

## **NOTES**

This instructional manual contains important information regarding the installation and operation of the KZ SOLUTIONS electric actuators. Please read these instructions carefully and save them for future reference.

It is important that you verify the output torque of the actuator is within the torque needed to turn the valve. Check the duty cycle to be sure that it is appropriate for the intended application.

***CAUTION: Dangerous voltages are present inside the actuator unless the power supply to the actuator has been shut off or disconnected. Check to see if voltages are present before working on the unit.***

## **Mounting the Actuator**

Verify that the output torque of the actuator is appropriate for the torque requirements of the valve and that the duty cycle is appropriate for the intended application.

The KZ SOLUTIONS Electric actuator is a female with two ISO bolt patterns for mounting to a valve or bracket and coupler.

Brackets should have a minimum of four bolts with lock washers to secure the actuator to the bracket. There is to be NO flexibility in the bracket, and NO ‘play’ in the coupler. All parts must be in alignment to avoid side loading.

## **WIRING**

Be sure to follow all national and local wiring codes. The label identifies the voltage and current requirements for the actuator. The wiring label inside the cover will be for the unit that is being mounted, be sure to read and follow directions.

## **ADJUSTMENTS TO THE LIMIT SWITCHES**

If any adjustment of the open or closed position switches is required, please proceed as follows:

### **A. THE OPEN SWITCH CAM**

- 1) Remove power from the actuator.
- 2) Use a hex wrench, loosen the setscrew in the open limit switch cam( the second up from the bottom.)
- 3) Apply power to the correct terminals as shown in the cover schematic to drive the actuator to the open position desired.
  - a. Remove the power from the actuator.
  - b. Rotate the cam toward the limit switch arm until the switch clicks closed.

- c. Set the vertical cam position so that the bottom of the cam is in contact with the limit switch arm. Tighten the Cam setscrew to secure the cam in position. Do not over tighten the setscrews. If the cam is not set in this high position, the cam will disengage from the limit switch arm when using the manual override feature.

## **B. THE CLOSED SWITCH**

- 1) Remove power from the actuator
- 2) Use a hex wrench, loosen the setscrew in the open limit switch cam (the bottom switch.)
- 3) Apply power to the correct terminals as shown in the cover schematic to drive the actuator to the closed position desired.
- 4) Remove the power from the actuator until the switch clicks closed.
- 5) Set the vertical cam position so that the bottom of the cam is in contact with the limit switch arm. Tighten the Cam setscrew to secure the cam in position. Do not over tighten the setscrews. If the cam is not set in this high position, the cam will disengage from the limit switch arm when using the manual override feature.

## **MANUAL OVERRIDE USE**

***THE MANUAL OVERRIDE DOES NOT DISENGAGE THE UNIT ELECTRICALLY.***

To engage the manual override, push down on the top of the shaft. Turn to the desired position and release, the manual override will disengage due to the spring inside the unit.