



Calibration of 4-20mA, 0-10VDC and 1-5 VDC Positioner Boards

The non-interactive zero and span on the AMC-100/AMC-101 electronic positioner board allow for easy field calibration once the unit has been installed in line.

NOTE: All units are shipped with the zero/span/deadband FACTORY ADJUSTED in conjunction with the feedback potentiometer. Only limited adjustments should be necessary.

Please refer to the accompanying outline for the location of the adjustment points on the positioner board.

I. TO SET THE ZERO AND DEADBAND ADJUSTMENTS

1) Apply AC power to the unit and set the command signal to the minimum:

0V for 0-10V type
1V for 1-5V type
4mA for 4-20mA type

2) Adjust the "ZERO" adjustment so that the actuator moves to the CLOSED position. (NOTE: All units are shipped in the OPEN position). This can be achieved by turning the ZERO adjustment screw either CW or CCW with one 90-180 degree turn (1/4 or 1/2 turn). If the actuator does not move, please check the position of the limit switches to make sure the closed switch is engaged with the cam arm.

3) If the actuator is "hunting" for position (i.e., not stopping or moving back and forth), turn the DEADBAND adjustment CCW until hunting stops.

WARNING: Actuator failure might occur if the DEADBAND adjustment is set to allow continuous hunting. This can cause excessive wear of motor parts, brakes, and feedback potentiometers. Hunting can also cause the internal temperature of the actuator housing to rise to a level that exceeds the maximum temperature rating of the AMC100/101 (60°C).

II. TO SET THE SPAN ADJUSTMENTS

1) Apply AC power to the unit and set the command signal to the maximum:

10V for 0-10V type
5V for 1-5V type
20mA for 4-20mA type

2) Adjust the "SPAN" adjustment so that the actuator moves to the OPEN position. This can be achieved by turning the SPAN adjustment screw either CW or CCW with one 90-180 degree turn (1/4 or 1/2 turn). If the actuator does not move, please check the position of the limit switches to make sure the open switch is engaged with the cam arm.

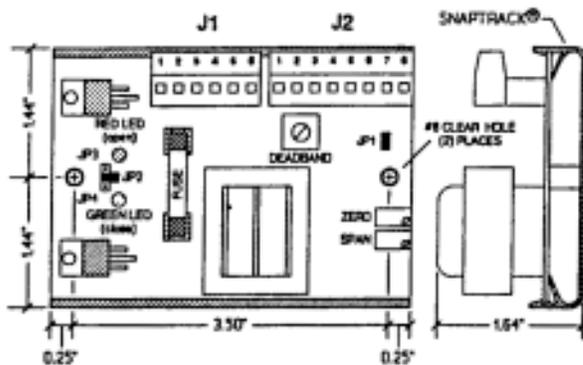
IMPORTANT: The ZERO adjustment is an offset setting rather than an absolute setting, which means that the ZERO setting affects the SPAN. Should the ZERO adjustment be changed, the SPAN should be checked for the desired open position. Setting the SPAN has no affect on the ZERO.

To check proper operation and linearity, set the command signal to the halfway position:

5V for 0-10V type
3V for 1-5V type
9mA for 4-20mA type

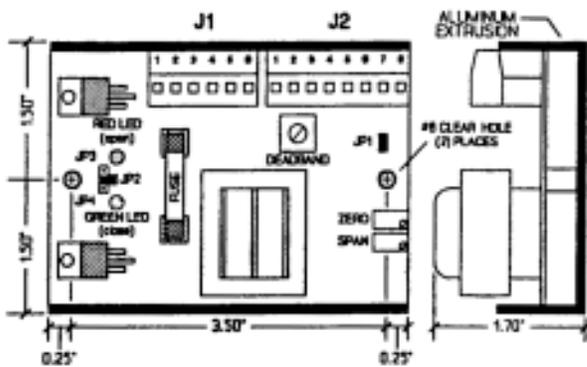
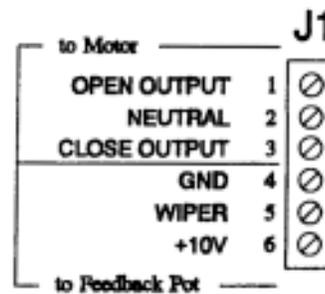
Verify that the actuator is in the midway position between open and closed.

OUTLINE

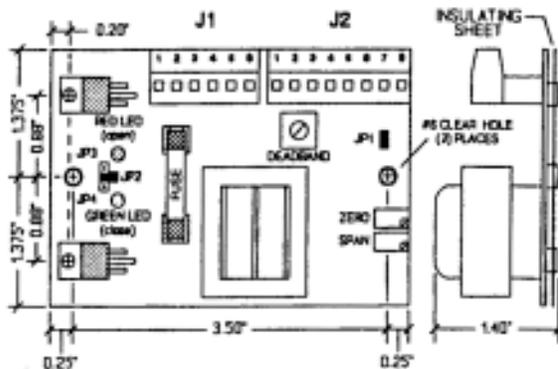
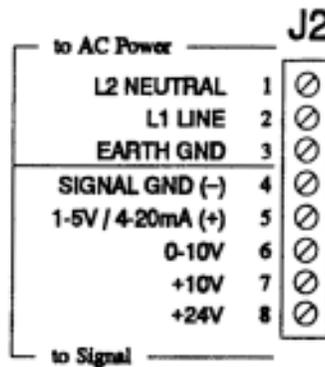


22018-AMC-100 117VAC, 2A
 22018C-AMC-100B 234VAC, 2A
 22018A-AMC-100D 24VAC, 2A

ELECTRICAL CONNECTIONS



22018-AMC-101 117VAC, 5A
 22018C-AMC-101B 234VAC, 5A
 22018A-AMC-101D 24VAC, 5A



AMC-100A 117VAC, 2A AMC-101A 117VAC, 5A
 AMC-100C 234VAC, 2A AMC-101C 234VAC, 5A
 AMC-100E 24VAC, 2A AMC-101E 24VAC, 5A

INPUT SIGNAL	
INPUT SIGNAL RANGE	JP1 JUMPER PLUG
0-10V	INSTALL
1-5V	REMOVE
4-20mA	INSTALL

LOSS OF INPUT SIGNAL	
OUTPUT STATE	JUMPER PLUG
BOTH OFF	JP2
OPEN ON	JP3
CLOSE ON	JP4

NOTE: Do not install JP2, JP3, or JP4 when using the 0-10V input signal range. Power must be off when installing these jumpers.