



Feature:

- Mounts easy on round & square shaft (with option -8).
- External clutch for manual adjustments.
- Maintenance free.
- Position indicator.
- Fail safe by *Enerdrive System*¹ (on model 60 & 80).
- Auxiliary switches (on model 20 & 80).

Old Number

<i>BBMS2000</i>	BM000S
<i>BBMS2021</i>	BM020S
<i>BBMS2060</i>	BM060S
<i>BBMS2080</i>	BM080S
<i>BBMS2800</i>	BM800S
<i>BBMS2821</i>	BM820S
<i>BBMS2860</i>	BM860S
<i>BBMS2880</i>	BM880S

Technical Data	BM000S <i>BBMS2000</i>	BM060S <i>BBMS2060</i>	BM800S <i>BBMS2800</i>	BM860S <i>BBMS2860</i>	BM020S <i>BBMS2021</i>	BM080S <i>BBMS2080</i>	BM820S <i>BBMS2821</i>	BM880S <i>BBMS2880</i>
Fail safe - <i>Enerdrive</i>	No	Yes	No	Yes	No	Yes	No	Yes
Power consumption	6 VA	20 VA Peak, 6 VA	6 Watts	20 Watts Peak, 6 Watts	6 VA	20 VA Peak, 6 VA	6 Watts	20 Watts Peak, 6 Watts
Power supply	22 to 26 VAC or 28 to 32 VDC		40 to 56 VDC		22 to 26 VAC or 28 to 32 VDC		40 to 56 VDC	
Approvals								
Auxiliary switches	No				Yes			
Ingress protection	IP22 equivalent to Nema type 2, IP54 equivalent to Nema type 3R if water tight inlet bushings (not supplied NEP617) are installed				IP22 equivalent to Nema type 2			
Torque	50 in.lb. [5,6 Nm] at rated voltage							
Running time through 90°	90 - 110 sec (Fail-safe20-30 sec)							
Electrical connection	18 AWG [0.8 mm ²] minimum							
Inlet bushing	2 inlet bushing of 5/8 in [15.9 mm] & 7/8 in [22.2 mm]							
Control signal	2 to 10 VDC or 4 to 20 mA (factory set 2 to 10 VDC)							
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	-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]							
Warning: Do not press the clutch when actuator is powered								

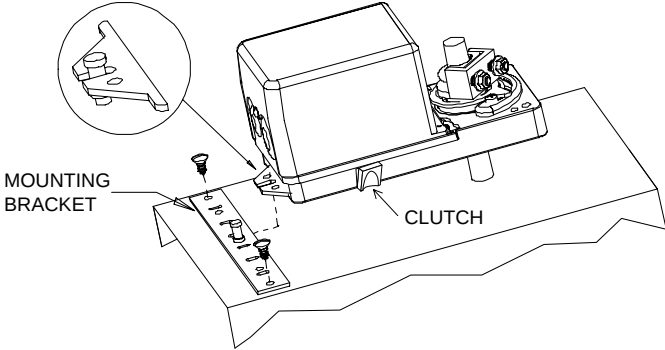
Dimensions

Dimension		Inches	Metric (mm)
A		1.50	38.1
B		3.26	82.8
C		6.60	167.5
D	model 00 & 60	3.01	76.4
	model 20 & 80	3.72	94.5

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.

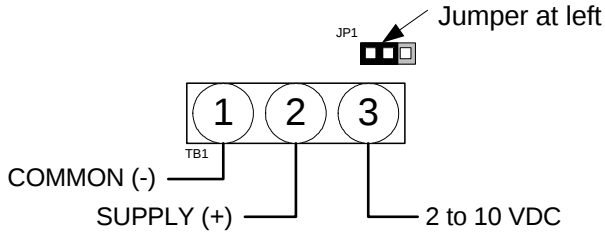
Mechanical installation



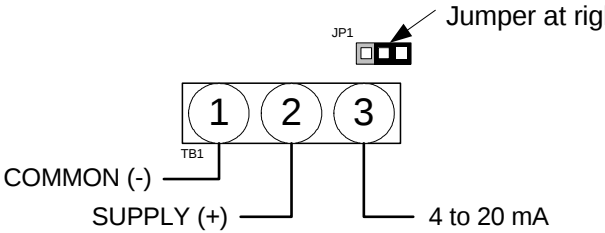
1. Manually close the damper blades and positioned the actuator at 0° or 90°.
2. Slide the actuator onto the shaft.
3. Tighten the nuts on the “U” bolt to the shaft with a 8mm wrench to a torque of 60 in.lb. [6,7 Nm].
4. Slide the mounting bracket under the actuator. Ensure free movement of the slot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

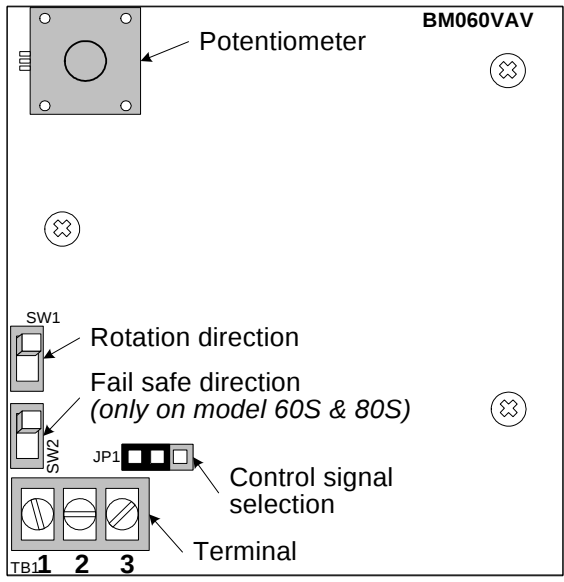
Analogue 2 to 10 Vdc



Analogue 4 to 20 mA



PC Board



Dip switch settings

Rotation direction (SW1)

CW
(0 to 90°)



CCW
(90 to 0°)



Fail safe direction (SW2)
(only on model 60S & 80S)

Fail safe
return at 0°



Fail safe
return at 90°



Stroke adjustment

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