DM Actuator

Specification & Installation instructions

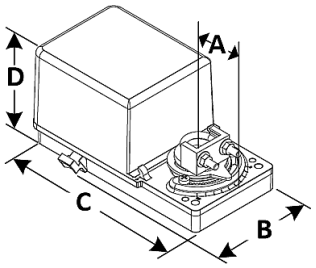
Feature:

- Mounts easy on round & square shaft (with option –8).
- External clutch for manual adjustments.
- Maintenance free.
- Position indicator.
- Fail safe by *Enerdrive System*[1]
- Auxiliary switches (on model 080).

Old Number	
MDMS2060	**DM060S**
MDMS2080	**DM080S**
	DM160S
	DM180S
	DM260S
	DM280S

Technical Data	**DM060S** ***MDMS2060***	**DM080S** ***MDMS2080***	**DM160S**	**DM180S**	**DM260S**	**DM280S**
Auxiliary switches	No	Yes (2)	No	Yes (2)	No	Yes (2)
Power supply	22 to 26 VAC or 28 to 32 VDC		110 to 130 VAC 50/60Hz		220 to 250 VAC 50/60Hz	
Power consumption	15VA Peak, 6VA		12 VA Peak 6 VA			
Torque	50 in.lb. [5,6 Nm] at rated voltage (Fail-safe 35 in.lb. [3,9 Nm])		35 in.lb. [4 Nm] at rated voltage			
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			
Approvals	UL LISTED		Class 2			
Fail safe - *Enerdrive*	Yes					
Running time through 90º	90 - 110 sec, (Fail-safe 70-80 sec)					
Electrical connection	18 AWG [0.8 mm^2] minimum					
Inlet bushing	2 inlet bushings: 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 90º stroke)					
Direction of rotation	Reversible, Clockwise (CW) or Counterclockwise (CCW) (factory set with CW direction)					
Ambient temperature	-22ºF to +122ºF [-30º C to +50º C]					
Storage temperature	-22ºF to +122ºF [-30º C to +50º 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 60	3.02	76.8
	model 80	3.81	96.8

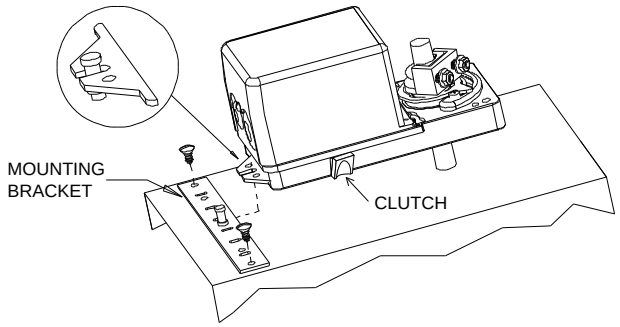
Caution

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

CE

Mechanical installation

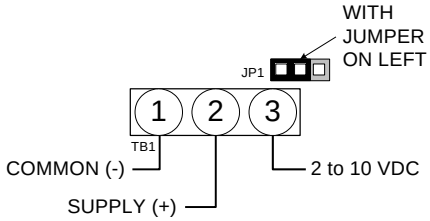


1. Manually close the damper blades and positioned the actuator at 0º or 90º.
2. Slide the actuator onto the shaft.
3. Tighten the nuts on the “U” bolt to the shaft with a 8mm wrench to a torque of 60 in.lb. [6,7 Nm].
4. Slide the mounting bracket under the actuator. Ensure free movement of the slot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

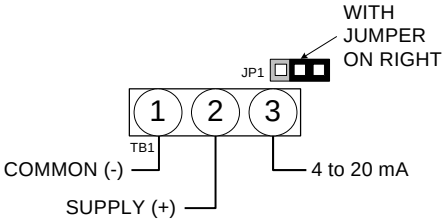
Wiring Diagrams

Models DM060S & 080S

Analog 2 to 10 VDC



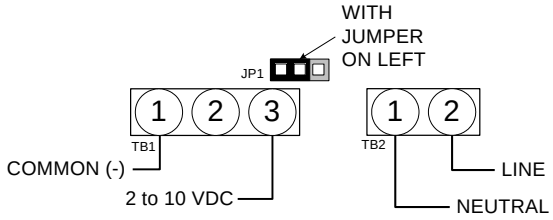
Analog 4 to 20 mA



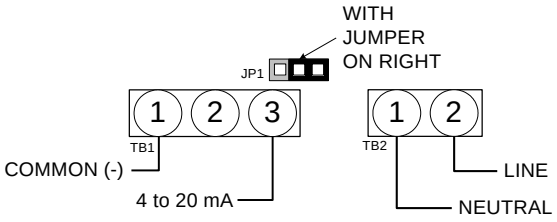
Models DM160S, 180S, 260S & 280S

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

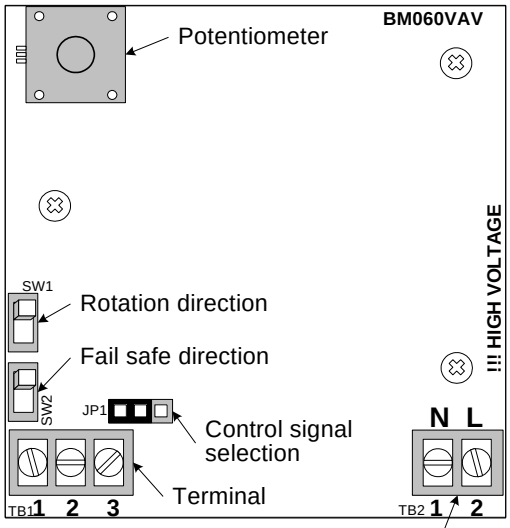
Analog 2 to 10 VDC



Analog 4 to 20 mA



PC Board



Dip switch settings

Rotation direction (SW1)

Fail safe direction (SW2)

Stroke adjustment

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