

## MARS L230-4

# MARS L230-4 Limit Switch User Manual

Model: L230-4 | Brand: MARS

## 1. INTRODUCTION

This manual provides essential information for the safe and efficient installation, operation, and maintenance of your MARS L230-4 Limit Switch. Please read this manual thoroughly before attempting to install or operate the device. Retain this manual for future reference.

## 2. SAFETY INFORMATION

**WARNING:** Electrical shock hazard. Always disconnect power before installing, servicing, or removing this device. Installation should only be performed by qualified personnel in accordance with all local and national electrical codes.

- Ensure proper grounding to prevent electrical shock.
- Do not exceed the specified electrical ratings of the switch.
- Protect the device from physical damage and extreme environmental conditions beyond its IP54 rating.
- Verify all connections are secure before restoring power.

## 3. PRODUCT OVERVIEW

The MARS L230-4 is a robust limit switch designed for industrial applications. It functions as a temperature switch, detecting specific temperature thresholds to control electrical circuits. Its IP54 rating ensures protection against dust ingress and splashing water, making it suitable for various environments. The switch features both quick-connect and screw-type terminals for versatile wiring options and is designed for flange mounting.



Figure 3.1: Front view of the MARS L230-4 Limit Switch, showing its compact design.

## 4. SETUP AND INSTALLATION

Follow these steps for proper installation of the MARS L230-4 Limit Switch:

1. **Power Disconnection:** Ensure all power to the circuit where the switch will be installed is completely disconnected and locked out.
2. **Mounting:** The L230-4 is designed for flange mounting. Secure the switch firmly to a stable surface using appropriate fasteners through the mounting holes. Ensure the switch is positioned correctly for accurate temperature sensing.
3. **Wiring:** Connect the electrical wires to the designated terminals. The switch supports both quick-connect and screw-type terminals. Ensure all connections are tight and secure to prevent loose contacts and potential hazards. Refer to the wiring diagram provided with your equipment for specific connection points.
4. **Environmental Protection:** While the switch has an IP54 rating, avoid direct exposure to excessive moisture or corrosive substances.
5. **Verification:** After installation, visually inspect all connections and mounting points.

6. **Power Restoration:** Once installation is complete and verified, restore power to the circuit.



Figure 4.1: Side view of the MARS L230-4 Limit Switch, highlighting the terminal connections.

## 5. OPERATING INSTRUCTIONS

The MARS L230-4 functions as a temperature-activated limit switch. Once installed and wired correctly, it will automatically activate or deactivate a circuit based on the temperature it senses. There are no user-adjustable settings on the switch itself. Its operation is determined by its internal design and the temperature threshold it is manufactured to detect.

- Ensure the switch is exposed to the temperature it is intended to monitor.
- Monitor the connected system to confirm the switch is operating as expected at the desired temperature setpoint.

## 6. MAINTENANCE

Regular maintenance helps ensure the longevity and reliable operation of your limit switch.

- **Cleaning:** Periodically clean the exterior of the switch with a soft, dry cloth. Avoid using harsh chemicals or abrasive materials.

- **Inspection:** Regularly inspect the switch for any signs of physical damage, corrosion, or loose connections.
- **Environmental Check:** Ensure the operating environment remains within the specified conditions for the IP54 rating.
- **Power Disconnection:** Always disconnect power before performing any cleaning or inspection that requires direct contact with the switch or its wiring.

## 7. TROUBLESHOOTING

If you experience issues with your MARS L230-4 Limit Switch, consider the following troubleshooting steps:

- **Switch Not Activating:**
  - Verify that power is supplied to the circuit.
  - Check all wiring connections for looseness or corrosion.
  - Ensure the temperature being sensed has reached the switch's activation threshold.
  - Inspect the switch for physical damage.
- **False Activation/Deactivation:**
  - Confirm the switch is correctly positioned to sense the intended temperature.
  - Check for external factors influencing temperature readings (e.g., drafts, heat sources).
  - Ensure the switch is securely mounted and not vibrating excessively.
- **No Power to Connected Device:**
  - Check the circuit breaker or fuse for the connected circuit.
  - Verify the switch's internal contacts are functioning (requires specialized testing and should only be done by qualified personnel).

If problems persist after performing these checks, contact a qualified technician or MARS customer support.

## 8. SPECIFICATIONS

Feature	Specification
Brand	MARS
Model Number	L230-4
Switch Type	Temperature Switch
Connector Type	Quick_connect, Screw
Terminal Type	Screw-type, screwtype Terminals
Mounting Type	Flange Mount
International Protection Rating	IP54
Specification Met	CSA
Connectivity Protocol	X-10

Feature	Specification
Unit Count	1.0 Count
Item Weight	1 pounds
Batteries Required?	No



Figure 8.1: Rear view of the MARS L230-4 Limit Switch.

## 9. WARRANTY AND SUPPORT

For information regarding warranty coverage, technical support, or replacement parts for your MARS L230-4 Limit Switch, please contact MARS customer service directly or refer to the official MARS website. Keep your purchase receipt for warranty claims.