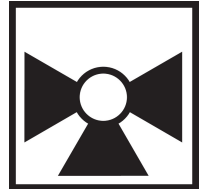


**Butterfly Valve with Grooved types**

- Disc electroless nickel coated ductile iron
- Bubble tight shut-off
- Resilient seat
- Valve face-to-face dimensions comply with AWWA (c606) & MSS-SP-67
- Completely assembled and tested, ready for installation
- VIC-300 Masterseal is manufactured by the Victaulic Company.



5-year warranty


**Type overview**

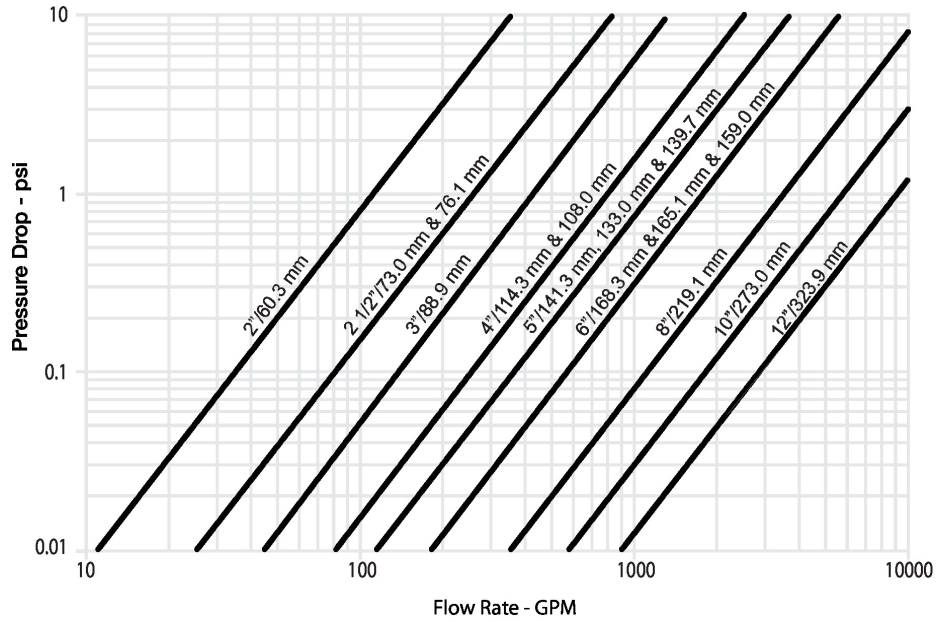
<b>Type</b>	<b>DN</b>
F7100VIC	100

**Technical data**

<b>Functional data</b>	Valve size [mm]	4" [100]
	Fluid	chilled or hot water, up to 60% glycol
	Fluid Temp Range (water)	-30...120°C [-22...250°F]
	Body Pressure Rating	ANSI Class Grooved AWWA, 300 psi
	Close-off pressure Δps	200 psi
	Flow characteristic	modified linear
	Leakage rate	0%
	Pipe connection	Grooved ANSI/AWWA (c606)
	Servicing	maintenance-free
	Flow Pattern	3-way Mixing/Diverting
	Controllable flow range	90° rotation
	Cv	820
	Maximum Velocity	20 FPS
<b>Materials</b>	Valve body	Ductile cast iron ASTM A536
	Body finish	black alkyd enamel
	Stem	416 stainless steel
	Stem seal	fiberglass with TFE lining
	Seat	EPDM
	Disc	electroless nickel coated ductile iron
<b>Suitable actuators</b>	Non Fail-Safe	PRB(X)
	Electrical fail-safe	PKRB(X)

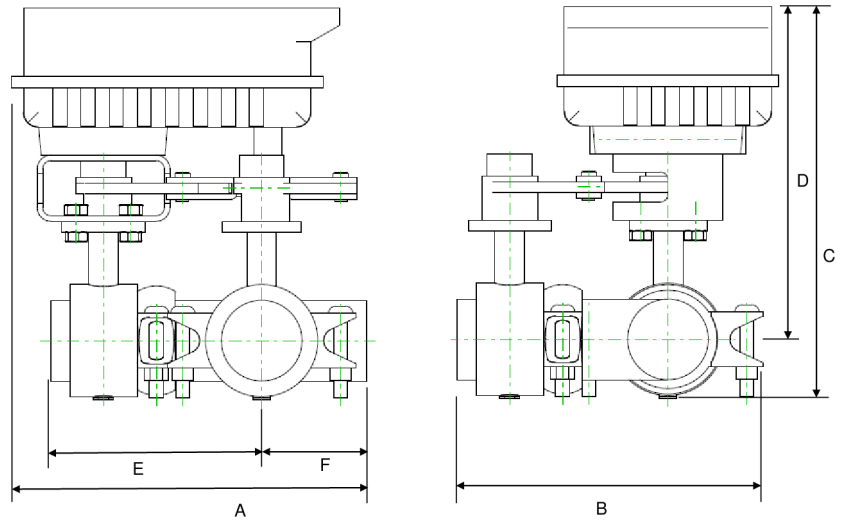
Product features

Flow/Mounting details



Dimensions

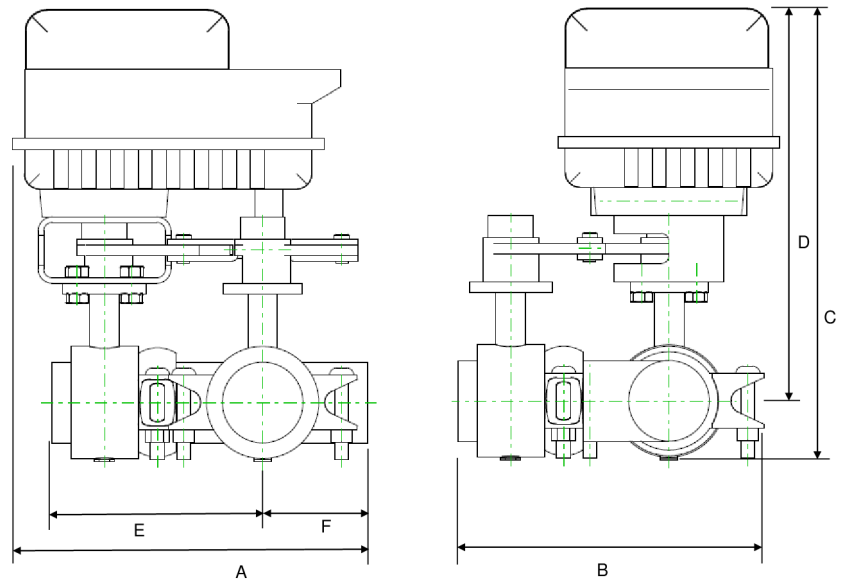
Type	DN	Weight
F7100VIC	100	86 lb [39 kg]



PRB(X)

A	B	C	D	E	F
18.1" [460]	14.0" [356]	18.3" [464]	12.9" [328]	11.8" [300]	5.0" [127]

Dimensions



PK

A	B	C	D	E	F
18.1" [460]	14.0" [356]	18.3" [464]	15.4" [391]	11.7" [297]	5.0" [127]

MFT/programmable, Non fail-safe, 24...240 V



5-year warranty


**Technical data**

<b>Electrical data</b>	Nominal voltage	AC 24...240 V / DC 24...125 V
	Nominal voltage frequency	50/60 Hz
	Remark about nominal voltage range	AC 19.2...264 V / DC 19.2...137.5 V
	Power consumption in operation	20 W
	Power consumption in rest position	7 W
	Transformer sizing	with 24 V 20 VA / with 240 V 52 VA
	Auxiliary switch	2x SPDT, 1 mA...3 A (0.5 A inductive), DC 5 V...AC 250 V (II, reinforced insulation), 1x 10° / 1x 0...90° (default setting 85°)
	Switching capacity auxiliary switch	1 mA...3 A (0.5 A inductive), DC 5 V...AC 250 V (II, reinforced insulation)
	Electrical Connection	Terminal blocks, (PE) Ground-Screw
	Overload Protection	electronic throughout 0...90° rotation
<b>Data bus communication</b>	Communicative control	BACnet MS/TP Modbus RTU MP-Bus
<b>Functional data</b>	Torque motor	160 Nm
	Operating range Y	2...10 V
	Operating range Y note	4...20 mA
	Input impedance	100 kΩ for 2...10 V (0.1 mA), 500 Ω for 4...20 mA, 1500 Ω for On/Off
	Operating range Y variable	Start point 0.5...30 V End point 2.5...32 V
	Operating modes optional	variable (VDC, on/off, floating point)
	Position feedback U	2...10 V
	Position feedback U note	Max. 0.5 mA
	Position feedback U variable	VDC variable
	Direction of motion motor	reversible with app
	Manual override	7 mm hex crank, supplied
	Angle of rotation	90°
	Running Time (Motor)	35 s / 90°
	Running time motor variable	30...120 s
	Noise level, motor	68 dB(A)
Position indication	integral pointer	
<b>Safety data</b>	Power source UL	Class 2 Supply
	Degree of protection IEC/EN	IP66/67

**Technical data**

<b>Safety data</b>	Degree of protection NEMA/UL	NEMA 4X
	Enclosure	UL Enclosure Type 4X
	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
	Ambient humidity	Max. 100% RH
	Ambient temperature	-22...122°F [-30...50°C]
	Storage temperature	-40...176°F [-40...80°C]
	Servicing	maintenance-free
<b>Weight</b>	Weight	13 lb [6.1 kg]
<b>Materials</b>	Housing material	Die cast aluminium and plastic casing

**Product features**

**Application** PR Series valve actuators are designed with an integrated linkage and visual position indicators. For outdoor applications, the installed valve must be mounted with the actuator at or above horizontal. For indoor applications the actuator can be in any location including directly under the valve.

**Operation** The PR series actuator provides 90° of rotation and a visual indicator shows the position of the valve. The PR Series actuator uses a low power consumption brushless DC motor and is electronically protected against overload. A universal power supply is furnished to connect supply voltage in the range of AC 24...240 V and DC 24...125 V. Included is a smart heater with thermostat to eliminate condensation. Two auxiliary switches are provided; one set at 10° open and the other is field adjustable. Running time is field adjustable from 30...120 seconds by using the Near Field Communication (NFC) app and a smart phone.

†Use 60°C/75°C copper wire size range 12...28 AWG, stranded or solid. Use flexible metal conduit. Push the listed conduit fitting device over the actuator's cable to butt against the enclosure. Screw in conduit connector. Jacket the actuators input wiring with listed flexible conduit. Properly terminate the conduit in a suitable junction box. Rated impulse Voltage 4000 V. Type of action 1. Control pollution degree 3.

**Accessories**

<b>Gateways</b>	<b>Description</b>	<b>Type</b>
	Gateway MP to BACnet MS/TP	UK24BAC
	Gateway MP to Modbus RTU	UK24MOD
	Gateway MP to LonWorks	UK24LON
<b>Electrical accessories</b>	<b>Description</b>	<b>Type</b>
	Service tool, with ZIP-USB function, for programmable and communicative Belimo actuators, VAV controller and HVAC performance devices	ZTH US
<b>Mechanical accessories</b>	<b>Description</b>	<b>Type</b>
	Hand crank for PR, PKR, PM	ZG-HND PR
<b>Tools</b>	<b>Description</b>	<b>Type</b>
	Connecting cable 10 ft [3 m], A: RJ11 6/4 ZTH EU, B: 3-pin Weidmüller and supply connection	ZK4-GEN
	Service tool, with ZIP-USB function, for programmable and communicative Belimo actuators, VAV controller and HVAC performance devices	ZTH US

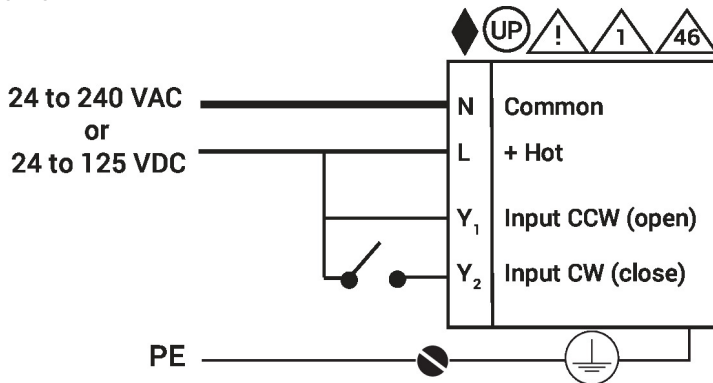
Accessories

Sensors	Description	Type
	Duct/Immersion sensor Temperature 6" [150 mm] x 0.24" [6 mm] Pt1000	01DT-5BN
	Duct/Immersion sensor Temperature 19.7" [500 mm] x 0.24" [6 mm] Pt1000	01DT-5BH
	Duct/Immersion sensor Temperature 4" [100 mm] x 0.24" [6 mm] Pt1000	01DT-5BL
	Duct/Immersion sensor Temperature 8" [200 mm] x 0.24" [6 mm] Pt1000	01DT-5BP
	Duct/Immersion sensor Temperature 18" [450 mm] x 0.24" [6 mm] Pt1000	01DT-5BT
	Duct/Immersion sensor Temperature 19.7" [500 mm] x 0.24" [6 mm] Ni1000 (JCI)	01DT-5EH
	Duct/Immersion sensor Temperature 4" [100 mm] x 0.24" [6 mm] Ni1000 (JCI)	01DT-5EL
	Duct/Immersion sensor Temperature 6" [150 mm] x 0.24" [6 mm] Ni1000 (JCI)	01DT-5EN
	Duct/Immersion sensor Temperature 8" [200 mm] x 0.24" [6 mm] Ni1000 (JCI)	01DT-5EP
	Duct/Immersion sensor Temperature 12" [300 mm] x 0.24" [6 mm] Pt1000	01DT-5BR
	Duct/Immersion sensor Temperature 12" [300 mm] x 0.24" [6 mm] Ni1000 (JCI)	01DT-5ER
	Duct/Immersion sensor Temperature 18" [450 mm] x 0.24" [6 mm] Ni1000 (JCI)	01DT-5ET

Electrical installation

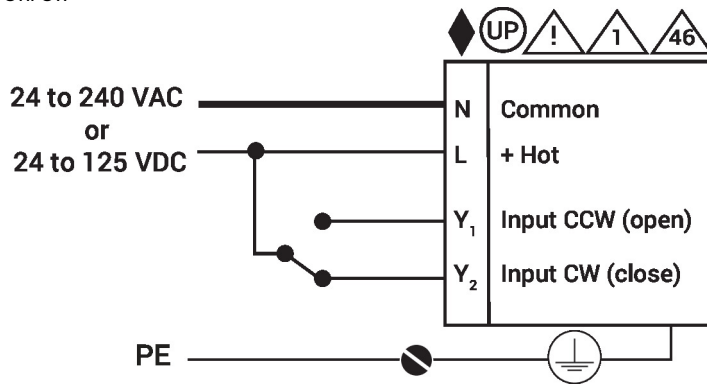
- ◆ Meets cULus requirements without the need of an electrical ground connection.
- Ⓢ Universal Power Supply (UP) models can be supplied with 24 V up to 240 V.
- ⚠ Disconnect power.
- 1 Provide overload protection and disconnect as required.
- 4 Two built-in auxiliary switches (2x SPDT), for end position indication, interlock control, fan startup, etc.
- 5 Only connect common to negative (-) leg of control circuits.
- 46 Actuators may be controlled in parallel. Current draw and input impedance must be observed.
- ⚠ **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

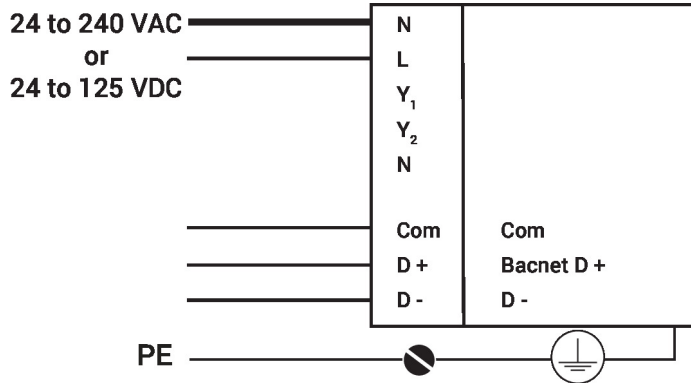


**Wiring diagrams**

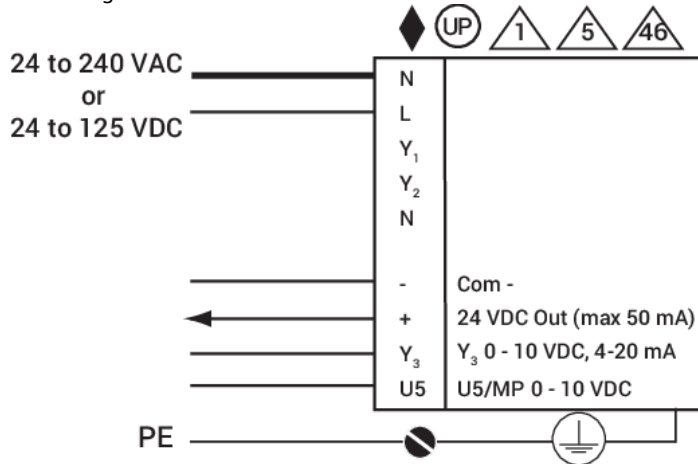
On/Off



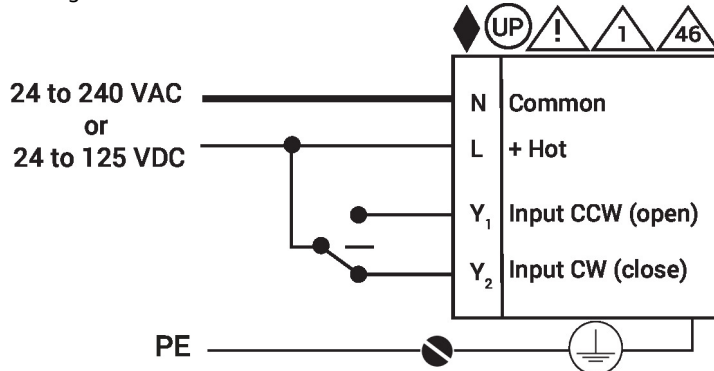
BACnet



Modulating



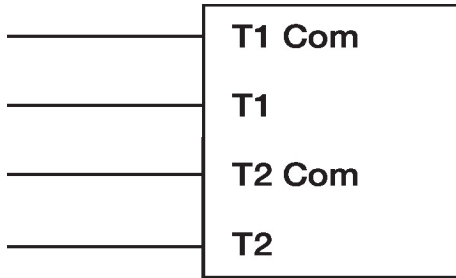
Floating Point



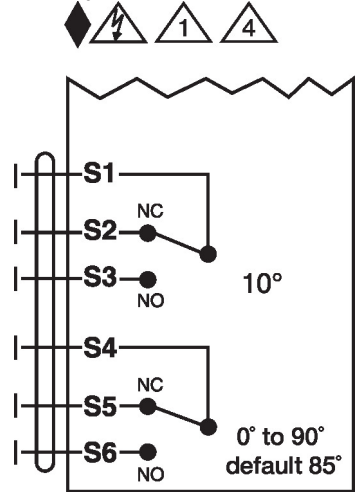
Electrical installation

Wiring diagrams

Temperature Sensors



Auxiliary Switches



Dimensions

