



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).

BM000S
BM020S
BM060S
BM080S

Technical Data	BM000S	BM060S	BM020S	BM080S
Fail safe - <i>Enerdrive</i>	No	Yes	No	Yes
Power consumption	6 VA	20 VA Peak, 6 VA	6 VA	20 VA Peak, 6 VA
Power supply	22 to 26 VAC or 28 to 32 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-safe 20-30 sec)			
Electrical connection	18 AWG [0.8 mm ²] minimum			
Inlet bushing	2 inlet bushing of 13/16" [20.6mm]			
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	3.64	92.5
C	6.60	167.5
D	model 00 & 60	3.02 / 76.8
	model 20 & 80	3.81 / 96.8

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.

¹ *Enerdrive System* U.S.A. Patent #5,278,454
 BMS-210802

Mechanical installation

MOUNTING BRACKET

CLUTCH

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

Analog 2 to 10 Vdc

COMMON (-) — TB1

SUPPLY (+) —

2 to 10 VDC

JP1 Jumper at left

Analog 4 to 20 mA

COMMON (-) — TB1

SUPPLY (+) —

4 to 20 mA

JP1 Jumper at right

PC Board

BM060VAV

Potentiometer

SW1 Rotation direction

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

JP1 Control signal selection

Terminal

TB1 1 2 3

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.