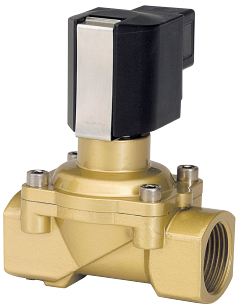
82090
2/2-way diaphragm valves with DVGW-approval

- Port size: DN 8 ... 25, G1/4 ... 1 (DIN ISO 228/1)
- Qualification approval EN 161 and EN ISO 23553-1
- Short response time < 1 s
- Valve operates without differential pressure
- EU-Type Examination: Certificate product ID-No.: CE-0085CN0205 valve class A: G1/4 ... 3/4; B: G1; valve group 2
- International approvals



Technical features

Medium:
Neutral gases and liquid fuels

Switching function:
Normally closed

Operation:
Solenoid actuated, with forced lifting

Mounting position:
Optional, preferably solenoid vertical on top

Flow direction:
Determined

Port size:
G1/4, G3/8, G1/2, G3/4, G1

Operating pressure:
0 ... 8 bar (0 ... 116 psi)

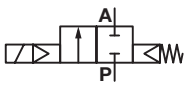
Fluid temperature:
0° ... +60°C (+32° ... +140°F)

Ambient temperature:
0° ... +60°C (+32° ... +140°F)

Material:
Body: Brass (CW617N)
Seat seal: NBR-G
Internal parts: Stainless steel, Brass

Strainer (with maximum mesh size of 0.25 mm) is necessary upstream of the valve.

Technical data – standard models

Symbol	Port size	Orifice	Flow kv value *1)	Operating pressure *2)		Weight	Model solenoid	Model solenoid
		(mm)	(m^3/h)	(bar)	(psi)	(kg)	12 ... 120 V	121 ... 230 V
	G1/4	8	1,1	0 ... 8	0 ... 116	0,8	8209000.9178.xxxxx	8209000.9179.xxxxx
	G3/8	10	2,3	0 ... 8	0 ... 116	0,8	8209100.9178.xxxxx	8209100.9179.xxxxx
	G1/2	12	2,6	0 ... 8	0 ... 116	0,9	8209200.9178.xxxxx	8209200.9179.xxxxx
	G3/4	20	5,4	0 ... 8	0 ... 116	1	8209300.9178.xxxxx	8209300.9179.xxxxx
	G1	25	5,8	0 ... 8	0 ... 116	1,3	8209400.9178.xxxxx	8209400.9179.xxxxx

xxxxx Please insert voltage and frequency codes
*1) Cv-value (US) ≈ kv value x 1,2
*2) For gases and liquid fluids up to 25 mm^2/s (cSt)

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Option selector

8209★00.★★★★.★★★★★

Port size	Substitute
1/4	0
3/8	1
1/2	2
3/4	3
1	4

Frequency	Substitute
See table frequency codes	xx
Voltage	**Substitute**
See Voltage codes	xxx
Solenoid options	**Substitute**
12 ... 120 V	9178
121 ... 230 V	9179

Solenoid 917x

Frequency

Solenoid 9178: 12 ... 120 V

Solenoid 9179: 121 ... 230 V

Standard solenoid systems

Code Voltage	Code Frequency	Voltage	Frequency	Power consumption Inrush	Holding
Voltage and Frequency Solenoid 9178 *3)					
012	00	12 V d.c.	-	18 W	18 W
024	00	24 V d.c.	-	18 W	18 W
024	49	24 V a.c. *4)	40 ... 60 Hz	20 VA	20 VA
110	49	110 V a.c. *4)	40 ... 60 Hz	20 VA	20 VA
Voltage and Frequency Solenoid 9179 *3)					
230	49	230 V a.c. *4)	40 ... 60 Hz	20 VA	20 VA

*3) c US coil only
*4) A.c. only with rectifier plug
Further versions on request!

Electrical details for all solenoid systems

Design	DIN VDE 0580
Voltage range	±10%
Duty cycle	100% ED
Protection class	EN 60529 IP65
Socket	Form A acc. to DIN EN 175301-803 (included)

According to DIN VDE 0580 at a solenoid temperature of +20°C.
At operating state temperature the input power of a coil decreases by up to ca. 30% due to physical reasons.

Additional solenoid systems for hazardous areas

ATEX category	ATEX protection class	IP protection class	Solenoid	Standard voltages
II 2G II 2D	Ex eb mb IIC T3 Gb Ex mb tb IIIB T140°C Db	IP66	6120	12 V d.c., 24 V d.c., 110 V a.c., 230 V a.c.

Attention!
The conditions imposed on the Ex approvals lead to reduction of the permissible standard temperature ranges in the cases of explosion protected solenoids.

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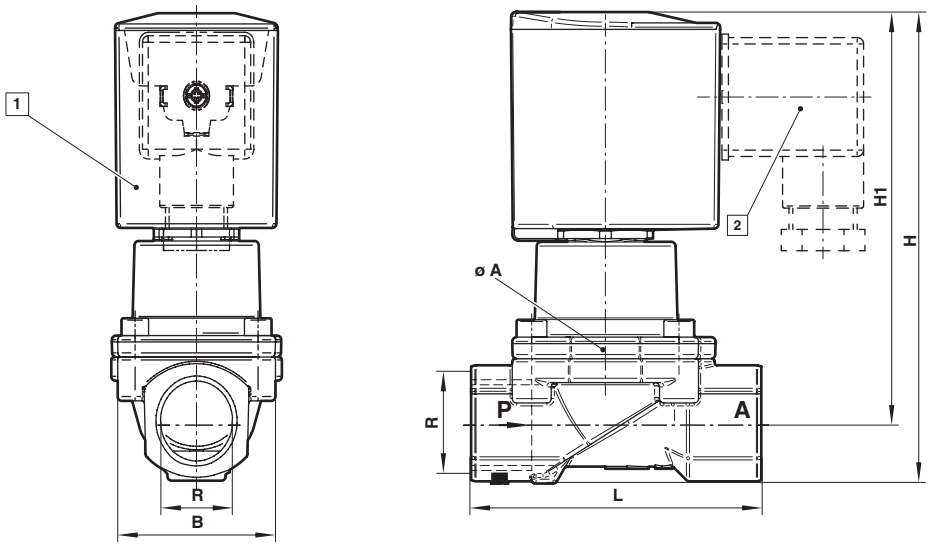
Dimensions

G1/4 ... 1

Dimensions in mm
Projection/first angle



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

Port size R	A	H	H1	L	Model
G1/4	44	104	92,5	60	8209000.917x.xxxxx
G3/8	44	104	92,5	60	8209100.917x.xxxxx
G1/2	44	108	94,5	67	8209200.917x.xxxxx
G3/4	50	115	99	80	8209300.917x.xxxxx
G1	62	124	103,5	95	8209400.917x.xxxxx

Note to Pressure Equipment Directive (PED):

The valves of this series up to and including DN 25 (G1) are according to Art. 4 § 3 of the Pressure Equipment Directive (PED) 2014/68/EU. This means interpretation and production are in accordance to engineers practice wellknown in the member countries.

The available CE labelling relates to the (Gas appliances) Regulation (EU) 2016/426 and applies to all nominal diameters. A copy of the prototype test certificate is provided with the product.
For valves > DN 25 (G1), the available CE labelling includes the PED.

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 (2014/30/EU) satisfield.

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