

# B6300VB-207 Technical Data Sheet

Carbon Steel Body, Hardened Chrome Plated, Stainless Steel Ball and Stem



## Application

This valve is typically used in air handling units on heating or cooling coils, and fan coil unit heating or cooling coils. Some other common applications include Unit Ventilators, VAV box re-heat coils and bypass loops. This valve is suitable for use in a hydronic system with variable flow.

## Product Features

Fast quarter turn open or closed operation, stainless-steel ball and stem, positive isolation, two-piece body construction

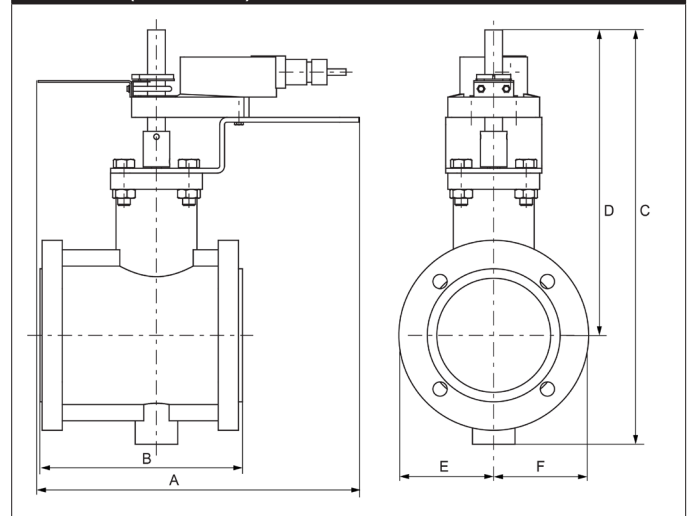
## Suitable Actuators

	Non-Spring	Spring	Electronic fail-safe
B6300VB-207	SY1, AMB(X), PRB(X)	AF	GKB(X), PKRB(X)

## Technical Data

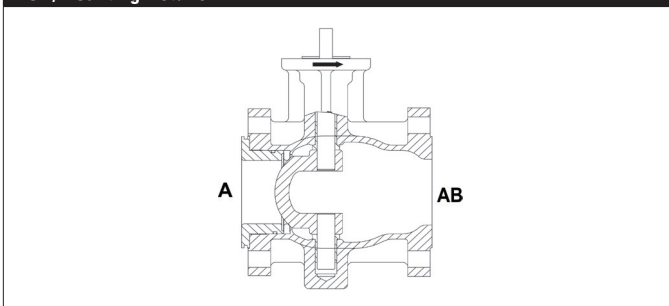
Fluid	chilled or hot water, up to 60% glycol, steam
Flow characteristic	equal percentage
Controllable flow range	75°
Valve Size [mm]	3" [80]
Pipe connection	125/150 lb flanged, ASME/ANSI b16.1/ b16.5
Housing	WCC grade carbon steel
Ball	stainless steel
Stem	stainless steel
Stem seal	PTFE V-ring
Seat	PTFE
Body Pressure Rating	ANSI Class 150
ANSI Class	150
Number of Bolt Holes	4
Maximum Inlet Pressure (Steam)	200 psi
Max Differential Pressure (Steam)	100 psi
Close-off pressure Δps	150 psi
Close-Off Pressure (Steam)	200 psi
Rangeability Sv	300:1
Cv	207
Weight	37.47 lb [17 kg]
Fluid Temp Range (water)	-22...380°F [-30...193°C]
Leakage rate	ANSI Class IV
Servicing	repack/rebuild kits available

## Dimensions (Inches [mm])

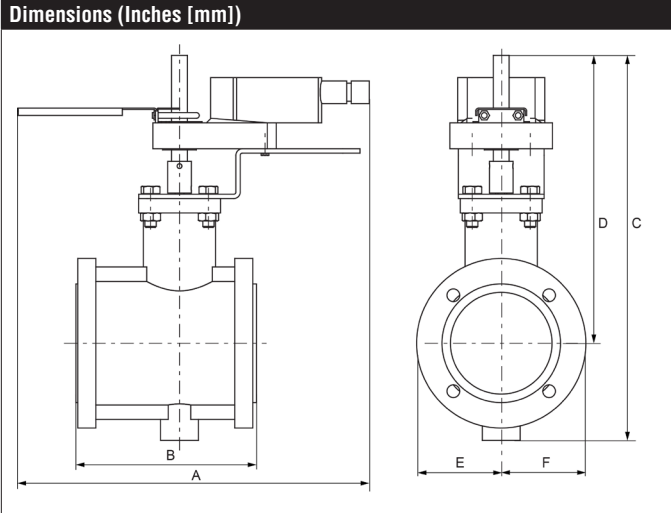


A	B	C	D	E	F
12.6" [320]	8.0" [203]	16.3" [415]	12.0" [306]	3.7" [95]	

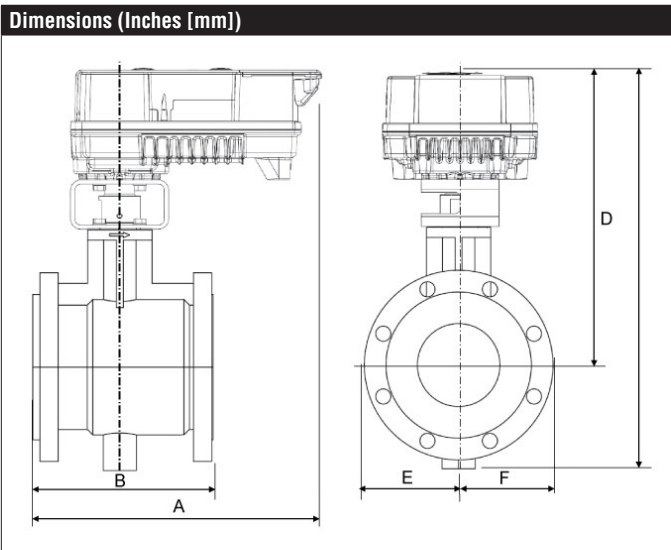
## Flow/Mounting Details



Date created, 01/08/2020 - Subject to change. © Belimo Aircontrols (USA), Inc.



A	B	C	D	E	F
13.1" [332]	8.0" [203]	17.0" [433]	12.7" [323]	3.7" [95]	



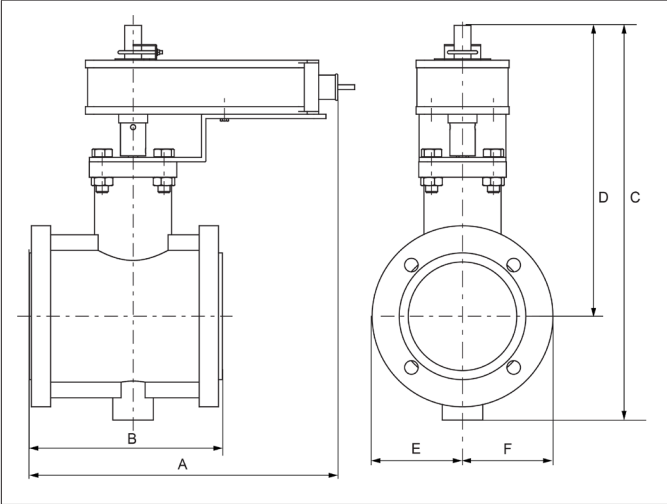
A	B	C	D	E	F
11.8" [299]	8.0" [203]	18.9" [480]	14.6" [371]	3.9" [100]	

# B6300VB-207 Technical Data Sheet

Carbon Steel Body, Hardened Chrome Plated, Stainless Steel Ball and Stem



## Dimensions (Inches [mm])



A	B	C	D	E	F
12.7" [323]	8.0" [203]	16.4" [416]	12.0" [306]	3.7" [95]	

Date created, 01/08/2020 - Subject to change. © Belimo Aircontrols (USA), Inc.

# PRXUP-MFT-T Technical Data Sheet

## Modulating, Non Fail-Safe, 24...240 V, NEMA 4X with BACnet



Technical Data	
Power Supply	24...240 VAC, -20% / +10%, 50/60 Hz, 24...125 VDC, -20% / +10%
Power consumption in operation	20 W
Power consumption in rest position	6 W
Transformer sizing	20 VA @ AC/DC 24 V (class 2 power source), 23 VA @ AC/DC 120 V, 52 VA @ AC 230 V
Electrical Connection	Terminal blocks, (PE) Ground-Screw
Overload Protection	electronic throughout 0...90° rotation
Operating Range	2...10 V (default), 4...20 mA, variable (VDC, on/off, floating point)
Operating range Y variable	Start point 0.5...30 V End point 2.5...32 V
Input Impedance	100 kΩ for 2...10 V (0.1 mA), 500 Ω for 4...20 mA, 1500 Ω for On/Off
Position Feedback	2...10 V, Max. 0.5 mA, VDC variable
Angle of rotation	90°
Torque motor	1400 in-lb [160 Nm]
Direction of motion motor	reversible with app
Position indication	top mounted domed indicator
Manual override	7 mm hex crank, supplied
Running Time (Motor)	default 35 s, variable 30...120 s
Ambient humidity	max. 95% r.H., non-condensing
Ambient temperature	-22...122°F [-30...50°C]
Storage temperature	-40...176°F [-40...80°C]
Degree of Protection	IP66/67, NEMA 4X, UL Enclosure Type 4X
Housing material	Die cast aluminium and plastic casing
Agency Listing	cULus acc. to UL60730-1A/-2-14, CAN/CSA E60730-1:02, CE acc. to 2004/108/EC and 2006/95/EC
Noise level, motor	68 dB(A)
Servicing	maintenance-free
Quality Standard	ISO 9001
Weight	13 lb [5.8 kg]
Auxiliary switch	2 x SPDT, 3 A resistive (0.5 A inductive) @ AC 250 V, one set at 10°, one adjustable 0...90°
Communication	BACnet MS/TP
Passive Sensor Inputs	2x (Pt1000, Ni1000, NTC10k2)

### 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

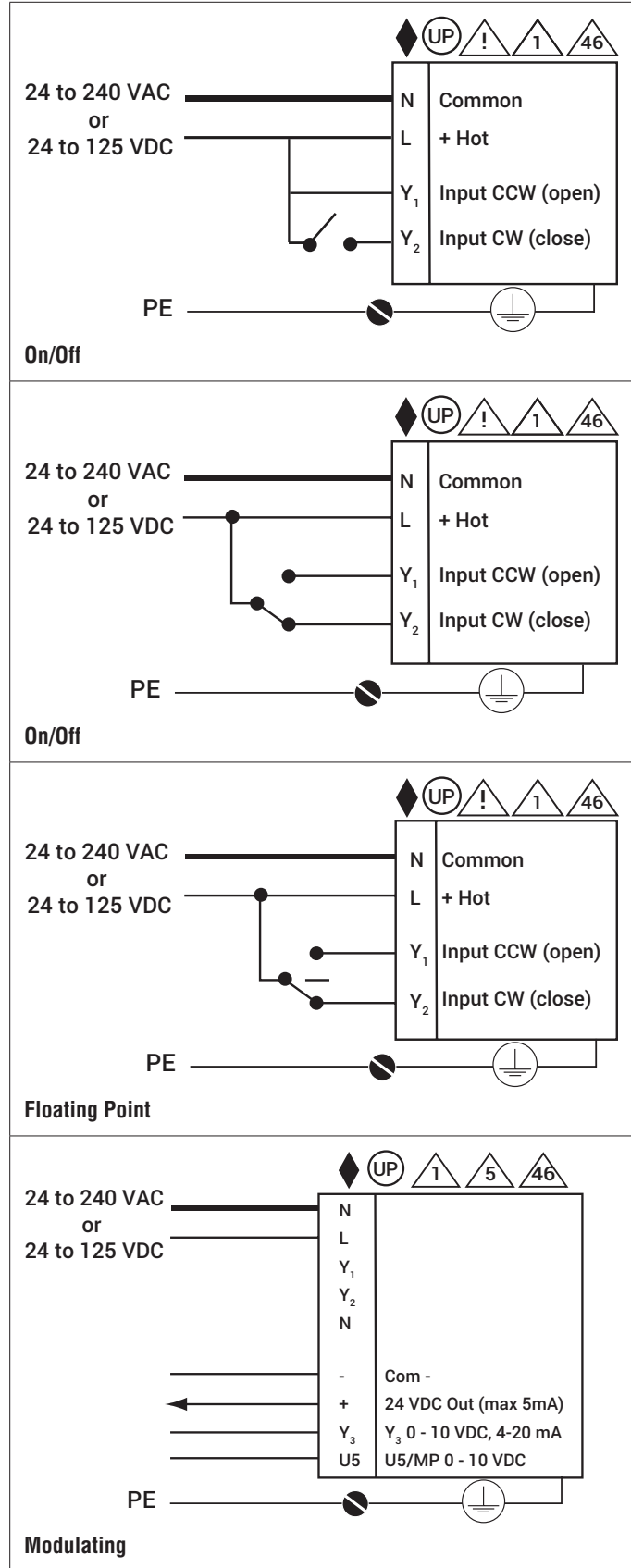
The PR series actuator provides 90° of rotation and a visual indicator shows the position of the valve. The PR Series actuator uses a low power consumption brushless DC motor and is electronically protected against overload. A universal power supply is furnished to connect supply voltage in the range 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.

### Wiring Diagrams

- ◆ Meets cULus requirements without the need of an electrical ground connection.
- Ⓢ Universal Power Supply (UP) models can be supplied with 24 VAC up to 240 VAC, or 24 VDC up to 240 VDC.
- ⚡ 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.

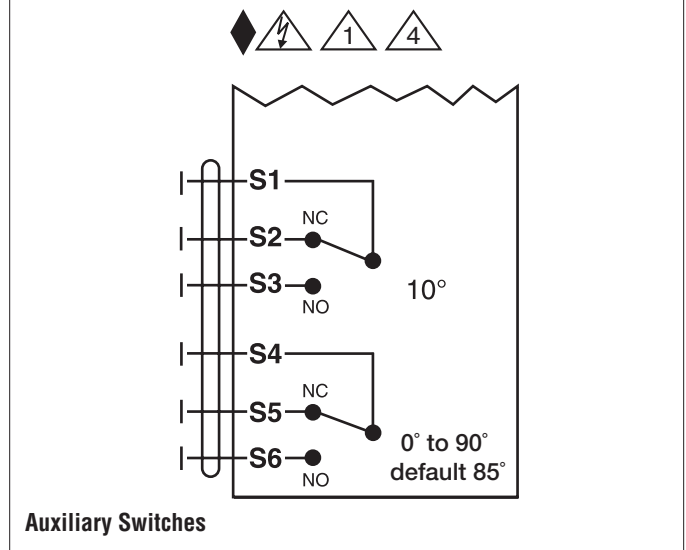
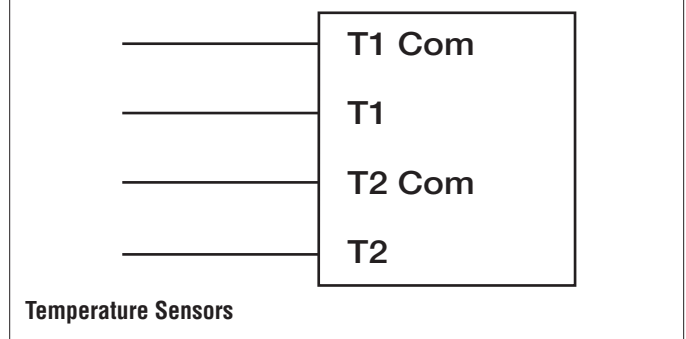
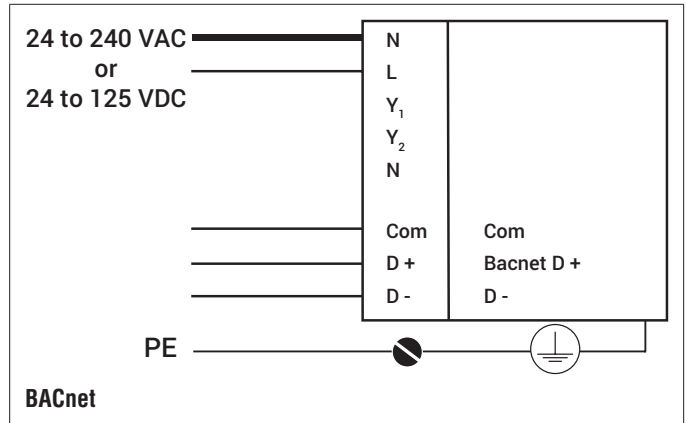
**! WARNING! LIVE ELECTRICAL COMPONENTS!**  
 During installation, testing, servicing and troubleshooting of this product, it may be necessary to work with live electrical components. Have a qualified licensed electrician or other individual who has been properly trained in handling live electrical components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



Date created, 12/30/2019 - Subject to change. © Belimo Aircontrols (USA), Inc.

# PRXUP-MFT-T Technical Data Sheet

Modulating, Non Fail-Safe, 24...240 V, NEMA 4X with BACnet



Date created, 12/30/2019 - Subject to change. © Belimo Aircontrols (USA), Inc.