

2/2-way valves DN 20 to DN 80

For air

Solenoid pilot operated

Internal threads G 3/4 up to G 3 or 3/4 NPT up to 3 NPT

Operating pressure 0.4 to 8 bar

82960

82970

Description (standard valve)

Switching function:	normally closed
Flow direction:	determined
Coil gas temperature:	-40 °C to max. +85 °C
Ambient temperature:	-20 °C to max. +85 °C
Mounting position:	optional, preferably solenoid vertical on top

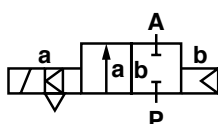
Material

Body:	Aluminium
Seat seal:	TPE
Internal parts:	TPU

Features

- High flow rate
- All internal components captive
- Simple compact design
- Solenoid interchangeable without tools
- Integrated silencer
- One-piece diaphragm

Symbol



Ordering information

To order, quote model number from table overleaf, e. g. 8296300.8171 for a G 3/4 valve with standard solenoid.

Twist-on®



Characteristic Data

Valves

Part Number	Nominal Diameter (mm)	Connection Size	Valve Length (mm)	Operating Pressure		k _v -value * (Base m ³ /h)	Weight Total (kg)
				min.	max. (bar)		
8296300.8171 8297300.8171	20	G 3/4 3/4 NPT	95.0	0.4	8	18	0.50
8296400.8171 8297400.8171	25	G 1 1 NPT	95.0	0.4	8	22	0.47
8296600.8171 8297600.8171	40	G 1 1/2 1 1/2 NPT	135.0	0.4	8	59	1.18
8296700.8171 8297700.8171	50	G 2 2 NPT	169.0	0.4	8	80	2.02
8296800.8171 8297800.8171	65	G 2 1/2 2 1/2 NPT	169.0	0.4	8	93	2.30
8296900.8171 8297900.8171	80	G 3 3 NPT	239.5	0.4	7	172	3.93

State voltage [V] and frequency [Hz]

*C_v-value (US) ≈ k_v-value x 1.2

Solenoid 8171

Standard voltages

DC ---	AC ~	
	50 Hz	60 Hz
24 V	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

Power Consumption

According to DIN VDE 0580 at coil temperature +20 °C. In operating the solenoid coil decrease the power consumption appr. 30 %.

Solenoid	DC ---	AC ~	
		Inrush	Holding
8171 	12 W	23 VA	16 VA / 8 W

Further Options (Valves)

XXXXX54.XXXX Flange version without valve body

XXXXX62.XXXX Crude gas temperature version –20 to +100 °C
Seat seal TPE
Ambient temperature –40 to +85 °C
Coil gas temperature –20 to +85 °C

XXXXX63.XXXX Crude gas temperature version –20 to +140 °C
Seat seal TPE
Ambient temperature –40 to +85 °C
Coil gas temperature –20 to +85 °C

On request Further versions

Further Options (Solenoids)

XXXXXXX.9151 Solenoid version for low temperature –40 °C

XXXXXXX.8176 Solenoid in protection class
⊕ II 3 GD EEx nA II T4 T 135 °C

XXXXXXX.8186 Solenoid in protection class
⊕ II 2 GD EEx me II T4 T 140 °C

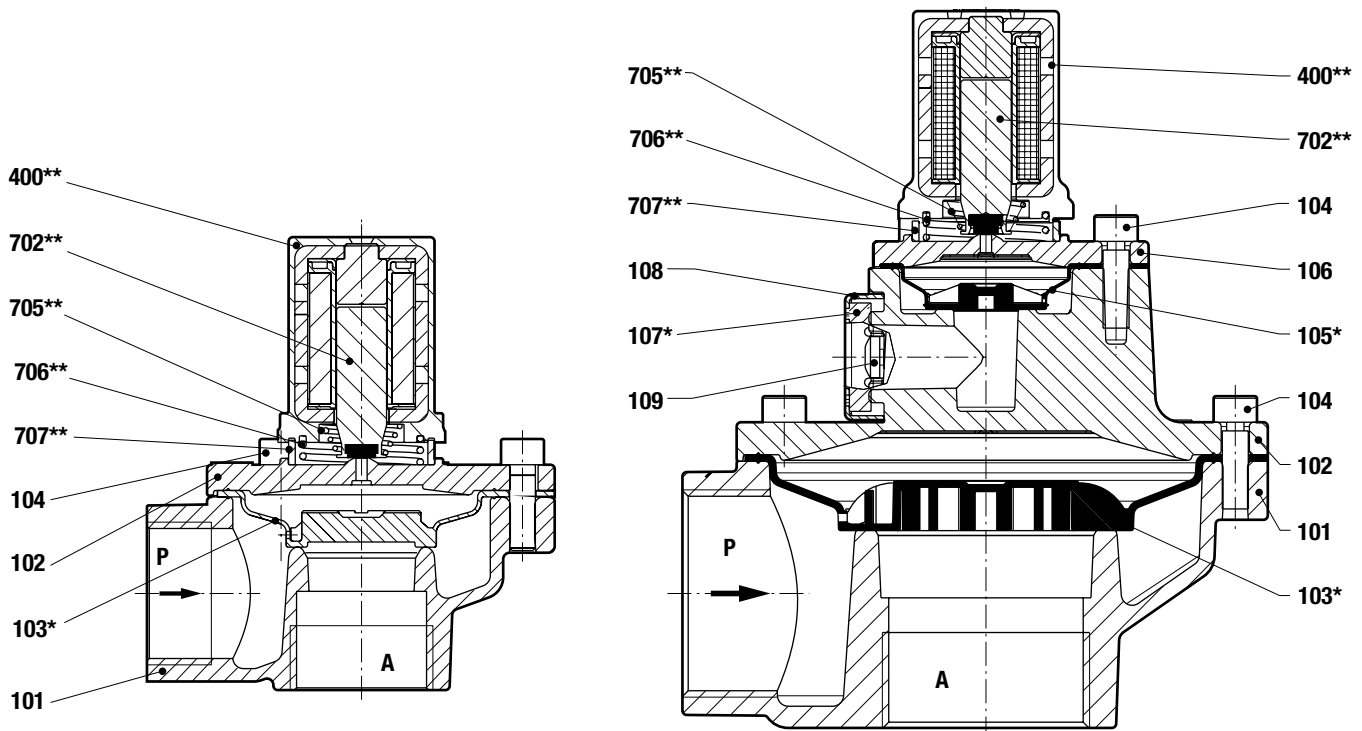
XXXXXXX.8821 Pulse Solenoid

On request Further versions

Section View

G 3/4 and 3/4 NPT
G 1 and 1 NPT

G 1 1/2 and 1 1/2 NPT
G 2 and 2 NPT
G 2 1/2 and 2 1/2 NPT
G 3 and 3 NPT



- 101 Valve body
- 102 Valve cover
- *103 Diaphragm
- 104 Socket head cap screw
- *105 Diaphragm
- 106 Valve cover
- *107 Silencer
- 108 Silencer housing
- 109 Socket head cap screw
- ** Solenoid complete wearing unit, e. g. 8298000.8170.XXXXX for a solenoid 8170
- 400 Solenoid
- 702 Core
- 705 Pressure spring
- 706 Pressure spring
- 707 Silencer
- 1400 Socket (included)

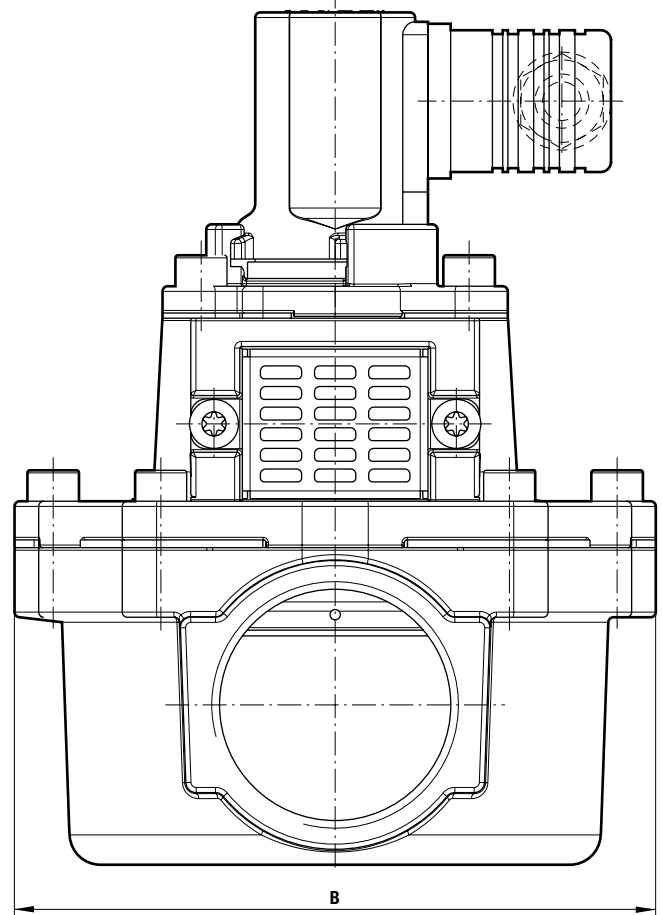
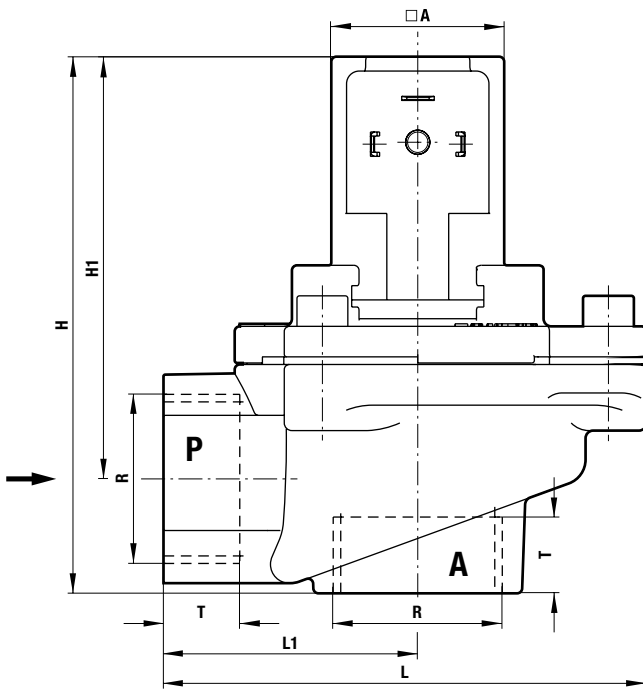
*/**These individual parts form a complete wearing unit.
When ordering spare parts please state Cat. No. and Series No.

General Dimensions

G 3/4 and 3/4 NPT
G 1 and 1 NPT

G 1 1/2 and 1 1/2 NPT
G 2 and 2 NPT
G 2 1/2 and 2 1/2 NPT
G 3 and 3 NPT

Solenoid rotatable 3 x 120°
Socket turnable 4 x 90°
(Socket included)



Part Number	R Connection Size	T (mm)	A (mm)	B (mm)	H (mm)	H1 (mm)	L (mm)	L1 (mm)
8296300.8171 8997300.8171	G 3/4 3/4 NPT	16 14	34	80.0	105.5	83	95.0	50
8296400.8171 8297400.8171	G 1 1 NPT	18 17	34	80.0	105.5	83	95.0	50
8296600.8171 8297600.8171	G 1 1/2 1 1/2 NPT	22 18	34	124.5	166.0	136	135.0	70
8296700.8171 8297700.8171	G 2 2 NPT	25 18	34	140.0	190.5	149	170.0	95
8296800.8171 8297800.8171	G 2 1/2 2 1/2 NPT	25 24	34	140.0	205.5	160	170.0	95
8296900.8171 8297900.8171	G 3 3 NPT	33 28	34	196.0	221.0	169	239.5	143

Note to Pressure Equipment Directive (PED):

The valves of this series 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 does not refer to the PED. Thus the declaration of conformity is not longer applicable for this directive.

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 Guideline (2004/108/EC) satisfied.