Product Information

Servo-continuous Valve

Series 10.009.126 - ss



A. u. K. Müller

Solenoid valves
Control valves
Special valves and systems

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Characteristics

- Stepper motor controlled valve
- Drive: stepper motor; media-separated
- Wear-resistant due to magnetic coupling
- Suitable for continuous operation
- Medium temperature up to 90 °C
- No water hammer
- High operating safety by usage of high quality material
- Hygiene benefit by 100% final testing with air

Description

This valve is a servo-controlled 2/2-way valve of the nominal width DN 9 with continuously variable stroke.

It is suitable for setting up controlled systems, for low flow values including complete shut-off function.

The great advantage of this valve is the magnetic coupling of valve drive and actuating element.

The actuating element located on the pressure side of the valve is thus hermetically separated from the valve drive by a static seal.

A wear-prone dynamic seal is therefore no longer necessary and leakages are thus excluded at this point.

The valve is specially designed for applications where the flow must be controlled continuously. In this way, the flow rate can be easily regulated depending on the required withdrawal quantity.

It can also be used as a line regulating valve in heating systems, which automatically regulates the underfloor heating depending on the room air temperature, measured at any point in the room.

Applications

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

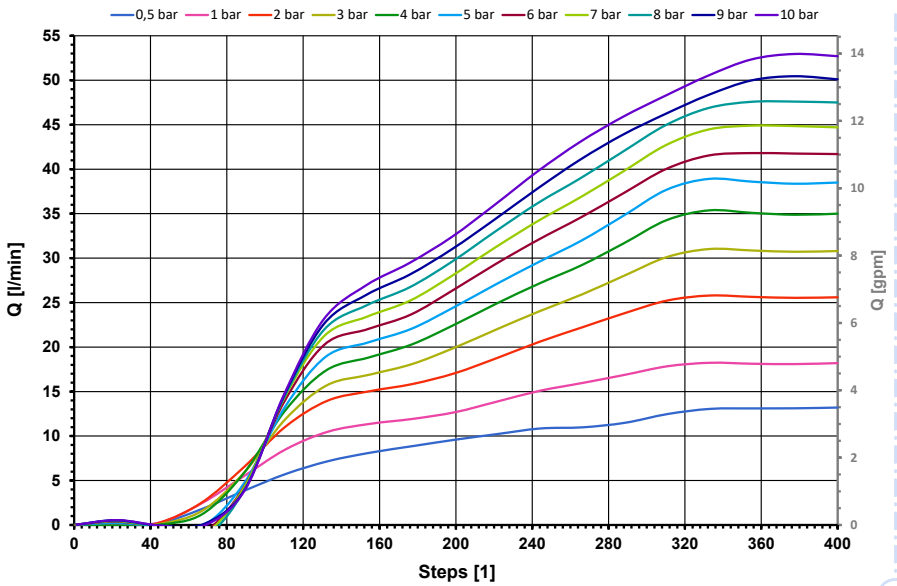
Approvals

Approved variants available on request:

KTW - BWGL NSF ACS

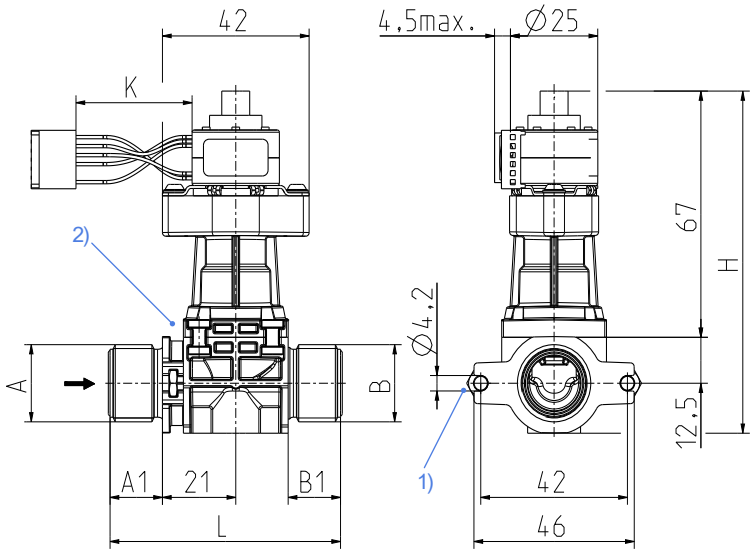
- KTW-BWGL
- NSF 61
- NSF 169
- ACS
- Other approvals on request

Typical Performance Curve (deviation ± 5 %)



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Series 10.00x.126 - ds



1) Wall mounting with M4 screw and M4 nut (screws not included)
2) Groove for flange mounting

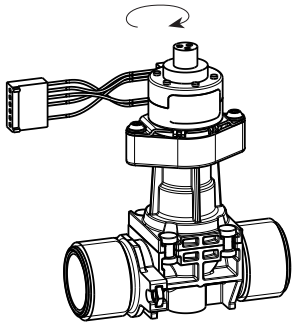
Technical Data

type	stepper motor controlled valve	
construction	2/2-way single chamber straight valve, direct controlled	
function	continuously adjustable stroke	
fitting position	any, preferably actor upwards	
media	potable water and physically and chemically similar media	
T-Medium	5 - 90	°C
T-Ambient	5 - 60	°C
DN	9	mm
p-Operating	0,5 - 10	bar
Flow factor Kv	18	l/min @ 1 bar (completely open)
actuator type	stepper motor unipolar	
steps (open - closed)	400	max.
nominal voltage	12 (18 - 24	V DC V DC on request)
Voltage tolerance	± 1 V	
duty cycle	100%	
Protection Type	IP 00	
Motor connection strands	5 x AWG26	
plug	Typ: Molex Housing: 2695(22-01-3067) Contact: 2759(08-50-0113)	
Insulation class except connection cable	B	according to EN 60730
Connection cable according to UL Style 1061 AWG 26		

Materials

Valve body	PA 66 glass fibre reinforced PPE on request
Retaining clamp	PA 66 glass fibre reinforced
Seal	EPDM
Filter (inlet)	stainless steel POM on request

rotation direction motor: open



Options

Material	Inlet		Outlet		Length	Height	Cable	ID
	Ø A	A1 [mm]	Ø B	B1 [mm]	L [mm]	H [mm]	K [mm]	
PA 66	G 1/2	15	G 1/2	15	66	93	440 other cable lengths on request	051871
PA 66	G 3/4	18	G 3/4	18	72	93		on request
PA 66	3/4-11,5NH	18	3/4-11,5NH	18	72	93		on request

Other connection variants on request

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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 evaluation electronics for the control of the stepper motor controlled valve series.

To bring the unit into operation the stepper motor has to be plugged to the control electronics 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	

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