

APPLICATION

Field addable feedback potentiometer for use with ML6161A Direct Coupled Actuators. 0 to 500 ohm or 0 to 2000 ohm resistance output provides ML6161A positioning to an electronic control system. The 200976A,C Potentiometer can only be used with ML6161A actuators which contain an auxiliary drive system.

DIMENSIONAL:

See Fig. 1 for approximate dimensions of the 200976A,C.

ELECTRICAL RATINGS (200976A,C):
24 Vac 50/60 Hz 2.25 Watts

AMBIENT TEMPERATURE RATINGS:
32° F [0° C] to 130° F [54° C]

RESISTANCE OUTPUT: [Resistance linear as measured between terminal R-B].

200976A:

- 0 ohms (at 0 degree CW stroke)
- 250 ohms (at 45 degree CW stroke)
- 333 ohms (at 60 degree CW stroke)
- 500 ohms (at 90 degree CW stroke)

200976C:

- 0 ohms (at 0 degree CW stroke)
- 1000 ohms (at 45 degree CW stroke)
- 1334 ohms (at 60 degree CW stroke)
- 2000 ohms (at 90 degree CW stroke)

INSTALLATION

WHEN INSTALLING THIS PRODUCT...

1. Read these instructions carefully. Failure to follow them could damage the product or cause a hazardous condition.
2. Check the above ratings to make sure the product is suitable for your application.
3. Installer must be a trained, experienced service technician.
4. It will be easier to install the 200976A,C Potentiometer on to ML6161A prior to mounting the actuator on to the damper.
5. After installation is complete, check out product operation as provided in these instructions.

CAUTION

1. Disconnect power supply before beginning installation to prevent electrical shock and equipment damage.
2. Voltage and frequency of power source must be the same as that shown on the nameplate of the actuator.

The 200976A,C mounts to the face of the ML6161A as shown in Fig. 2. The potentiometer shaft has a slipping collar, meaning that if one of the two limits of the pot is exceeded, the collar will continue to rotate causing no damage to the pot itself. To mount the pot on the actuator, line up the key on the pot shaft with the slot in the pot drive

by turning the shaft to the correct position so that the pot will be mounted with attached bracket aligned with the screw hole location on the ML6161A. Tilt the pot slightly so the key faces downward towards the slot. Insert the pot into the slot, and push down so the pot is flush to the actuator's body and the bracket is aligned over the screw hole. Insert the screw provided into the hole and fasten securely.

CAUTION

1. Failure to follow the OPERATION AND CHECKOUT procedures may result in improper resistance values at desired stroke.
2. Remove range stop pin and/or minimum position set screw if used.

OPERATION AND CHECKOUT

To calibrate the 200976A,C, the actuator must be allowed to move from fully closed (0 degrees) to fully open (90 degrees) and back again to the fully closed position. This must be done in order to receive the correct resistance readings at the appropriate degree of stroke. NOTE: Range stop pins and minimum position adjustments must not be in place when you move the actuator from fully closed to fully open. After the actuator has gone through the cycle above, check the resistance values at intervals in the stroke with an ohmmeter while referencing the table in Fig. 2 and resistance information provided above. Once resistance values have been verified, you may replace the range stop pin and/or the minimum position set screw.

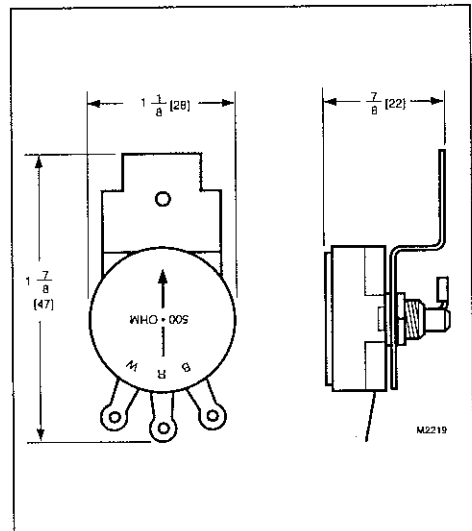


Fig. 1—Dimensions of 200976A,C [mm shown in brackets].

AUXILIARY POTENTIOMETER		
MOTOR POSITION	RW RESISTANCE	RB RESISTANCE
FULL CW 24V (COM-CW)	0 Ω	500 OR 2000 Ω
FULL CCW 24V (COM-CCW)	500 OR 2000 Ω	0 Ω

MOTOR ROTATION	AUX POT LEADS	
	RW OHMS	RB OHMS
CCW	↑	↓
CW	↓	↑

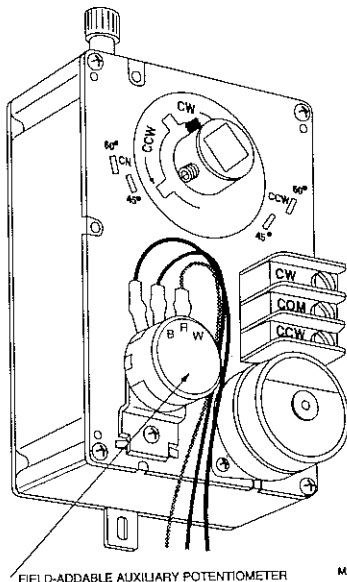


Fig. 2—ML6161A with Field-Addable Potentiometer.

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PRINTED IN MEXICO

