

2/2-way-valves DN 15 to DN 100

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.

Flange connection, pressure rating PN 40 (PN 25)

Operating pressure 0 to 25 bar

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

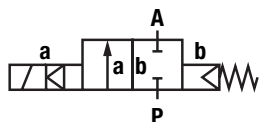
Body:	up to DN 50: Stainless steel (1.4408) from DN 65: Stainless steel (1.4581)
Seat seal:	NBR
Internal parts:	Stainless steel, PTFE/carbon

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. 8578400.8401 for a DN 25 valve.

D119202.01
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

 **NORGREN**
FLUID CONTROLS


TÜV
Rheinland


Buschjost

85780
85790

Stainless Steel



Characteristic data

Valves

Part Number Solenoid with ==	Part Number Solenoid with ~	Nominal Diameter (mm)	Operating pressure *		kv-value ** (Base m³/h)	Weight (kg)
			min. (bar)	max. (bar)		
8578200.8401	8578200.8404	15	0	25	3.7	4.2
8578300.8401	8578300.8404	20	0	25	5.6	4.6
8578400.8401	8578400.8404	25	0	25	7.8	5.1
8578500.8401	8578500.8404	32	0	25	18.0	9.6
8578600.8401	8578600.8404	40	0	25	24.4	10.0
8578700.8401	8578700.8404	50	0	25	31.8	11.5
8578800.9501	8578800.9504	65	0	25	67.0	36.5
8578900.9501	8578900.9504	80	0	25	94.0	46.5
8579000.9501	8579000.9504	100	0	25	144.0	70.0

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

State voltage [V] and frequency [Hz]

** Cv-value (US) ≈ kv-value x 1.2

Inspection certificate DIN EN 10204 - 3.1 Requirements AD 2000 A4 (W2 / W5 / W10)

1257333.0000 (DN 15 - DN 50)

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

Inspection certificate DIN EN 10204 - 3.1

1272888.0000 (DN 65 - DN 100)

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 and 9501 / 9504

Standard voltage

DC ==	AC ~ 40 Hz – 60 Hz	
	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
9501	80 W	–	–
9504	–	89 VA	89 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 $-5\text{ }^{\circ}\text{C}$ up to $+60\text{ }^{\circ}\text{C}$
XXXXX17.XXXX	Normally open, Seat seal FPM fluid temperature $-5\text{ }^{\circ}\text{C}$ up to $+60\text{ }^{\circ}\text{C}$
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

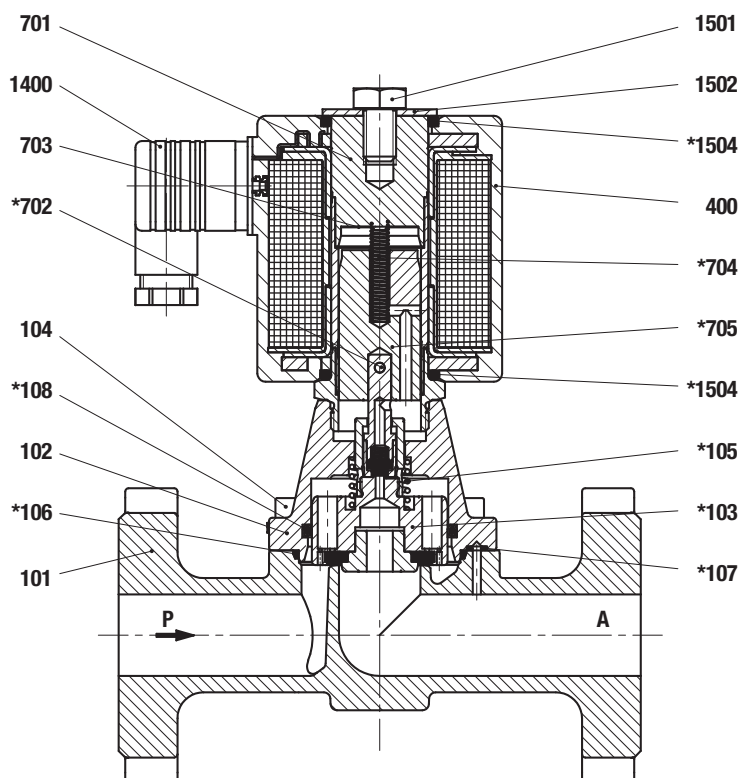
Further Options (Solenoids)

XXXXXXX.8441	Protection class ⊕ II 2 GD EEx me II T3 T 140°C
XXXXXXX.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
XXXXXXX.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
XXXXXXX.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
XXXXXXX.9540	Protection class ⊕ II 2 G Ex (e) mb II T3 ⊕ II 2 D Ex tD A21 IP65 T 140 °C
On request	Further versions special voltages

Section View

up to DN 25

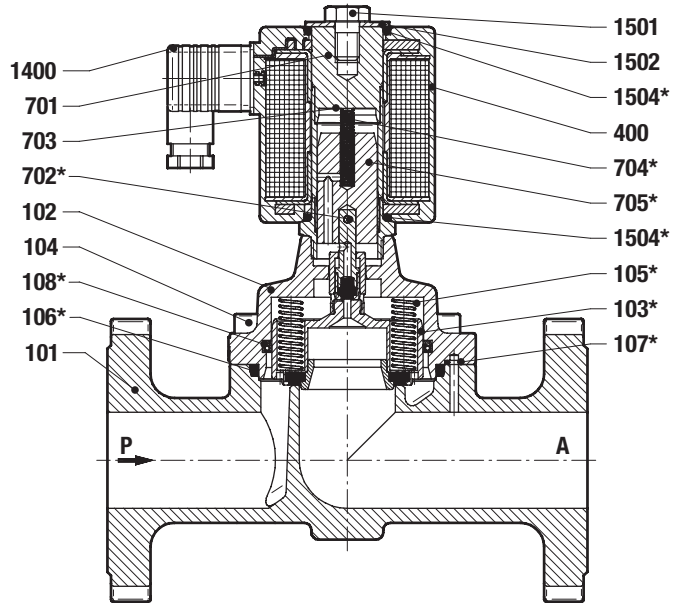
101	Valve body
102	Valve cover
*103	Valve piston
104	Cheese head screw
*105	Pressure spring
*106	Gasket
*107	O-Ring
*108	Lip seal
400	Solenoid
701	Core tube
*702	Dowel pin
703	Round plate
*704	Pressure spring
*705	Plunger
1400	Socket (included)
1501	Hexagon screw
1502	Round plate
*1504	O-Ring (2x)



Section view

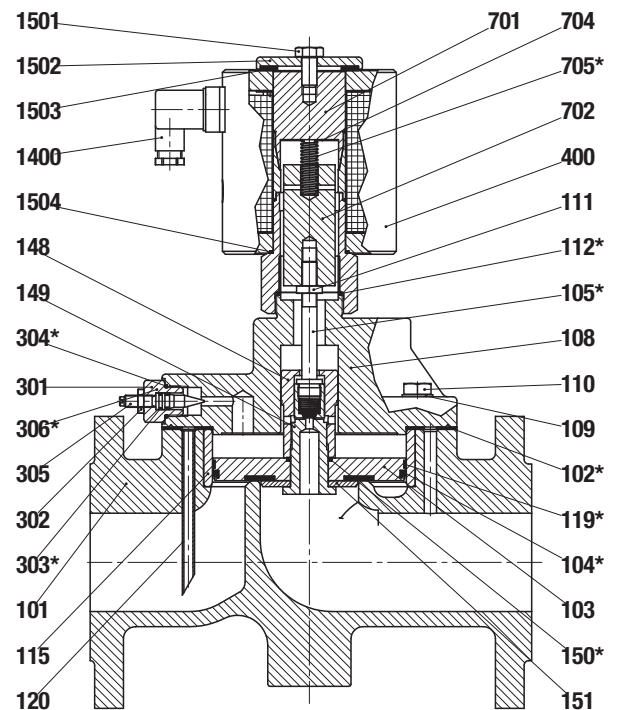
from DN 32 – DN 50

- 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)



from DN 65 – DN 100

- | | |
|-----------------------|----------------------|
| 101 Valve body | *304 O-ring |
| *102 Gasket | 305 Hexagon nut |
| *103 Valve disk | *306 Lip seal |
| *104 Lip seal | 701 Core tube |
| *105 Valve spindle | 702 Plunger |
| 108 Valve cover | 704 Round plate |
| 109 Spring washer | *705 Pressure spring |
| 110 Hexagon screw | 1400 Socket |
| 111 Hexagon nut | (included) |
| *112 Gasket | 1501 Hexagon screw |
| 115 Bushing | 1502 Round plate |
| *119 Guide lamination | 1503 Flange gasket |
| 120 Tube | 1504 O-ring |
| 148 Screw piece | |
| 149 Screw piece | |
| *150 Spacer | |
| 151 Round plate | |
| 400 Solenoid | |
| 301 Screw piece | |
| 302 Valve spindle | |
| *303 O-ring | |



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

General Dimensions

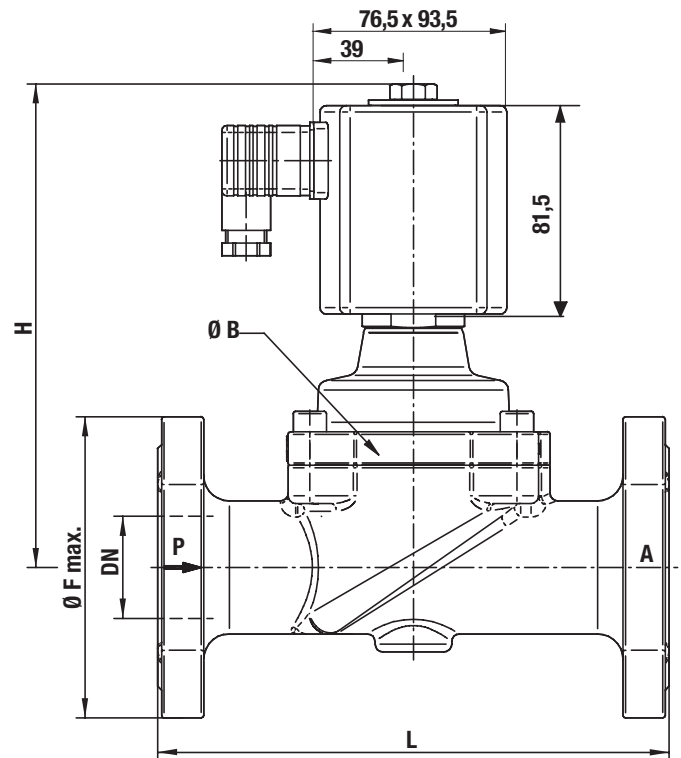
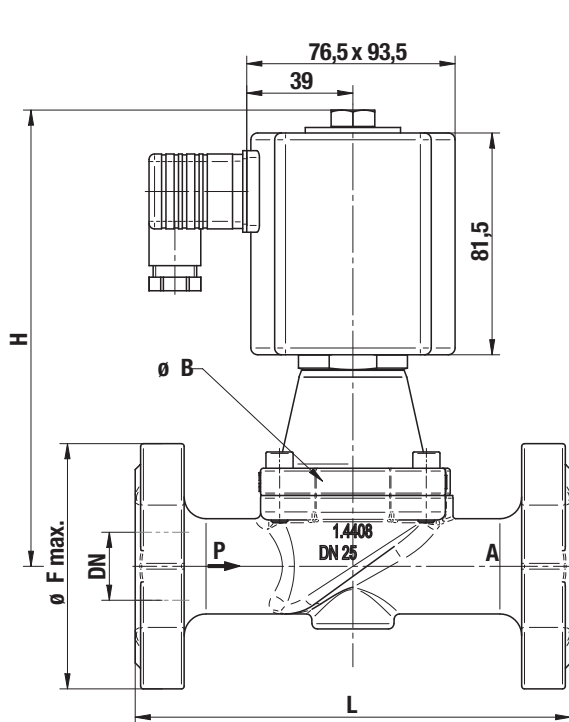
Solenoid rotatable 360°

Socket turnable 4 x 90°

(Socket included)

up to DN 25

DN 32 – DN 50



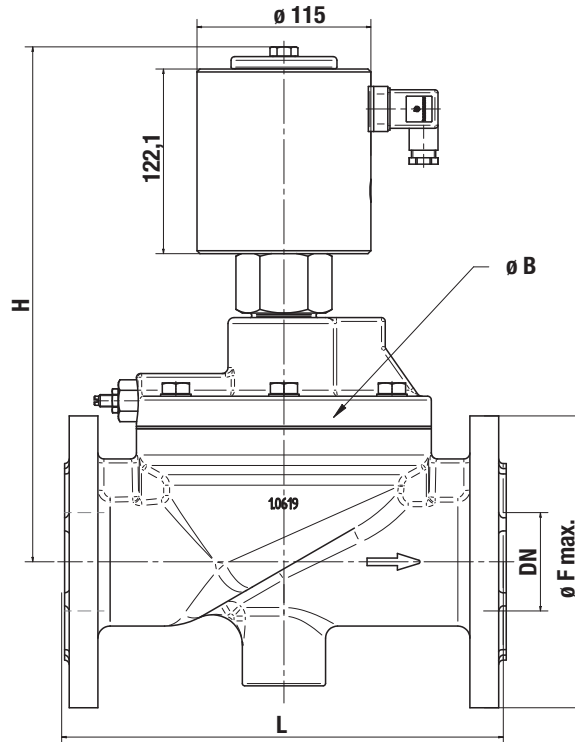
Part Number	Nominal Diameter (mm)	L (mm)	H (mm)	Ø F max. (mm)	Ø B (mm)
8578200.840x	15	130	154	96	44
8578300.840x	20	150	163	110	50
8578400.840x	25	160	168	115	62
8578500.840x	32	180	184	140	92
8578600.840x	40	200	190	150	92
8578700.840x	50	230	197	165	109

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

General Dimensions

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

from DN 65



Part Number	Nominal Diameter (mm)	L (mm)	H (mm)	$\varnothing F$ (mm)	$\varnothing A$ (mm)
8578800.950x	65	290	327	185	195
8578900.950x	80	310	347	200	220
8579000.950x	100	350	376	235	265

Suitable for installation in between flanges according to DIN EN 1092-1 / 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.

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.