Honeywell

Troubleshooting Guide for ML Valve Actuator

TROUBLESHOOTING GUIDE

SYMPTOM	POSSIBLE CAUSES	ACTIONS
Valve leaks or will not close off fully	• System pressure too high • Actuator not properly installed • Incorrect DIP switch settings	• Check Valve Close-off rating, and ML & Valve combinations: • Ensure valve stem is fully threaded into brass drive shaft & locked in place with the set screw • Check against Product Instruction Sheet
Noisy motor	• Bearing failed due to overheat • Brushes worn out	• Check for excessive temperature and replace complete actuator • High Temperature Kit is available; 43196000-001 • Check for excessive cycling
Motor overheats/smoke/ component burnt-out	• Current sensing circuit failed or electronic components failed	Replace actuator. Make sure: • Correct actuator used • Properly installed • Do not adjust any calibration pot. • Proper voltage supply • Applied according to ML specifications
ML will not respond	• Incorrect DIP switch settings • No or low power supply • No control signal present • Incorrect wiring connections • Incorrect signal polarity • Internal time delay	• Check against Product Instruction Sheet • Check voltage on T5 & T6 terminals • Check controller • Check against Product Instruction Sheet • Check against Product Instruction Sheet • Allow >1 second for the ML to respond
Vdc/mA signal drops when connected to ML	• Signal degradation due to incompatible load impedance	• Check Controller Output and ML Input Impedance specifications
ML6984 will not close or lock-up when used with T87	• T87 Cooling Anticipator caused current shunting to the ML	• Use Series 2- ML6984 (Date Code 0049) or cut T87 Cooling Anticipator resistor

Emergency Field Calibration for ML7984A

This is a rough calibration only. DO NOT CHANGE THE FACTORY CALIBRATIONS UNLESS ABSOLUTELY NECESSARY!

1. Set the controller signal to its mid value (i.e. 6 Vdc, 12 mA or 67.5 R) with a digital meter connected.
2. Measure the distance between the bottom of yoke (top of valve bonnet) to the bottom/tip of the brass output drive shaft with a caliper, measuring tape or ruler.
3. Insert a 5 mm wide flat bladed screwdriver into the T-shaped slot on the BLACK feedback pot. (the one that attached to the brass drive shaft).
4. Turn the pot. so that the actuator will respond with travel either upward or downward until the reading on the caliper shows: 68.8 mm (for ML7984A3001) or 71.8 mm (for ML7984A3019).
5. Tag the actuator with reference to this modification, i.e. The device has been modified to ML7984A3019.

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