



Series

BT

Description

These compact quarter turn actuators are 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 bidirectional. The stroke can be mechanically limited to less than 90°.



BT Series

Features

- Torque rate of 50 in.lb [5.6 Nm]
- Fail safe by Enerdrive System (US Patent #5,278,454) (on select models)
- Auxiliary switches (on select models)
- Power supply high voltage 120 or 240 Vac
- Mounts easily on round and square shafts (with option-8)
- External clutch for manual adjustments
- Maintenance free
- Position indicator

Applications

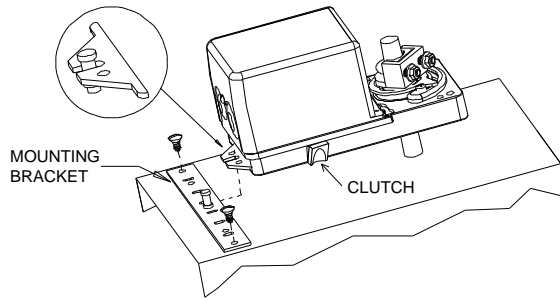
- Small dampers
- Unit ventilators
- 1/4 turn valves
- VAV box control
- Fan coils

Technical Specifications

Description	BT160	BT180	BT260	BT280															
Torque	Torque rate of 50 in.lb [5.6 Nm]																		
Running Time through 90°	20 to 30 seconds, torque dependant																		
Fail Safe (Enerdrive)	Yes																		
Auxiliary Switches	-	Yes (2)	-	Yes (2)															
Power Consumption	8VA Peak, 5VA																		
Power Supply	110 to 130 Vac 50/60Hz		220 to 250 Vac 50/60Hz																
Electrical Connection	18 AWG [0.8 mm ²] minimum																		
Control Signal	2 wire/2 position																		
Angle of Rotation	0 to 90°, mechanically adjustable (default: 90° stroke)																		
Direction of Rotation	Reversible, CW: Clockwise, CCW: Counter Clockwise (default: CW)																		
Inlet Bushing	2 inlet bushings: 13/16" [20.6mm]																		
Ingress Protection	IP22 equivalent to Nema type 2																		
Operating Temperature	-22°F to 122°F [-30°C to 50°C]																		
Storage Temperature	-22°F to 122°F [-30°C to 50°C]																		
Relative Humidity	5 to 95 % non condensing																		
Weight	3 lbs. [1.4 kg]																		
<table border="1"> <thead> <tr> <th>Dimension</th> <th>Inches</th> <th>Metric (mm)</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>1.50</td> <td>38.1</td> </tr> <tr> <td>B</td> <td>3.64</td> <td>82.8</td> </tr> <tr> <td>C</td> <td>6.60</td> <td>167.5</td> </tr> <tr> <td>D</td> <td>3.81</td> <td>96.8</td> </tr> </tbody> </table>	Dimension	Inches	Metric (mm)	A	1.50	38.1	B	3.64	82.8	C	6.60	167.5	D	3.81	96.8				
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Certifications																			

Mechanical Installation

1. Manually close the damper blades and position the actuator to 0° or 90°.
2. Slide the actuator onto the shaft.
3. Tighten the nuts on the "U" bolt to the shaft with an 8mm wrench to a torque of 60 in-lb [6.7 Nm].
4. Slide the mounting bracket under the actuator. Ensure free movement of the slot at the base of the actuator. Place the bracket pin at mid distance of the slot.
5. Affix the bracket to the ductwork with #8 self-tapping screws.



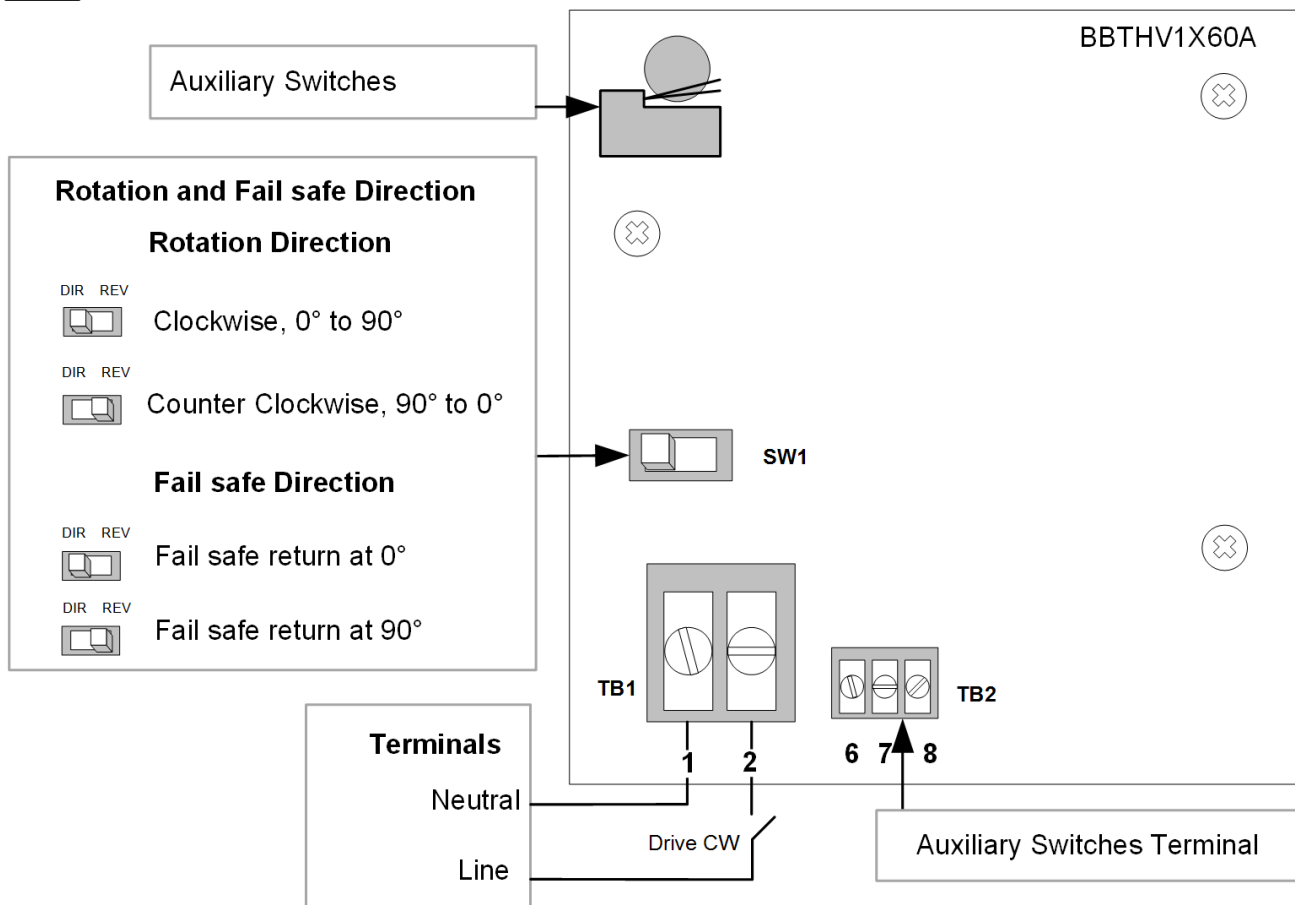
 **Do not press the clutch when the actuator is powered.**

Connections and Configurations

We strongly recommend wiring all Neptronic® products to a separate transformer and that transformer shall service only Neptronic® products. This precaution prevents interference with, and/or possible damage to incompatible equipment. Observe polarity when wiring multiple actuators on a single transformer. Long wiring runs create voltage drops, which may affect actuator performance.



Caution: Risk of electric shock. Disconnect power prior to connecting.



Stroke Adjustment

To adjust the stroke, move the adjustment screws to the desired position.