

2-Way and 3-Yollu Ball Valve Actuator

- For opened and closed loop water circuits.
- Suitable for hot and cold water lines.
- Fully sealed.
- On/Off -Floating- Proportional operating modes.
- Equal percentage flow characteristic.



Ball Valves Technical Features

Nominal Diameter DN (mm) DN15-DN50	2 -Way Valve	3-Way Valve
Body Class	PN20 (2MPa)	PN20 (2MPa)
Rotation Angle	0~90°	0~90°
Flow Characteristics	Equal Percentage	Straight direction (A-C) equal percentage, Bypass direction (B-C) linear flow
Sealing Level	0-0.01%Kvs (ANSI Class IV)	Control (A-C): %0-0,01Kvs (ANSI Class IV) Bypass direction (B-C): approximately %1-2Kvs
Operating Temperature	5~100 °C	5~100 °C
Connection	BSPP internal screw (GB/T7307 - ISO228-1)	BSPP internal gear (GB/T7307 - ISO228-1)
Flow Direction	A → B	A → AB / B → AB
Water Quality Requirements	Hot/Cold water (50% glycol)	Hot/Cold water (50% glycol)
Material	Valve Body	Brass body
	Ball	Chrome covered brass
	Valve Seat	Graphite-reinforced PTFE + Stabilizing O-rings (EPDM)
	Shaft Seal	EPDM Double O-ring

Actuators Technical Features

Electrical Connection	On/Off – Floating Control	3 x 0.75 mm ²
	Proportional	4 x 0.75 mm ²
Manual Control	With the button (The position can be adjusted manually when the button is pressed)	
Rotation Angle	0~90° Max. 93°, possibility of adjustable mechanical restraint in both directions	
Working Life	>70000 return	
Working time (On/Off time)	30 ~ 40 s	
Noise Level	Max. 45 dB (A)	
Position Indicator	Mechanical, removable	
Protection Class	II Completely isolated	
Degree of Protection	IP44 ~ IP54, in any mounting position	
EMC Conformity	2014/30/EU Directive. EN 55022:2010, EN 55024:2010 Standards	
Conformity with the Low Voltage Directive	2014/35/EU Directive. EN 60730 -2-15:2010 Standard.	
Ambient temperature	-20 ... +50°C	
Storage Temperature	-40 ... +70°C	
Ambient Humidity	5-95% r.H	
Maintenance	Maintenance free	

2-Way Ball Valve Actuator

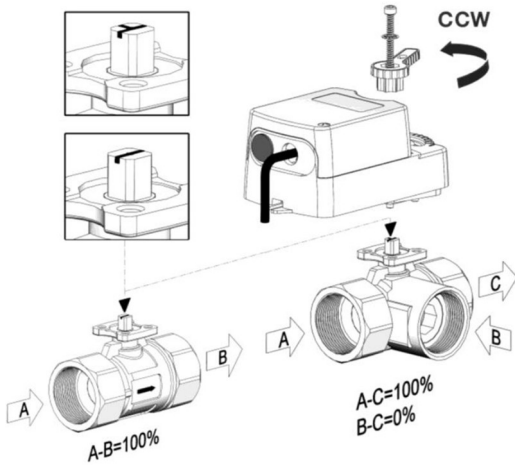
DN	KVS	Control	Ball Valve Actuator Product code	Supply voltage	Power Consumption		Torque
					In Motion	On stand-by	
15	4	On/Off- Floating Control	SM-200-024-04-F154K0B	24V AC/DC	4 W	3 W	4 Nm
		On/Off- Floating Control	SM-200-230-04-F154K0B	230 AC	4 W	3 W	4 Nm
		Proportional (0-10V) control	SM-200C-024-04-F154K0B	24V DC/DC	2,5 W	0,85 W	4 Nm
20	6,3	On/Off-Floating Control	SM-200-024-04-F206K3B	24V AC/DC	4 W	3 W	4 Nm
		On/Off-Floating Control	SM-200-230-04-F206K3B	230 AC	4 W	3 W	4 Nm
		Proportional (0-10V) control	SM-200C-024-04-F206K3B	24V AC/DC	2,5 W	0,85 W	4 Nm
25	10	On/Off-Floating Control	SM-200-024-04-F2510KB	24V AC/DC	4 W	3 W	4 Nm
		On/Off-Floating Control	SM-200-230-04-F2510KB	230 AC	4 W	3 W	4 Nm
		Proportional (0-10V) control	SM-200C-024-04-F2510KB	24V AC/DC	2,5 W	0,85 W	4 Nm
32	16	On/Off-Floating Control	SM-200-024-04-F3216KB	24V AC/DC	4 W	3 W	4 Nm
		On/Off-Floating Control	SM-200-230-04-F3216KB	230 AC	4 W	3 W	4 Nm
		Proportional (0-10V) control	SM-200C-024-04-F3216KB	24V AC/DC	2,5 W	0,85 W	4 Nm
40	25	On/Off-Floating Control	SM-200-024-08-F4025KB	24V AC/DC	3,9 W	0,4 W	8 Nm
		On/Off-Floating Control	SM-200-230-08-F4025KB	230 AC	4,8 W	1,2 W	8 Nm
		Proportional (0-10V) or 4-20mA control	SM-200C-024-08-F4025KB	24V AC/DC	4 W	0,7 W	8 Nm
50	40	On/Off-Floating Control	SM-200-024-08-F5040KB	24V AC/DC	3,9 W	0,4 W	8 Nm
		On/Off-Floating Control	SM-200-230-08-F5040KB	230 AC	4,8 W	1,2 W	8 Nm
		Proportional (0-10V) or 4-20mA control	SM-200C-024-08-F5040KB	24V AC/DC	4 W	0,7 W	8 Nm

3-Way Ball Valve Actuator

DN	KVS	Control	Ball Valve Actuator Product code	Supply voltage	Power Consumption		Torque
					In Motion	On Stand-by	
15	4	On/Off-Floating Control	SM-200-024-04-L154K0B	24V AC/DC	4 W	3 W	4 Nm
		On/Off-Floating Control	SM-200-230-04-L154K0B	230 AC	4 W	3 W	4 Nm
		Proportional (0-10V) control	SM-200C-024-04-L154K0B	24V DC/DC	2,5 W	0,85 W	4 Nm
20	6,3	On/Off-Floating Control	SM-200-024-04-L206K3B	24V AC/DC	4 W	3 W	4 Nm
		On/Off-Floating Control	SM-200-230-04-L206K3B	230 AC	4 W	3 W	4 Nm
		Proportional (0-10V) control	SM-200C-024-04-L206K3B	24V AC/DC	2,5 W	0,85 W	4 Nm
25	10	On/Off-Floating Control	SM-200-024-04-L2510KB	24V AC/DC	4 W	3 W	4 Nm
		On/Off-Floating Control	SM-200-230-04-L2510KB	230 AC	4 W	3 W	4 Nm
		Proportional (0-10V) control	SM-200C-024-04-L2510KB	24V AC/DC	2,5 W	0,85 W	4 Nm
32	16	On/Off-Floating Control	SM-200-024-04-L3216KB	24V AC/DC	4 W	3 W	4 Nm
		On/Off-Floating Control	SM-200-230-04-L3216KB	230 AC	4 W	3 W	4 Nm
		Proportional (0-10V) control	SM-200C-024-04-L3216KB	24V AC/DC	2,5 W	0,85 W	4 Nm
40	25	On/Off- Floating Control	SM-200-024-08-L4025KB	24V AC/DC	3,9 W	0,4 W	8 Nm
		On/Off-Floating Control	SM-200-230-08-L4025KB	230 AC	4,8 W	1,2 W	8 Nm
		Proportional (0-10V) or 4-20mA control	SM-200C-024-08-L4025KB	24V AC/DC	4 W	0,7 W	8 Nm
50	40	On/Off-Floating Control	SM-200-024-08-L5040KB	24V AC/DC	3,9 W	0,4 W	8 Nm
		On/Off-Floating Control	SM-200-230-08-L5040KB	230 AC	4,8 W	1,2 W	8 Nm
		Proportional (0-10V) or 4-20mA control	SM-200C-024-08-L5040KB	24V AC/DC	4 W	0,7 W	8 Nm

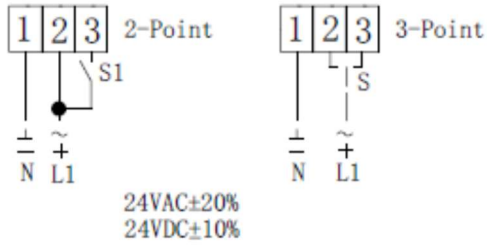
Flow Direction Adjustment

The flow direction indicated by the arrow on the housing must be observed; otherwise, the ball valve may be damaged. Please make sure the ball is in the correct position (mark on the shaft)

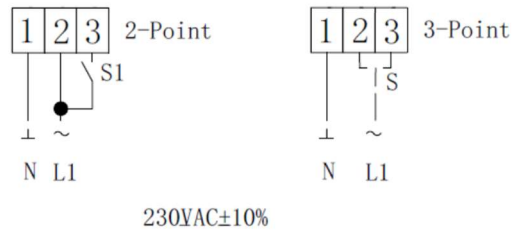


Actuator Electrical Connections

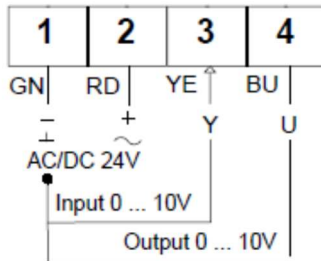
SM-200-024-04
SM-200-024-08



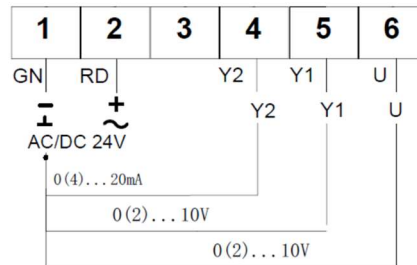
SM-200-230-04
SM-200-230-08



SM-200C-024-04

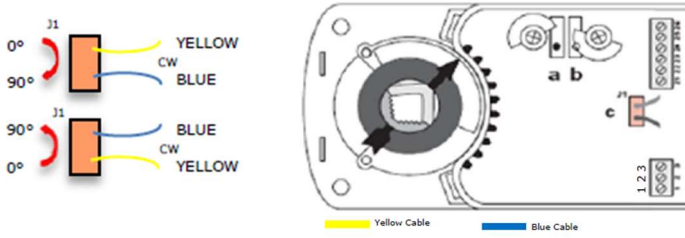


SM-200C-024-08



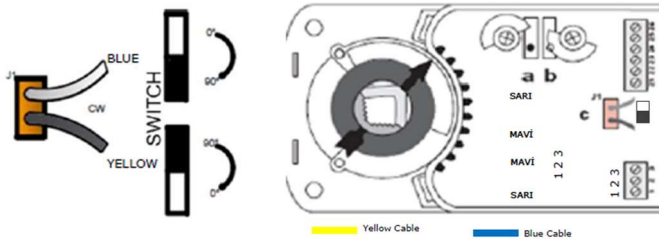
Actuator Control Signal and Rotation Direction

Direction of rotation for models SM-200-024-04, SM-200-230-04, SM-200C-024-04, SM-200-024-08, SM-200-230-08;

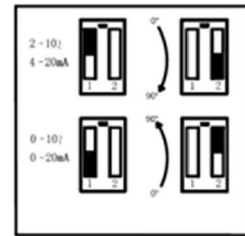


The direction of rotation can be changed by reversing the power cables.

Direction of rotation for model SM-200C-024-08;



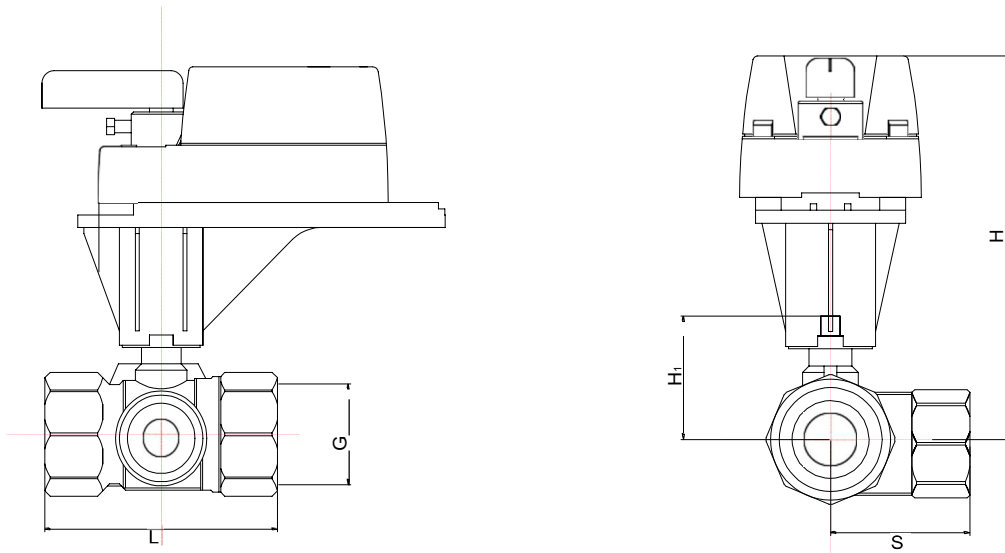
Control Signal Y1 DC 0-10V
Input Resistance Ri 100 kΩ
Control Signal Y2 0-20 mA
Input Resistance Ri 800 kΩ
Position Signal U DC 0-10 V
Load Resistance > 50 kΩ



The direction of rotation can be changed with the switch.

Shape and Installation Dimensions

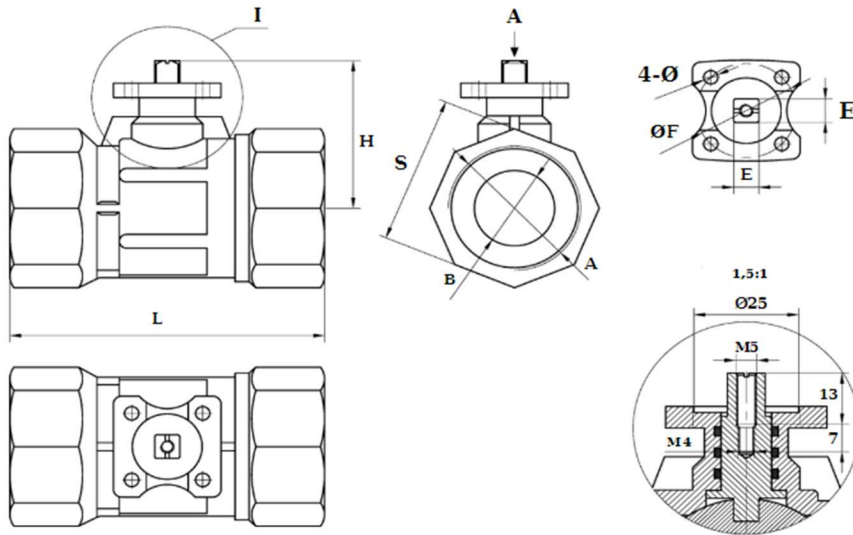
Ball Valve Actuator Dimensions



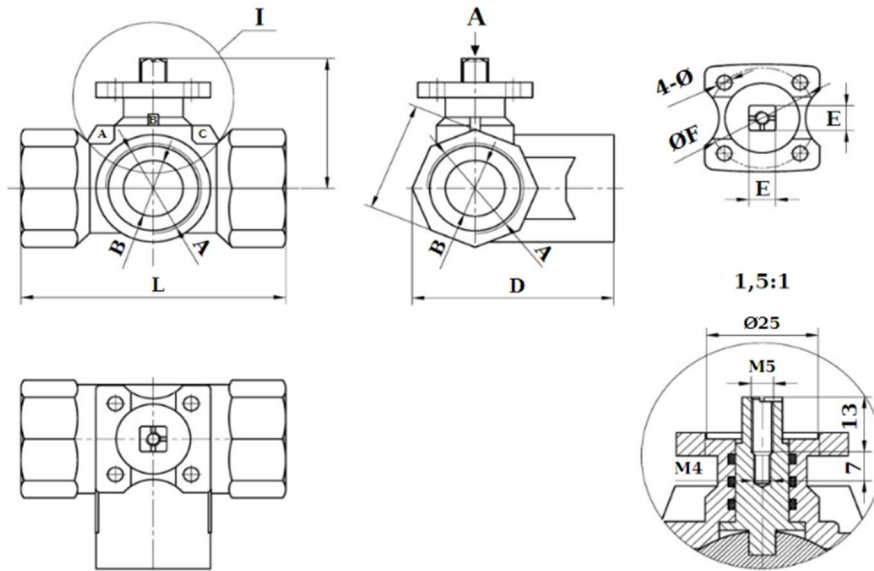
Ball Valve Actuator	DN	H(mm)	H1(mm)	L(mm)	S(mm)
2-Way Ball Valve Actuator	15	184	37.5	60	---
	20	184	44	73	---
	25	189	47	89	---
	40	208	57	113	---
	50	219	62	127.5	---
2-Way Ball Valve Actuator	15	184	39	60	30.5
	20	184	44	66	32
	25	189	47	89	46.5
	40	208	57	106	52
	50	219	62	123	69

Ball Valve Dimensions

2-Way Valve



3-Way Valve



DN	Way	Dimensions(mm)									Weight (kg)
		A	B	L	D	H	S	E	ØF	Ø	
DN15	2 way	G1/2		60	-	31	25	9	36	5,1	0,24
	3 way				30						
DN20	2 way	G3/4		68	-	35	32	9	36	5,1	0,32
	3 way				33						
DN25	2 way	G1		89	-	39	39	9	36	5,1	0,50
	3 way				48						
DN32	2 way	G1-1/4		103	-	45	48	9	36	5,1	0,77
	3 way			99	50						
DN40	2 way	G1-1/2		113	-	50	56	9	36	5,1	1,06
	3 ways			105	52						
DN50	2 way	G2		126	-	53	70	9	36	5,1	1,69
	3 way			123	70						