

2/2-way valves G 1/4 to G 2

for neutral gaseous and liquid fluids

Diaphragm valves

threaded connection G 1/4 to G 2 resp. 1/4" NPT to 2" NPT

Operating pressure 0.2 to 16 bar

Description (standard valve)

Pressure actuated diaphragm valve

Switching function:	NO; NC with pilot pressure
Pilot fluid	air max. +60 °C
Flow direction:	determined
Mounting position:	optional

Process fluid section

Fluid temperature:	-10 to max. of +60°C
Ambient temperature:	-10 to max. of +50 °C
Body:	brass
Seat seal:	fabric diaphragm NBR with valve plate
Internal parts:	brass, stainless steel

Pilot fluid section

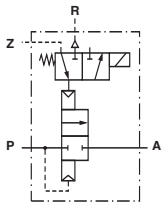
Pilot connection:	G 1/4 resp. 1/4" NPT
Pilot pressure:	air
Pilot pressure	1 to 16 bar
	G 1/4 to G 1/2: max. 6 bar higher than operating pressure, but max. operating pressure 16 bar
	G 3/4 to G 2: max. 1 bar higher than operating pressure, but max. operating pressure 16 bar
Seals:	NBR
Internal parts:	brass, stainless steel



Features

- For high contaminated fluids
- Solenoid hermetically sealed from fluid
- Small dimension
- Vacuum as an option
- Compact valve for industrial applications

Symbol



Ordering information

To order, quote model number from table overleaf, e.g. 8217000.9301 for a G 1/4 valve with standard solenoid.

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Characteristic data

Part Number Standard Solenoid	Part Number Pulse Solenoid	Nominal Diameter (mm)	Port size	Operating pressure *		kv-Value ** (Base m³/h)	Weight (kg)	
				min (bar)	max (bar)		Standard Solenoid	Pulse Solenoid
8217000.9301 8227000.9301	8217000.8821 8227000.8821	8	G 1/4 1/4" NPT	0.2	16	1.7	1.32	1.45
8217100.9301 8227100.9301	8217100.8821 8227100.8821	10	G 3/8 3/8" NPT	0.2	16	3.4	1.27	1.40
8217200.9301 8227200.9301	8217200.8821 8227200.8821	12	G 1/2 1/2" NPT	0.2	16	4.0	1.22	1.35
8217300.9301 8227300.9301	8217300.8821 8227300.8821	20	G 3/4 3/4" NPT	0.2	16	11.0	1.97	2.10
8217400.9301 8227400.9301	8217400.8821 8227400.8821	25	G 1 1" NPT	0.2	16	13.0	1.82	1.95
8217500.9301 8227500.9301	8217500.8821 8227500.8821	32	G 1 1/4 1 1/4" NPT	0.2	16	28.0	3.17	3.30
8217600.9301 8227600.9301	8217600.8821 8227600.8821	40	G 1 1/2 1 1/2" NPT	0.2	16	31.0	2.92	3.00
8217700.9301 8227700.9301	8217700.8821 8227700.8821	50	G 2 2" NPT	0.2	16	46.0	4.17	4.30

* with gaseous and liquid fluids up to 25 mm³/s (cSt)

State voltage [V] and frequency [Hz]

** C_V-Value (US) ≈ k_V-Value x 1.2

9301 Solenoid

Standard voltages

DC ---	AC ~ 50 Hz	AC ~ 60 Hz
24 V	24 V	—
—	110 V	120 V
205 V	230 V	220 V

Design acc. to DIN VDE 0580

Voltage range ±10 %


100 % duty cycle

Protection class acc. to EN 60529 IP 65

Socket acc. to DIN EN 175301-803 (included)

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 ---	DC --- Inrush	Holding
9301 	18 VA	106 VA	35 VA

For technical details see catalogue-register "Solenoids"

Options (Valves)

XXXXX03.XXXX

fabric diaphragm FPM with valve plate, T_{max.} +110 °C; operating pressure 0.2 to 16 bar, control pressure = operating pressure G 1/4 to G 1/2:

max. control pressure 6 bar higher than operating pressure, but max. control pressure 16 bar

G 3/4 to G 2:

max. control pressure 1 bar higher than operating pressure, but max. control pressure 16 bar,

XXXXX51.XXXX

fabric diaphragm NBR with valve plate, T_{max.} +90 °C; operating pressure 0.2 to 16 bar, control pressure = operating pressure

G 3/4 to G 2:

max. control pressure 6 bar higher than operating pressure, but max. control pressure 16 bar

XXXXX52.XXXX

fabric diaphragm FPM with valve plate, T_{max.} +110 °C; operating pressure 0.2 to 16 bar, control pressure = operating pressure

G 3/4 to G 2:

max. control pressure 6 bar higher than operating pressure, but max. control pressure 16 bar

XXXXX53.XXXX

suitable for vacuum. With pressure spring under diaphragm, FPM-fabric diaphragm

T_{max.} +110 °C; operating pressure -0.9 to 16 bar, control pressure 1 to 16 bar, max. control pressure 6 bar higher than operating pressure

XXXXX54.XXXX

suitable for vacuum. With pressure spring under diaphragm, NBR-fabric diaphragm

T_{max.} +90 °C; operating pressure -0.9 to 16 bar, control pressure 1 to 16 bar, max. control pressure 6 bar higher than operating pressure

On request

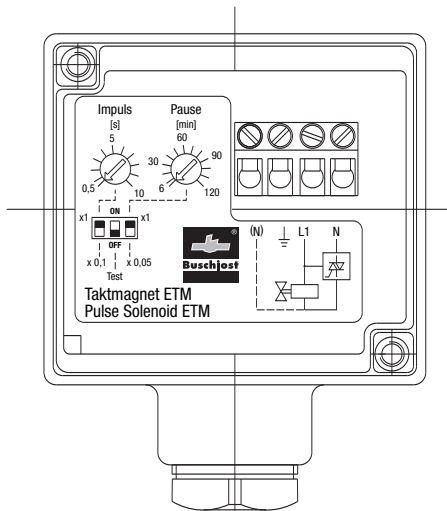
Further versions

Options (Solenoids)

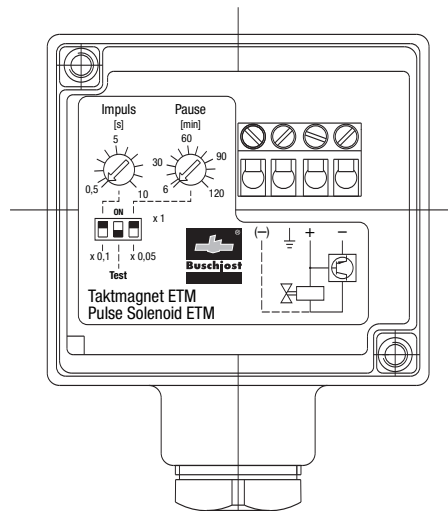
XXXXXXX.8821 Solenoid with built-in electronic timer, for 230 V 50 Hz, 110 V 50 Hz, 120 V 60 Hz or 24 V DC
 pulse duration: 0.05 s to 10.0 s
 break duration: 17 s to 120 min

On request

Further versions



Pulse Solenoid 8821 AC

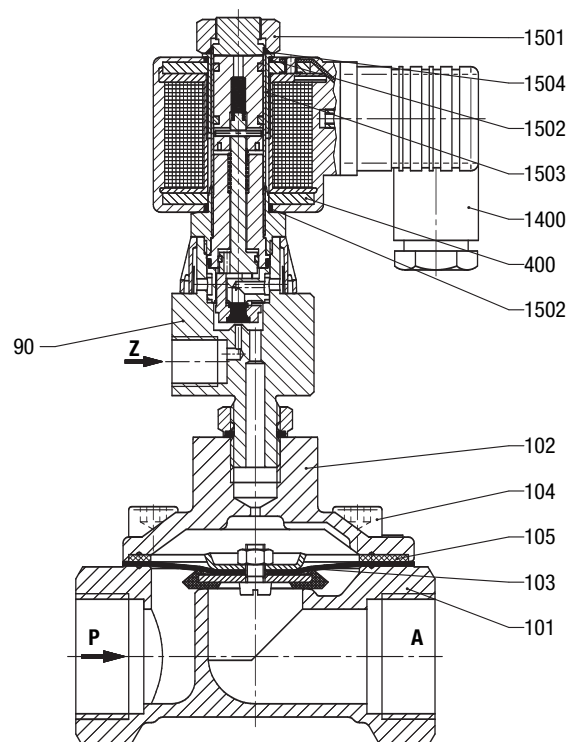


Pulse Solenoid 8821 DC

For more technical details see data sheet for pulse solenoid 8821 Nr. D109602.

Section View

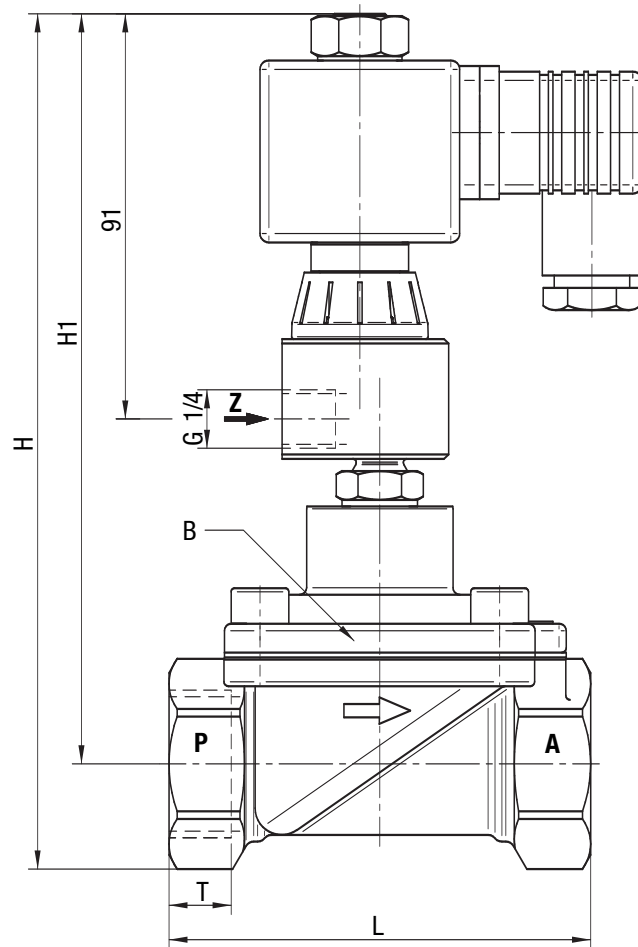
- 90 Pilot valve 8497850.9300.00000, complete
- 101 Valve body
- 102 Body cover
- *103 Diaphragm
- 104 Oval head cap screw up to G 1/2
Hexagon screw from G 3/4
- *105 Seal ring, not for G 3/4 and G 1
- 400 Solenoid
- 1400 Socket
- 1501 Hexagon nut
- 1502 O-ring
- 1503 Flange sleeve
- *1504 O-ring



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

General Dimensions

B = max. depth
 Solenoid rotatable 360°
 Socket turnable 4 x 90°



Part Number	DN mm	Connection	L mm	B mm	H mm	H1 mm	T mm
8217000.xxxx 8227000.xxxx	8	G 1/4 1/4" NPT	67	44	158	143	12.0 10.0
8217100.xxxx 8227100.xxxx	10	G 3/8 3/8" NPT	67	44	158	143	12.0 10.5
8217200.xxxx 8227200.xxxx	12	G 1/2 1/2" NPT	67	44	158	143	14.0 13.5
8217300.xxxx 8227300.xxxx	20	G 3/4 3/4" NPT	95	70	191	167	16.0 14.0
8217400.xxxx 8227400.xxxx	25	G 1 1" NPT	95	70	191	167	18.0 17.0
8217500.xxxx 8227500.xxxx	32	G 1 1/4 1 1/4" NPT	132	96	213	180	20.0 17.0
8217600.xxxx 8227600.xxxx	40	G 1 1/2 1 1/2" NPT	132	96	213	180	22.0 17.0
8217700.xxxx 8227700.xxxx	50	G 2 2" NPT	160	112	231	291	24.0 17.5

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 50081-1 and EN 50082-1 are observed, and hence the requirements of the Electromagnetic Compatibility Guideline (89/336/EEC) satisfied.