Product Information

Bi-stable Cartridge Valve, DN 5

Series 50.005.101 bi

A. u. K. Müller

Solenoid valves
Control valves
Special valves and systems

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Characteristics

- Servo-controlled
- Pretested functional unit
- Suitable for the thermal as well as chemical disinfection
- Long term performance capability
- Internal triple pollution protection
- compact design
- Optimized flow rate Kv for DN 5 (11 l/min at 1 bar)
- Optimized water hammer characteristic by low noise emission according to EN 60730 and EN 15091 (8,5 l/min at 1 bar)
- Easy to assemble and service
- Standard connection
- Cylindrical design
- Low power consumption
- Any fitting position
- Suitable for spray and jet water
- High operating safety through the use of high quality material
- Hygiene benefit by 100% final testing with air

Description

2/2-way solenoid valve of nominal size DN 5 in cartridge design with pilot operated functional principle in bistable design for control of drinking water. The valve is particularly suitable for use in battery operated, electronically controlled sanitary fittings.

The impulse control minimizes the power consumption in order to achieve a long service life with safe valve function with common batteries.

The design outline had been reduced so far that integration in appropriate components, while using a minimum amount of space, is given.

This feature is supported by the screw cartridge design, which relieves the user in assembly, service and testing.

It also eliminates the need for the user to design a valve seat, which is otherwise required when using exclusive pilot valves.

The rate of flow of the cartridge valve has been optimized in such a way, that the nominal diameter of DN 5 fulfils the standard requirements for sanitary tap ware.

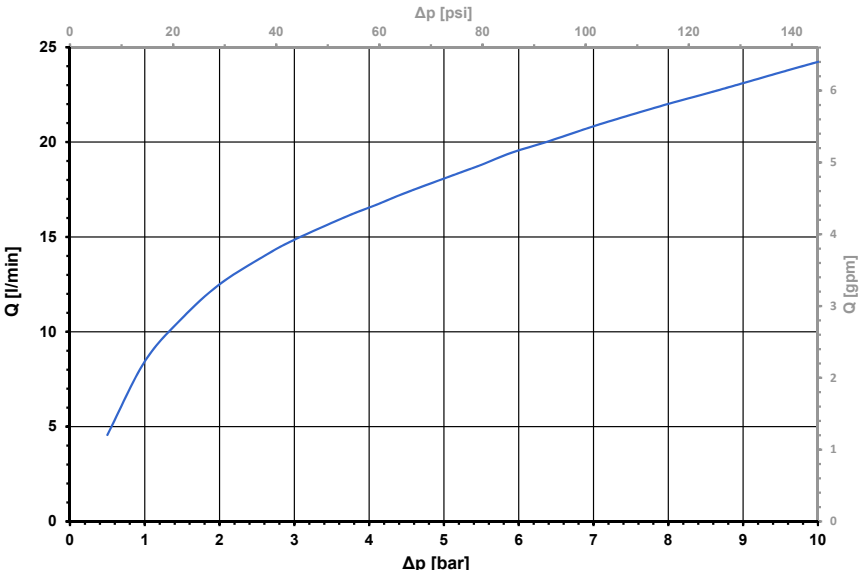
Applications

- Sanitary fittings, as electronic faucets
- Irrigation systems
- Industrial appliances

Available Approvals

- NSF 61
- WRAS
- ACS
- Others on request

Typical Performance Curve Water Surge Optimized

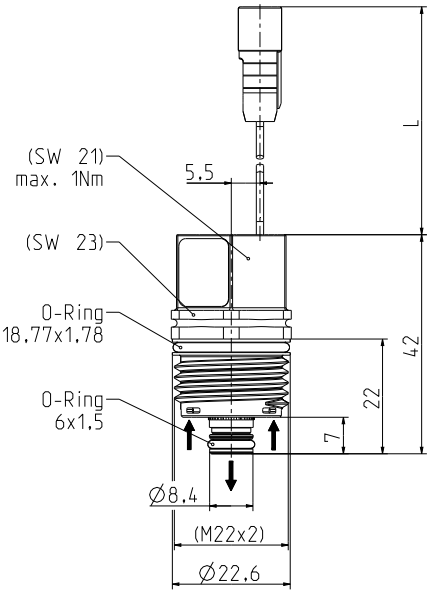


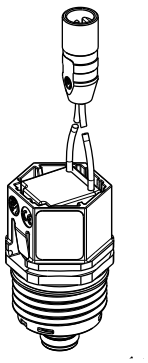
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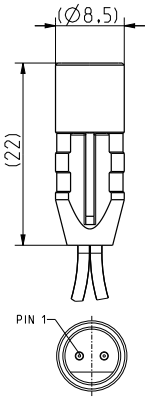
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⚠ O-Rings are to be greased before screw-in.

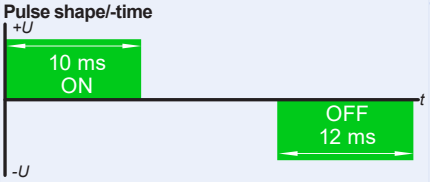
⚠ Max. Torque for screw in: 1 Nm

Materials

Valve body	PA 6/6
Seal support	PPSU
Plunger guide	LCP
Plunger	stainless steel
Membrane and sealings	EPDM
Filter	stainless steel (in inlet)

Male Connector	
Polarity of Connector	
strand color RED (PIN 1)	PLUS(+) at Opening pulse
strand color BLACK	MINUS(-)

Technical Data

Type	Cartridge Valve	
Construction	2/2-way screw-in, servo controlled	
Function	bi-stable, pulse controlled	
Connection	thread M22 x 2	
Fitting position	any	
Media	cold and heated potable water and physically and chemically similar media	
T-Medium	5 - 70 (5 - 80	°C °C max 10 min)
T-Ambient	5 - 60	°C
DN	5	mm
p-Operating	0,5 - 10,0	bar
Flow rate Kv **water surge optimized** **flow optimized**	 8,5 11	 l/min l/min
Pressure surge	according to EN 60730	
Burst pressure	according to EN 60730	
Nominal voltage	6	V DC / battery
	other Voltages on Request	
Operating voltage	4,0 - 6,9 V DC Open/Close at T-Ambient 25 °C	
Pulse shape/-time		
Nominal Power	1,4 W	@ 6 V
Protection Type	IP 65	t
Insulation Class	B	according to EN 60730
Protection class	III	according to EN 60730

Good resistance to thermal (e.g., T-medium 80 ° C / 10 minutes) and chemical disinfection.

Hygiene advantage by air testing prior to delivery.

Testing according EN 15091 and adjustment of the valve in the fitting upon request.

Options

ID	Connection Type	Cable Length L	Characteristic
62804	single strands with male connector	85 ± 5 mm	flow optimized
62806		100 ± 5 mm	flow optimized
62810	round cable with 3 mm female connector	250 ± 5 mm	flow optimized
62817	twin strand	100 ± 5 mm	flow optimized
62824	single strands and male connector	85 ± 5 mm	water surge optimized
62826	single strands with female connector	65 ± 5 mm	water surge optimized
other connection typs or cabel length on request			

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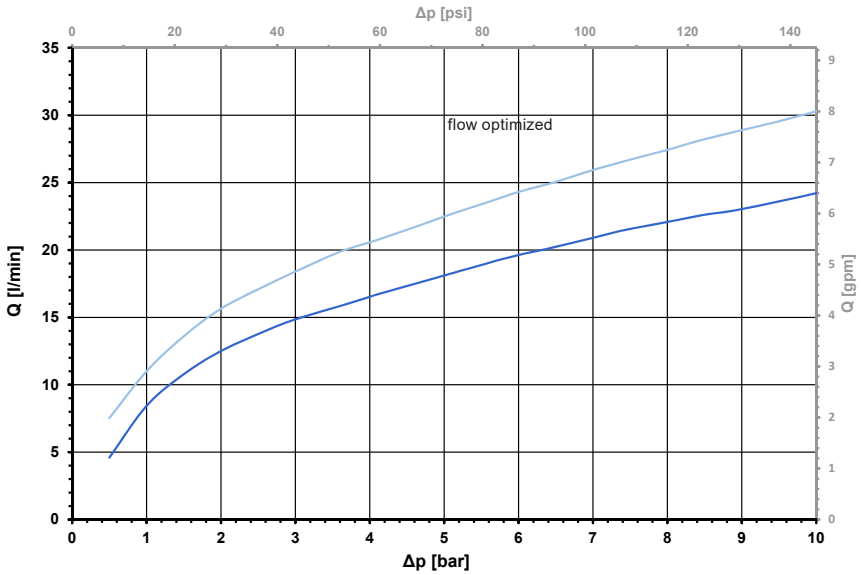
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Other variant on request

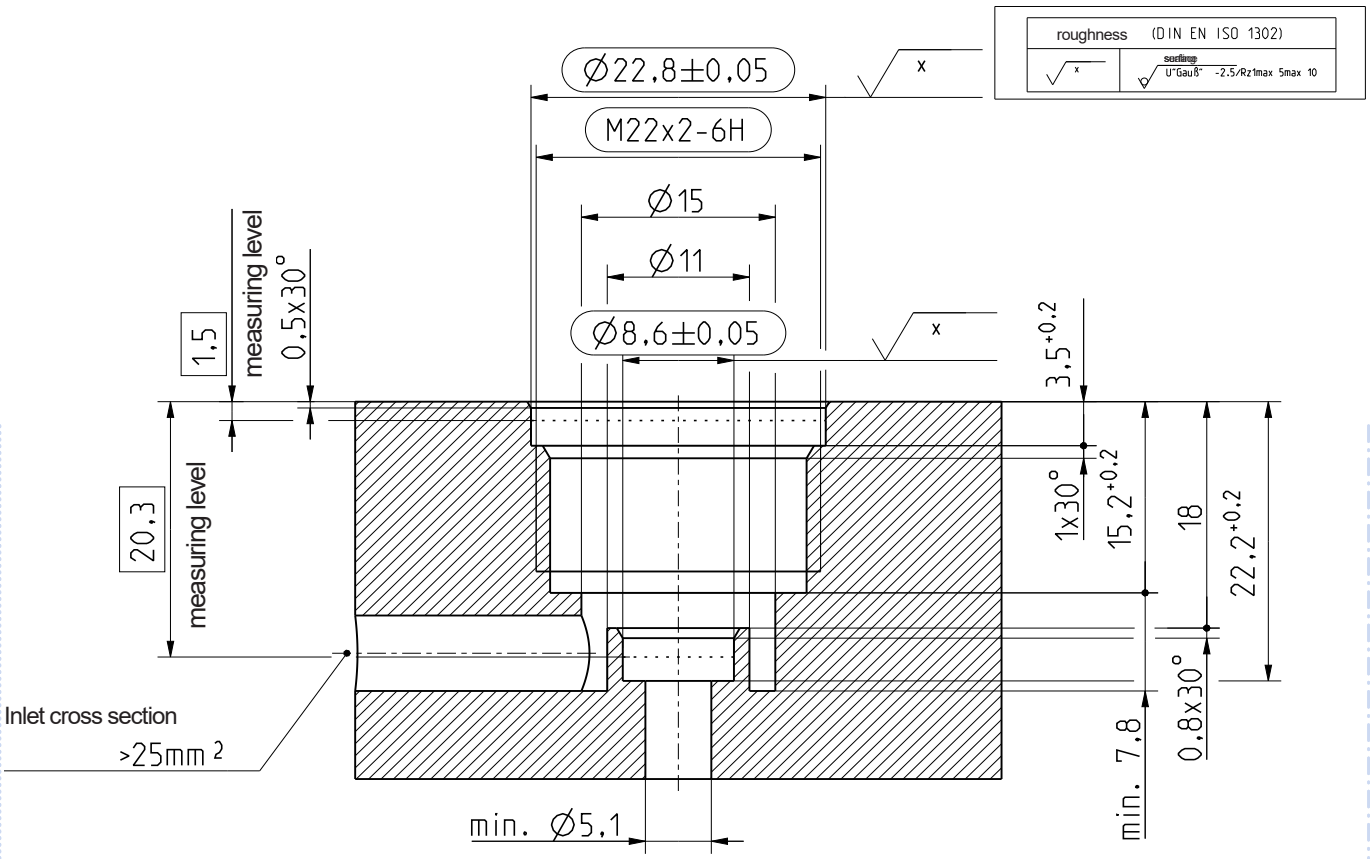
For use outside wash basin applications, a flow-optimized variant with a flow rate Kv of 11 l / min is available on request.

The water hammer characteristics and noise emissions in accordance with DIN EN 15091 are to be tested in the corresponding faucet.

Typical Performance Curve



Screw-in Contour



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