

Monostable cartridge valve, DN 9

Product Information



A. u. K. Müller

Solenoid valves
Control valves
Special valves and systems

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Series 50.009.101 mono M29



Description

2/2-way solenoid cartridge servo controlled valve of DN 9 in monostable 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.

Positive properties are extended due to the simple "screw in" version, which supports easy assembly, service and tests by the customer.

The design of a separate valve seat by the customer is not required, as otherwise needed when solely using a pilot valve.

The flowrate of the cartridge valve has been optimised in such a way, that the nominal diameter of DN 9 fulfils the standard requirements for sanitary tap ware.

By using our special valve bodies, an extended variety of attachment combinations can be achieved (see data sheet 50.009.126).

Applications

- Sanitary fittings as in urinals or wellness showers
- Irrigation systems
- Industrial appliances

Approvals

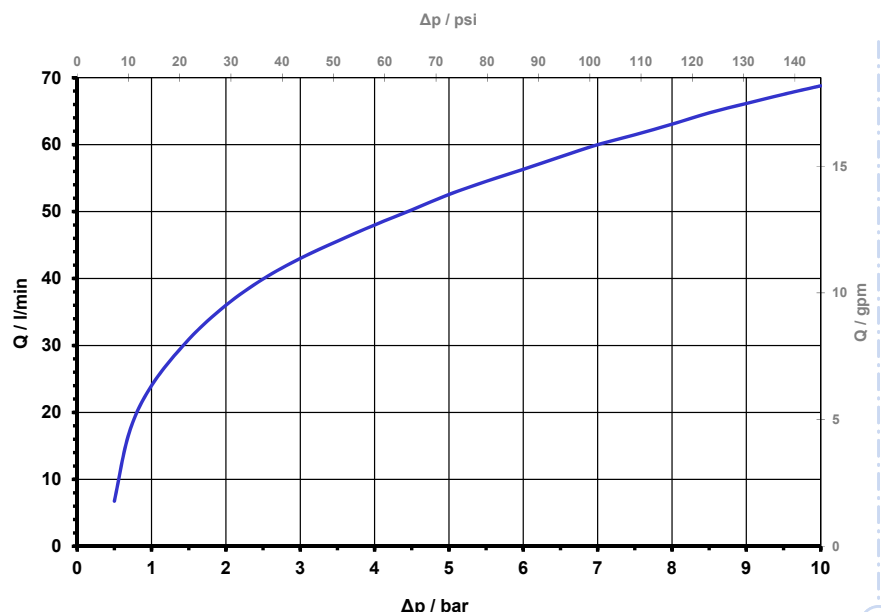
Approved versions available on request:

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

Characteristics

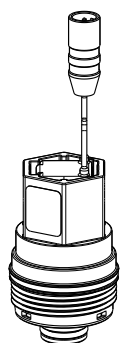
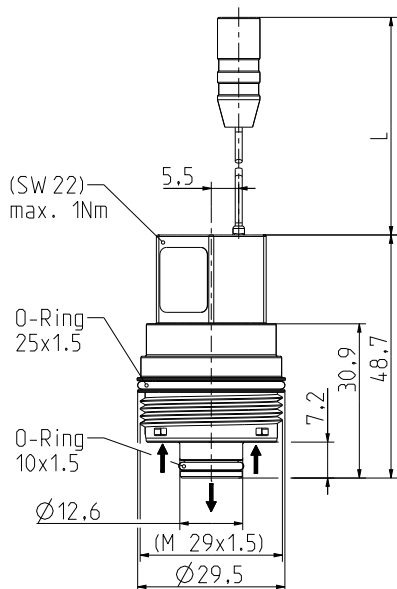
- Servo-controlled
- Pretested functional unit
- Suitable for the thermal as well as chemical disinfection
- Long term performance capability
- Internal triple pollution protection
- Compact design
- Optimized water hammer characteristic by low noise emission according to EN 60730 and EN 15091
- Easy 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

Typical Performance Curve





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

⚠ Max. Torque for screw in: 1 Nm

Technical Data

Type	Cartridge Valve	
Construction	2/2-way Screw-in, Servo Controlled	
Function	NC (Normally Closed)	
Connection	Thread M 29 x 1,5	
Fitting position	Any	
Media	Cold and heated potable water and physically and chemically similar media	
T-Medium	5 - 70	°C.
T-Ambient	5 - 60	°C
DN	9	mm
p-Operating	0,5 - 10,0	bar
Flow factor Kv	24	l/min
Pressure surge	According to EN 60730-2-8	
Burst pressure	According to EN 60730-2-8	
Nominal voltages	12	V DC
	24	V DC
	Other Voltages on Request	
Voltage tolerance	-15 % +10 %	
Optional Voltage Reduction		
	$t_{start} : 100 \text{ ms}$	dutycycle $\geq 33\%$ [$>100\text{Hz}$] PWM
	$t_{start} : 100 \text{ ms}$	dutycycle $\geq 25\%$ [$>1\text{kHz}$] PWM
Nominal power	12 V DC	1,7 W
	24 V DC	1,8 W
Protection type	IP 65	Higher IP-classes on Request
Insulation class	B	According to EN 60730-2-8

Options

ID	Connection type	Cable Length L
098019	round cable with male connector	140 ± 5 mm
098025	twin strand and male connector	95 ± 5 mm
098035	single strands (red/blue) with Molex-Connector	95 ± 5 mm

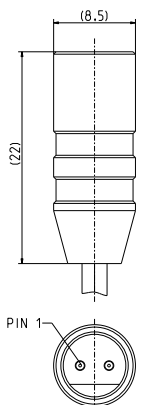
Materials

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

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



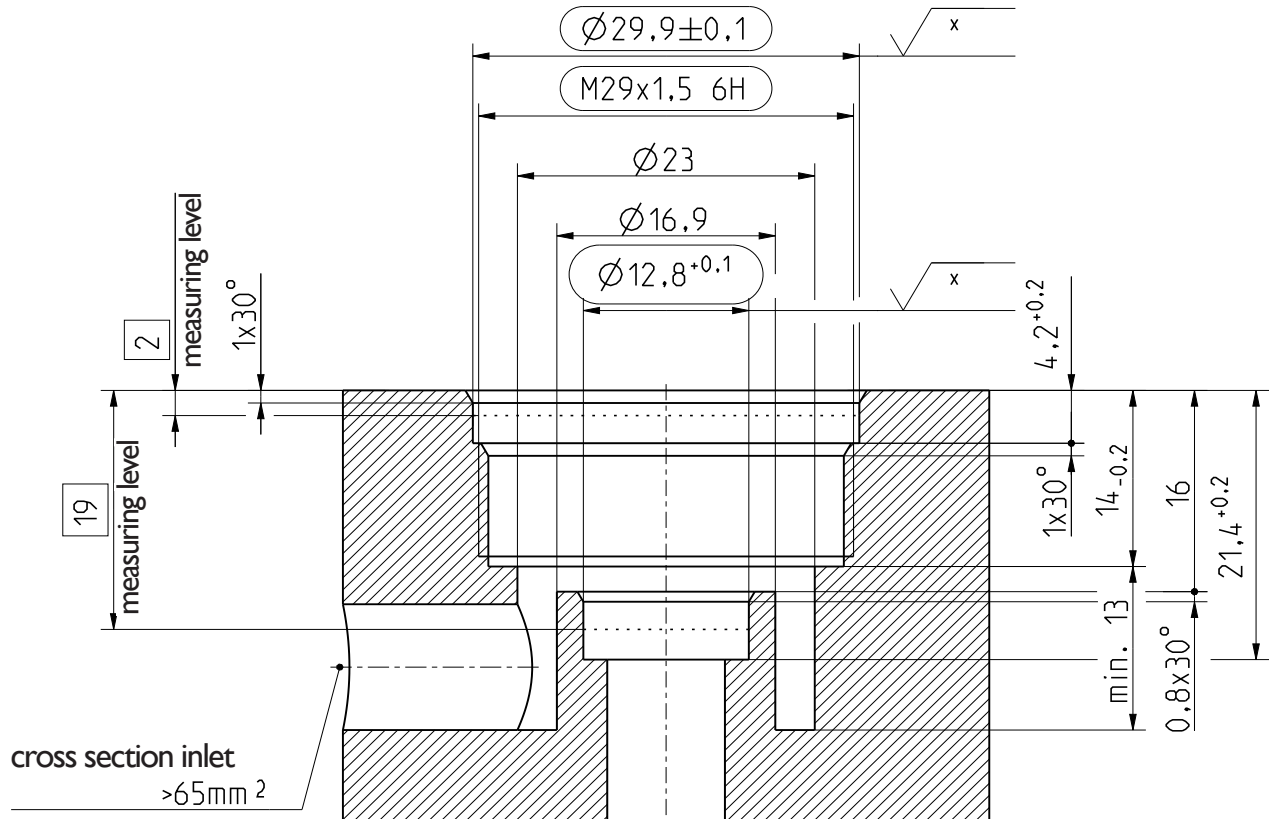
Male Connector	
Polarity of Connector	
strand color RED (PIN 1)	PLUS(+) at Opening pulse
Strand color BLUE	MINUS(-)



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Screw-in Contour

surface roughness (DIN EN ISO 1302)	
x	sealing surface U°Gau8° -2.5/Rz1max 5max 10





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