

Troubleshooting Guide

PROBLEM	POSSIBLE CAUSES	REMEDIES
No response from unit	Blown fuse Input power wires reversed. See "Actuator chatters" for additional possible causes.	Replace with appropriate 3.15A fuse (Littelfuse No. 3741315000). Reverse input power leads.
No response from 4-20mA input (yellow LED not lit)	Input polarity reversed. Input signal not connected.	Reverse input wires. Check signal.
Actuator chatters and/or blows fuses.	Power supply used cannot maintain the rated voltage when motor is energized. Power supply negative not connected to system's earth ground. Undersized wire gauge Signal Ground does not have separate wire to battery's negative terminal. Exposure to moisture or liquids	Replace power supply with higher current capability. Connect power supply negative to earth ground. Use recommended wire gauge for length of wire used (see Wire Table). Run separate wires from battery's negative terminal to 4-20(-) and BAT NEG. Use heater and thermostat or provide separate sealed enclosure.
Actuator runs to limit switch.	Feedback potentiometer wired backwards.	Reverse wires connected to +5V and GND.
Actuator runs past limit switch.	Motor wired backwards.	Reverse wires connected to MOTOR 1 and MOTOR 2.
Actuator cannot be reversed after reaching limit switches.	Limit switches reversed.	Reverse limit switches or wiring.
Actuator hunts for position.	Deadband adjustment improperly set. Feedback potentiometer mechanically unstable. Unstable command input signal from PID control loop Actuator load variations (e.g., 45° position on butterfly valves) See "Actuator chatters" for additional possible causes.	See "Calibration" in manual. Repair as necessary. Adjust PID parameters for stable command signal. Increase deadband adjustment.

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Output relay failures	Excessive hunting or chattering Locked rotor current over 5A Applying external power to MOTOR 1 and MOTOR 2 connections.	See above. Contact actuator manufacturer. Remove motor wires before applying external power to motor.
Erratic operation	Bad feedback potentiometer Exposure to moisture or liquids on the printed circuit board	Replace feedback potentiometer. Use heater and thermostat, or provide separate sealed enclosure.