

Potable water valve, 2-way, Flange

- For potable water applications
- NSF/ANSI 372 - Lead Free
- NSF/ANSI 61 - CLD 23 - Water Quality
- CRN: OC/2102CL
- MSS SP67-2002a



2-year warranty



Technical data

Functional data	Valve size [mm]	10" [250]
	Fluid	Potable water
	Fluid Temp Range (water)	-30...120°C [-22...250°F]
	Body Pressure Rating	ANSI Class Consistent with 125, 200 psi CWP
	Close-off pressure Δps	150 psi
	Flow characteristic	modified equal percentage
	Leakage rate	0%
	Pipe connection	Flange for use with ASME/ANSI class 125/150
	Installation orientation	upright to horizontal (in relation to the stem)
	Servicing	maintenance-free
	Rangeability Sv	30:1 (for 30...70° range)
	Flow Pattern	2-way
	Controllable flow range	90° rotation
	Cv	5340
	Maximum Velocity	12 FPS
Lug threads	7/8-9 UNC	
Materials	Valve body	Ductile cast iron ASTM A536
	Body finish	Epoxy powder coating (black RAL 9005)
	Stem	416 stainless steel
	Stem seal	Buna-N
	Seat	EPDM
	Bearing	RPTFE
	Disc	Aluminum Bronze
Suitable actuators	Non Fail-Safe	SY4

Safety notes



- The valve has to be exercised at least once a week, so that the quality of potable water as well as the functionality are not affected.

Product features

Flow/Mounting details

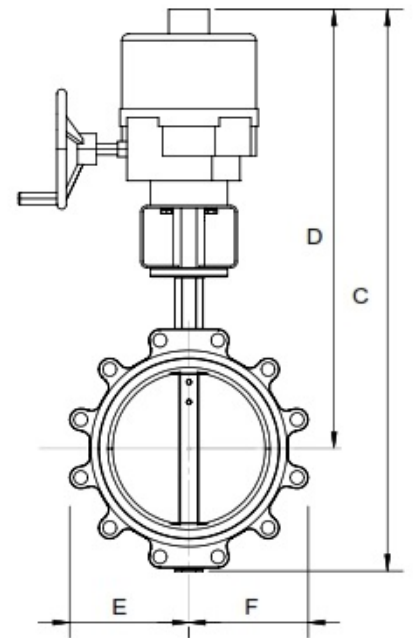
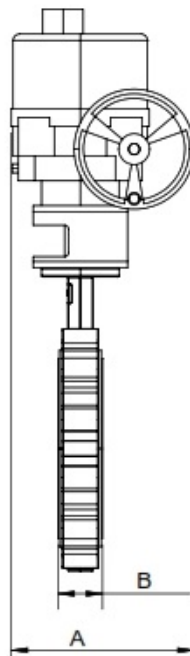


Operating mode The valve is adjusted by a rotary actuator. The rotary actuator is connected by an on/off signal. Open the ball valve counterclockwise and close it clockwise.

Dimensions

DN
250

Weight
□



A	B	C	D	E	F	Number of Bolt Holes
11.6" [294]	2.8" [70]	36.0" [914]	28.0" [712]	7.8" [199]	7.8" [199]	12

On/Off, Floating point, Non fail-safe, 24 V



2-year warranty

Technical data

Electrical data	Nominal voltage	AC/DC 24 V
	Nominal voltage frequency	50/60 Hz
	Nominal voltage range	AC 21.6...26.4 V / DC 21.6...26.4 V
	Transformer sizing	226 VA
	Current consumption	9.4 A
	Auxiliary switch	2x SPDT, 1 mA...5 A (3 A inductive), DC 5 V...AC 250 V, 1x 3° / 1x 87°
	Switching capacity auxiliary switch	1 mA...5 A (3 A inductive), DC 5 V...AC 250 V
	Electrical Connection	Terminal blocks
	Overload Protection	thermally protected 135°C cut-out
	Internal Humidity Control	resistive heating element
Functional data	Torque motor	400 Nm
	Direction of motion motor	selectable with switch 0/1
	Manual override	hand wheel
	Angle of rotation	90°
	Running Time (Motor)	20 s
	Duty cycle value	30%
	Noise level, motor	45 dB(A)
	Position indication	top mounted domed indicator
Safety data	Degree of protection IEC/EN	IP66/67
	Degree of protection NEMA/UL	NEMA 4X
	Enclosure	UL Enclosure Type 4X
	Agency Listing	ISO, CE, cCSAus
	Quality Standard	ISO 9001
	Ambient humidity	Max. 100% RH
	Ambient temperature	-22...149°F [-30...65°C]
	Storage temperature	-40...176°F [-40...80°C]
	Servicing	maintenance-free
Weight	Weight	46 lb [21 kg]
Materials	Housing material	die cast aluminium
	Gear train	high alloy steel gear sets, self locking

Product features

Application SY Series actuators are fractional horsepower devices, and utilize full-wave power supplies. Observe wire sizing and transformer sizing requirements. Proportional models CANNOT be connected to Belimo direct coupled (AF, AM, GM...etc) actuator power supplies or any type of half-wave device. You MUST use a separate, dedicated transformer or power supply to power the SY actuator. Please do not connect other automation equipment to the dedicated SY supply source. You MUST use four wires (plus a ground) to control a proportional control SY actuator (See SY Wiring Section).

Accessories

Electrical accessories	Description	Type
	Local electric disconnect for SY4...12 series actuator, AC 120 V, on/off	HOA-120V
	Battery backup system for SY4...6 series actuator, AC 120 V, on/off	EXT-NSV-B03-120
	Battery backup system for SY4...6 series actuator, AC 120 V, MFT	EXT-NSV-B04-120
	Battery backup system for SY4...5 series actuator, AC 24 V, on/off	EXT-NSV-B13-24
	Battery backup system for SY4...5 series actuator, AC 24 V, MFT	EXT-NSV-B14-24

Electrical installation

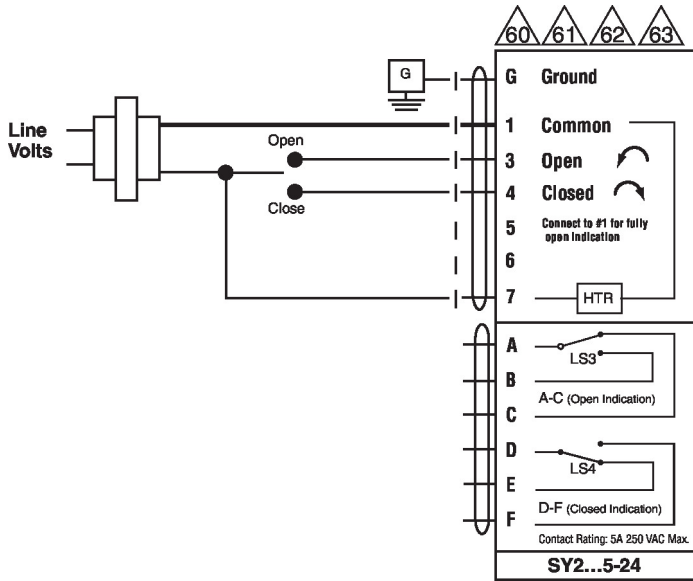
INSTALLATION NOTES

- Do not change sensitivity or dip switch setting with power applied.
- Power supply Common/Neutral and Control Signal "-" wiring to a common is prohibited. Terminals 4 and 6 need to be wired separately.
- Isolation relays must be used in parallel connection of multiple actuators using a common control signal inputs. The relays should be DPDT.
- Isolation relays are required in parallel applications. The reason parallel applications need isolation relays is that the motor uses two sets of windings, one for each direction. When one is energized to turn the actuator in a specific direction a voltage is generated in the other due to the magnetic field created from the first. It's called back EMF. This is not an issue with one actuator because the voltage generated in the second winding isn't connected to anything so there is no flow. On parallel applications without isolation, this EMF voltage energizes the winding it is connected to on the other actuators in the system, the actuators are trying to turn in both directions at once. The EMF voltage is always less than the supply voltage due to the resistance of the windings, so while the actuator still turns in the commanded direction, the drag from the other reduces the torque output and causes overheating.
- Warning! Live electrical components!**
During installation, testing, servicing and troubleshooting of this product, it may be necessary to work with live electrical components. Have a qualified licensed electrician or other individual who has been properly trained in handling live electrical components perform these tasks. Failure to follow all electrical safety precautions when exposed to live electrical components could result in death or serious injury.

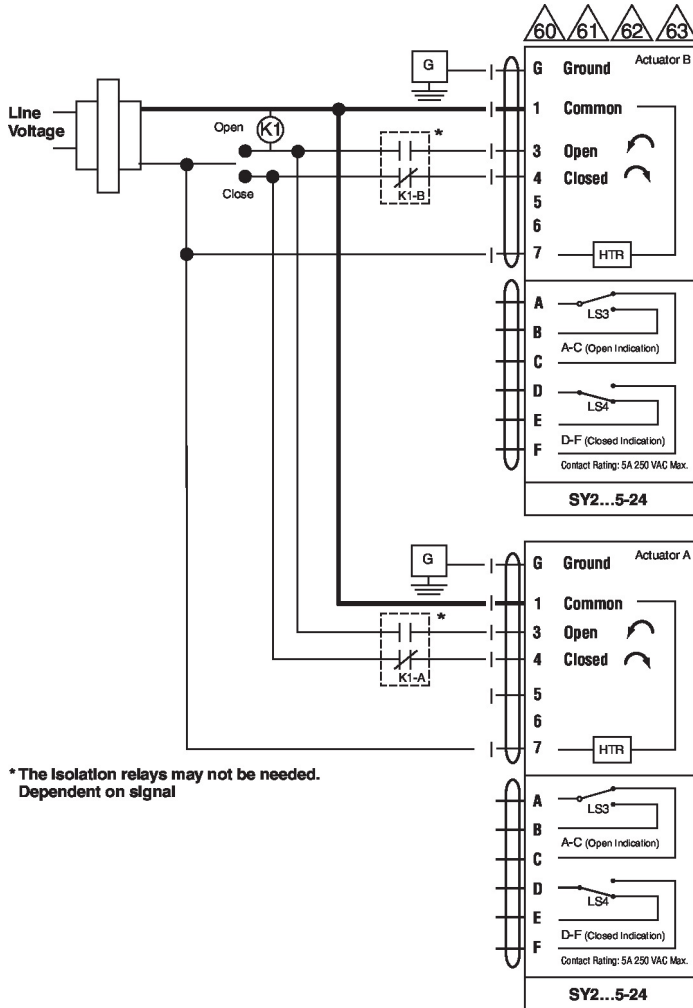
Electrical installation

Wiring diagrams

AC/DC 24 V Transformer



AC 24 V Transformer



* The isolation relays may not be needed.
Dependent on signal