Product Information

Mono-stable Cartridge Valve, DN 5

Series 50.005.101 mo



A. u. K. Müller

Solenoid valves
Control valves
Special valves and systems

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Characteristics

- Servo-controlled
- Pre tested functional unit
- Suitable for the thermal as well as chemical disinfection
- Long term performance capability
- Internal triple pollution protection
- Compact design
- Variant 1: Optimized Cv-value for DN 5 (11 l/min at 1 bar)
- Variant 2: Optimized water hammer characteristic by low noise emission according to EN 60730 and EN 15091
- 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 cartridge servo controlled valve of DN 5 in mono stable version, to be used particularly in electronically controlled sanitary fittings.

The valve is especially suitable for use in electronically controlled sanitary fittings that are operated via SELV / PELV power supplies. This operating mode ensures that the valve closes if the mains voltage fails.

With a suitable PWM control, the power consumption can be additionally reduced by up to 75% in continuous operation.

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 designa 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.

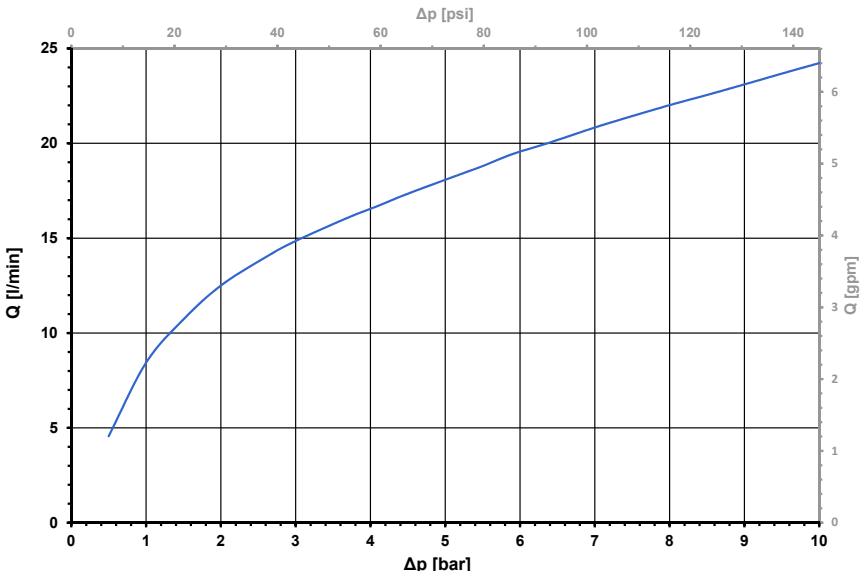
Applications

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

Available Approvals

- KTW - BWGL System 1+
- NSF 61
- WRAS
- ACS
- Others on request

Typical Performance Curve Water Surge Optimized

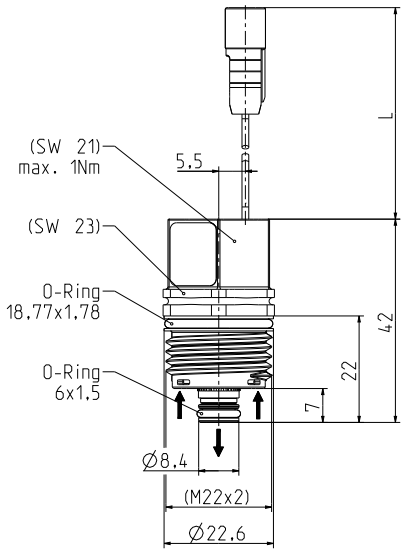


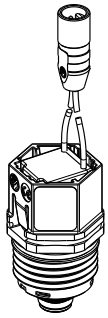
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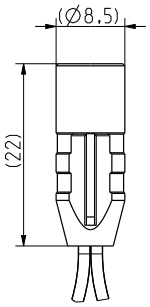
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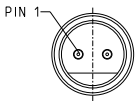
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⚠ Before screw in o-rings are to be greased with silicone grease.

⚠ Max. torque for screw in: 1 Nm

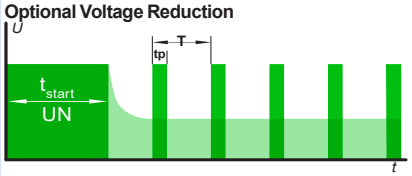
Materials

Valve body	PA 6/6
Seal support	PPSU
Plunger guide	LCP
Plunger	Stainless Steel
Membrane and sealings	EPDM
Filter	Stainless Steel (Inlet)

Male connector
Polarity of connector:
strand color RED (PIN 1)
strand color BLUE

Technical Data

Type	Cartridge Valve	
Construction	2/2-way Screw-in, Servo Controlled	
Function	NC (normally closed)	
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 factor Kv **water surge optimized** **flow optimized**	 8,5 11	 l/min l/min
Pressure surge A	According to EN 60730	
Pressure surge B	Testing according EN 15091 and adjustment of the valve in the fitting upon request.	
Burst pressure (static)	According to EN 60730	
Nominal voltage	12 24	V DC V DC
	Other Voltages on Request	
Voltage tolerance	-15 % +10 %	
Optional Voltage Reduction		



t_{start} : 100 ms dutycycle ≥ 33% [>100Hz] PWM
t_{start} : 100 ms dutycycle ≥ 25% [>1kHz] PWM

Nominal Power 12 V DC 24 V DC	 1,7 W 1,8 W	
Protection Type	IP 65	
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.

Options

ID	Nominal Voltage	Connection Type	Cable Length L	Characteristic
062808	24 V DC	twin strand with male connector	95 ± 5 mm	flow optimized
062811			185 ± 5 mm	flow optimized
062816	12 V DC		167 ± 5 mm	flow optimized
062819			95 ± 5 mm	water surge optimized
062821			95 ± 5 mm	flow optimized
062822	24 V DC	twin strand with male connector (3-poles)	180 ± 5 mm	flow optimized
062825		twin strand with male connector	185 ± 5 mm	water surge optimized
others on request				

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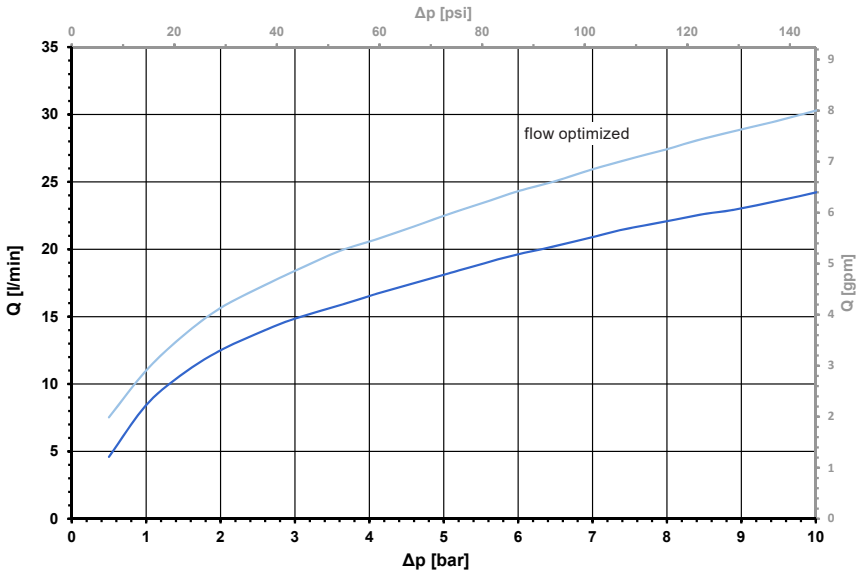
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Other variant on request

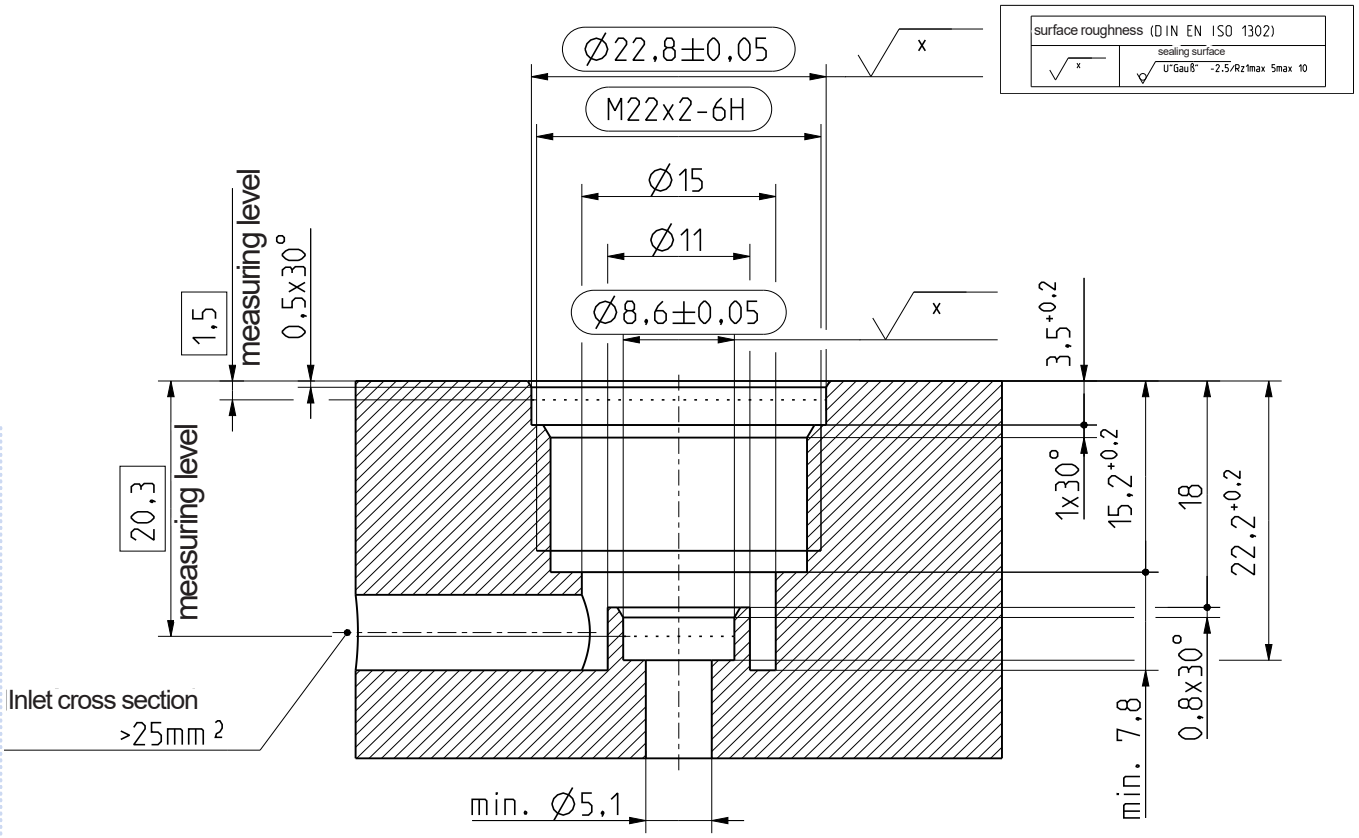
For use outside wash basin applications, a flow-optimized variant with a Kv value of 11 l / min is available on request.

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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