

# Product Information

## Bi-stable Cartridge Valve, DN 5, Water Supply Central, Axial



**A. u. K. Müller**

Solenoid valves  
Control valves  
Special valves and systems

A. u. K. Müller GmbH & Co. KG  
Dresdener Str. 162  
D-40595 Düsseldorf/Germany

Tel.: +49(0)211-7391-0  
Fax: +49(0)211-7391-281

e-mail: info@akmueller.de  
Internet: www.akmueller.de

### Series 50.005.I40 bi



### 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.

### Applications

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

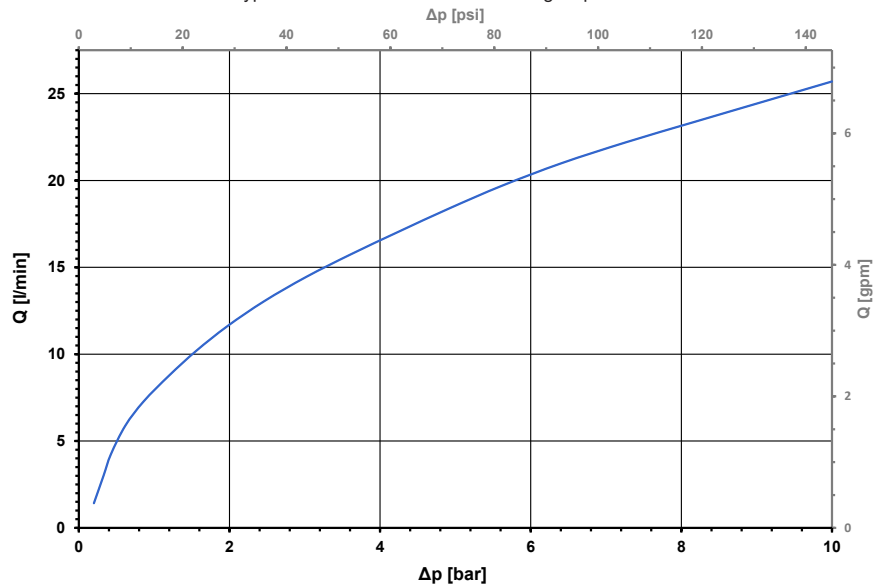
### Available Approvals

- KTW - BWGL System 1+
- Others on request

### Characteristics

- Servo-controlled
- Pretested functional unit
- Suitable for the thermal as well as chemical disinfection
- Long term performance capability (qualified according to ASME A112.18.1-2005 / CSA B125.1-05)
- compact design
- Optimized water hammer characteristic by low noise emission according to EN 60730 and EN 15091 (7,5 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

Typical Performance Curve Water Surge Optimized Valve

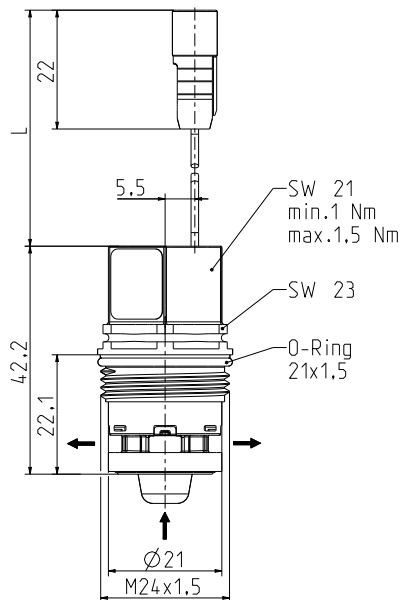


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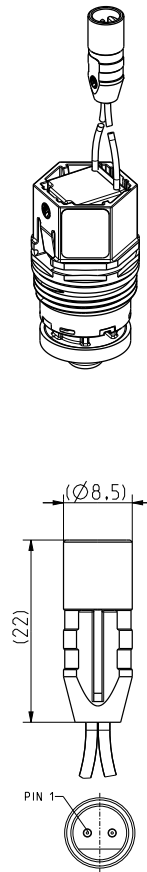
A. u. K. Müller

## Series 50.005.101 bi



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

⚠ Min. Torque for screw in: 1,0 Nm  
Max. Torque for screw in: 1,5 Nm



## Materials

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

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

## Technical Data

Type	Cartridge Valve	
Construction	2/2-way screw-in, servo controlled	
Function	bi-stable, pulse controlled	
Connection	thread M24 x 1,5	
Fitting position	any	
Media	cold and heated potable water and physically and chemically similar media	
T-Medium	5 - 70	°C (5 - 80 °C max 10 min)
T-Ambient	5 - 60	°C
DN	5	mm
p-Operating	0,2 - 10,0 bar	
Flow rate Kv water surge optimized	7,5	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	
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.

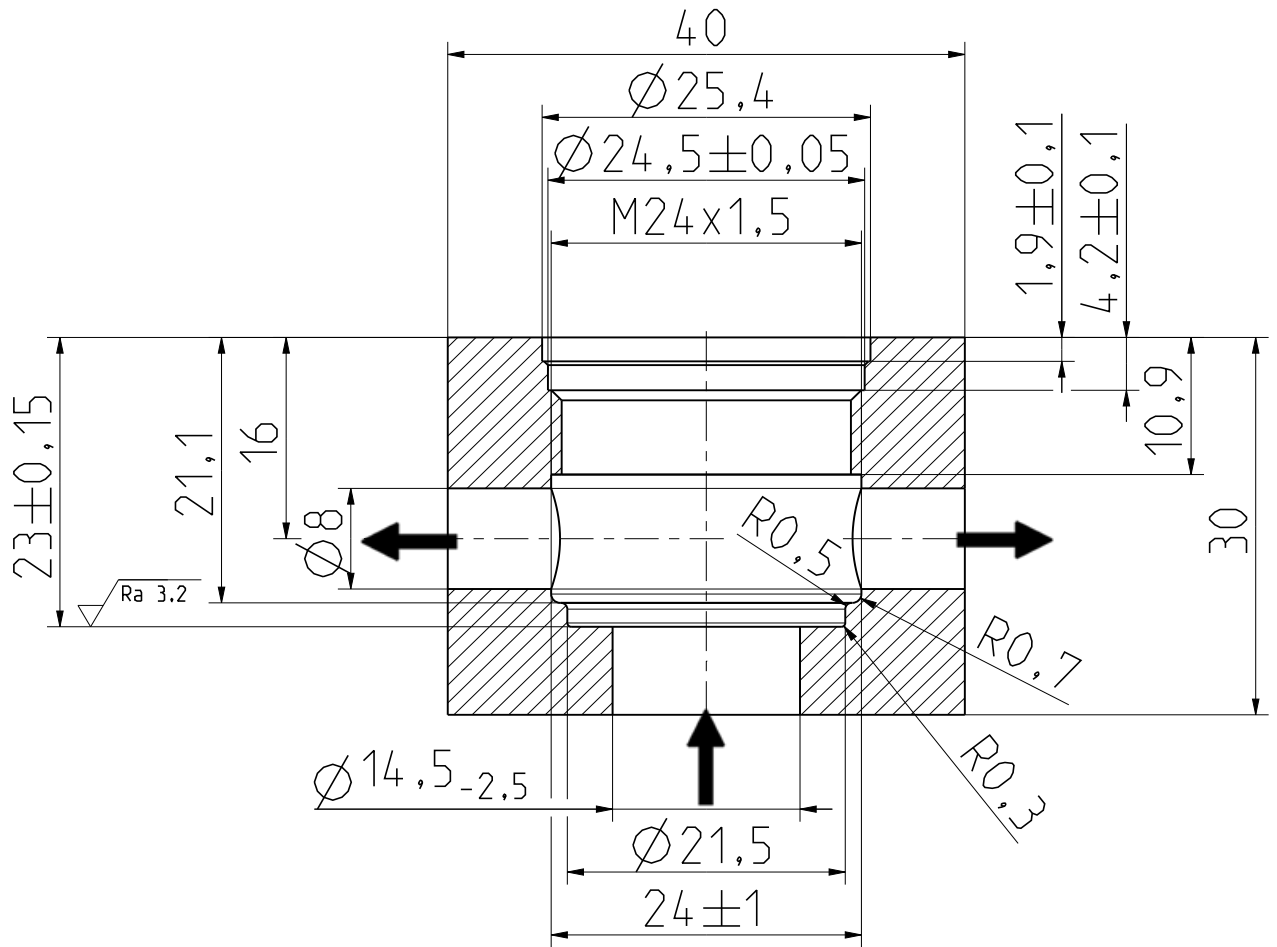
Hygiene advantage by air testing prior to delivery.

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



Series 50.005.140 bi

Screw-in Contour





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