Potable water valve, 2-way, Internal thread

- **For potable water applications**
- **NSF/ANSI 372 – Lead Free**
- **NSF/ANSI 61 – CLD 23 – Water Quality**

Picture may differ from product

5-year warranty

Technical data

Functional data	Valve size [mm]	0.75" [20]
	Drinking water certificate	NSF/ANSI 61 NSF/ANSI 372
	Fluid	Potable water
	Fluid temperature	-4...212°F [-20...100°C]
	Body Pressure Rating	600 psi CWP
	Close-off pressure Δps	200 psi
	Leakage rate	0%
	Angle of rotation	90°
	Pipe connection	Internal thread NPT (female)
	Installation orientation	upright to horizontal (in relation to the spindle)
	Servicing	maintenance-free
	Flow Pattern	2-way
	Cv	49
Materials	Valve body	Lead free brass
	Stem	Lead free brass
	Seat	PTFE
	O-ring	EPDM
	Ball	Chrome plated lead free brass
Suitable actuators	Non Fail-Safe	LRB(X)
	Spring	LF

Safety notes

- The ball 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.
- The valve has been designed for use in stationary potable water systems and must not be used outside the specified field of application, especially in aircraft or in any other airborne means of transport.
- The valve does not contain any parts that can be replaced or repaired by the user.

Product features

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

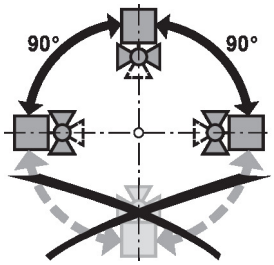
Installation notes

Notes

The ball valve is a regulating device. To fulfil this control task in the long term, the circuit must be kept free from particle debris (e.g. welding beads during installation work).

Permissible installation orientation

The ball valve can be installed upright to horizontal. The ball valve may not be installed in a hanging position, i.e. with the stem pointing downwards.



Servicing

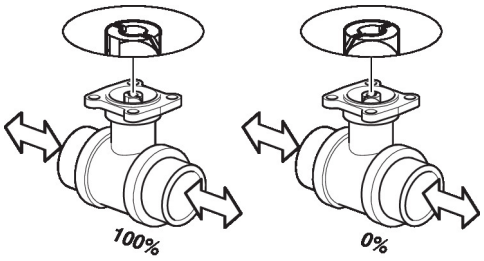
Ball valves and rotary actuators are maintenance-free.

Before any service work on the control element is carried out, it is essential to isolate the rotary actuator from the power supply (by unplugging the electrical cable if necessary). Any pumps in the part of the piping system concerned must also be switched off and the appropriate slide valves closed (allow all components to cool down first if necessary and always reduce the system pressure to ambient pressure level).

The system must not be returned to service until the ball valve and the rotary actuator have been correctly reassembled in accordance with the instructions and the pipeline has been refilled by professionally trained personnel.

Flow direction

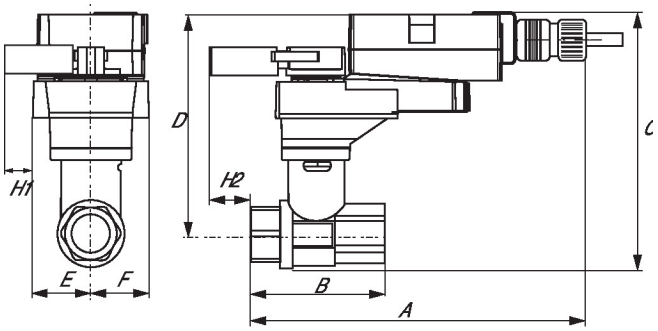
Please also ensure that the ball is in the correct position (marking on the shaft).



Dimensions

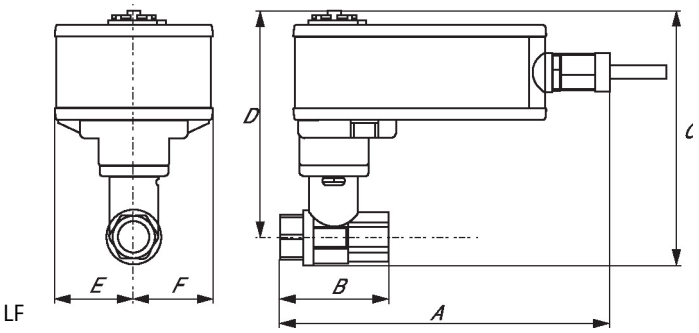
DN	Weight
20	0.79 lb [0.36 kg]

LRB, LRX



A	B	C	D	E	F	H1	H2
7.3" [185]	2.5" [63]	5.7" [146]	5.0" [127]	1.3" [33]	1.3" [33]	1.2" [30]	1" [25]

Dimensions



A	B	C	D	E	F
8.6" [218]	2.5" [63]	5.8" [147]	5.1" [129]	1.9" [48]	1.9" [48]

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

5-year warranty

Technical data

Electrical data	Nominal voltage	AC/DC 24 V
	Nominal voltage frequency	50/60 Hz
	Nominal voltage range	AC 19.2...28.8 V / DC 21.6...28.8 V
	Power consumption in operation	1.5 W
	Power consumption in rest position	0.2 W
	Transformer sizing	2.5 VA
	Auxiliary switch	1x SPDT, 3 A resistive (0.5 A inductive) @ AC 250 V, adjustable 0...100%
	Switching capacity auxiliary switch	3 A resistive (0.5 A inductive) @ AC 250 V
	Electrical Connection	18 GA plenum cable, 1 m, 3 m, or 5 m with 1/2" NPT conduit connector, degree of protection NEMA 2 / IP54
	Overload Protection	electronic thoughout 0...90° rotation
	Electrical Protection	actuators are double insulated
Functional data	Direction of motion motor	selectable with switch 0/1
	Manual override	external push button
	Angle of rotation	90°
	Angle of rotation note	adjustable with mechanical stop
	Running Time (Motor)	90 s / 90°
	Running time motor variable	150, 90, 45, 35 s
	Noise level, motor	35 dB(A)
	Position indication	Mechanical, pluggable
Safety data	Power source UL	Class 2 Supply
	Degree of protection IEC/EN	IP54
	Degree of protection NEMA/UL	NEMA 2
	Enclosure	UL Enclosure Type 2
	Agency Listing	cULus acc. to UL60730-1A/-2-14, CAN/CSA E60730-1:02 CE acc. to 2014/30/EU and 2014/35/EU
	Quality Standard	ISO 9001
	UL 2043 Compliant	Suitable for use in air plenums per Section 300.22(C) of the NEC and Section 602 of the IMC
	Ambient humidity	Max. 95% RH, non-condensing
	Ambient temperature	-22...122°F [-30...50°C]
	Storage temperature	-40...176°F [-40...80°C]

Technical data

Safety data	Servicing	maintenance-free
Weight	Weight	1.2 lb [0.56 kg]
Materials	Housing material	Galvanized steel and plastic housing

Footnotes †Rated Impulse Voltage 800V, Type action 1, Control Pollution Degree 3.

Accessories

Electrical accessories

Description	Type
Battery backup system, for non-spring return models	NSV24 US
Battery, 12 V, 1.2 Ah (two required)	NSV-BAT
Auxiliary switch 1x SPDT add-on	S1A
Auxiliary switch 2x SPDT add-on	S2A
Feedback potentiometer 140 Ω add-on, grey	P140A GR
Feedback potentiometer 1 kΩ add-on, grey	P1000A GR
Feedback potentiometer 10 kΩ add-on, grey	P10000A GR
Feedback potentiometer 2.8 kΩ add-on, grey	P2800A GR
Feedback potentiometer 500 Ω add-on, grey	P500A GR
Feedback potentiometer 5 kΩ add-on, grey	P5000A GR

Electrical installation

INSTALLATION NOTES

1 Provide overload protection and disconnect as required.

2 Actuators may be connected in parallel. Power consumption and input impedance must be observed.

3 Actuators may also be powered by DC 24 V.

6 Actuators Hot wire must be connected to the control board common. Only connect common to neg. (-) leg of control circuits. Terminal models (-T) have no-feedback.

18 Actuators with plenum cable do not have numbers; use color codes instead.

44 One built-in auxiliary switch (1x SPDT), for end position indication, interlock control, fan startup, etc.

Apply only AC line voltage or only UL-Class 2 voltage to the terminals of auxiliary switches. Mixed or combined operation of line voltage/safety extra low voltage is not allowed.

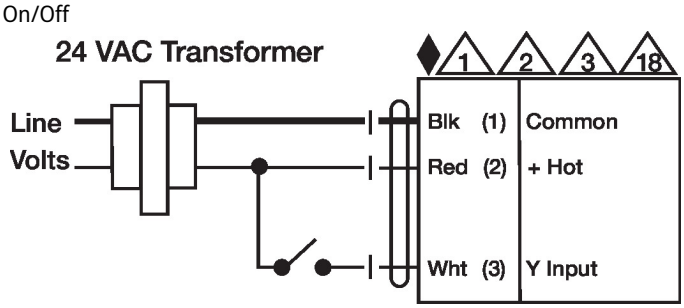
Meets cULus requirements without the need of an electrical ground connection.

Warning! Live electrical components!

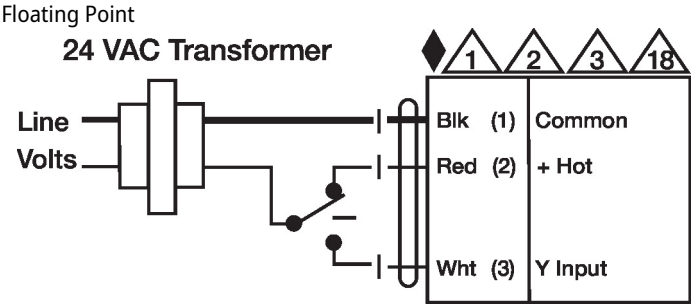
During installation, testing, servicing and troubleshooting of this product, it may be necessary to work with live electrical components. Have a qualified licensed electrician or other individual who has been properly trained in handling live electrical components perform these tasks. Failure to follow all electrical safety precautions when exposed to live electrical components could result in death or serious injury.

Wiring diagrams

On/Off



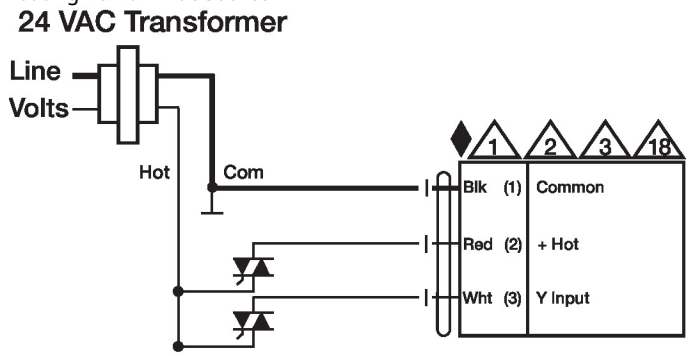
Floating Point



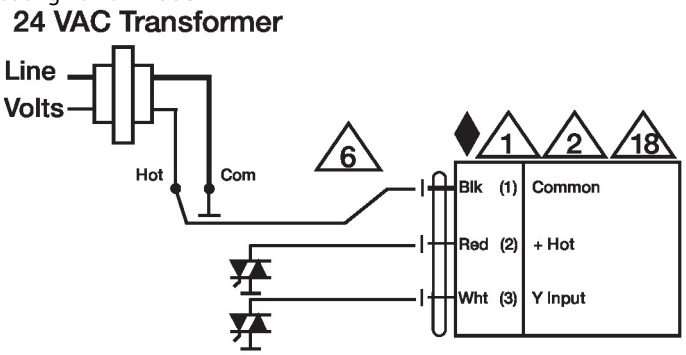
Electrical installation

Wiring diagrams

Floating Point - Triac Source



Floating Point - Triac Sink



Auxiliary Switches