

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!

- Set the controller signal to its mid value (i.e. 6 Vdc, 12 mA or 67.5 R) with a digital meter connected.
- 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.
- 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).
- 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).
- Tag the actuator with reference to this modification, i.e. The device has been modified to ML7984A3019.

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