

2/2-way valves DN 15 to DN 50

For neutral gases and liquid fluids

Solenoid actuated, with forced lifting

Diaphragm valves

Flange connection, pressure rating PN 16

Operating pressure 0 to 10 / 16 bar

83040

Description (standard valve)

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

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:	Cast steel, Brass
Seal seat:	NBR
Internal parts:	Stainless steel, PVDF, Brass

Click-on[®]

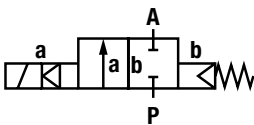


For contaminated fluids insertion of a strainer is recommended.

Features

- High flow rate
- For robust industry solutions
- Damped operation
- Suitable for vacuum
- Valve operates without differential pressure
- Solenoid interchangeable without tools (**Click-on[®]**)
- Fluids of Group 2 acc. Pressure Equipment Directive 97/23/EC

Symbol



Ordering information

To order, quote model number from table overleaf, e. g. 8304400.9151 for a DN 25 valve.

Characteristic Data

Valves

Part Number Solenoid with ≡	Part Number Solenoid with ~	Nominal Diameter (mm)	Operating Pressure *		k _v -value ** (Base m ³ /h)	Weight Total (kg)
			min. (bar)	max. (bar)		
8304200.9151	8304200.9154	15	0	10	3.4	1.9
8304200.8301	8304200.8304	15	0	16	3.4	2.4
8304300.9151	8304300.9154	20	0	10	5.8	2.5
8304300.8301	8304300.8304	20	0	16	5.8	3.0
8304400.9151	8304400.9154	25	0	10	8.0	3.0
8304400.8301	8304400.8304	25	0	16	8.0	3.5
8304500.9401	8304500.9404	32	0	16	23.0	6.7
8304600.9401	8304600.9404	40	0	16	25.0	7.4
8304700.9401	8304700.9404	50	0	16	41.0	10.0

* for gases and liquid fluids up to 25 mm²/s (cSt)

** C_v-value (US) ≈ k_v-value x 1.2

State voltage [V] and frequency [Hz]

Solenoid 9101 / 9154; 9401 / 9404; 8301 / 8304; 8401 / 8404

Standard voltages

DC ≡	AC ~ 40 Hz – 60 Hz
24 V	24 V
–	110 V
–	120 V
–	230 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 +20 °C.

In operation the power consumption of the solenoid decreases by approx. 30 %.

Solenoid	DC ≡	AC ~	
		Inrush	Holding
9151 *	18 W	–	–
9154 *	–	20 VA	20 VA
9401 *	38 W	–	–
9404 *	–	42 VA	42 VA
8301	22 W	–	–
8304	–	25 VA	25 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 (NO), from DN 32 with solenoid 8400
XXXXX02.XXXX	Manual override only from DN 32
XXXXX03.XXXX	Seat seal FPM, fluid temperature $-5\text{ }^{\circ}\text{C}$ up to $+110\text{ }^{\circ}\text{C}$
XXXXX14.XXXX	Seat seal EPDM, for hot water, fluid temperature $-10\text{ }^{\circ}\text{C}$ up to $+110\text{ }^{\circ}\text{C}$
XXXXX17.XXXX	Normally open, seat seal FPM, fluid temperature $-5\text{ }^{\circ}\text{C}$ up to $+110\text{ }^{\circ}\text{C}$, from DN 32 only with solenoid 8400
XXXXX47.XXXX	Flanges acc.to ASME B 16.5 150 lb/sq.in.
On request	Further versions

Further Options (Solenoids)

XXXXXXX.9191	Protection class Ex II 2 GD EEx me II T3 T $140\text{ }^{\circ}\text{C}$
XXXXXXX.8441	Protection class Ex II 2 GD EEx me II T3 T $140\text{ }^{\circ}\text{C}$
XXXXXXX.9176 *	Protection class Ex II 3 GD EEx nA II T4 T $135\text{ }^{\circ}\text{C}$
XXXXXXX.9426 *	Protection class Ex II 3 GD EEx nA II T4 T $135\text{ }^{\circ}\text{C}$
XXXXXXX.8426 *	Protection class Ex II 3 GD EEx nA II T4 T $135\text{ }^{\circ}\text{C}$
On request	Further versions

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

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

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.

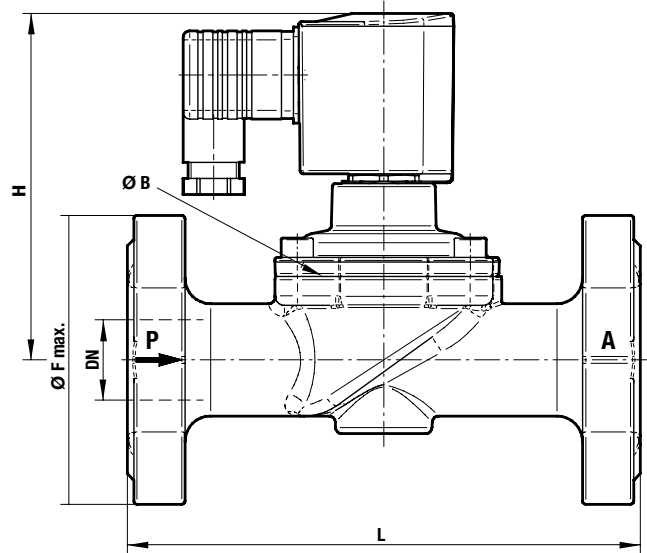
Drawings

DN 15 – DN 25 with solenoid 915x (10 bar)

General Dimensions

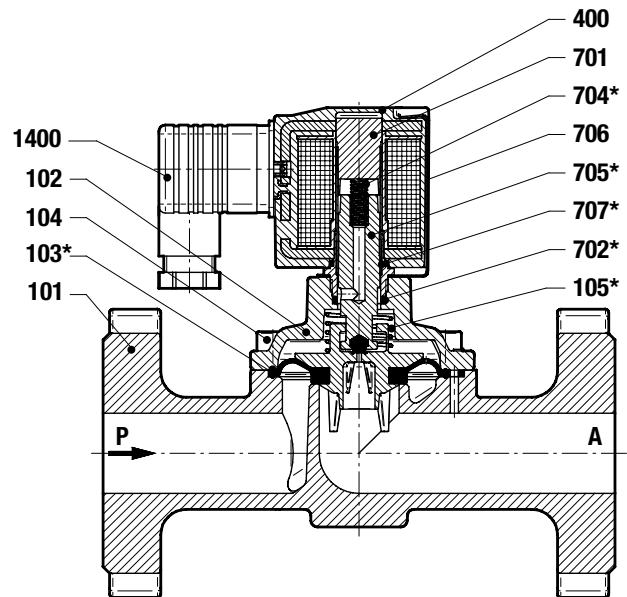
Solenoid rotatable 360°
Socket turnable 4 x 90°
(Socket included)

Part Number	Nominal Diameter mm	L (mm)	H (mm)	Ø F max. (mm)	Ø B (mm)
8304200.915x	15	130	97	96	44
8304300.915x	20	150	105	110	50
8304400.915x	25	160	108	115	62



Section View

- 101 Valve body
- 102 Valve cover
- *103 Diaphragm
- 104 Straight pin
- *105 Pressure spring
- 400 Solenoid
- 701 Core tube
- *702 O-ring
- *704 Pressure spring
- *705 Core
- 706 Spring clip
- *707 O-ring
- 1400 Socket (included)



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

Drawings

DN 15 – DN 25 with solenoid 830x (16 bar)

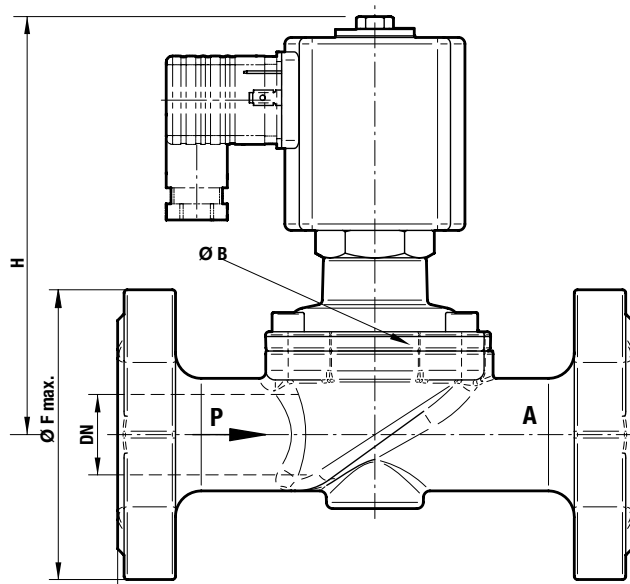
General Dimensions

Solenoid rotatable 360°

Socket turnable 4 x 90°

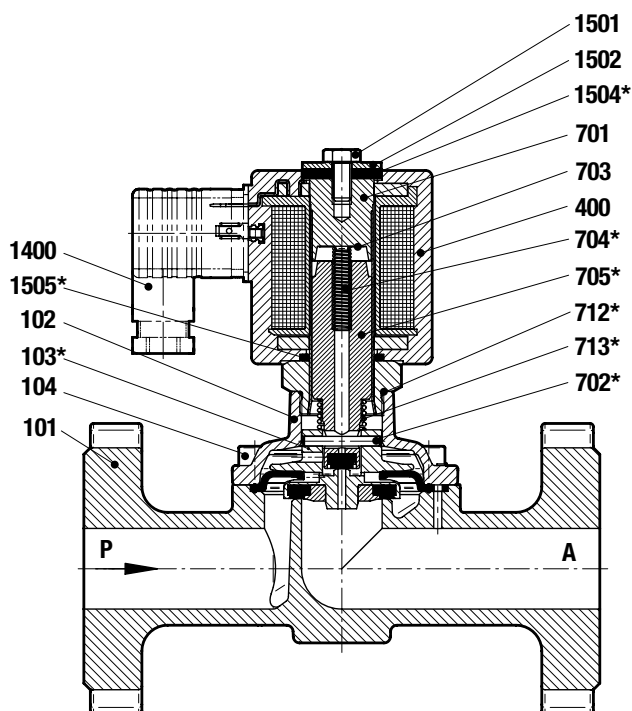
(Socket included)

Part Number	Nominal Diameter mm	L (mm)	H (mm)	Ø F max. (mm)	Ø B (mm)
8304200.830x	15	130	157.5	77	44
8304300.830x	20	150	170.0	87	50
8304400.830x	25	160	175.0	90	62



Section View

- 101 Valve body
- 102 Valve cover
- *103 Diaphragm
- 104 Socket head cap screw
- *105 Pressure spring
- 400 Solenoid
- 701 Core tube
- *702 Straight pin
- 703 Round plate
- *704 Pressure spring
- *705 Core
- *712 O-ring
- *713 Pressure spring
- 1400 Socket (included)
- 1501 Hexagon screw
- 1502 Round plate
- *1504 Gasket
- *1505 O-ring



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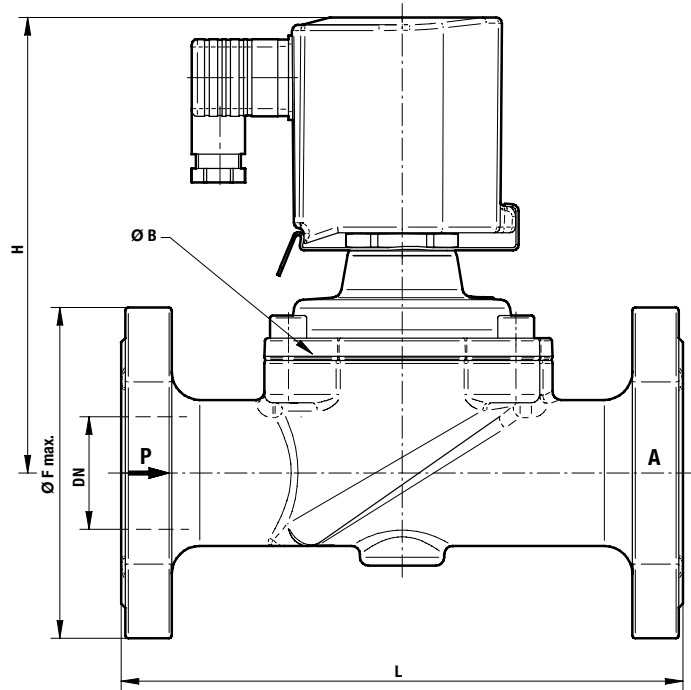
Drawings

DN 32 – DN 50 with solenoid 940x (16 bar)

General Dimensions

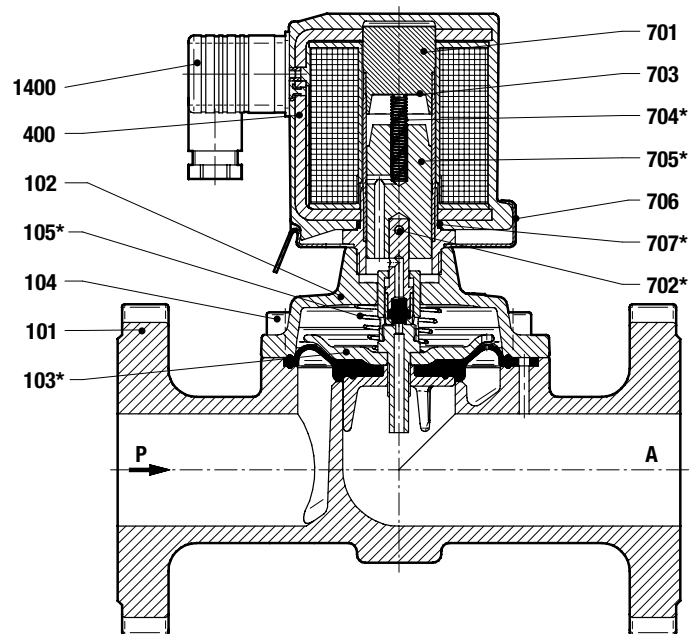
Solenoid rotatable 360°
Socket turnable 4 x 90°
(Socket included)

Part Number	Nominal Diameter mm	L (mm)	H (mm)	Ø F max. (mm)	Ø B (mm)
8304500.940x	32	180	158	140	92
8304600.940x	40	200	162	150	92
8304700.940x	50	230	171	165	109



Section View

- 101 Valve body
- 102 Valve cover
- *103 Diaphragm
- 104 Straight pin
- *105 Pressure spring
- 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)



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