

B Series Actuator (low voltage)



50 in.lb. (5.6 Nm) torque

PRIMARY USES FOR THESE ACTUATORS

- ◆ small dampers
- ◆ VAV box control
- ◆ unit ventilators
- ◆ fan coils
- ◆ 1/4 turn valves

These compact quarter turn actuators may be directly coupled to either a 1/2 inch round or 3/8 inch square jack shaft or remotely mounted using an adaptor kit. All actuators are bi-directional. Enerdrive actuators are also bi-directional under fail safe conditions. The stroke may be limited to less than 90° mechanically in digital models and electronically in Multi Signal models.

GENERAL SPECIFICATIONS

| | |
|--|---|
| Power Supply: | 24Vac/30Vdc or 24Vdc Depending upon the Model |
| Power Consumption: | Peak at Start-up: 6VA to 24VA at 26Vac Depending upon the Model Operating at Full Load: 6VA to 15VA at 26Vac Depending upon the Model |
| Wire Size: | 18 AWG (0.8 mm ²) Minimum |
| Electrical Connections: | 5/8 in. (15.9 mm) & 7/8 in. (22.2 mm) Knock Outs, Screw Terminals |
| Control Signals: | <p>Digital (BT): 2 Wire or 3 Wire 2 Position and 3 Wire or 4 Wire 3 Point Floating Depending upon the Model</p> <p>Multi Signal (BM): ANALOG: A) 2-10Vdc; or B) May be Externally Wired with a 500 Ohm Resistor which is Supplied for 4-20mA, Zero & Span Adjustable PULSE WIDTH MODULATION: Time Base of 0.1 to 5 sec/20mS Resolution or 0.1 to 25 sec/100mS Resolution Selected by Dip Switch Position SWITCH 24Vac: Triac or Dry Contact, 40mA Max. Switching Current SWITCH COMMON: NPN Transistor, SCR, Triac or Dry Contact 75mA Max. Switching Current DIGITAL: 3 Wire 2 Position or 4 Wire 3 Point Floating</p> |
| Torque: | 50 in.lb. (5.6 Nm) at Rated Voltage |
| Direction & Time of Rotation: | Reversible, 15 to 30 sec, 0-50 in.lb. (0-5.6 Nm) Depending upon the Model |
| Ambient Temperature: | -22°F to +122°F (-30°C to +50°C) |
| Feedback Potentiometer: | <p>In Digital (BTXX5): Potentiometer (5 Kohms)</p> <p>In Multi Signal (BM): 4-20mA Output (May be wired for a 2-10Vdc signal)</p> |
| Fail Safe (Enerdrive) Rating: | Models Ending in 60, 65, 80 or 60N: 50 in.lb. (5.6 Nm) |
| Enerdrive Response Time: | 20 to 30 sec Closure Through 90°, 0-50 in.lb. (0-5.6 Nm) |
| Auxiliary Switches: | Models Ending in 20, 80 or 20N: 2 Mechanical, Fixed at 10° & 80° |
| Auxiliary Switch Rating: | 1 Amp Resistive, 24Vac or 5 Amp Resistive, 250Vac Depending upon the Model |
| Electronic Enclosure: | Flammability rating UL94-5V |
| GearTrain Enclosure: | Die Cast Zinc with a Steel Base |

Spec Sheet Available on Our Website

| Actuator Models | Power | | | Control Signals | | | | | Time in sec Thru 90° Arc | Actuator Features | | | | |
|-------------------------------------|----------------|-------------|-----------|-----------------|----------|--------------|---------|-----|--------------------------|-------------------|-------------|-------------|-----------------------|-----------------------|
| | Nom. Supply | Consumption | | Digital | | Multi Signal | | | | Feed Back | Auto Stroke | Zero & Span | Fail Safe (Enerdrive) | 2 Mech. Aux. Switches |
| | | Start Up | Full Load | 2 POS | 3 PT FLT | 2-10 Vdc | 4-20 mA | PWM | | | | | | |
| <i>for low voltage applications</i> | | | | | | | | | | | | | | |
| BT000 | 24Vac 30Vdc | 6VA | 6VA | ◆ | ◆ | | | | 20 to 30 | | | | | |
| BT005 | 24Vac 30Vdc | 6VA | 6VA | ◆ | ◆ | | | | 20 to 30 | ◆ | | | | |
| BT020 | 24Vac 30Vdc | 6VA | 6VA | ◆ | ◆ | | | | 20 to 30 | | | | | ◆ |
| BT060 | 24Vac 30Vdc | 15VA | 6VA | ◆ | ◆ | | | | 20 to 30 | | | | ◆ | |
| BT065 | 24Vac 30Vdc | 15VA | 6VA | ◆ | ◆ | | | | 20 to 30 | ◆ | | | ◆ | |
| BT080 | 24Vac 30Vdc | 15VA | 6VA | ◆ | ◆ | | | | 20 to 30 | | | | ◆ | ◆ |
| BM000 | 24Vac 30Vdc | 6VA | 6VA | ◆ | ◆ | ◆ | ◆ | ◆ | 20 to 30 | ◆ | ◆ | ◆ | | |
| BM020 | 24Vac 30Vdc | 6VA | 6VA | ◆ | ◆ | ◆ | ◆ | ◆ | 20 to 30 | ◆ | ◆ | ◆ | | ◆ |
| BM060 | 24Vac 30Vdc | 15VA | 6VA | ◆ | ◆ | ◆ | ◆ | ◆ | 20 to 30 | ◆ | ◆ | ◆ | ◆ | |
| BM080 | 24Vac 30Vdc | 15VA | 6VA | ◆ | ◆ | ◆ | ◆ | ◆ | 20 to 30 | ◆ | ◆ | ◆ | ◆ | ◆ |
| BM000N | 24Vac 30Vdc | 15VA | 15VA | ◆ | ◆ | ◆ | ◆ | ◆ | 15 | ◆ | ◆ | ◆ | | |
| BM020N | 24Vac 30Vdc | 15VA | 15VA | ◆ | ◆ | ◆ | ◆ | ◆ | 15 | ◆ | ◆ | ◆ | | ◆ |
| BM060N | 24Vac 30Vdc | 24VA | 15VA | ◆ | ◆ | ◆ | ◆ | ◆ | 15 | ◆ | ◆ | ◆ | ◆ | |

Note: All actuators are powered by brush motors except those ending with the letter “N”