



Actuator



Specification & Installation instructions



Feature:

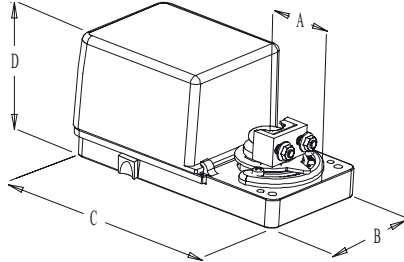
- Mounts easy on round & square shaft (optional).
- External clutch for manual adjustments.
- Maintenance free.
- Position indicator.
- Fail safe by *Enerdrive System*¹
- Auxiliary switches (on models ending by 80S)

CT060S
CT065S
CT080S
CT160S
CT165S
CT180S
CT260S
CT265S
CT280S

Technical Data	CT060S	CT065S	CT080S	CT160S	CT165S	CT180S	CT260S	CT265S	CT280S
Feedback	No	Yes	No	No	Yes	No	No	Yes	No
Auxiliary switches	No	No	Yes(2)	No	No	Yes(2)	No	No	Yes(2)
Power supply	22 to 26VAC 50/60Hz or 28 to 32VDC			110 to 130 VAC 50/60Hz			220 to 250 VAC 50/60Hz		
Approvals				 Class 2					
Torque	18 in.lb. [2 Nm] at rated voltage								
Fail safe - <i>Enerdrive</i>	Yes								
Power consumption	10VA Peak, 3VA								
Control signal	2 wire / 2 position, 4 wire / 3 point floating								
Running time through 90°	80 - 100 sec (Fail-safe 20-40 sec)								
Electrical connection	18 AWG [0.8mm ²] minimum								
Inlet bushing	2 inlet bushing of 5/8 in [15.9 mm] & 7/8 in [22.2 mm]								
Angle of rotation	0 to 90 degrees, mechanically adjustable (factory set with 90° stroke)								
Direction of rotation	Reversible, Clockwise (CW) or Counterclockwise (CCW) (factory set with CW direction)								
Ambient temperature	0°F to +122°F [-18° C to +50° C]								
Storage temperature	-22°F to +122°F [-30° C to +50° C]								
Relative humidity	5 to 95 % non condensing.								
Ingress protection	IP22 equivalent to Nema type 2, IP54 equivalent to Nema type 3R if water tight inlet bushings (not supplied NEP617) are installed								
Weight	3 lbs. [1.4 kg]								

Warning: Do not press the clutch when actuator is powered

Dimensions



Dimension	Inches	Metric (mm)
A	1.50	38.1
B	3.26	82.8
C	6.60	167.5
D	3.01	76.4

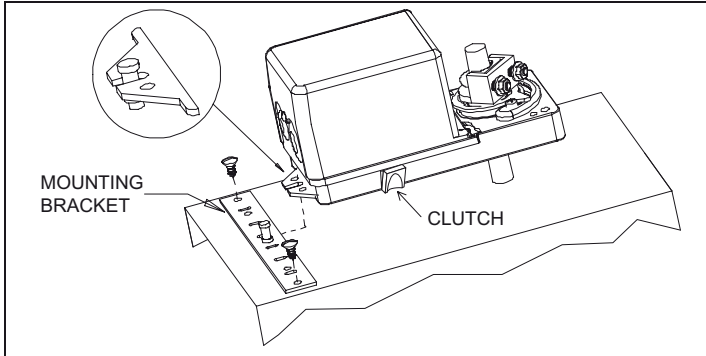
Caution

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.

¹ *Enerdrive System* U.S.A. Patent #5,278,454



Mechanical installation

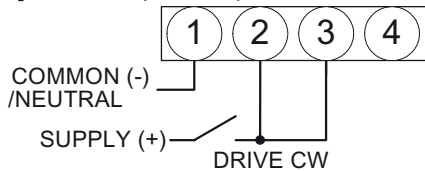


1. Manually close the damper blades and positioned the actuator at 0° or 90°.
2. Slide the actuator onto the shaft.
3. Tighten the nuts on the “U” bolt to the shaft with a 8mm wrench to a torque of 60 in.lb. [6,7 Nm].
4. Slide the mounting bracket under the actuator. Ensure free movement of the slot 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.

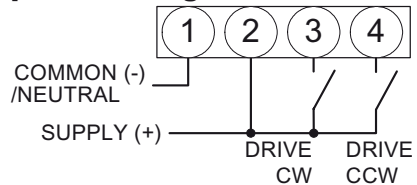
Wiring Diagrams

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

2 wire / 2 position (ON-OFF)

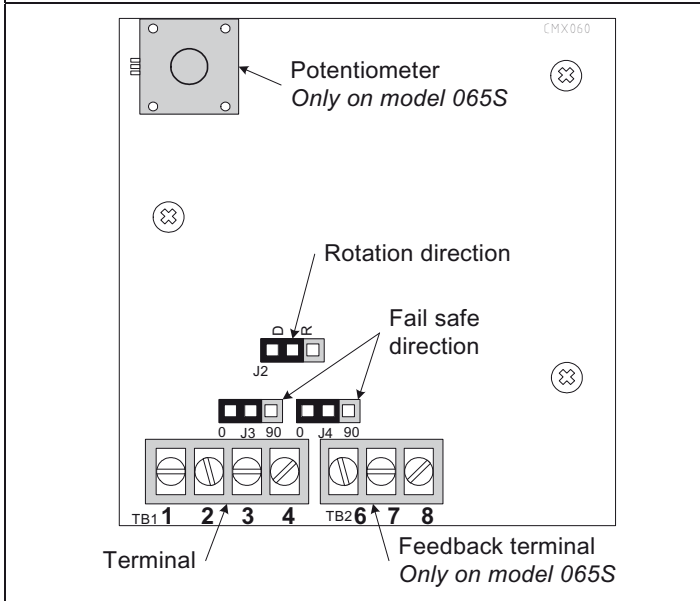


4 wire / 3 point floating

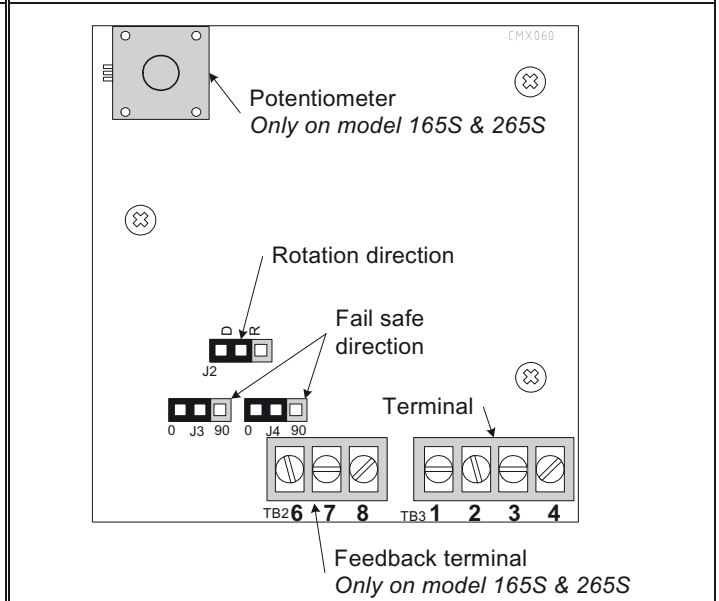


PC Board

Models CT060S, 065S & 080S

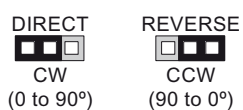


Models CT160S, 165S, 180S, 260S, 265S & 280S



Jumper setting

Rotation direction Jumper (J2)



Fail safe direction Jumper (J3 & J4)



Stroke adjustment

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