Actuator

Specification & Installation Instructions

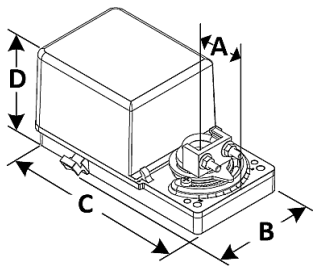
Feature:

- Mounts easy on round & square shaft (with option –8).
- Power supply high voltage 120 or 240 VAC.
- External clutch for manual adjustments.
- Maintenance free.
- Position indicator.
- Feedback (on model 105 & 205).
- Auxiliary switches (on model 120 & 220).

Old Number	
BBTHV1100A	**BT100**
BBTHV1105A	**BT105**
BBTHV1121A	**BT120**
BBTHV1200A	**BT200**
BBTHV1205A	**BT205**
BBTHV1221A	**BT220**

Technical Data	**BT100** ***BBTHV1100A***	**BT105** ***BBTHV1105A***	**BT120** ***BBTHV1121A***	**BT200** ***BBTHV1200A***	**BT205** ***BBTHV1205A***	**BT220** ***BBTHV1221A***
Auxiliary switches	No	No	Yes (2)	No	No	Yes (2)
Feedback	No	Yes	No	No	Yes	No
Power supply	110 to 130 VAC 50/60Hz			220 to 250 VAC 50/60Hz		
Power consumption	4 Watts at 120 VAC (0.166A AC)			7 Watts at 240 VAC (0.166A AC)		
Control signal	3 wire / 2 position, 3 wire / 3 point floating					
Running time through 90º	20 to 30 sec Torque dependant					
Torque	50 in.lb. [5,6 Nm] at rated voltage					
Electrical connection	18 AWG [0.8 mm^2] minimum					
Inlet bushing	2 inlet bushing of 13/16" [20.6mm]					
Angle of rotation	0 to 90 degrees, mechanically adjustable (factory set with 90º stroke)					
Direction of rotation	Reversible, Clockwise (CW) or Counterclockwise (CCW) (factory set with CW direction)					
Ambient temperature	-22ºF to +122ºF [-30ºC to +50ºC]					
Storage temperature	-22ºF to +122ºF [-30ºC to +50ºC]					
Relative Humidity	5 to 95 % non condensing.					
Weight	3 lbs. [1.4 kg]					
Ingress protection	IP22 equivalent to Nema type 2, IP54 equivalent to Nema type 3R if water tight inlet bushings (not supplied NEP617) are installed					
Warning: Do not press the clutch when actuator is powered						

Dimensions

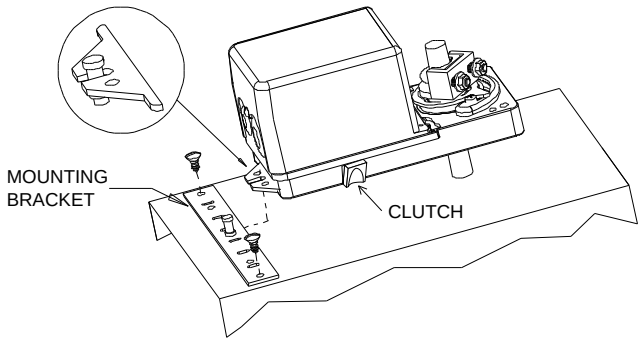


Dimension	Inches	Metric (mm)
A	1.50	38.1
B	3.64	92.5
C	6.60	167.5
D	3.02	76.8

Caution

We strongly recommend that all neptronic products be wired to a separate transformer and that transformer shall service only neptronic products. This precaution will prevent interference with, and/or possible damage to incompatible equipment.
When multiple actuators are wired on a single transformer, polarity must be observed. Long wiring runs create voltage drop which may affect the actuator performance.

Mechanical installation

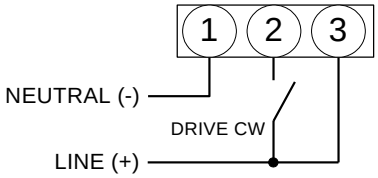


1. Manually close the damper blades and positioned the actuator at 0º or 90º.
2. Slide the actuator onto the shaft.
3. Tighten the nuts on the “U” bolt to the shaft with a 8mm wrench to a torque of 60 in.lb. [6,7 Nm].
4. Slide the mounting bracket under the actuator. Ensure free movement of the slot at the base of the actuator. The bracket pin must be placed in the mid distance of the slot.
5. Fix the bracket to the ductwork with #8 self-tapping screws.

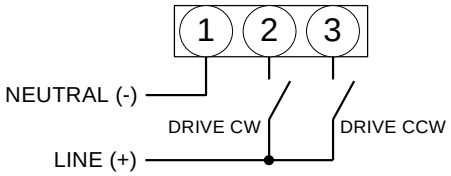
Wiring Diagrams

Caution: Risk of electric shock. Remove power prior to connect.

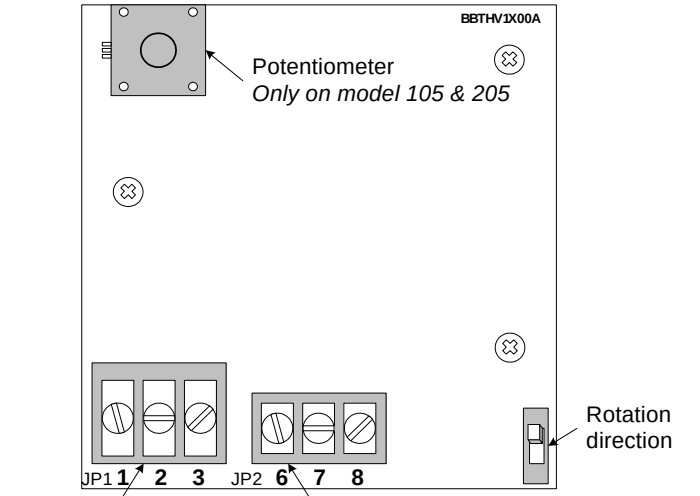
3 wire / 2 position (ON-OFF)



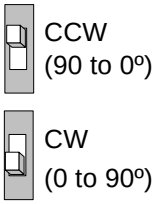
3 wire / 3 point floating



PC Board



Rotation direction



Stroke adjustment

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