PMBUP-MFT-T

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

5 YEAR WARRANTY

CE LISTED 94 05 TEMP. IND. & REG. EQUIP. c UL us

BRUSHLESS dc motor

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 @ 24 VAC/DC (class 2 power source), 23 VA @ 120 VAC/DC, 52 VA @ 230 VAC
Electrical Connection	Terminal blocks, (PE) Ground-Screw
Overload Protection	electronic throughout 0° to 95° rotation
Operating Range	DC 2...10 V (default), 4...20 mA, variable (VDC, on/off, floating point)
Operating range Y variable	Start point DC 0.5...30 V End point DC 2.5...32 V
Input Impedance	100 kΩ for DC 2...10 V (0.1 mA), 500 Ω for 4...20 mA, 1500 Ω for On/Off
Position Feedback	DC 2...10 V, Max. 0.5 mA, VDC variable
Angle of rotation	95°
Torque motor	1400 in-lb [160 Nm]
direction of rotation motor	reversible with app
Position indication	integral pointer
Manual override	7 mm hex crank, supplied
Running Time (Motor)	default 35 sec, variable 30...120 sec
Ambient humidity	5...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	Aluminum die cast 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)
Maintenance	maintenance free
Quality Standard	ISO 9001
Weight	12.92 lb [5.86 kg]
Auxiliary switch	2 x SPDT, 3 A resistive (0.5 A inductive) @ AC 250 V, one set at 12.5°, one adjustable 2.5° - 92.5°
Communication	BACnet MS/TP
Passive Sensor Inputs	2 (Pt1000) (Ni1000) (NTC)

Application

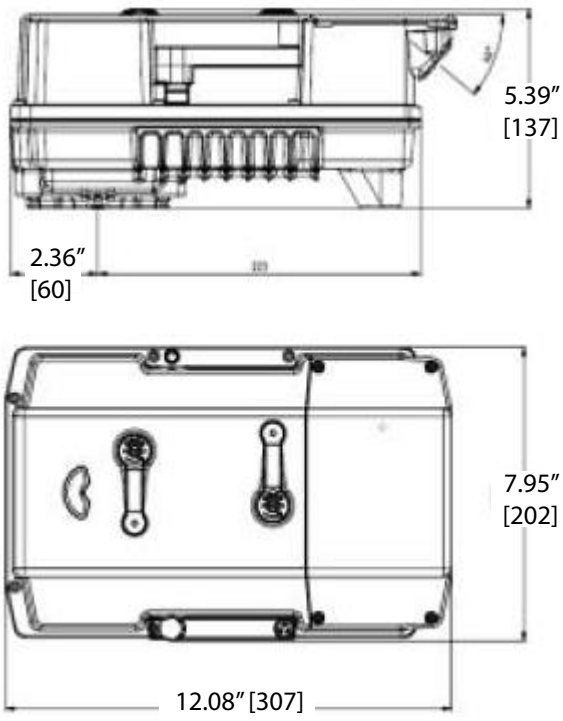
PMB series damper actuators are designed to accommodate a mounting bracket and coupler or linkage for remote linkage connection. A visual position indicator shows the actuators position through-out its stroke. For outdoor applications, the installed actuator must be mounted with the actuator at or above horizontal. For indoor applications the actuator can be in any position including upside down.

Operation

The PMB series provides 95° of rotation and a visual indicator shows the position of the damper actuator. The PMB 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 24-240 VAC and 24-125 VDC. Included is a smart heater with thermostat to eliminate condensation. Two auxiliary switches are provided; one set at 12.5° 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 impluse Voltage 4000V. Type of action 1. Control pollution degree 3.

Dimensions (Inches[mm])



Safety Notes

⚠ WARNING: For Belimo Products sold in California, these Products do or may contain chemicals which are known to the State of California to cause cancer and or birth defects or other reproductive harms. For more information see www.p65warnings.ca.gov.

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Wiring Diagrams

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

UP 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.

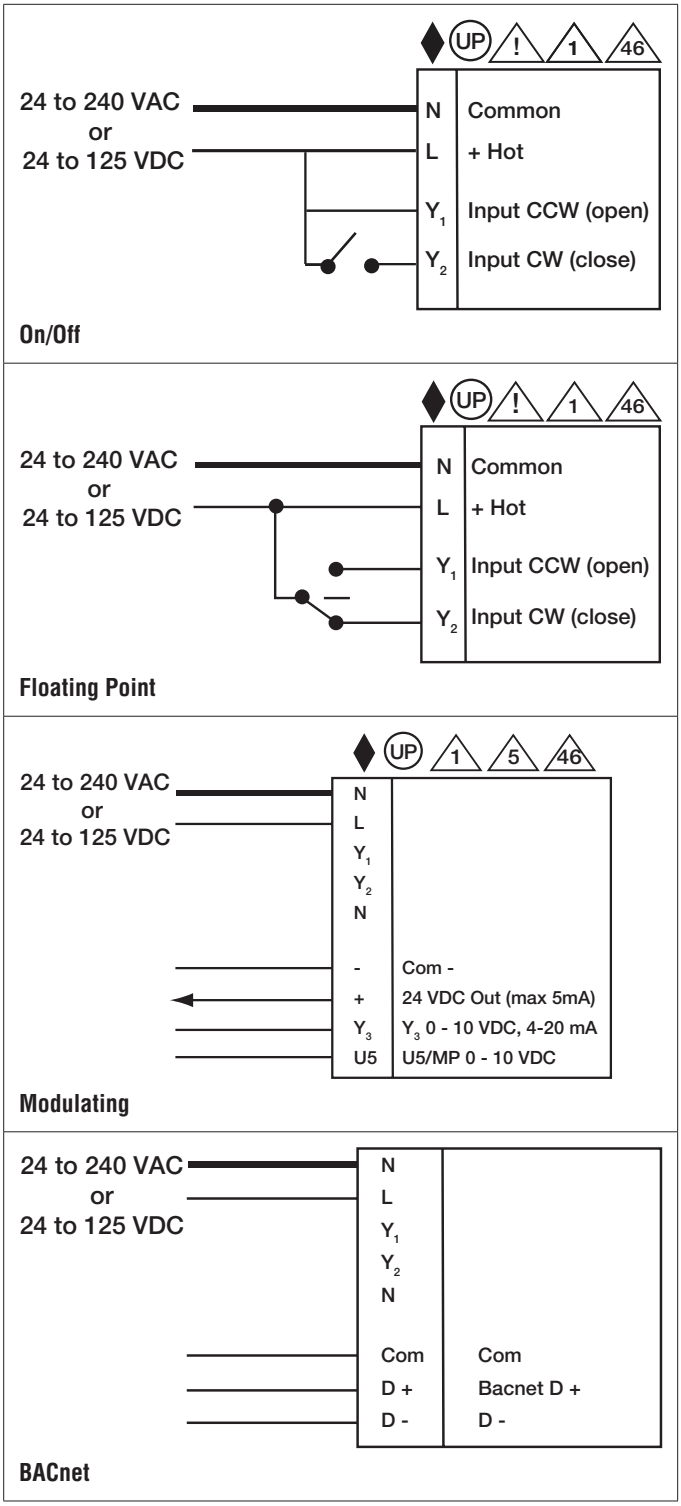
4 Two built-in auxiliary switches (2x SPDT), for end position indication, interlock control, fan startup, etc.

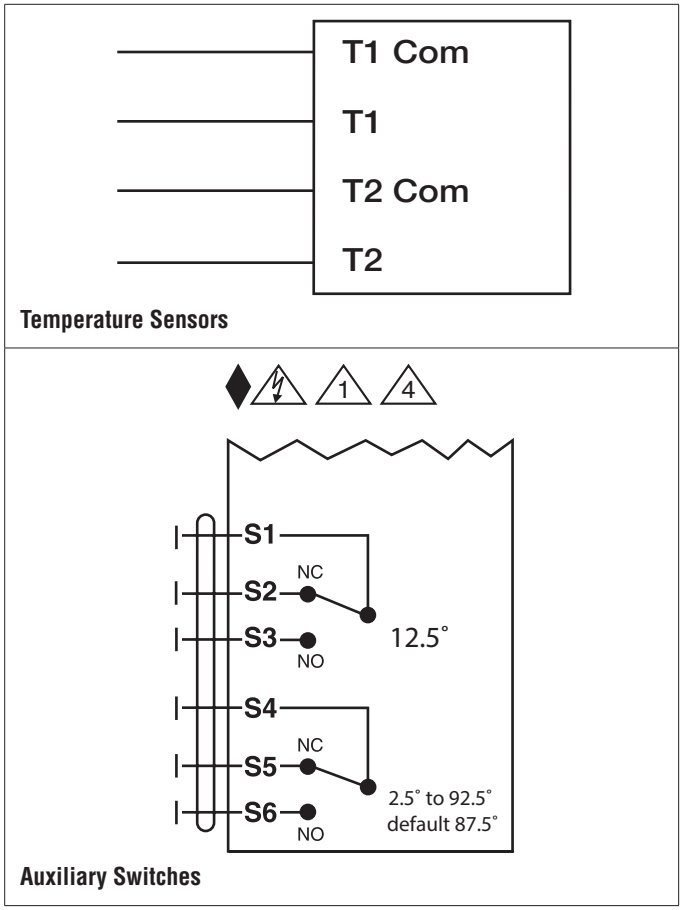
5 Only connect common to negative (-) leg of control circuits.

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.





Temperature Sensors

Auxiliary Switches