

## Butterfly Valve with Lug types

- Disc 304 stainless steel
- bubble tight shut-off
- Resilient seat
- Valve face-to-face dimensions comply with API 609 & MSS-SP-67
- Completely assembled and tested, ready for installation



5-year warranty

## Type overview

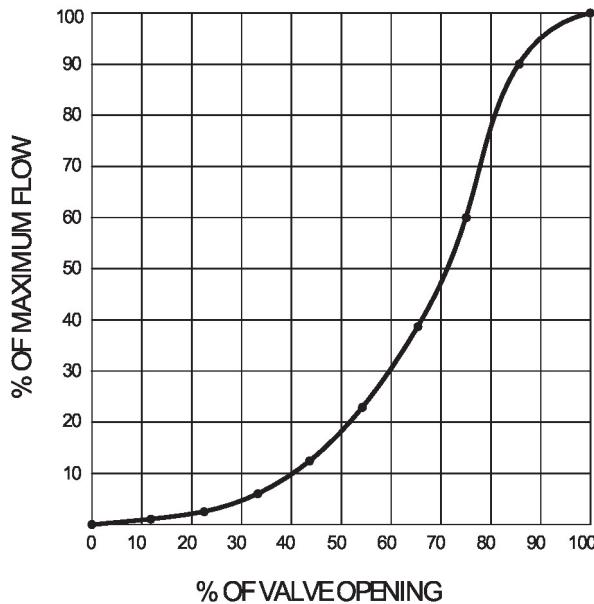
Type	DN
F6300L	300

## Technical data

Functional data	
Valve size [mm]	12" [300]
Fluid	chilled or hot water, up to 60% glycol
Fluid Temp Range (water)	-22...250°F [-30...120°C]
Body Pressure Rating	ANSI Class Consistent with 125, 232 psi CWP
Close-off pressure $\Delta$ ps	200 psi
Flow characteristic	modified equal percentage
Servicing	maintenance-free
Flow Pattern	2-way
Leakage rate	0%
Controllable flow range	90° rotation
Cv	8250
Maximum Velocity	12 FPS
Lug threads	7/8-9 UNC
Materials	
Valve body	Ductile cast iron ASTM A536
Body finish	polyester powder coated
Stem	420 stainless steel
Seat	EPDM
Pipe connection	for use with ANSI class 125/150 flanges
Bearing	Steel, PTFE, Bronze
Disc	304 stainless steel
Gear operator materials	Gears - hardened steel
Suitable actuators	
Non-Spring	PRB(X)
Electrical fail-safe	PKRB(X)

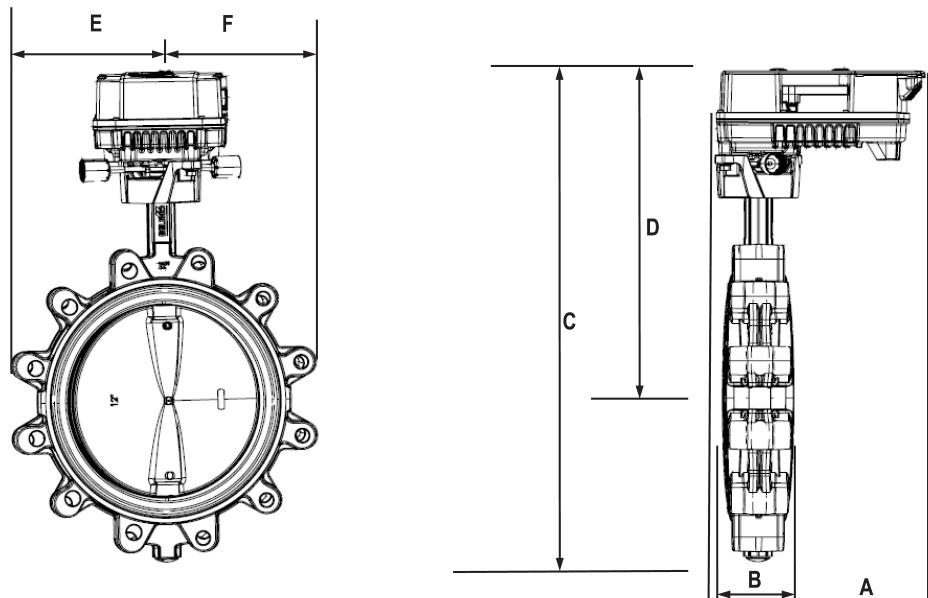
## Product features

## Flow/Mounting details



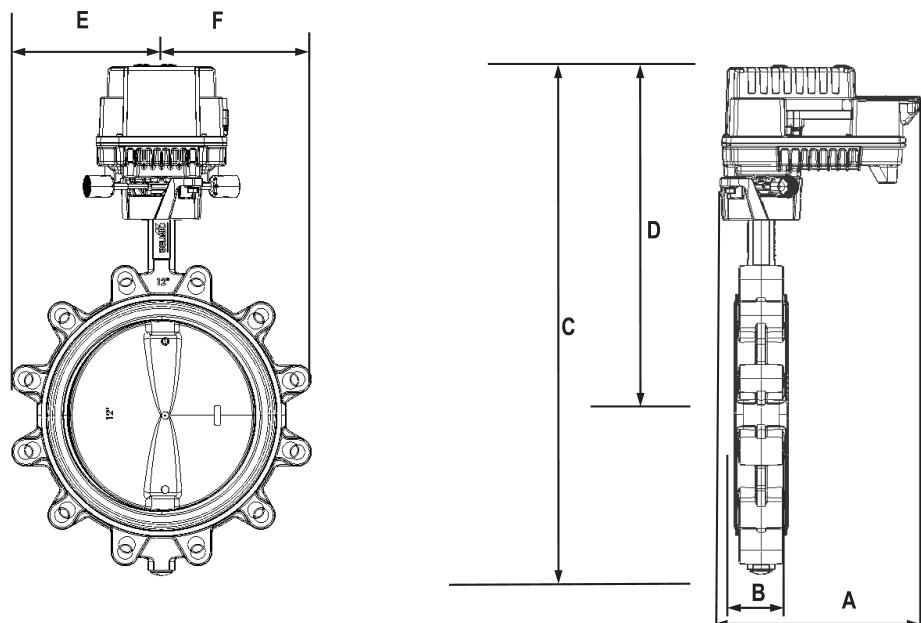
## Dimensions

Type	DN	Weight
F6300L	300	91 lb [41 kg]



Valve with PRB(X) Actuator

A	B	C	D	E	F	Number of Bolt Holes
12.0" [304]	3.1" [78]	29.7" [754]	20.4" [517]	9.2" [234]	9.2" [234]	12



Valve with PKR Actuator

A	B	C	D	E	F	Number of Bolt Holes
12.0" [304]	3.2" [82]	31.9" [810]	22.8" [578]	9.2" [234]	9.2" [234]	12



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
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	6 W
Transformer sizing	with 24 V 20 VA / with 240 V 52 VA
Auxiliary switch	2 x SPDT, 1 mA...3 A (0.5 A inductive), DC 5 V...AC 250 V (II, reinforced insulation), 1 x 10° / 1 x 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
Degree of protection NEMA/UL	NEMA 4X
Enclosure	UL Enclosure Type 4X

<b>Safety data</b>	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 [5.9 kg]
<b>Materials</b>	Housing material	Die cast aluminium and plastic casing

## Product features

<b>Application</b>	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.
<b>Operation</b>	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>
	Connection 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

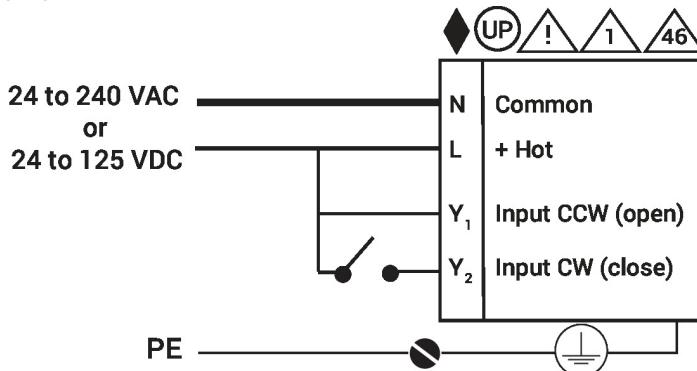
Sensors	Description	Type
Duct/Immersion sensor Temperature 6" [150 mm] x 0.24" [6 mm] Pt1000	01DT-5BN	
Duct/Immersion sensor Temperature 2" [50 mm] x 0.24" [6 mm] Pt1000	01DT-5BH	
Duct/Immersion sensor Temperature 4" [100 mm] x 0.24" [6 mm] Pt1000	01DT-5BL	
Duct/Immersion sensor Temperature 8" [200 mm] x 0.24" [6 mm] Pt1000	01DT-5BP	
Duct/Immersion sensor Temperature 18" [450 mm] x 0.24" [6 mm] Pt1000	01DT-5BT	
Pt1000		
		01DT-5EH
		01DT-5EL
		01DT-5EN
		01DT-5EP
Duct/Immersion sensor Temperature 12" [300 mm] x 0.24" [6 mm] Pt1000	01DT-5BR	
Pt1000		01DT-5ER
		01DT-5ET

## Electrical installation

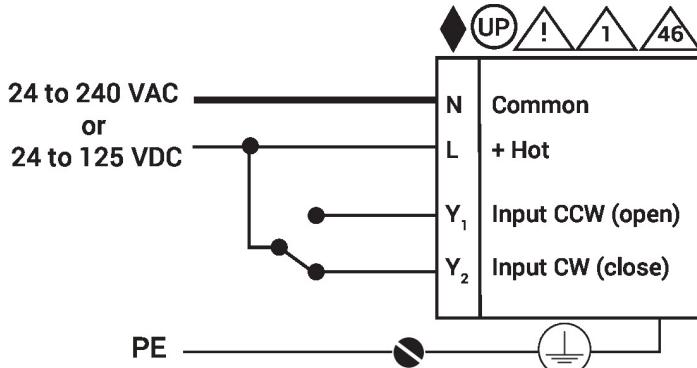
- ◆ Meets cULus requirements without the need of an electrical ground connection.
- ◆ (UP) Universal Power Supply (UP) models can be supplied with 24 V up to 240 V.
- ◆  Disconnect power.
- ◆  Provide overload protection and disconnect as required.
- ◆  Two built-in auxiliary switches (2x SPDT), for end position indication, interlock control, fan startup, etc.
- ◆  Only connect common to negative (-) leg of control circuits.
- ◆  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

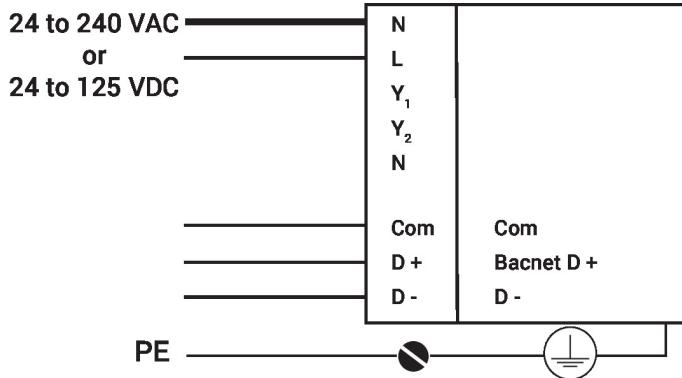
On/Off



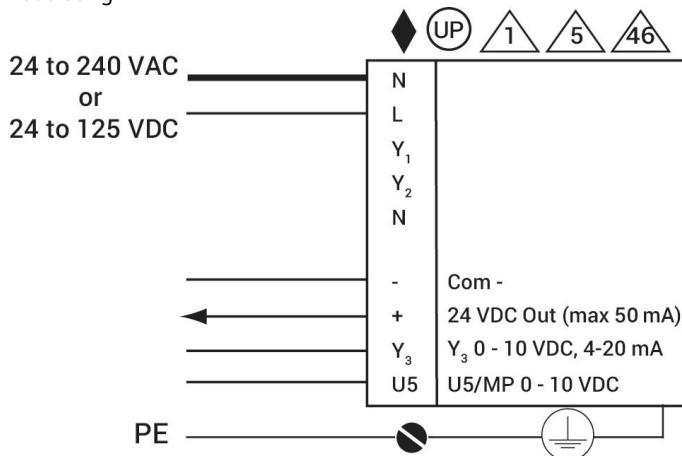
On/Off



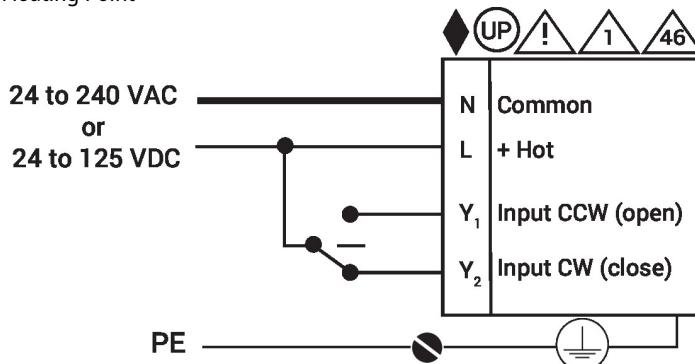
BACnet



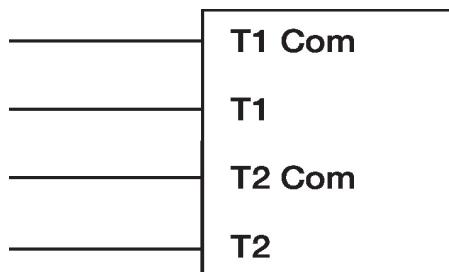
Modulating



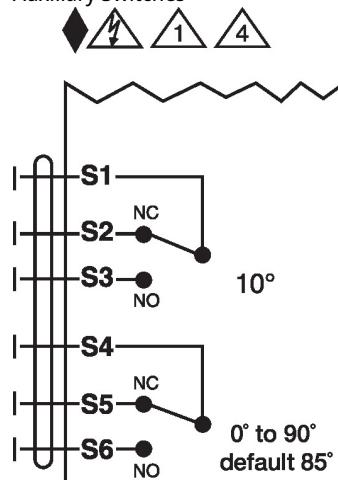
Floating Point



Temperature Sensors



Auxiliary Switches



## Dimensions

