Product Information

Bi-stable Cartridge Valve, DN 7

A. u. K. Müller

Solenoid valves
Control valves
Special valves and systems

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Series 50.007.101 bi M28



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
- Variant 1: Optimized Cv-value for DN 7
- Variant 2: Optimized water hammer characteristic by low noise emission according to EN 60730-2-8 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 operational 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 7 in bi stable version, to be used particularly in electronically controlled, battery driven sanitary fittings.

The power consumption is minimised by the use of impulse control (pwm) to increase long term performance, durability and battery life.

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 flow rate of the cartridge valve has been optimised in such a way, that the nominal diameter of DN 7 fulfils the standard requirements for sanitary tap ware. In addition, we offer a version that has been optimized against water hammer according to EN 60730-2-8.

By using our special valve bodies, an extended variety of attachment combinations can be achieved (see data sheet 50.007.126 or 50.007.52x).

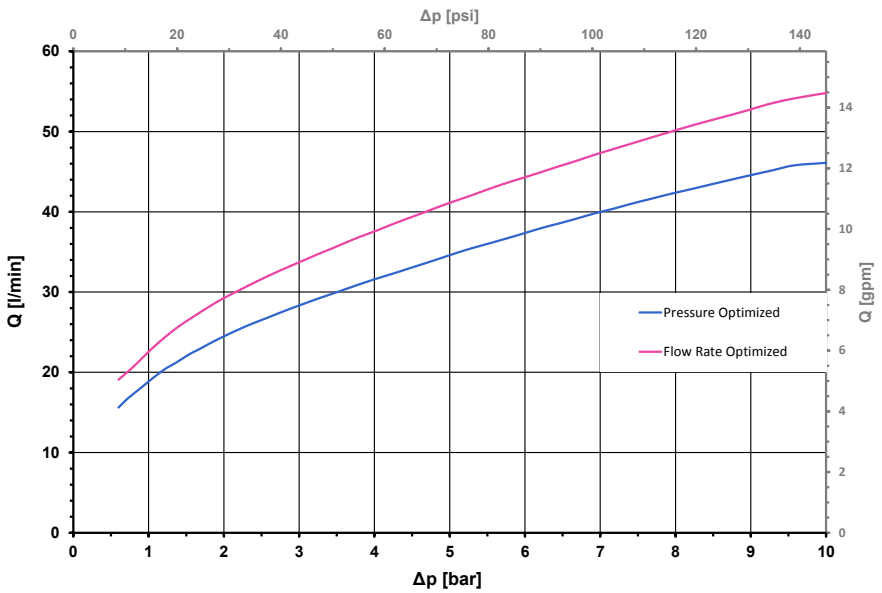
Applications

- Sanitary fittings: urinal, shower or bidet
- Irrigation systems
- Industrial appliances

Possible Approvals

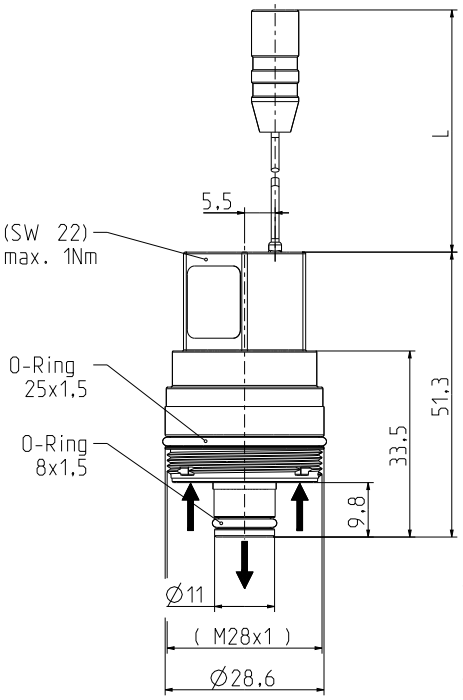
- KTW / BWGL System 1+
- NSF 61
- WRAS
- ACS
- Other approved versions available on request

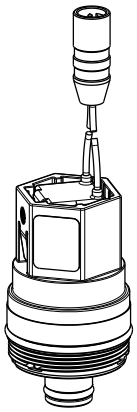
Typical Performance Curve



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

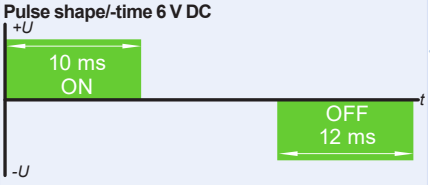
⚠ Max. Torque for screw in: 1 Nm

Technical Data

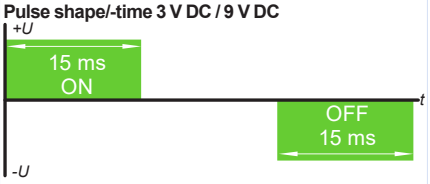
Type	Cartridge Valve	
Construction	2/2-Way Screw-in, Servo Controlled	
Function	Bi-stable, Pulse Controlled	
Connection	Thread M28 x 1	
Fitting Position	Any	
Media	Cold and heated potable water and physically and chemically similar media	
T-Medium	5 - 70	°C.
T-Ambient	5 - 60	°C
DN	7	mm
p-Operating	0,5 - 10,0	bar
Cv-Value Pressure Optimized Flow Rate Optimized	 17,3 21	 l/min l/min
Pressure Surge	According to EN 60730-2-8	

Nominal Voltages	**Nominal Power**	**Operating Voltage** (at T-Ambient: 25°C)
3 V DC	1,3 W	2,4 - 3,3 V DC open/close
6 V DC	1,4 W	4,0 - 6,9 V DC open/close
9 V DC	1,5 W	6,0 – 10,4 V DC open/close
		Other Voltages on Request

Pulse shape/-time 6 V DC



Pulse shape/-time 3 V DC / 9 V DC



Protection Type	IP 65	Higher IP-classes on request
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

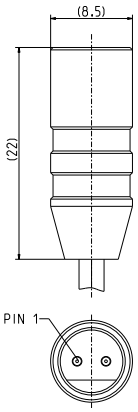
Options

ID		Connection Type	Cable Length L
098007	6 V DC	Single strands with male connector	85 ± 5 mm
098015			
098016	3 V DC		
098017	6 V DC		
098020	9 V DC		
098021	6 V DC	Round cable Ø 4 with male connector	600 ± 5 mm
098024		Single strands with male connector	110 ± 5 mm
098028		Single strands with male connector	170 ± 5 mm
098029		Twin strands without connector	250 ± 5 mm
098033			170 ± 5 mm
098034	9 V DC	Single strands with male connector	130 ± 5 mm
098036	6 V DC	Single strands with male connector - connector color RED	150 ± 5 mm
098038		Single strands with male connector- winding for switching ability up to 16 bar	130 ± 5 mm

Other Connection Types on Request

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(+) pulse to open
Strand Color BLACK	MINUS(-)

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Screw-in Contour

