

**2/2-way valves DN 8 – DN 25**  
**with DVGW-approval**  
**For neutral gases and liquid fuels**  
**Solenoid actuated, with forced lifting**  
**Diaphragm valves**  
**Internal threads G 1/4 ... G 1 DIN ISO 228/1**  
**Operating pressure 0 ... 8 bar**

82090



**Description (standard valve)**

Solenoid valve for neutral gases and liquid fuels

Switching function:	normally closed
Flow direction:	determined
Fluid temperature:	0 °C ... max. +60 °C
Ambient temperature:	0 °C ... max. +60 °C
Mounting position:	optional, preferably solenoid vertical on top

**Material**

Body:	Brass (CW617N)
Seat seal:	NBR
Internal parts:	Stainless steel, PVDF, brass

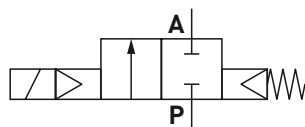


Strainer (with maximum mesh size of 0.25 mm) is necessary upstream of the valve.

**Features**

- EC-Type Examination Certificate  
product ID-No.: CE-0085CN0205  
valve class A: G 1/4 - G 3/4; B: G 1; valve group 2
- Qualification approval EN 161:2011 and EN ISP 23553-1
- High functional reliability
- Short response time < 1 s
- High flow rate
- Valve operates without differential pressure
- Solenoid interchangeable without tools (**Click-on®**)

**Symbol**



**Ordering information**

To order, quote model number from table overleaf, e.g. 8209200.9151 for a DN 15 valve.

## Characteristic data

Valves

Part Number	Nominal Diameter (mm)	Connection Size	Operating pressure *1)		k <sub>v</sub> -value *2) (Base m <sup>3</sup> /h)	Weight total (kg)
			min. (bar)	max. (bar)		
8209000.9178 8209000.9179	8	G 1/4	0	8	1.9	0.8
8209100.9178 8209100.9179	10	G 3/8	0	8	3.0	0.8
8209200.9178 8209200.9179	12	G 1/2	0	8	3.4	0.9
8209300.9178 8209300.9179	20	G 3/4	0	8	5.8	1.0
8209400.9178 8209400.9179	25	G 1	0	8	8.0	1.3

 \*1) for gases and liquid fluids up to 25 mm<sup>2</sup>/s (cSt)

State voltage [V] and frequency [Hz]

 \*2) C<sub>v</sub>-value [US] ≈ k<sub>v</sub>-value x 1.2

## Solenoid 917x

Voltage range



## Further Options (Valves)

On request      Further versions

## Further Options (Solenoids)

 XXXXXXX.9191 Protection class  
 II 2 GD EEx me II T3 T 140 °C

On request      Further versions

Standard voltages / further voltages

**Note:**
**AC solenoids have a DC rectifier integrated into the solenoid plug.**

Solenoid	DC ---	AC ~	
		50 Hz	60 Hz
<b>9178</b>	24 V	24 V	–
<b>9178</b>	–	110 V	120 V
<b>9179</b>	–	230 V	220 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)

## 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 %.

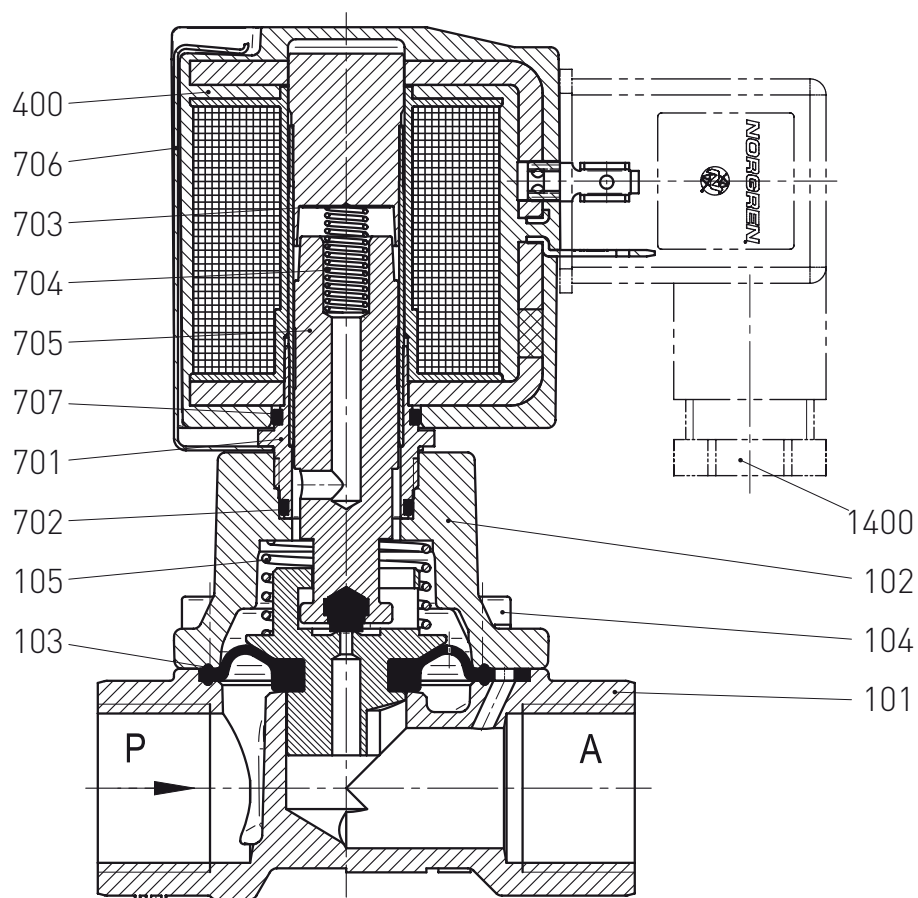
Solenoid	DC ---	AC ~	
		Inrush	Holding
<b>9178 *</b>	18 W	20 VA	20 VA
<b>9179 *</b>	18 W	20 VA	20 VA

 \*  coil only

### Attention!

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

## Section View



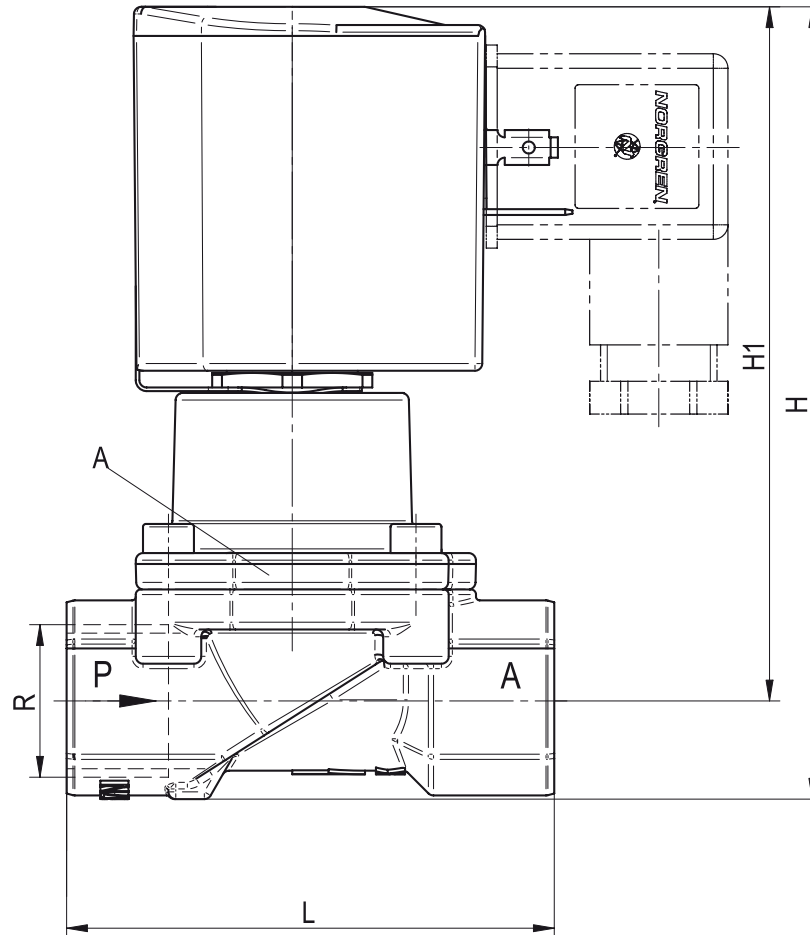
- 101 Valve body
- 102 Valve cover
- 103 Diaphragm
- 104 Allen head screw
- 105 Pressure spring
- 400 Solenoid
- 701 Core tube
- 702 O-ring
- 703 Round plate
- 704 Pressure spring
- 705 Plunger
- 706 Spring clip
- 707 O-ring
- 1400 Socket (included)

**Information concerning expendable parts:**

The valves have been prototype tested. Expendable parts can only be replaced by the manufacturer.

## General Dimensions

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



Part Number	Nominal Diameter (mm)	Connection Size R	A (mm)	H (mm)	H1 (mm)	L (mm)
8209000.917x	8	G 1/4	44	104	92.5	60
8209100.917x	10	G 3/8	44	104	92.5	60
8209200.917x	12	G 1/2	44	108	94.5	67
8209300.917x	20	G 3/4	50	115	99.0	80
8290400.917x	25	G 1	62	124	103.5	95

### 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.

The available CE labelling relates to the Gas Appliances Directive (2009/142/EC). A copy of the EC prototype test certificate is provided with the product.

### 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.