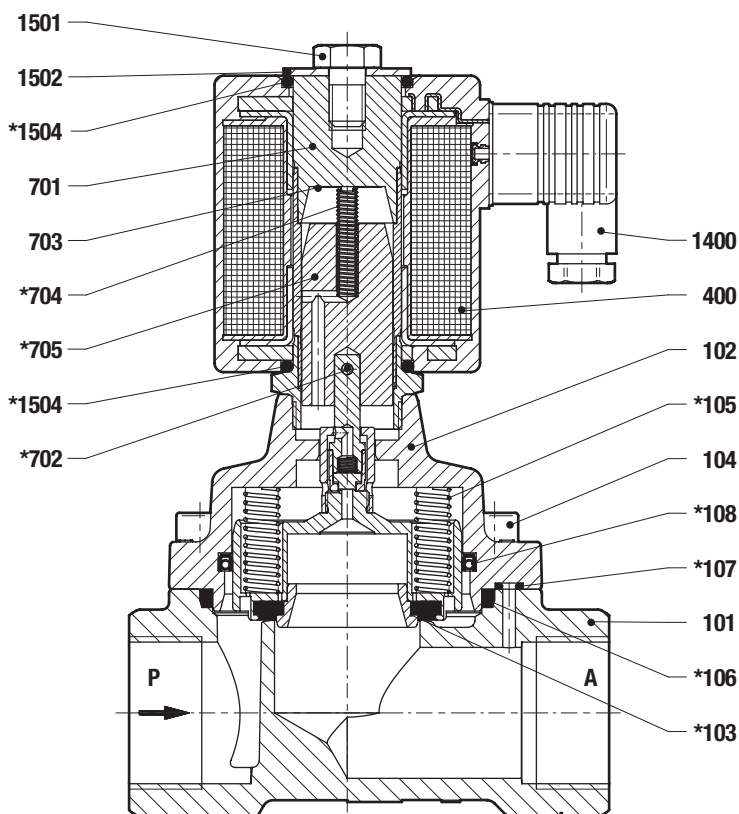
up to G 1 resp. 1 NPT

- 101 Valve body
- 102 Valve cover
- *103 Valve piston
- 104 Cheese head screw
- *105 Pressure spring
- *106 Gasket
- *107 O-ring
- *108 Lip seal
- 110 Mounting bracket only G 1/2 resp. NPT 1/2
- 400 Solenoid
- 701 Core tube
- *702 Dowel pin
- 703 Round plate
- *704 Pressure spring
- *705 Plunger
- 1400 Socket (included)
- 1501 Hexagon screw
- 1502 Round plate
- *1504 O-ring (2x)



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

- 101 Valve body
- 102 Valve cover
- *103 Valve piston
- 104 Cheese head screw
- *105 Pressure spring (2x)
- *106 Gasket
- *107 O-ring
- *108 Lip seal
- 400 Solenoid
- 701 Core tube
- *702 Dowel pin
- 703 Round plate
- *704 Pressure spring
- *705 Plunger
- 1400 Socket (included)
- 1501 Hexagon screw
- 1502 Round plate
- *1504 O-ring (2x)

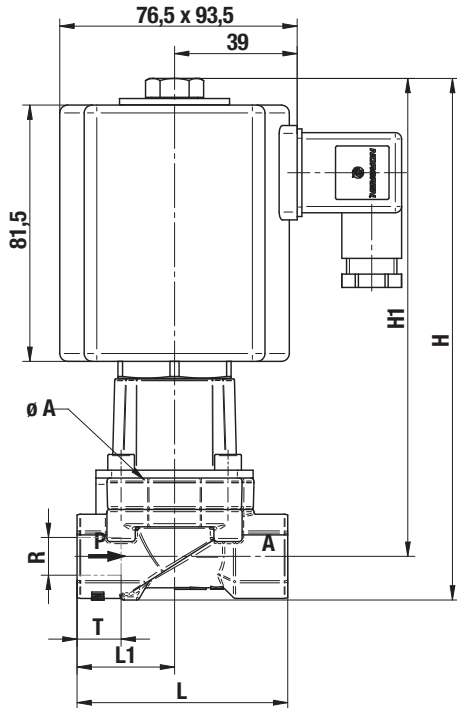


* These individual parts form a complete wearing unit.
When ordering spare parts please state Cat No and Series No.

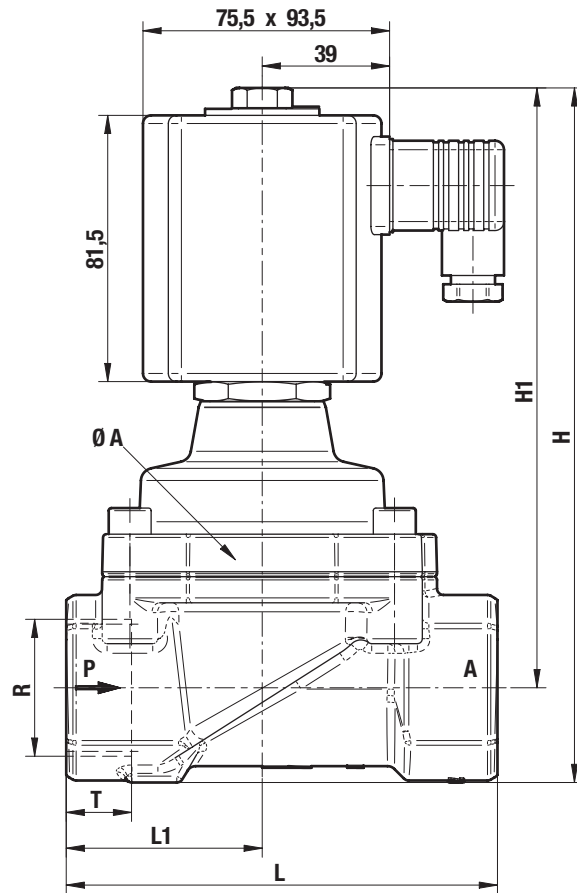
General Dimensions

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

up to G 1 resp. 1 NPT



from G 1 1/4 resp. 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)
8584200.840x 8585200.840x	12	G 1/2 1/2 NPT	44	166.0	152.0	67	31.0	14.0 13.5
8584300.840x 8585300.840x	20	G 3/4 3/4 NPT	50	174.0	157.5	80	35.5	16.0 14.0
8584400.840x 8585400.840x	25	G 1 1 NPT	62	184.5	164.0	95	44.0	18.0 17.0
8584500.840x 8585500.840x	32	G 1 1/4 1 1/4 NPT	92	212.5	183.5	132	60.0	20.0 17.0
8584600.840x 8585600.840x	40	G 1 1/2 1 1/2 NPT	92	212.5	183.5	132	60.0	22.0 17.0
8584700.840x 8585700.840x	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.

Functional safety according to DIN EN 61508 (VDE0803) SIL:

Suitable for certain applications can only be evaluated through examination of each safety-related overall system with regard to the requirements of IEC 61508 / 61511.