

Product Information

Bi stable servo-controlled 2/2-way valve, DN 7



A. u. K. Müller

Solenoid valves
Control valves
Special valves and systems

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Series 50.007.806



Characteristics

- Servo controlled
- Double filtering of the pilot water
- Pre-tested functional unit
- Long term performance capability
- Internal pollution protection
- Optional: Pressure relief on the outlet side
- Compact design
- Optimized water hammer characteristic by low noise emission according to EN 60730
- Easy to assemble and service
- Low power consumption
- Any fitting position
- High operating safety by the use of high quality materials and 100% final testing of the products

Description

2/2 way solenoid bistable valve DN 7, operated by pilot valve to control potable water and is especially suitable for the application in battery operated electronically controlled faucets. A monostable version that is suitable for mains operation is also available.

The power consumption is minimised by the use of impulse control (pwm), to achieve with primary cells a high capability with assured valve function.

The construction is in the external contour decreased to allow a smooth integration of the component into a small space. The waterway is specially designed for fittings as a straight valve. The user does not need to design a valve seat.

Applications

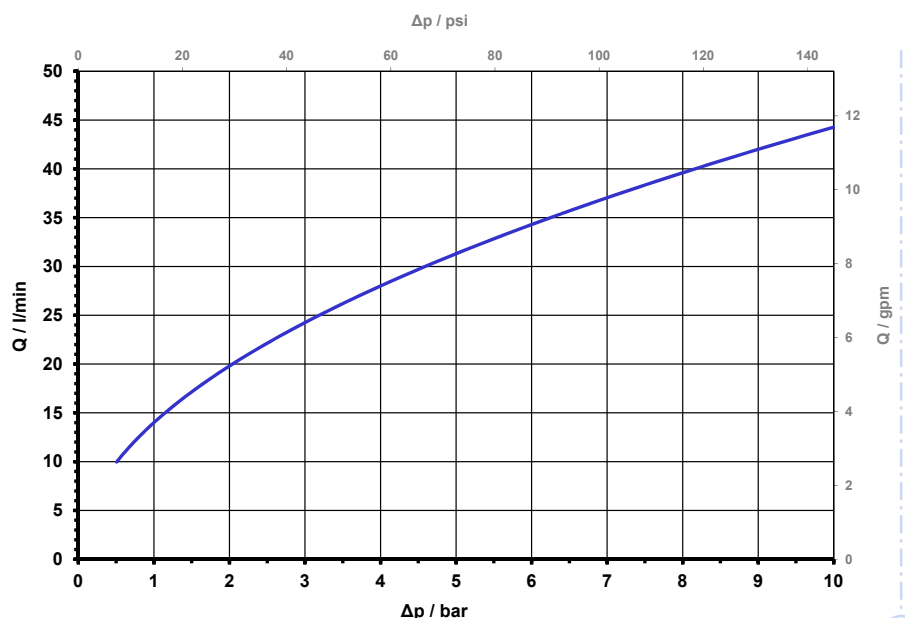
- Sanitary faucets

Approvals



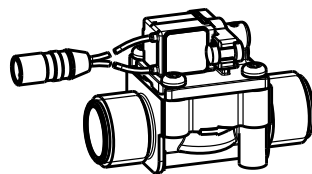
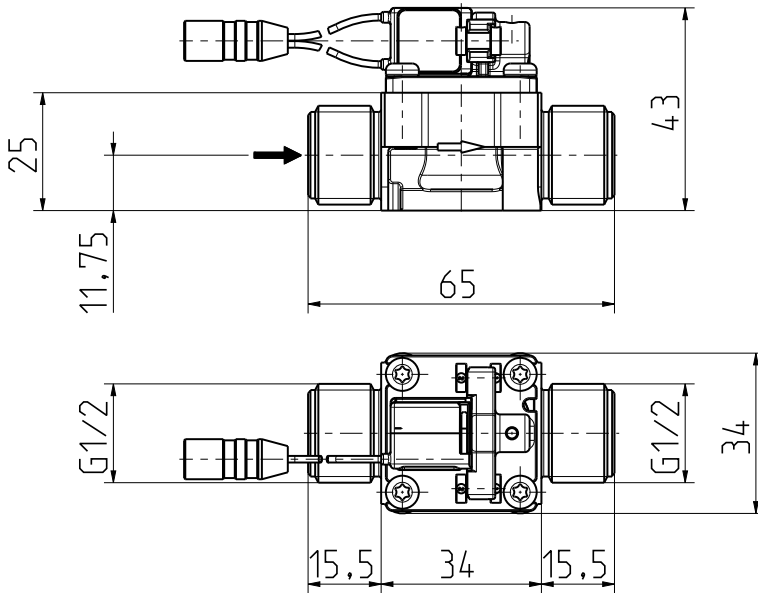
- DVGW hot water
- KTW-BWGL System 1+
- ACS
- WRAS
- NSF 61

Typical Performance Curve





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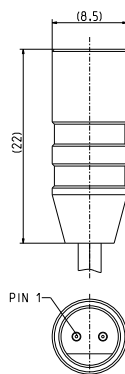


Materials

Valve body	PA 6/6
Plunger and spring	Stainless steel
Membrane and sealings	EPDM
Membrane insert	PSU
Pilot valve socket	PA 6/6
Coil coating	Hotmelt

Options

Connection type	K - standard cable length
with leads and connector	85 mm
with leads	120 mm
connector	on request



Male connector

Polarity of connector:

strand color **RED** Pin 1 PLUS(+) pulse to open
strand color **BLACK** MINUS(-)

Technical Data

Type	Horizontal valve	
Construction	2/2-way, servo-controlled	
Function	Bi stable, pulse controlled	
Fitting position	Any, preferably with coil horizontal	
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	7	mm
p-Operating	0,5 - 10,0 bar	
Flow factor Kv	14	l/min @ 1 bar
pressure surge	According to EN 60730	
Function bistable pulse controlled		
Nominal voltage	6	V DC
	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	at nominal voltage
Function monostable (NC)		
Nominal voltage	12 V DC	1,7 W
	24 V DC	1,8 W
	other voltages on request	
Voltage tolerance	-15 % / +10 %	
Optional voltage reduction		
t_{start}	100 ms	dutycycle \geq 33% [$>$ 100Hz] PWM
t_{start}	100 ms	dutycycle \geq 25% [$>$ 1kHz] PWM
Nominal power	12 V DC	1,7 W
	24 V DC	1,8 W
Protection Type	IP 65	according to EN 60529
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.



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Optional pressure relief function

If a significant overpressure builds up on the inlet side, this can lead to malfunctions in the valve function. There is also a risk of damage to other system components, such as a backflow preventer. The overpressure is relieved on the outlet side in accordance with DIN 1717 and the drinking water network remains protected against recontamination.



The membrane with pressure relief function is fitted at the factory.

If the pressure on the inlet side exceeds 16 bar, an opening in the membrane is released and the excess pressure can escape on the outlet side.

Other relief pressures are also possible on customer request.



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