

Continuously Modulating Valve

DM-8-MOD-24VDC Specifications

DM-8-MOD-24VDC is based on DM-8-MOD, we add a Bracket. So the actuator can be mounted on the ball valve in any of four 90° positions. It contains damper actuator and Valve body and so on.

Materials

Bracket Stainless steel 304
Valve Brass
Spindle Chromed Brass
Screws Stainless steel 304

Advantages

- Easy to install
- Low sound power level
- Leakage rate: tight sealing
- Long life cycles



1. Damper Actuator

Description

Continuously modulating type damper actuator is controlled by DC 0~10V or 4~20mA signal, and can provide 0~10VDC position feedback signal. It is specially designed for damper control in HVAC system. There are 4, 6, 8Nm models for optional.

Characteristics

• Various Signals Control

Standard type: 0~10Vdc control; the setting position of J3 is at point V, If you want 0~10Vdc or 4~20mA control type, please inform about it in your order. We will adjust the PCB in factory. You can use J3 setting to switch the control signals between 2~10VDC and 4~20mA: point "V" is for 2~10VDC control; point A is for 4~20mA control.

• Simple Installation

Fix with square damper shaft. Damper shaft dimensions see below Dimension Diagram. The rotating angle of the actuator can be set by internal potentiometer (PT1). The match between working range and feedback signal is automatically done by the actuator.

• Manual Operation

It can be operated manually if needed: push the manual button on the actuator, the gears inside the actuator will break away. The damper can be operated manually when keep pushing the manual button. PLEASE DO NOT OPERATE WHEN POWER ON!

• High Dependable Performance

Modulating type damper actuator uses bi-directional magnetic clutch synchronous motor. It has overload protection and overtime protection, and no need limitator needed, the actuator will stop automatically when it runs to the end. And the damper actuator has a precision of 15° adjustable mechanical limitator.



Specifications and Technical Data

Model	DM-8-MOD-24VDC
Torque	≥8Nm
Operation Time (50Hz/90°)	≈156s
Rated Voltage	24VDC/AC±10% (50/60Hz)
Cable	0.5~1.5mm ²
Power Consumption	4VA when operating
Control Signal	DC0~10V or 4~20mA
Factory Setting	Working condition: DA (J1) Axle rotates to 0°(J4) when signal is lost
Position Precision	±5%
Rotate Angel	90°<limitation≤ 95°
Noise Level	Maximum 45dB(A)
Position Indicator	Mechanical indication
Protection Class	IP 40
Ambient Temperature	-5 ° C~+50° C
Storage Temperature	-30° C~+70° C
Usage Life	>60000 times

* The accessories include 2 limitative baffles, 2 baffle setscrews (M3×6), 1 actuator body setscrews (ST4.8×12.5), and 1 aluminum gasket.

2. VALVE BODY

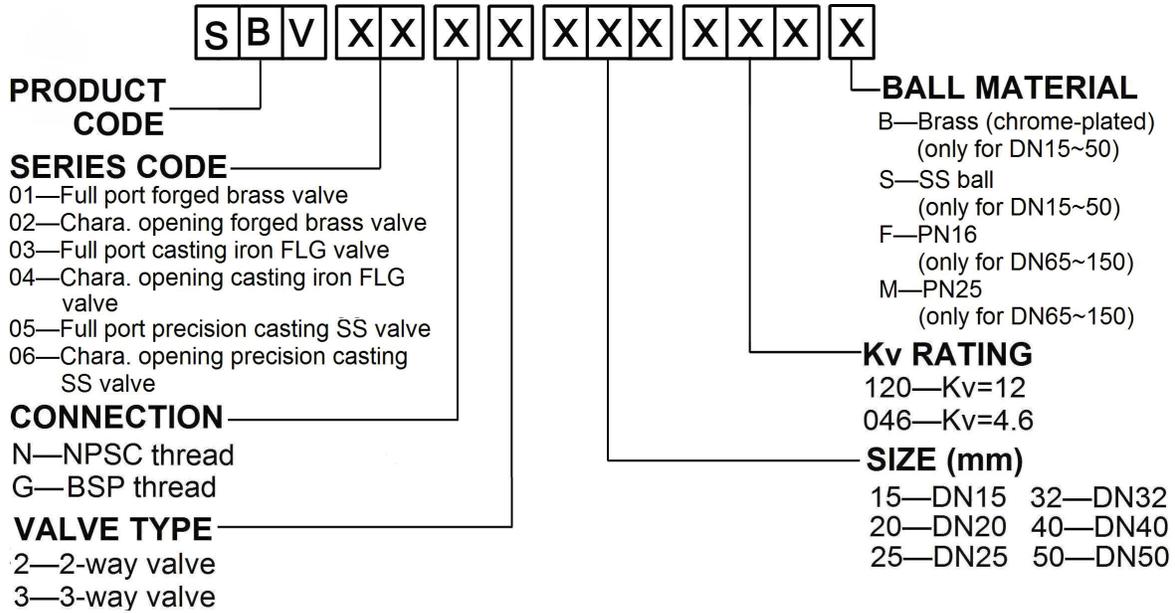
DESCRIPTION

SBV series ball valve bodies are widely used to control water flow in central air-conditioning, heating system. Controlled by standard floating signal or 3-point signal from angle rotation actuators, the valve ball can be rotated to different angle. There two flow control type: SBV01 full port ball valve body and SBV02 characterized ball valve body. The valves are 3-piece structure, and have six sizes: DN15, DN20, DN25, DN32, DN40 and DN50. The ball sealing inside the valve is made of PTFE material of high lubricating ability and wearability. It makes the valve has high closing-off pressure and great hermetization. The valves can be matched with SBA01, SBA03 and SBA04 series actuators.

ACTUATOR APPLICATION	VALVE SIZE	ACTUATOR CONNECTION
SBA01	DN15, DN 20, DN 25	Press button
SBA03	DN15, DN 20, DN 25	Bolt
SBA04	DN32, DN 40, DN 50	Bolt



MODEL SELECTION



TECHNICAL DATA

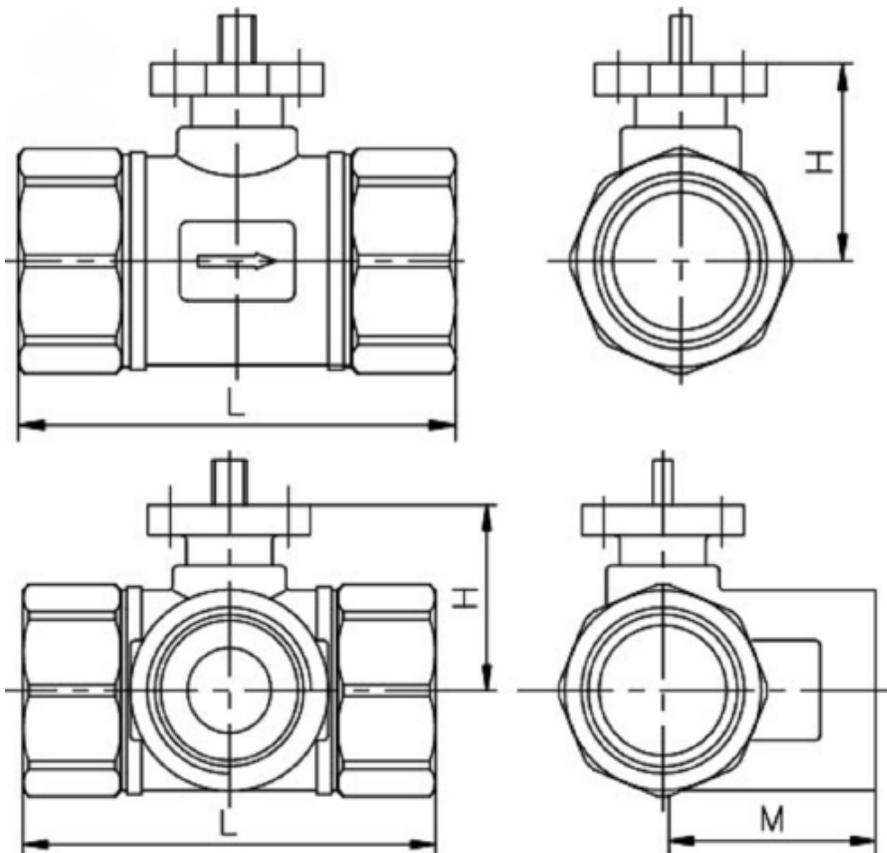
MODEL		TYPE	Kv	Cv	THREAD	CLOSE OFF PRES. (Mpa)	RATED BODY PRES. (MPa)
SBV01G215120	SBV05G215120	2-way	12	14	G1/2	0.6	2.5
SBV02G215040	SBV06G215040		4	4.7			
SBV01G220150	SBV05G220150		15	17.5	G3/4		
SBV02G220063	SBV06G220063		6.3	7.4	G1		
SBV01G225220	SBV05G225220		22	25			
SBV02G225100	SBV06G225100		10	11.7	G1 1/4		
SBV01G232310	SBV05G232310		31	36.3			
SBV02G232160	SBV06G232160		16	18.7	G1 1/2		
SBV01G240330	SBV05G240330		33	38.6			
SBV02G240250	SBV06G240250		25	29.3	G2		
SBV01G250500	SBV05G250500		50	58.5			
SBV02G250400	SBV06G250400		40	46.8			

MATERIAL

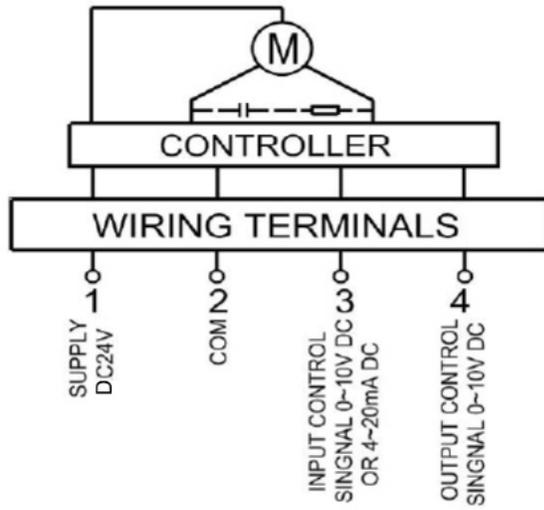
MATERIAL	BODY	Forged brass / Precision casting stainless steel
	BALL	Casting brass (chrome-plate) / stainless steel
	SEAT	PTFE (Poly tetrae fluoro ethylene)
	STEM	Stainless steel / brass
	O-RING	NBR
WORKING MEDIA		Chilled/hot water or 50% glycol
MEDIA TEMPERATURE		2 ° C~94 ° C

DIMENSIONS (MM)

SIZE (mm)	DIMENSION (mm)				THREAD (G)	MAX. PIPE THREAD SIZE (mm)
	L		H	M		
	2-way	3-way				
15	68	68	32	33	G1/2	13
20	68	68	32	35	G3/4	13
25	84	84	37	44	G1	17
32	98	98	48	50	G1 1/4	19
40	98	105	48	50	G1 1/2	19
50	122	123	52	62	G2	29

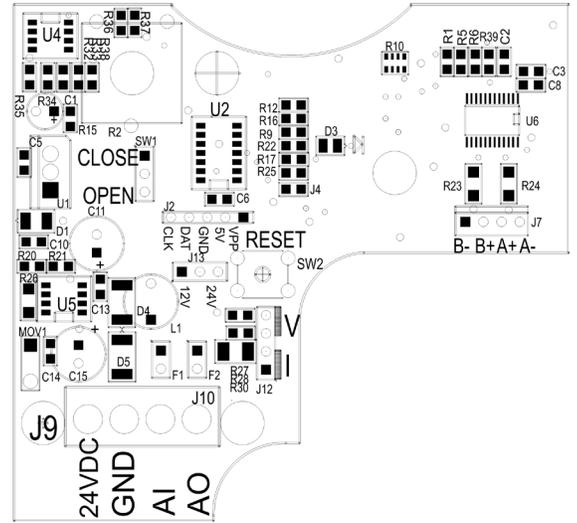


Wiring Diagram

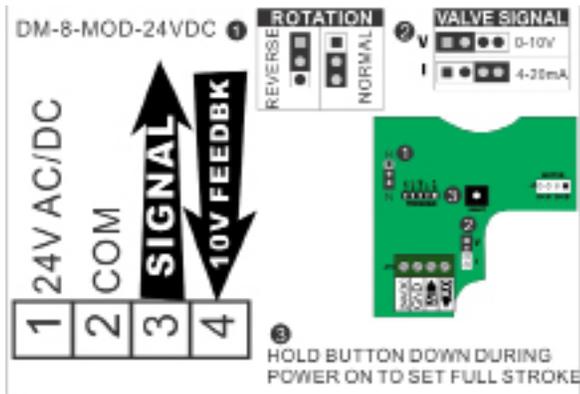


INPUT CONTROL SIGNAL		ROTATE DIRECTION
DA	RA	
INCREASING	DECREASING	↻
DECREASING	INCREASING	↻

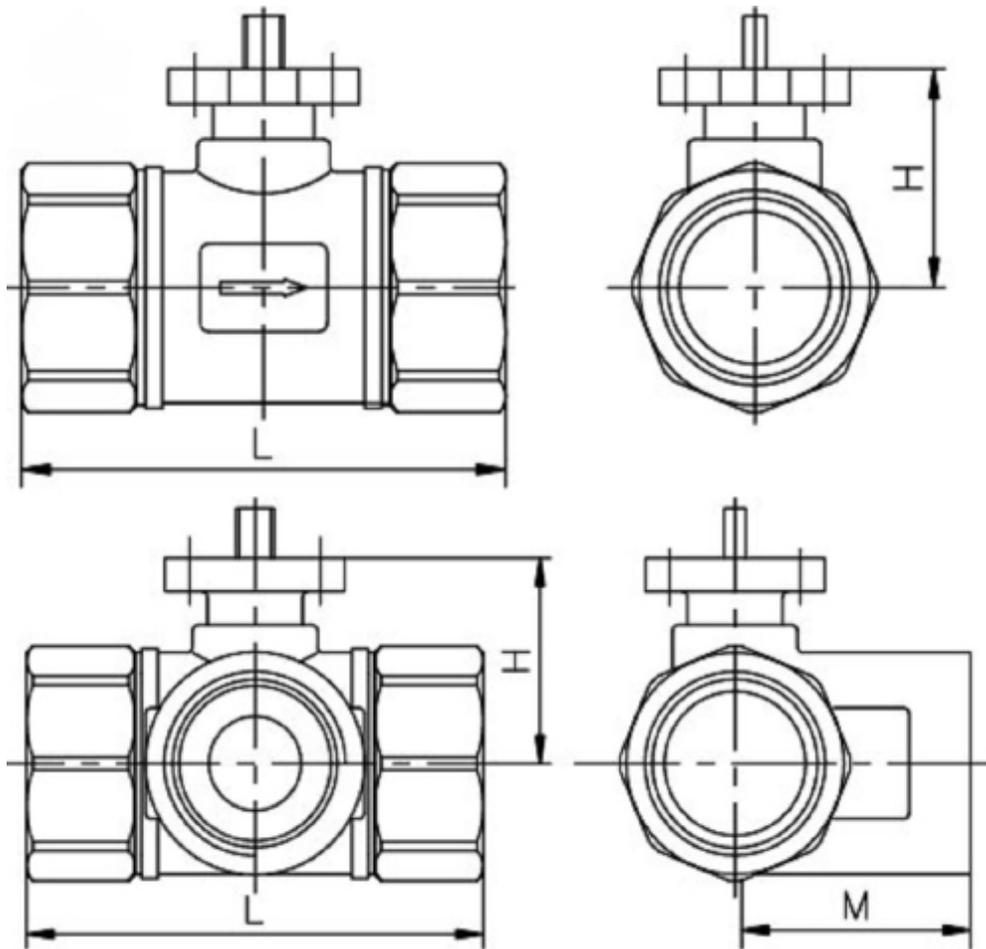
PCB Setting Diagram



Jumper for DM-8-MOD-24VDC



Dimensions (mm)



Note: Only suitable for 13×13mm or 10×10mm foursquare damper shaft. Other sizes of aluminum gaskets can be made when the Damper Shaft dimension “a” is smaller than 10mm.

Drawing

