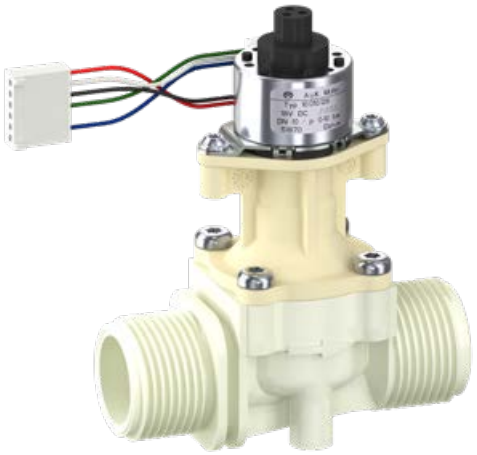
Product Information

Servo-direct Stepper Motor Controlled Valve, DN 10

Series 10.010.126 - sds



A.u.K. Müller

Solenoid valves
Control valves
Special valves and systems

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Characteristics

- Servo-direct controlled valve
- Stepper motor, medium separated by PTFE bellows
- Long term performance capability
- Medium temperature up to 80°C
- Continuous operation
- No water hammer
- High operating safety by usage of high quality material and 100% final testing

Description

This valve is a 2/2-way servo valve of nominal width DN 10 with continuously variable stroke, which acts like a directly controlled valve at low differential pressures and flow rates.

It is therefore suitable for setting up controlled systems, even for larger flow rates, without a complete shut-off function.

This valve has been specifically developed for applications that require continuous adjustment of the flow rate.
For example the flow through an instant flash heater can easily be regulated for maximum accuracy and efficiency.

Alternatively, by incorporating the motorized valve in thermostatically controlled heating systems, the flow rate into the system can be controlled according to ambient temperature in the room.

The stepper motor drive part of the valve is completely separated from the medium by means of special PTFE bellows.

Applications

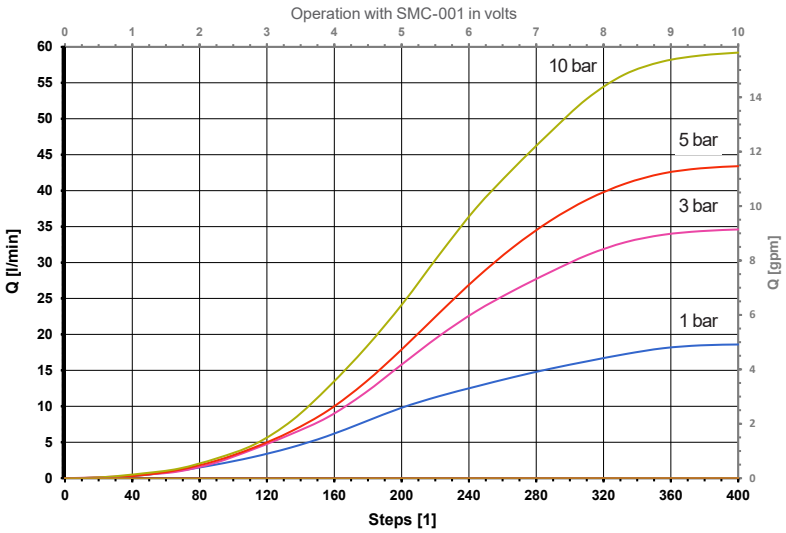
- Thermostatically controlled heating system
- Instant flash heater
- Hot and cold vending machines
- Industrial equipment
- Air conditioning
- Agriculture equipment
- Cleaning equipment
- Temperature equalizers
- Dishwashers
- Washing machines
- Water treatment equipment

Approvals

Approved versions available on request:

- KTW-BWGL
- Others on request

Typical Performance Curve tolerance ±5%

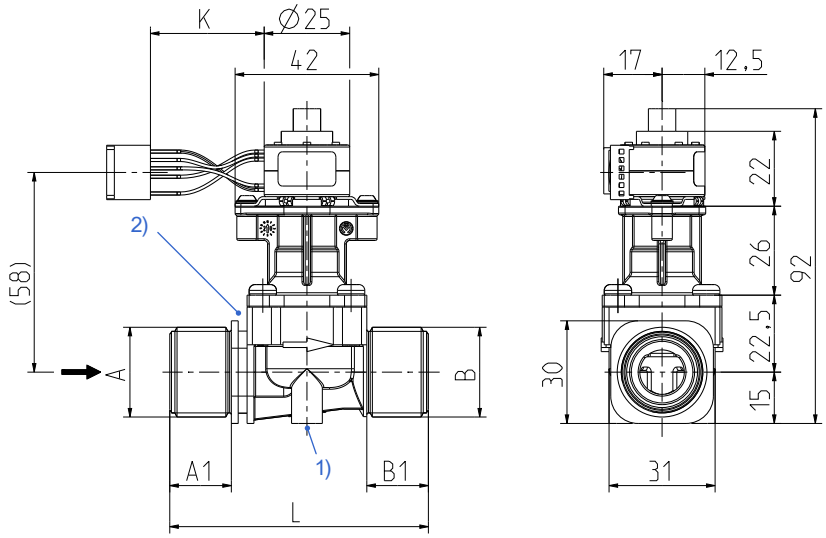


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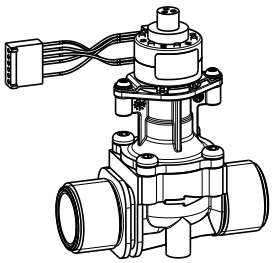
1) Fixing possibility for self tapping screw Ø 4,2
2) Fixing groove

Technical Data

type	stepper motorized valve	
construction	2/2-way single chamber straight valve, servo-, direct controlled	
function	continuously adjustable stroke	
fitting position	any, preferably actor upwards	
media	potable water and physically and chemically similar media	
T-Medium	5 - 80	°C
T-Ambient	5 - 60	°C
DN	10	mm
p-Operating	0 - 10	bar
Cv-value	18	l/min (completely open)
actuator type	stepper motor unipolar	
steps (open - closed)	400	max.
nominal voltage	12 V DC 18 V DC 24 V DC on request	
Voltage tolerance	± 1 V	
duty cycle	100 %	
Protection Type	IP 00	
Motor connection leads	5 x AWG26	
plug	Type: Molex Valve body: 2695(22-01-3067) Contact: 2759(08-50-0113)	
Insulation class	B	according to EN 60730

Materials

Valve body	PA 66 glass fibre reinforced PPE on request PEI on request (T-medium max. 30 °C)
Retention gland	PPE
Nozzle	PA6/6
Bellow and sealing cone	PTFE
Membrane	EPDM
Filter (inlet)	stainless steel POM on request



Options

Material	Inlet		Outlet		Length	Strand
	Ø A	A1	Ø B	B1	L	K
PA 66	G 3/8	13	G 3/8	13	66	440 other lengths on request
PA 66	G 3/8	13	G 1/2	15	68	
PA 66	G 3/8	13	G 3/4	18	71	
PA 66	G 1/2	15	G 3/8	13	68	
PA 66	G 1/2	15	G 1/2	15	70	
PA 66	G 1/2	15	G 3/4	18	73	
PA 66	G 3/4	18	G 3/8	13	71	
PA 66	G 3/4	18	G 1/2	15	73	
PA 66	G 3/4	18	G 3/4	18	76	

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Connections and lead colours of the stepper motor

PIN	Colour	Motor
1	red	A1
2	white	A2, B2
3	black	A3
4	green	B1
5	-	-
6	blue	B3

Pulse Scheme

		Red	Black	Green	Blue	White	
close	1	-			-	+	open
	2	-		-		+	
	3		-	-		+	
	4		-		-	+	

Step frequency≤ 50 Hz

Optional: Stepper motor control SMC-001

A. u. K. Müller will be happy to provide you with the EMC-tested SMC-001 stepper motor controller for initial initialisation or for test purposes.

Short description

The SMC (**S**tepper **M**otor **C**ontrol) is an electronics for the control of the stepper motor controlled valve series.

To bring the unit into operation the stepper motor has to be connected to the control electronic unit as well as the supply voltage (12 - 24 VDC) and the control voltage (0 - 10 VDC). The supply voltage must be applied according to the required motor voltage as the input voltage corresponds to the output voltage.



Technical Data

T-ambient Operation **Storing**	-5 - +60 (23 - 140) -5 - +80 (23 - 176)	°C (°F) °C (°F)
Stepper motor	bi-, unipolar	
Nominal voltage	12 - 24	V DC
Voltage tolerance	+10% -15%	
Duty cycle	100%	
Protection type	IP 00	
Electrical conncections	Screw terminals for power supply and control voltage Plug contact for stepper motor of the valve	
Protection class	III	

For more information on stepper motor control, please refer to the product information sheet on our website.

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