

2/2-way valves DN 8 to DN 50

For slightly aggressive gases and liquids
Solenoid actuated, with forced lifting
Diaphragm valves
Female threads G 1/4 to G 2 or 1/4 NPT to 2 NPT
Operating pressure 0 to 10 / 16 bar

**Stainless
Steel**

82590
84490

Click-on[®]

Description (standard valve)

Solenoid valve for slightly aggressive gases and liquids

Switching function:	normally closed
Flow direction:	determined
Fluid temperature:	-10 °C up to max. +90 °C
Ambient temperature:	-10 °C up to max. +50 °C
Mounting position:	optional, preferably solenoid vertical on top

Material

Body:	Stainless steel (1.4408)
Seat seal:	NBR-K
Internal parts:	Stainless steel, PVDF

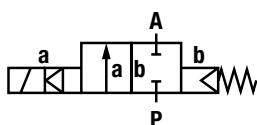


For contaminated fluids insertion of a strainer is recommended (see **Buschjost** accessories).

Features

- High flow rate
- For robust industry applications
- Damped operation
- Suitable for vacuum
- For systems with low or fluctuating pressure
- Solenoid interchangeable without tools (**Click-on[®]**)
- Valve operates without differential pressure

Symbol



Ordering information

To order, quote model number from table overleaf, e.g. 8259400.9151 for a DN 25 valve.

Characteristic data

Valves

Part Number Solenoid with \equiv	Part Number Solenoid with \sim	Nominal Diameter (mm)	Connection size	Operating pressure *		k _v -value ** (Base m ³ /h)	Weight (kg)
				min. (bar)	max. (bar)		
8259000.9151 8449000.9151	8259000.9154 8449000.9154	8	G 1/4 1/4 NPT	0	10	1.9	0.7
8259100.9151 8449100.9151	8259100.9154 8449100.9154	10	G 3/8 3/8 NPT	0	10	3.0	0.7
8259200.9151 8449200.9151	8259200.9154 8449200.9154	12	G 1/2 1/2 NPT	0	10	3.4	0.8
8259300.9151 8449300.9151	8259300.9154 8449300.9154	20	G 3/4 3/4 NPT	0	10	5.8	0.9
8259400.9151 8449400.9151	8259400.9154 8449400.9154	25	G 1 1 NPT	0	10	8.0	1.3
8259500.9401 8449500.9401	8259500.9404 8449500.9404	32	G 1 1/4 1 1/4 NPT	0	16	23.0	4.3
8259600.9401 8449600.9401	8259600.9404 8449600.9404	40	G 1 1/2 1 1/2 NPT	0	16	25.0	4.1
8259700.9401 8449700.9401	8259700.9404 8449700.9404	50	G 2 2 NPT	0	16	41.0	5.1

* for gases and liquid fluids up to 25 mm²/s (cSt); G 1/4 - G 1 resp. 1/4 NPT - 1 NPT max. 16 bar on request

State voltage [V] and frequency [Hz]

** C_v-value (US) ≈ k_v-value x 1.2

Solenoid 9151 / 9154; 9401 / 9404 and 8401 / 8404

Standard voltage

DC \equiv	AC \sim 40 Hz to 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 \equiv	AC \sim	
		Inrush	Holding
9151 *	18 W		
9154 *		20 VA	20 VA
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,
from G 1 1/4 only with solenoid 84XX

XXXXX03.XXXX Seat seal FPM,
fluid temperature -5 °C up to +110 °C


XXXXX14.XXXX Seat seal EPDM, for hot water,
fluid temperature -10 °C up to +110 °C


XXXXX17.XXXX Normally open,
Seat seal FPM,
fluid temperature -5 °C up to +110 °C,
from G 1 1/4 only with solenoid 84XX


On request Further versions


Accessoires: - Mounting bracket conversion kit


Further Options (Solenoids)

XXXXXXXX.9191 Protection class
 II 2 GD EEx me II T3 T 140 °C

XXXXXXXX.8441 Protection class
 II 2 GD EEx me II T3 T 140 °C

XXXXXXXX.9176* Protection class
 II 3 GD EEx nA II T4 T 135 °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

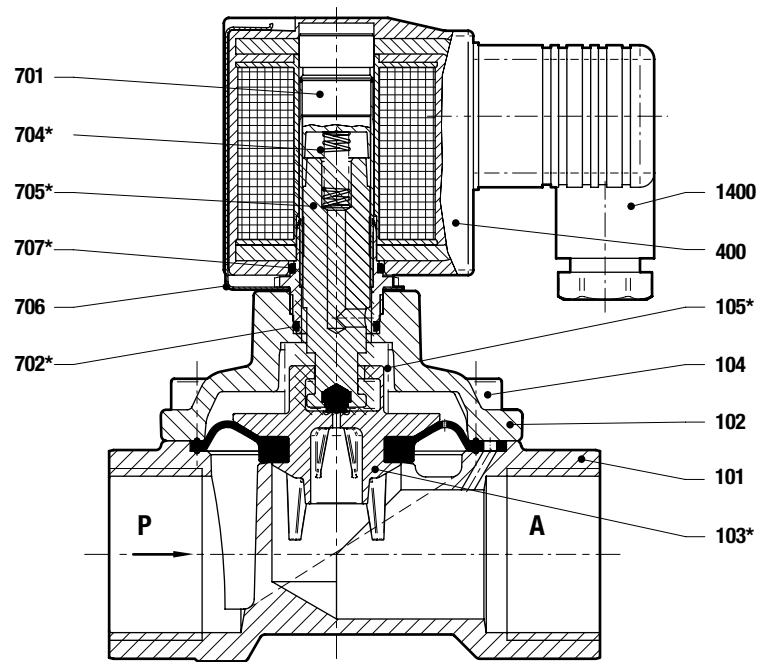
On request Further versions

* DC only, for AC solenoids with design inspection certificate acc. to category 2, e.g. XXXXXXX.8441 or XXXXXXX.9191

Section View

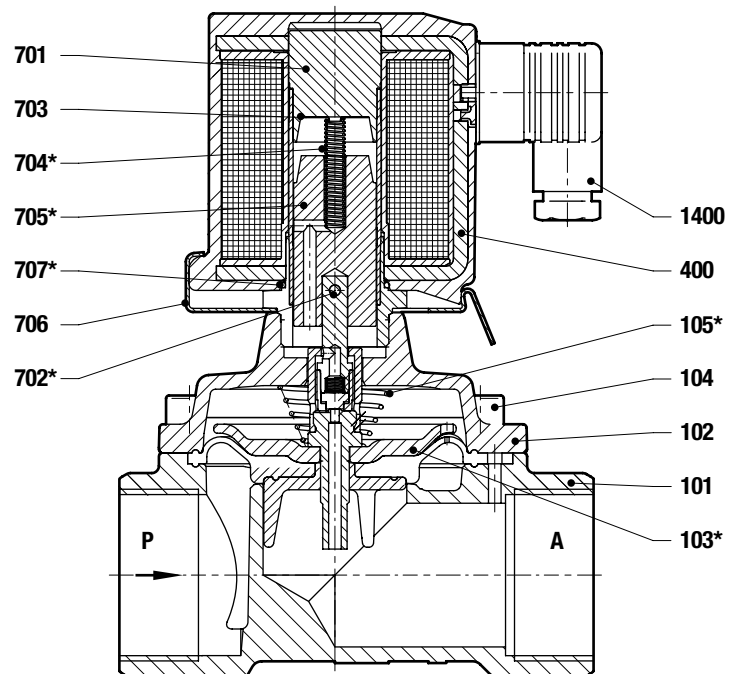
up to DN 25

- 101 Valve body
- 102 Valve cover
- *103 Diaphragm
- 104 Allen head screw
- *105 Pressure spring
- 400 Solenoid
- 701 Core tube
- *702 O-ring
- *704 Pressure spring
- *705 Plunger
- 706 Spring clip
- *707 O-ring
- 1400 Electrical connector (included)



from DN 32

- 101 Valve body
- 102 Valve cover
- *103 Diaphragm
- 104 Allen head screw
- *105 Pressure spring
- 400 Solenoid
- 701 Core tube
- *702 O-ring
- *704 Pressure spring
- *705 Plunger
- 706 Spring clip
- *707 O-ring
- 1400 Electrical connector (included)

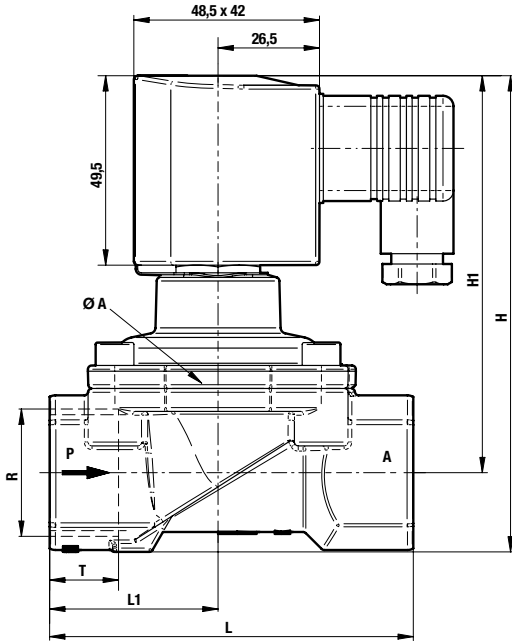


* These individual parts form a complete wearing unit.
When ordering spare parts please state Cat No and Series No.

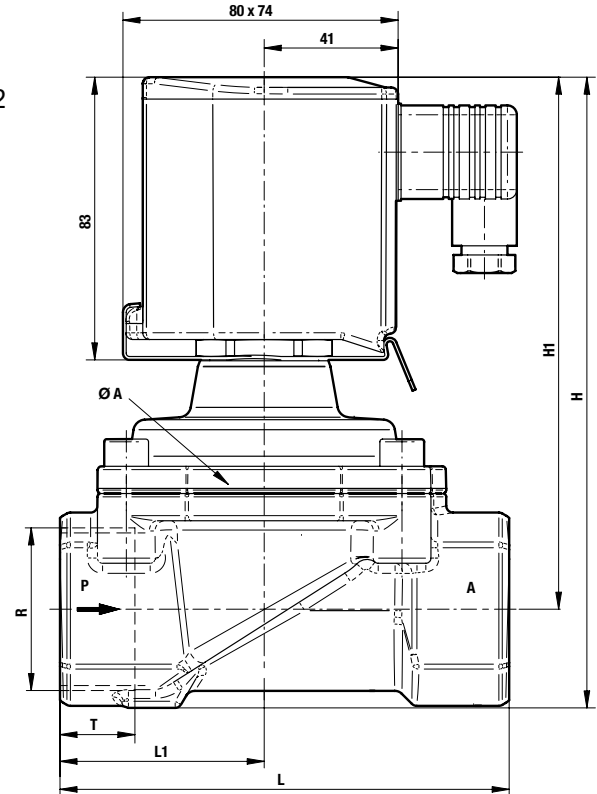
General Dimensions

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

up to DN 25



from DN 32



Part Number	Nominal Diameter (mm)	Connection size	Ø A (mm)	H (mm)	H 1 (mm)	L (mm)	L 1 (mm)	T (mm)
8259000.915x 8449000.915x	8	G 1/4 1/4 NPT	44	104.0	92.5	60	27.5	12.0
8259100.915x 8449100.915x	10	G 3/8 3/8 NPT	44	104.0	92.5	60	27.5	12.0
8259200.915x 8449200.915x	12	G 1/2 1/2 NPT	44	108.0	94.5	67	31.0	14.0
8259300.915x 8449300.915x	20	G 3/4 3/4 NPT	50	115.0	99.0	80	36.5	16.0
8259400.915x 8449400.915x	25	G 1 1 NPT	62	124.0	103.5	95	44.0	18.0
8259500.940x 8449500.940x	32	G 1 1/4 1 1/4 NPT	92	186.0	157.0	132	60.0	20.0
8259600.940x 8449600.940x	40	G 1 1/2 1 1/2 NPT	92	186.0	157.0	132	60.0	22.0
8259700.940x 8449700.940x	50	G 2 2 NPT	109	201.5	167.0	160	74.0	24.0

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.