

3/2-way Lever Valve

Product Information



A. u. K. Müller

Solenoid valves
Control valves
Special valves and systems

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Series 47.00x.203



Characteristics

- Direct acting
- Medium separated
- Long term performance capability
- No minimal pressure required
- Easy to assemble and service
- Low power consumption
- Any fitting position
- Minimal dead areas in valve body
- High operating safety through the use of high quality materials and 100% final testing of the products

Description

Direct acting 3/2 way solenoid valve with different orifice sizes for control of neutral gases and liquids. The plunger of the magnetic system is protected by spatial separation from the medium. In particular, the low dead space is a further advantage of the lever valves.

Valves of this design are single chamber valves with 4, 6 or mm push-fit connections.

The coil system can be adapted for nominal voltages and frequencies on request. The electrical operational safety is guaranteed by the electrical insulation coordination, which corresponds to the VDE 110 regulations.

The manufacturing process includes a 100% electrical safety test in accordance with the VDE 0631 Part 1000 regulations.

Due to the use of high quality materials, the valve is applicable for high ambient and medium temperatures up to 98 °C.

Ideally suited for dosing applications. The good thermal separation between the fluid path and solenoid also allows the use of temperature sensitive media, such as in the medical technology or analytics.

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

Materials

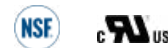
Valve body	PPSU
Plunger guide	Stainless steel
Plunger	Stainless steel
Membrane	EPDM FKM
Coil coating	PBT or epoxy resin

Applications

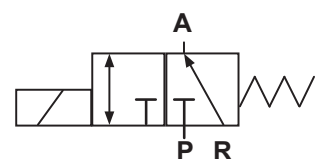
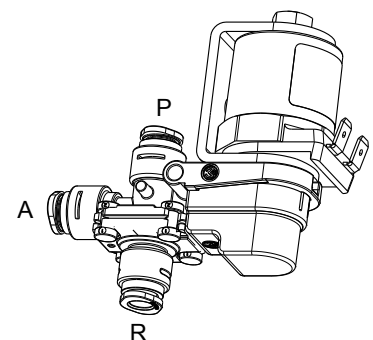
- Hot / cold drink dispensers
- Tank or boiler draining
- Medical engineering
- Laboratory / analysis equipment
- Industrial applications

Connection hoses should be installed with the lowest possible mechanical stress acting on the inlet and outlet connections!

Approvals



- NSF 169
- UL
- Other approved versions available on request



P → Pressure Connection
A → Work Connection
R → Vent

3/2-way Lever Valve

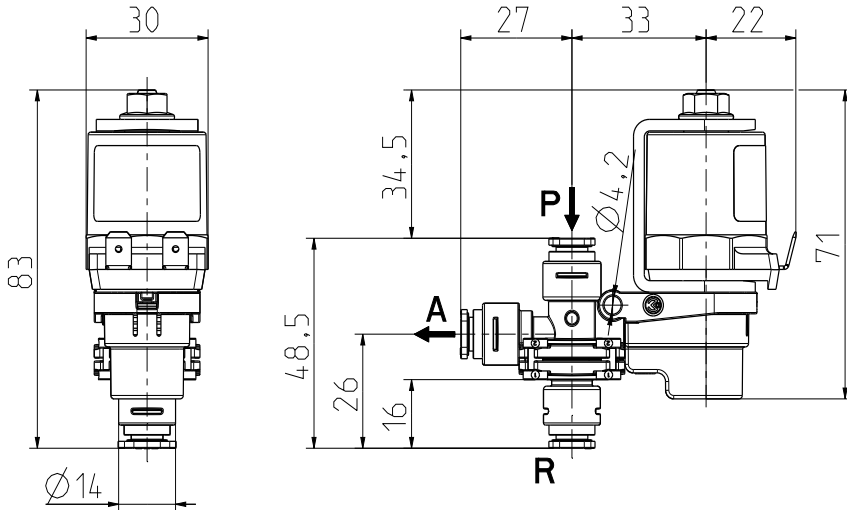
Product Information



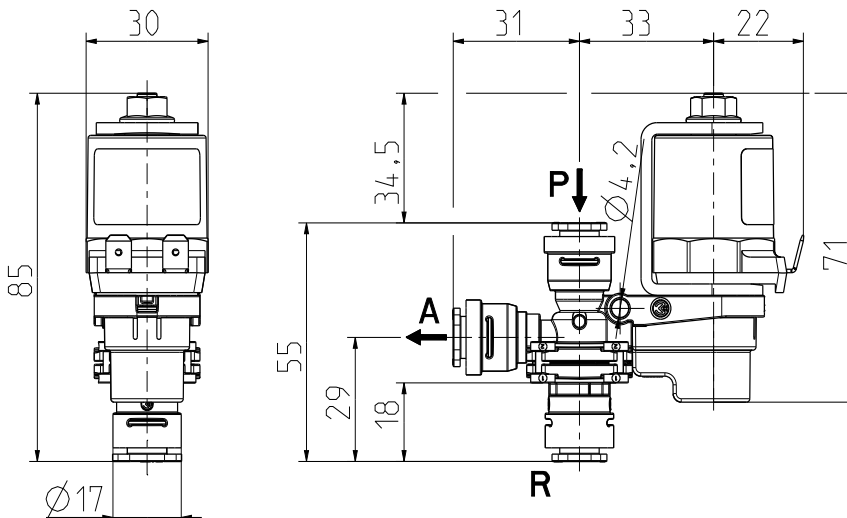
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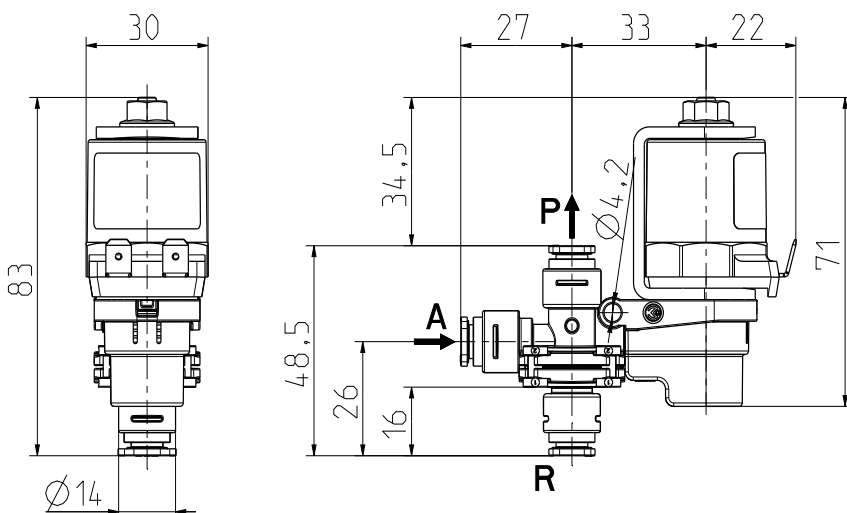
DN 3 – ID 090310, 090311,
DN 4 – ID 090309, 090325



DN 4 – ID 090328



DN 3 – ID 090317, 090318, 090323



Flow direction (→) is also in inverse direction possible.

Technical Data

Type	lever solenoid valve	
Construction	3/2-way single chamber valve, direct acting	
Function	flow path R - A normally open flow path P - A normally closed	
Fitting position	any	
Media	cold and heated potable water and physically and chemically similar media	
T-Medium	5 - 98	°C
T-Ambient	5 - 60	°C
DN	3	mm
	4	mm
Nominal voltages	see table options	
Voltage tolerance	±10%	
Duty cycle	100%	
Nominal power	9,5 W	
Protection Type	see coils	
Coil connections	flat tabs 6,3 x 0,8 mm plug socket according to EN 175301-803 (IP65), several cable connections (IP67, IP68)	
Insulation class	F	according to EN 60730
Protection class	see coils	according to EN 60730

Coils

	MS 06	MS 24	MS 25
Protection type according to ISO 206653 / DIN EN 60529	IP 00	IP 65	IP 65 / 68
I with protective conductor system		-	-
Protection class DIN EN 61140 DIN EN 60730 II with reinforced insulation			
III for SELV or PELV			



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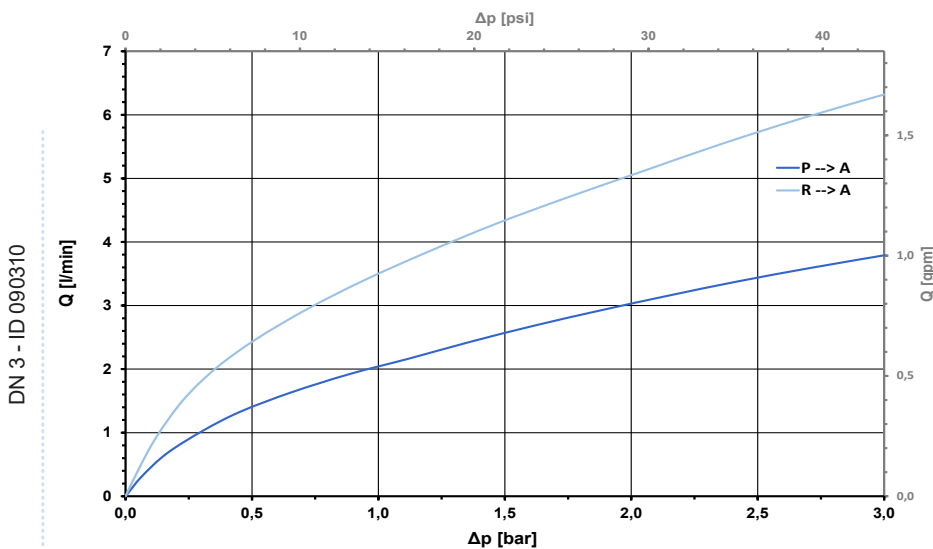
Options

Type	Connection	Ending
G	Push-fit connection Ø 4 mm	
F	Push-fit connection Ø 6 mm	
J	Push-fit connection Ø 8 mm	

Any combination of connectors for the outlets A, P and R possible.

DN	Connector combination (P,A,R)	Membrane	preferred operating mode	p-operating				Flow Factor Kv				Coil	Nominal Voltage	ID	
				P-A	A-P	A-R	R-A	P-A	A-P	R-A	A-R				
mm				bar	bar	bar	bar	l/min	l/min	l/min	l/min				
3,0	G,F,F	EPDM	P-A	0 - 3,0	-	-	0 - 1,5	2,0	3,5	2,6	-	MS 06	24 V DC	090310	
	G,G,G			0 - 5,0	-	-	0 - 2,0	1,6	1,7	-	-			090311	
	F,F,F	FKM	A-P/A-R	0 - 4,5	0 - 3,0	-	0 - 1,5	2,6	3,2	2,6	3,2			090317	
	F,F,F		P-A	0 - 3,0	0 - 3,0	-	0 - 1,5	2,6	3,2	2,6	3,2			090327	
	F,F,F		EPDM	P-A	0 - 3,0	0 - 3,0	-	0 - 1,5	2,6	3,2	2,6			3,2	090323
4,0	F,F,F	FKM	P-A	0 - 3,0	-	-	0 - 1,5	3,9	-	3,7	-	MS 06	24 V DC	090309	
	F,F,F			P-A / R-A	0 - 3,0	-	-	0 - 1,5	4,0	-	3,8			-	090325
	F,F,F	EPDM	P-A / R-A	0 - 3,0	-	-	0 - 1,5	4,0	-	3,8	-			12 V DC	090330
			P-A	0 - 3,0	-	-	0 - 0,8	4,3	-	4,2	-			24 V DC	090328
			P-A	0 - 3,0	-	-	0 - 0,8	4,3	-	4,2	-			24 V DC	090328

Typical Performance Curves



tube length 100 mm;
tubing 6,0 mm OD x 1,0 mm wall thickness;
4,0 mm OD x 0,75 mm wall thickness;
fluid: water at 25°C; free outlet

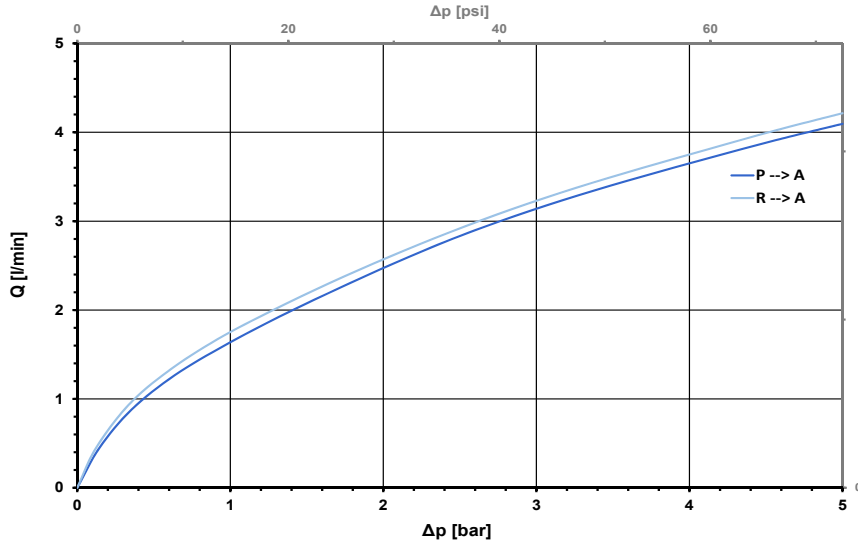
DN 3 - ID 090310



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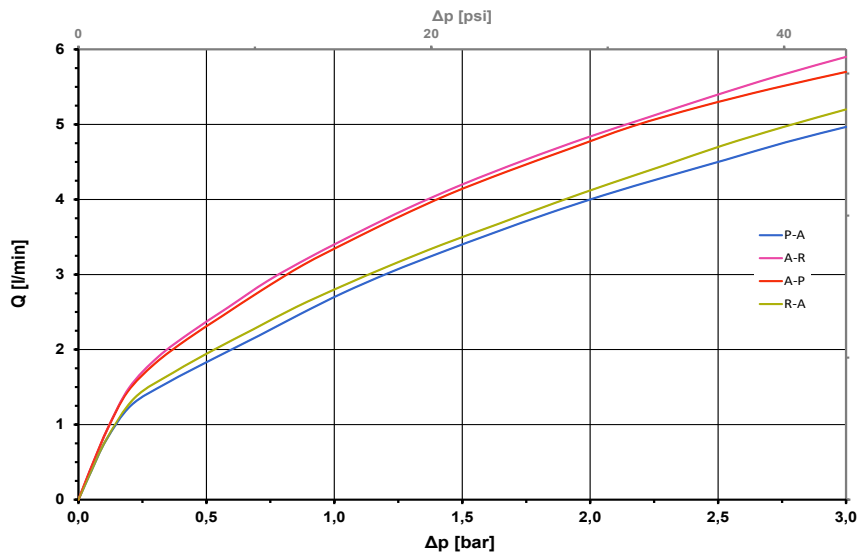
typical performance curves

DN 3 - ID 90311



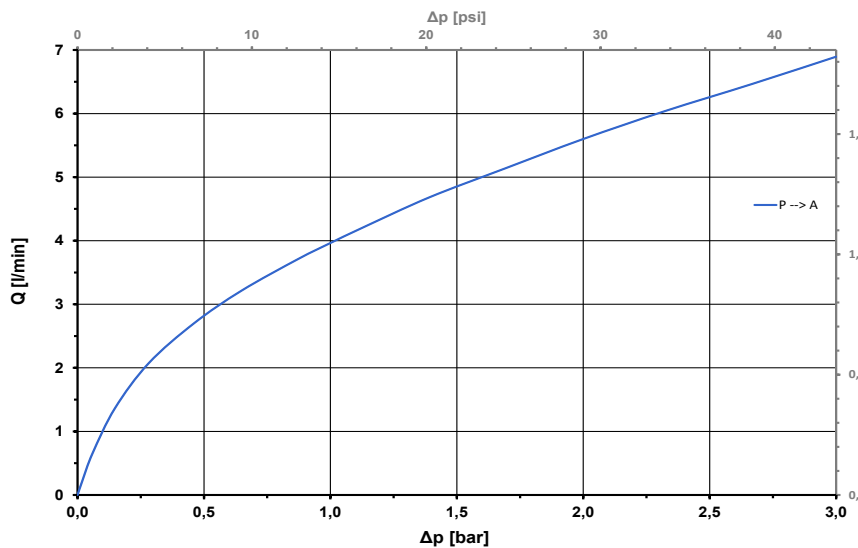
tube length 100 mm;
4,0 mm OD x 0,75 mm wall thickness;
fluid: water at 25°C; free outlet

DN 3 - ID 90317, 90318, 090323



tube length 100 mm;
6,0 mm OD x 1 mm wall thickness;
fluid: water at 25°C; free outlet

DN 4 - ID 90309, 90325, 90328



ID 90309, 90325
tube length 100 mm;
6,0 mm OD x 1 mm wall thickness;
fluid: water at 25°C; free outlet

ID 90328
tube length 100 mm;
8,0 mm OD x 1,2 mm wall thickness;
fluid: water at 25°C; free outlet