

# Product Information

## Mono-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 mono M28



### Description

2/2-way solenoid cartridge servo controlled valve of DN 7 in monostable version, to be used particularly in electronically controlled sanitary fittings.

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

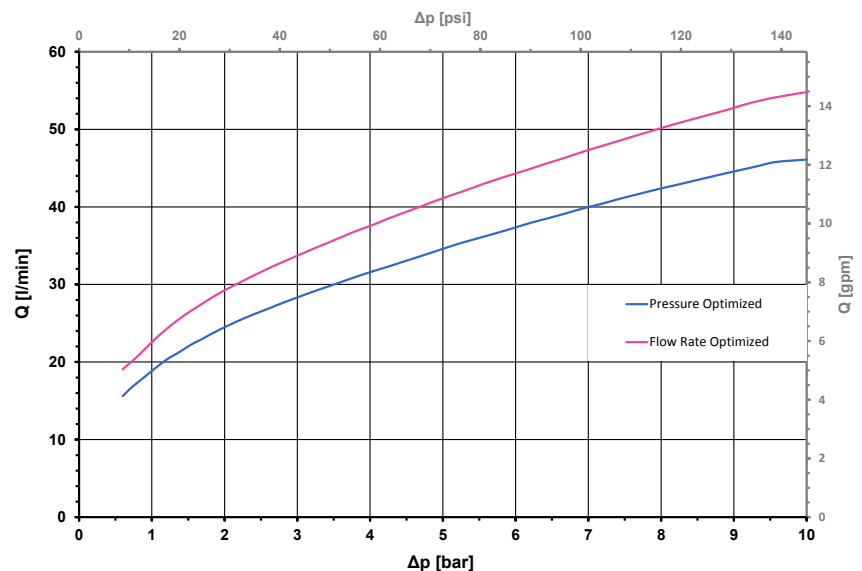
### Possible approvals

- KTW/W270
- NSF 61
- WRAS
- ACS
- Other approved versions available 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 Cv-value for DN 7
- 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

typical performance curve



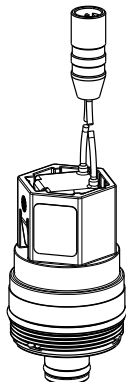
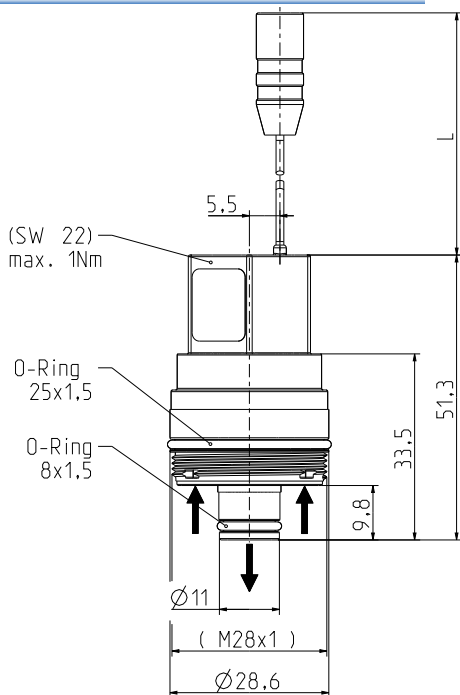
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⚠ Before screw in o-rings are to be greased with silicone grease.

⚠ Max. Torque for screw in: 1Nm

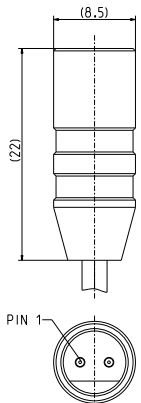
### Options

ID	Connection Type	Cable Length L
098018		167 ± 5 mm
098023	Twin strands with male connector	95 ± 5 mm
098027		295 ± 5 mm
098030	Twin strands without connector	150 ± 5 mm
098031	Twin strands with JST XHP-2 connector	147 ± 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 <b>RED</b> (PIN 1)	PLUS(+) pulse to open
strand color <b>BLUE</b>	MINUS(-)

### Technical Data

Type	Cartridge Valve	
Construction	2/2-way Screw-in, Servo Controlled	
Function	NC (normally closed)	
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	17,3	l/min
Pressure Optimized	21	l/min
Flow Rate Optimized		
Pressure Surge	According to EN 60730-2-8	
Burst Pressure	According to EN 60730-2-8	
Nominal Voltage	12	V DC
	24	V DC
	Other Voltages on Request	
Voltage Tolerance	-15 % +10 %	
Optional Voltage Reduction		
	$t_{start} : 100 \text{ ms}$ $tp:T \geq 1:3$ [ $>100\text{Hz}$ ] PWM $t_{start} : 100 \text{ ms}$ $tp:T \geq 1:4$ [ $>1\text{kHz}$ ] 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

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

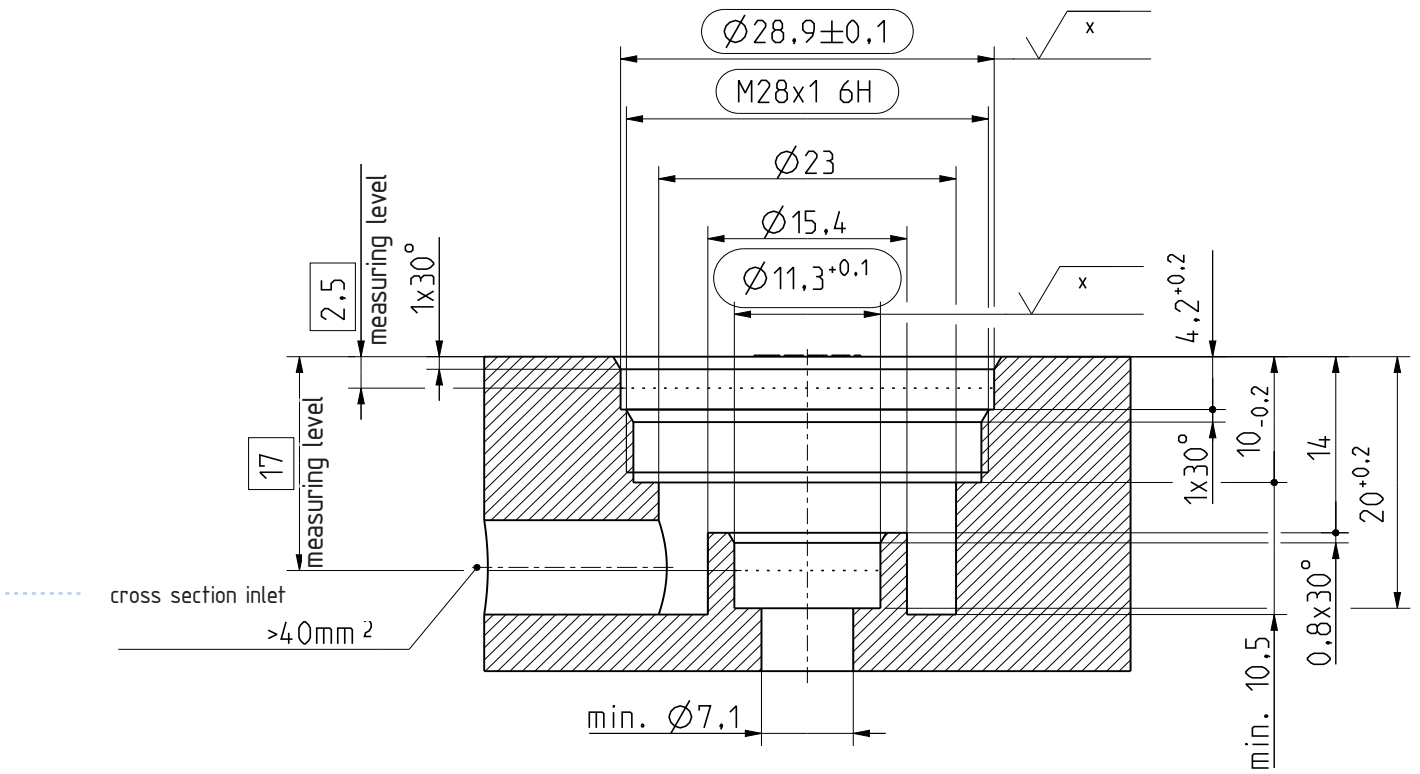
Hygiene advantage by air testing prior to delivery

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



**Screw-in Contour**

surface roughness (DIN EN ISO 1302)	
$\sqrt{x}$	sealing surface
	$\sqrt{U'6au8} -2.5/Rz \text{ max } 5 \text{ max } 10$





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