

# 2/2-way valves ND 8 to 50

For neutral gaseous and liquid fluids  
Indirectly solenoid actuated  
Diaphragm valves  
Internal threads G ¼ to G 2  
Operating pressure 0.5 to 10/16 bar

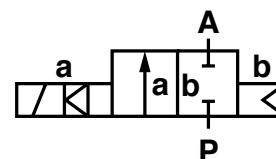


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Catalogue index  
**A 6**  
82 120, 82 130 series

## Description (standard valve)

Solenoid valve for air, water and oil

**Flow direction:** determined  
**Fluid temperature:** max. +90 °C  
**Ambient temperature:** max. +50 °C  
**Sum of fluid and ambient temperature:** max. +130 °C  
**Mounting position:** optional, preferably solenoid vertical on top  
**Material Body:** Brass  
**Seat seal:** NBR  
**Internal parts:** 1.4104, 1.4301  
For contaminated fluids insertion of a strainer is recommended (see accessories).



**Switching function:**  
Normally closed

## Features

- High flow rate
- Clear design
- Single part diaphragm
- Compact solenoid with integrated core tube

## Characteristic data

ND	Connection (Thread acc. to DIN 228/1)	Dimension [mm]	Operating pressure with gaseous and liquid fluids up to 25 mm <sup>2</sup> /s (cSt) [bar]		k <sub>V</sub> -value <sup>2)</sup> (Base m <sup>3</sup> /h)	Weight [kg]	Dimension table No.	Cat no	
			min. <sup>1)</sup>	max.				Valve	Solenoid DC or AC
8	G ¼	67	0.5	16	1.75	0.650	01	82 120 00.8001	
8	G ¼	55	0.5	16	1.75	0.655	02	82 130 00.8001	
10	G ⅜	67	0.5	16	3.40	0.625	03	82 121 00.8001	
10	G ⅜	55	0.5	16	2.50	0.650	04	82 131 00.8001	
12	G ½	67	0.5	16	4.00	0.600	05	82 122 00.8001	
12	G ½	55	0.5	16	3.10	0.620	06	82 132 00.8001	
20	G ¾	95	0.5	10	11.00	1.350	07	82 123 00.8001	
25	G 1	95	0.5	10	13.80	1.200	08	82 124 00.8001	
32	G 1¼	132	0.5	10	30.00	2.550	09	82 125 00.8001	
40	G 1½	132	0.5	10	31.60	2.250	10	82 126 00.8001	
50	G 2	160	0.5	10	47.50	3.500	11	82 127 00.8001	

State voltage [V] and  
frequency [Hz]

<sup>1)</sup> Minimum pressure differential P<sub>1</sub> A 0.5 bar

<sup>2)</sup> C<sub>V</sub>-value (US) ≈ k<sub>V</sub>-value x 1.2

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## Solenoids

Standard voltages	DC	AC	
		50 Hz	60 Hz
	24 V	24 V	–
	–	110 V	120 V
	205 V	230 V	220 V

Design acc. to VDE 0580

Voltage range  $\pm 10\%$

100 % duty cycle

Protection class acc. to EN 60529 IP 65

(previous DIN 40050)

Socket acc. to DIN 43 650

**Attention: Restricted temperature range for explosion proof solenoids.**

For technical details see catalog-register "Solenoids"

Power consumption <sup>1)</sup>

Solenoid	DC	AC	
		Inrush	Holding
8001	12 W	20 VA	16 VA

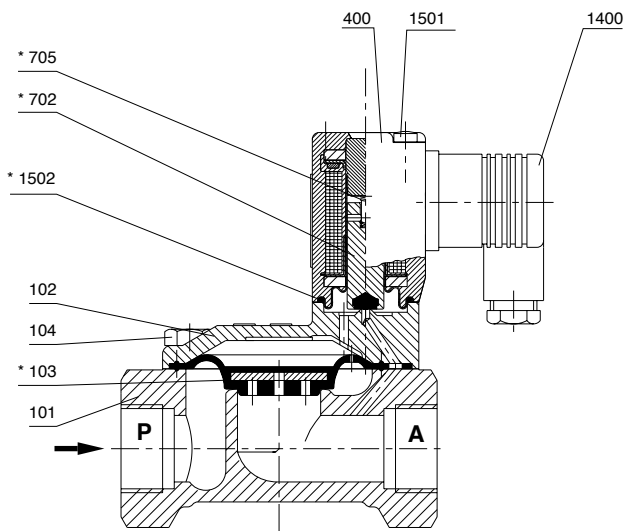
<sup>1)</sup> **According to VDE 0580 at coil temperature +20 °C. In operating the solenoid coil decrease the power consumption appr. 30 %.**

## Further models

available at extra cost

- XX XXX **02.XXXX** Manual override
- XX XXX **03.XXXX** Seat seal FPM, max. temperature +110 °C
- XX XXX **04.XXXX** Damped operation, kv-value reduced appr. –40%,  
 $p_{\max} = 10$  bar
- XX XXX **07.XXXX** Fabric diaphragm, for air only
- XX XXX **14.XXXX** Seat seal EPDM, for hot water, max. temperature +110 °C,  
 $p_{\max} = 10$  bar
- XX XXX **69.974X** Nickel-plated
- XX XXX **83.XXXX** Sealed core tube, for liquid fluids only
- XX XXX **84.XXXX** Sealed core tube, seat seal EPDM, for hot water, max. fluid temperature +110 °C, for liquid fluids only
- **On request** UL/CSA  
Further versions
- XX XXX XX.**8004** DC Solenoid with rectifier, for AC only
- XX XXX XX.**8036** Solenoid in protection class EEx me II T4
- XX XXX XX.**8080** Solenoid with low power consumption 5 W, for DC only
- XX XXX XX.**8095** Solenoid with low power consumption 6/4.5 VA, for AC only
- XX XXX XX.**9748** Solenoid for DC only, for XX XXX **69**
- XX XXX XX.**9749** Solenoid for AC only, for XX XXX **69**

## Section



- 101 Valve body
- 102 Body cover
- \*103 Diaphragm
- 104 Oval head cap screw up to G  $\frac{1}{2}$   
Hexagon screw G  $\frac{3}{4}$  – G 2
- 400 Solenoid
- \*702 Core
- \*705 Pressure spring
- 1400 Socket
- 1501 Cheese head cap screw
- \*1502 O-ring

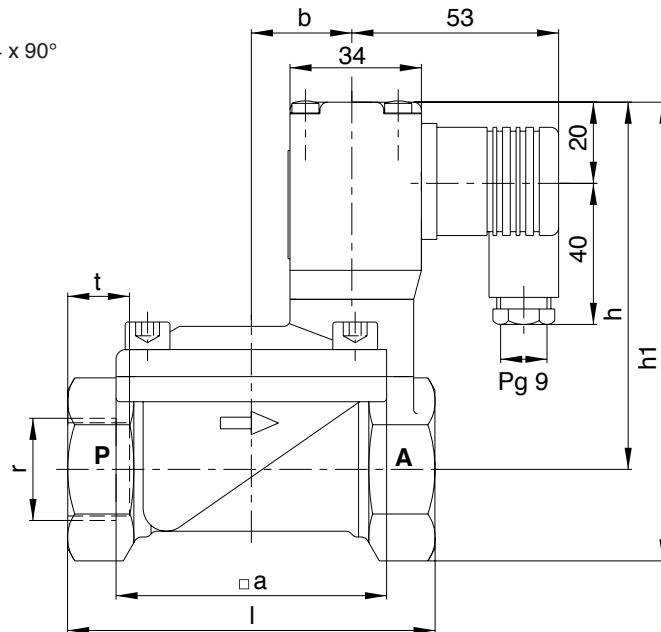
\* These individual parts form a complete wearing unit.

When ordering spare parts please state Cat no and series no.

## Dimensions

Solenoid\* and socket turnable 4 x 90°

\* Look for right position of core, spring and O-ring.



Dimension table no	□ a	b	h	h <sub>1</sub>	l	r	t
01	44	12.5	85	100	67	G $\frac{1}{4}$	12.0
02	44	12.5	87	102	55	G $\frac{1}{4}$	10.0
03	44	12.5	85	100	67	G $\frac{3}{8}$	12.0
04	44	12.5	87	102	55	G $\frac{3}{8}$	10.0
05	44	12.5	85	100	67	G $\frac{1}{2}$	14.0
06	44	12.5	87	102	55	G $\frac{1}{2}$	10.0
07	70	26.0	95	120	95	G $\frac{3}{4}$	12.5
08	70	26.0	95	120	95	G1	14.0
09	96	39.0	110	145	132	G1 $\frac{1}{4}$	18.0
10	96	39.0	110	145	132	G1 $\frac{1}{2}$	18.0
11	112	47.0	120	160	160	G2	20.0