



## Series

### BMS

## 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°.



BMS 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)
- 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

## Models

Model #	Power Consumption	Power Supply	Fail safe Enerdrive	Auxiliary Switches	Certifications
BM000S	6 VA	22 to 26 Vac or 28 to 32 Vdc	-	-	
BM060S	20 VA Peak, 6 VA		Yes		
BM800S	6 Watts	40 to 56 Vdc	-	-	
BM860S	20 Watts Peak, 6 Watts		Yes		
BM020S	6 VA	22 to 26 Vac or 28 to 32 Vdc	-	Yes	
BM080S	20 VA Peak, 6 VA		Yes		
BM820S	6 Watts	40 to 56 Vdc	-		
BM880S	20 Watts Peak, 6 Watts		Yes		

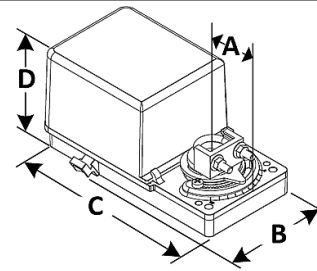
## Common Specifications

Specification	Description
Torque	50 in.lb. [5.6 Nm] at rated voltage
Running Time through 90°	90 to 110 seconds, (Fail safe 20 to 30 seconds)
Electrical Connection	18 AWG [0.8 mm <sup>2</sup> ] minimum
Control Signal	2 to 10 Vdc or 4 to 20 mA (default: 2 to 10 Vdc)
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, IP54 equivalent to Nema type 3R if water tight inlet bushings (not supplied NEP617) are installed for BM000S, BM060S, BM800S, BM860S
	IP22 equivalent to Nema type 2 for BM020S, BM080S, BM820S, BM880S
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]



## Dimensions

Dimension		Inches	Metric (mm)
A		1.50	38.1
B		3.64	92.5
C		6.60	167.5
D	models 00, 60	3.02	76.8
	models 20, 80	3.81	96.8

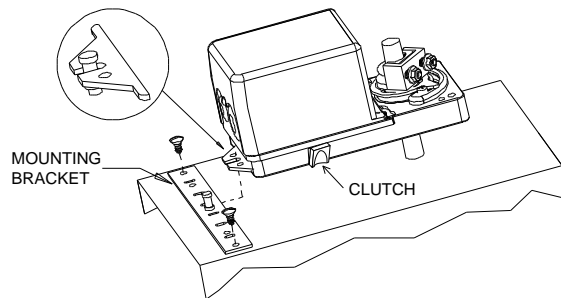


## Mechanical Installation

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.**

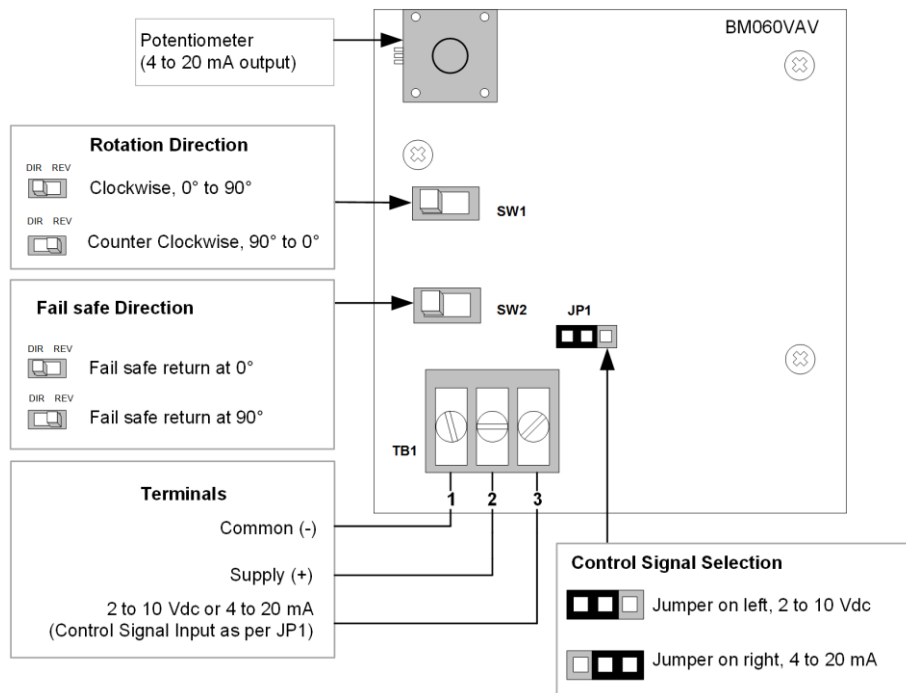


## Connections and Configurations

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.