

2/2-way direct acting solenoid valve NC



A.u.K. Müller

Solenoid valves
Control valves
Special valves and systems

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series 18.00x



Characteristics

- Direct acting
- Compact design
- Long term performance capability
- Suitable for food and hot water appliances
- Works from zero pressure
- Easy to assemble and service
- Coil change without opening of medium circuit, coil can be mounted 4 x 90°
- High operating safety by the use of high quality materials and 100% final testing of the products

Applications

- Saturated steam applications up to 143° C
- Steam cleaners and ironing machines
- Hot / cold drink dispensers (espresso makers)
- Medical equipment
- Industrial applications

Description

2/2-way solenoid valve of several nominal diameters for use with neutral gases and liquids. This valve is direct acting and normally closed (NC).

Valves of this design are single chamber straight through valves, with threaded tube clamp or push-fit connections at outlet and inlet.

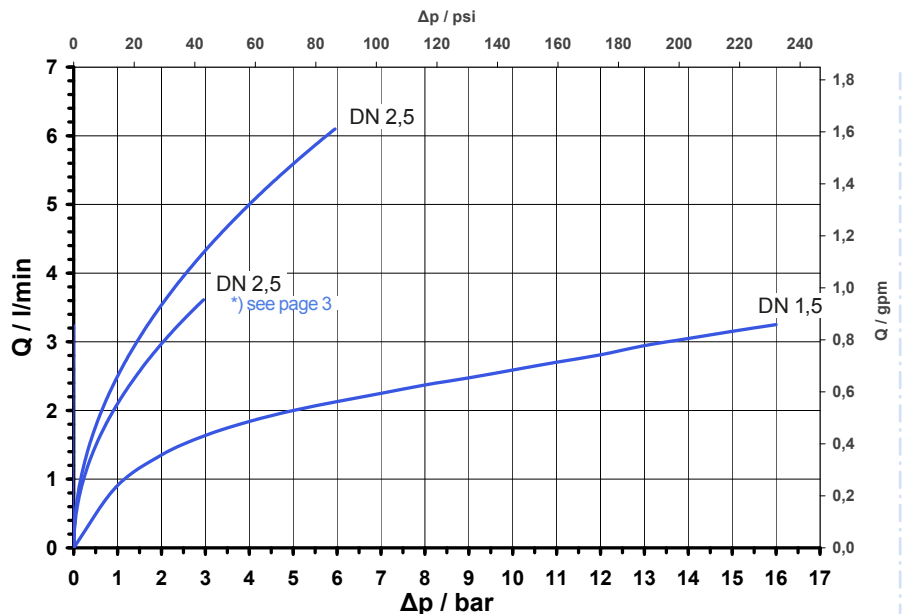
The valve body is made of PPSU, which is suitable for hot water applications.

This valve is designed for continuous operation (duty cycle 100%).

Electrical operating safety is achieved by using high quality materials of insulation class F.

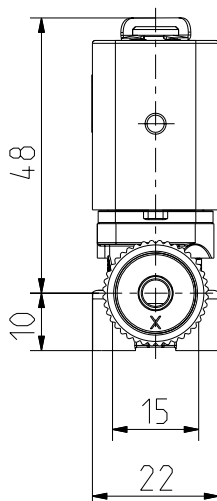
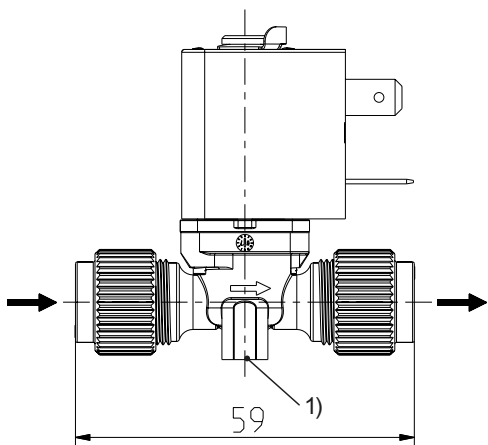
Typ	DN
18.003	1,5
18.005	2,5

typical performance curve (fluids)





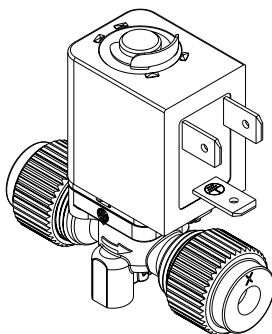
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1) Fixing possibility for self tapping screw $\varnothing 3,8 \times 9$

Materials

Valve body	PPSU
Plunger guide	Stainless steel
Plunger	Stainless steel
Seal	EPDM
Coil coating	PA, EP or PPS



Technical Data

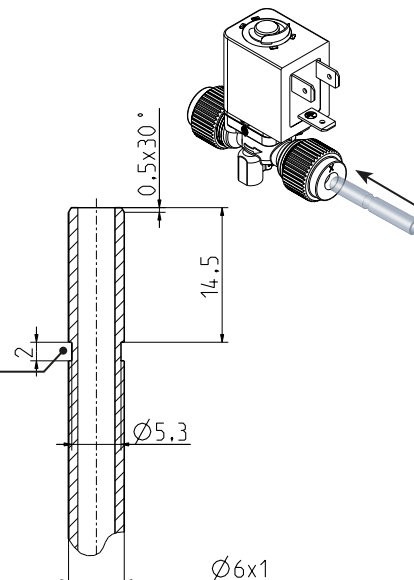
Type	Solenoid valve	
Construction	2/2-way single chamber straight valve, direct acting	
Function	NC (normally closed)	
Fitting position	Any	
Media	Neutral gases, cold and heated potable water and physically and chemically similar media	
T-Medium	98	°C max.
Saturated steam	143 (3bar)	°C max.
T-Ambient	60	°C max.
DN		
Cv-value	See page 3	
p-Operating		
Coil type	MS.037	
Nominal voltage	24	V DC
	Other voltages on request	
Voltage tolerance	+10% -15%	
Duty cycle	100%	
Nominal power	8,3 W	
Protection Type	IP 65	
Coil connections	Plug socket flat tap 6,3 x 0,8 mm model B-industry form	
Insulation class	F	according to EN 60730
Protection class	I	according to EN 60730 (for incorporation in class I)

Options

Tube material	Dimension outer \varnothing x wall thickness	
Flexible plastic tubes	6 x 1	
Metal tubes	6 x 1	to be equipped with special cut-in by user

Other orifice sizes (DN) are in preparation

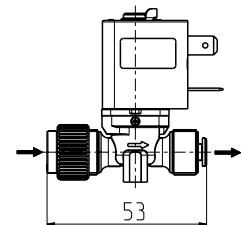
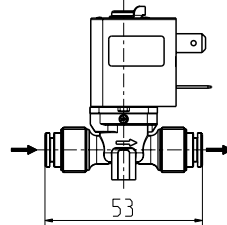
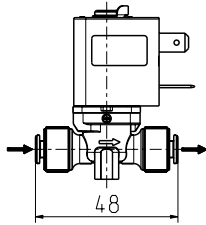
⚠ PPSU valve bodies may not come in contact with: acetone, ethers, ketones, aromatic hydrocarbons, chlorinated hydrocarbons, acids and oxidizing anaerobic adhesives.





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Alternative Connections



	Inlet		Outlet
Push-Fit connection Ø 4 mm			
Push-Fit connection Ø 6 mm			
Clamp connection Ø 6 mm			

In and outlet variants are combinable.

Each in- and outlet can be configured

ID	DN	Cv-value	Inlet	Inlet	Outlet	Outlet	p-Operating	
			Clamp connection	Push-fit connection	Clamp connection	Push-fit connection	bar in flow direction	bar against flow direction
	mm	l/min	Ø mm	Ø mm	Ø mm	Ø mm		
**	1,5	0,9	6	-	6	-	0 - 16,0	0 - 12,0
087712 ***			-	4	-	4		
087704			6	-	-	4		
087703			-	6	-	6		
087714 ***			-	6	-	4		
**	2,5	2,1	-	6	-	4	0 - 3,0 *)	0 - 5,0
087702			-	6	-	6		
**			-	4	-	4		
087701			6	-	6	-		
087706			-	6	-	6		
087700	2,5	2,5	6	-	6	-	0 - 6,0	0

*) with saturated steam up to 143°C (refer to performance curve on page 1)

** on request

*** Coil contacts pointing to inlet

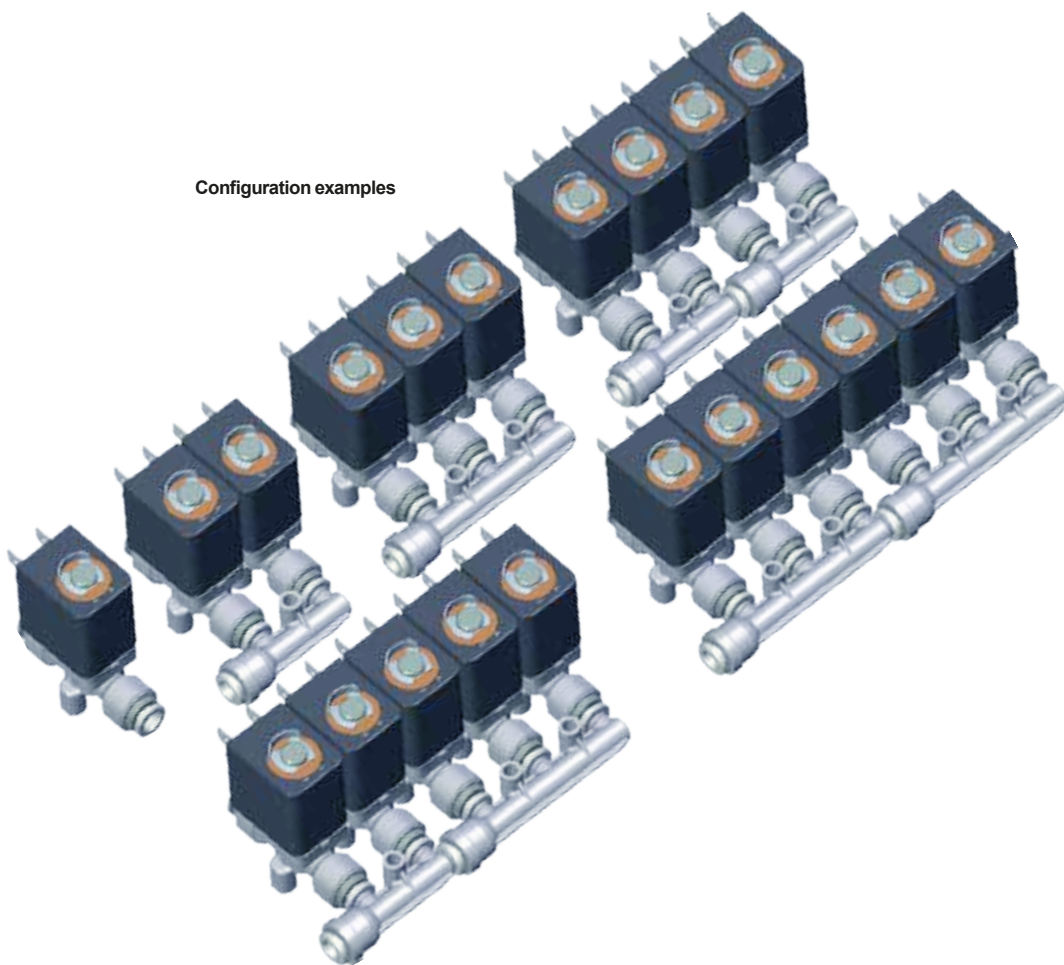


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Only four manifold versions using push-fit connection 6 mm Ø of the valve allow to configure any combination of bank valve. No tools are necessary.

Manifold system for Push-fit connection Ø6 mm

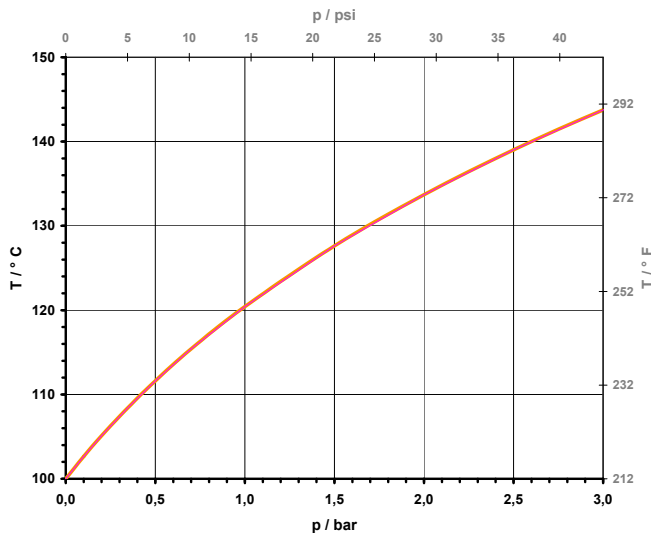
Configuration examples



In addition to hot water the system is also suitable for saturated steam applications up to a temperature of 143° C.

A fixed relation between pressure and temperature exists for saturated steam, as is shown in the adjacent diagram.

Pressure-temperature diagram for saturated steam

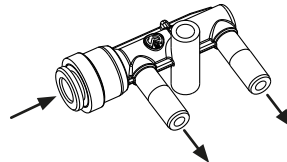
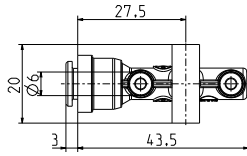




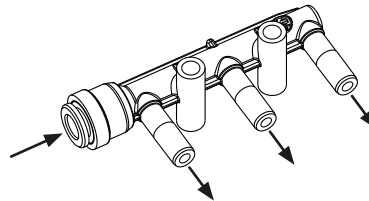
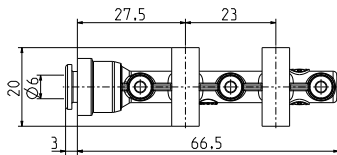
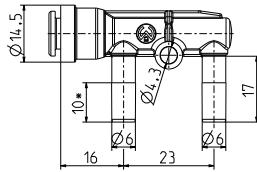
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Manifold components for Push-fit connection 6 mm Ø

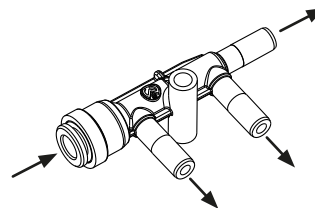
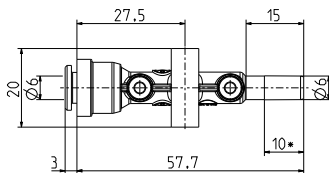
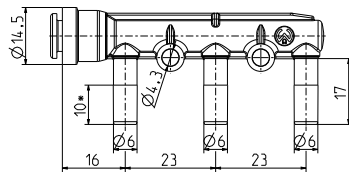
Flow direction (→) also reversed possible.



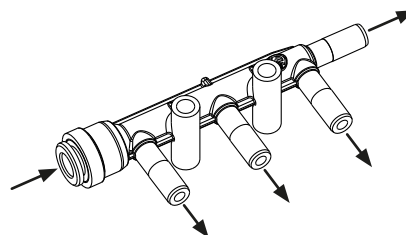
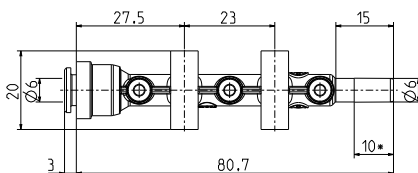
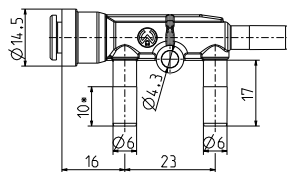
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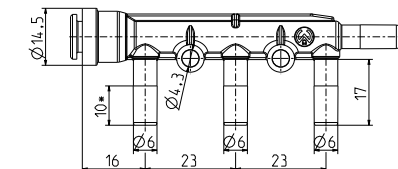
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* Area of o-ring seal



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Example of mounting for valves and manifold components on a mounting plate.

