uxcell a19040200ux0577

uxcell Thermal Fuse 250V 15A TF 200°C Instruction Manual

Model: a19040200ux0577

1. Introduction

This manual provides essential information for the safe and effective use of the uxcell Thermal Fuse, model a19040200ux0577. This thermal fuse is designed as a safety device to protect electrical circuits from overheating by interrupting the current when a specified temperature is reached. It is a single-use, non-resettable component.

2. Safety Information

WARNING: Electrical components can be dangerous. Installation and replacement should only be performed by qualified personnel with appropriate safety precautions.

- Always disconnect power to the appliance or circuit before attempting installation or replacement.
- Wear appropriate personal protective equipment (PPE), such as insulated gloves and safety glasses.
- Ensure the replacement fuse matches the original specifications (voltage, current, and cut-off temperature).
- Do not bypass or attempt to repair a blown thermal fuse. It indicates an underlying issue that must be addressed.
- Improper installation or use can result in electric shock, fire, or damage to equipment.

3. Product Overview

The uxcell Thermal Fuse is a compact, one-shot thermal cutoff device. It features insulated leads and a sealed structure, sensitive to temperature changes. When the ambient temperature reaches its rated cut-off temperature, the internal fusible link melts, permanently opening the circuit.

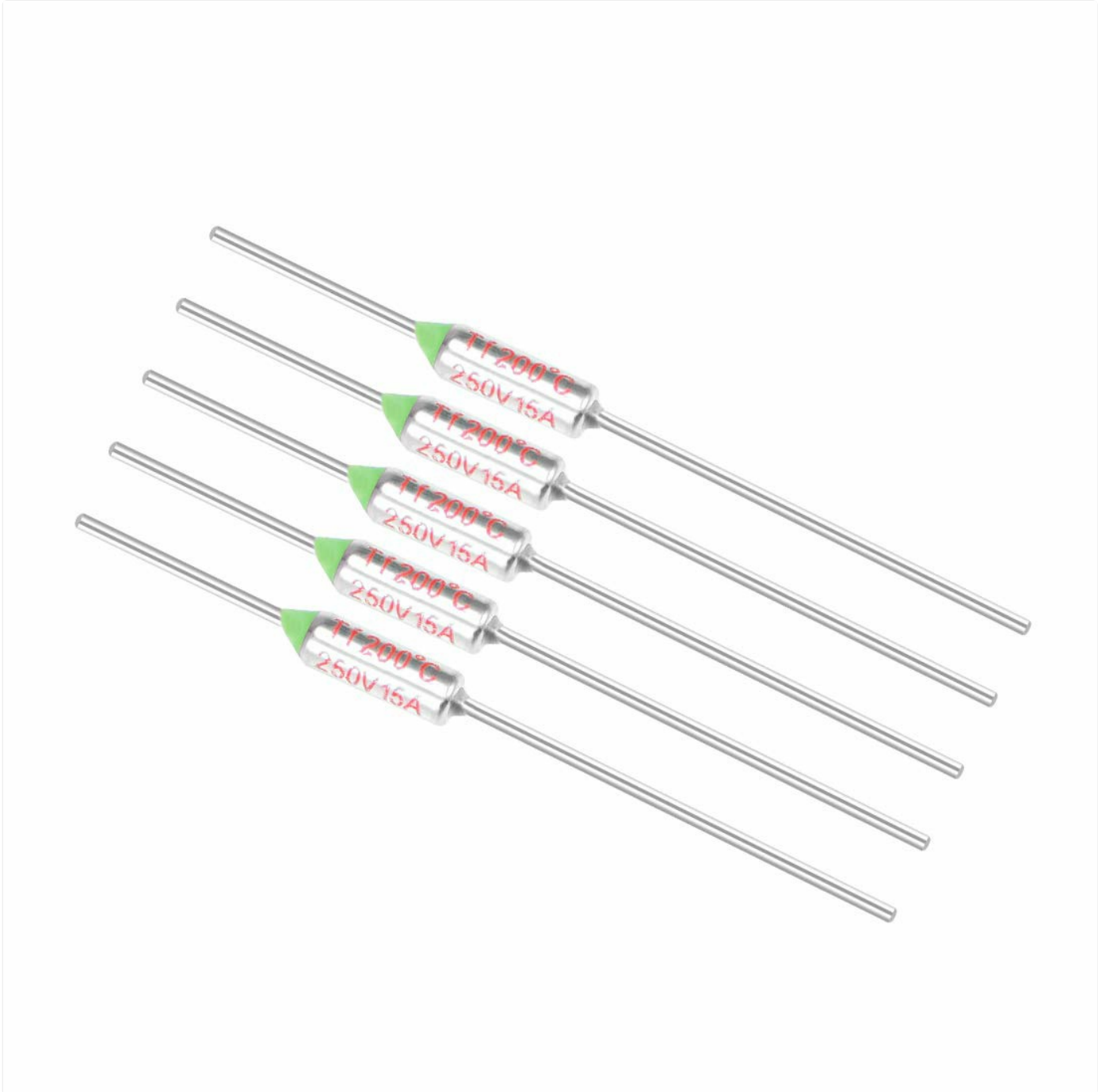

Figure 1: uxcell Thermal Fuses (5-pack)

This image displays five individual uxcell thermal fuses, each with a cylindrical body and two wire leads extending from either end. The green band on each fuse indicates its specifications.

Figure 2: Close-up of a Single Thermal Fuse

A detailed view of one thermal fuse, highlighting the markings "TF 200°C" and "250V 15A" on its green-banded body, indicating its temperature and electrical ratings.

4. Specifications

Parameter	Value
Rated Voltage	250 Volt
Rated Current	15 A
Cut-Off Temperature	200°C / 392°F
Fuse Size (Diameter x Length)	4mm x 13mm / 0.15in x 0.5in
Total Length	65mm / 2.6in

Parameter	Value
Material	Aluminum
Mounting Type	Through-Hole Mount
Model Number	a19040200ux0577

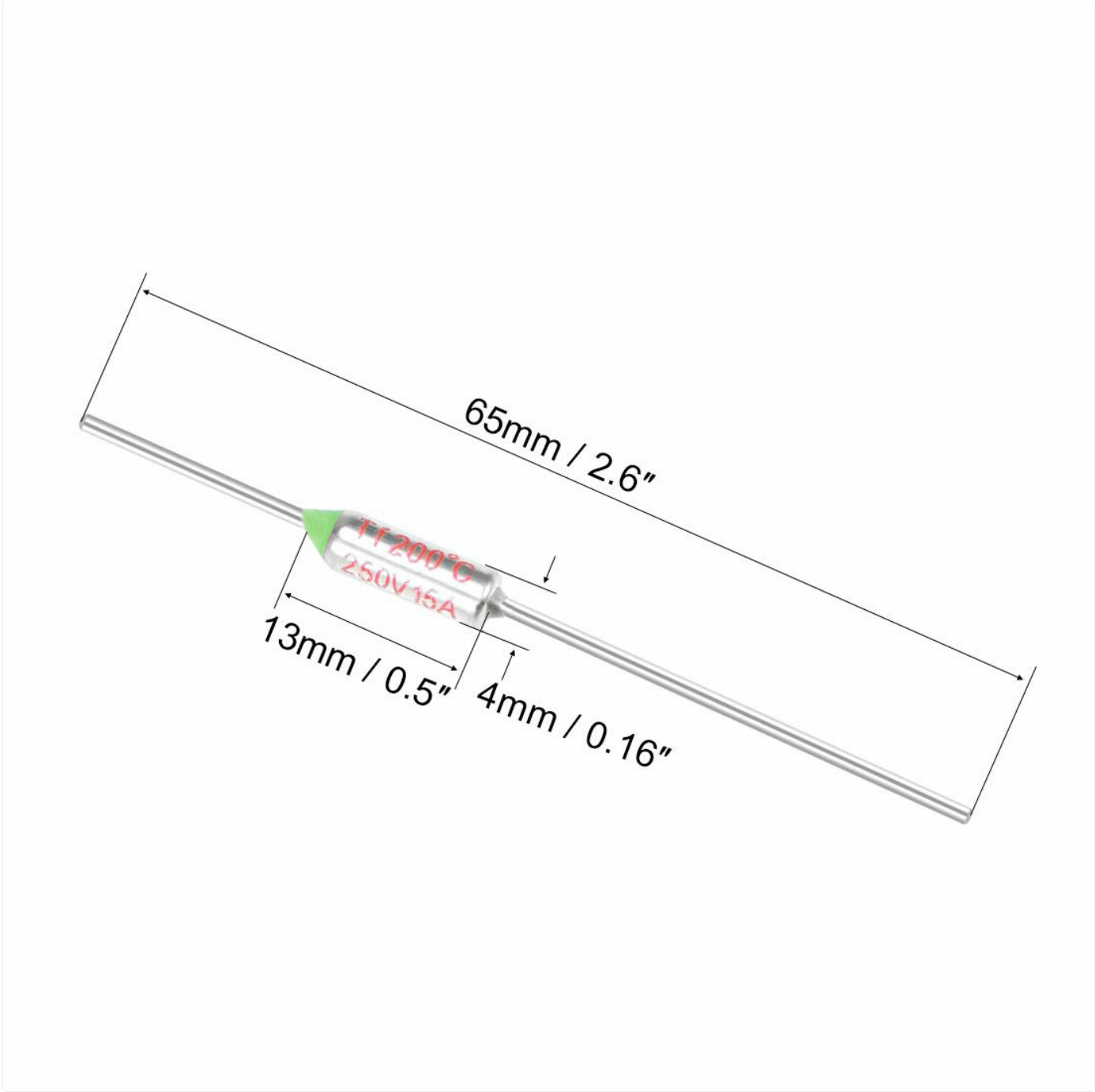

Figure 3: Thermal Fuse Dimensions

This diagram illustrates the physical dimensions of the thermal fuse, including its total length of 65mm (2.6 inches), fuse body length of 13mm (0.5 inches), and diameter of 4mm (0.16 inches).

5. Setup and Installation

Thermal fuses are typically installed in series with the heating element or power supply of an appliance. They are designed to open the circuit permanently if the temperature exceeds a safe limit.

1. **Identify the Original Fuse:** Locate the existing thermal fuse in your appliance. Note its specifications (voltage, current, temperature) to ensure the replacement is compatible.
2. **Disconnect Power:** **Crucially, ensure the appliance is completely disconnected from its power source before proceeding.**
3. **Remove the Old Fuse:** Carefully desolder or cut the leads of the old, blown thermal fuse. Avoid damaging surrounding components.
4. **Prepare the New Fuse:** Bend the leads of the new thermal fuse as needed to match the installation points, ensuring not to stress the fuse body itself.
5. **Install the New Fuse:** Solder the leads of the new thermal fuse into place. Ensure good electrical contact and avoid excessive heat transfer to the fuse body during soldering, as this can prematurely trigger it. Use heat sinks on the leads if necessary.
6. **Secure and Reassemble:** Secure the fuse if required and reassemble the appliance, ensuring all connections are correct and no wires are pinched.
7. **Test:** Reconnect power and test the appliance's functionality.

Figure 4: Example of Electrical Component Installation
This image depicts a person working on an electrical panel, symbolizing the environment where thermal fuses might be installed. It emphasizes the need for professional handling of electrical components.

6. Operating Principles

The uxcell Thermal Fuse operates on a simple principle: it contains a heat-sensitive fusible link. When the ambient temperature around the fuse reaches its specified cut-off temperature (200°C for this model), the fusible link melts, creating an open circuit. This action permanently interrupts the flow of electricity, preventing further overheating and potential damage or fire.
It is important to understand that this is a **one-time device**. Once it has triggered, it cannot be reset and must be replaced. Its activation indicates that the appliance or circuit experienced an unsafe temperature condition, which should be investigated and resolved before replacing the fuse.

7. Maintenance

Thermal fuses are maintenance-free components. They are designed to function reliably until their cut-off temperature is reached. No routine maintenance, cleaning, or testing is required for the fuse itself.
If a thermal fuse activates, it signifies a fault condition within the appliance. The focus should be on diagnosing and repairing the root cause of the overheating, rather than attempting to maintain or repair the fuse.

8. Troubleshooting

If your appliance stops working and a thermal fuse is suspected:

- **No Power:** If the appliance has no power, and other components appear functional, the thermal fuse may have opened.
- **Continuity Test:** With the power disconnected, use a multimeter to check for continuity across the thermal fuse. A blown fuse will show an open circuit (no continuity).
- **Identify Root Cause:** Before replacing a blown fuse, it is critical to determine why it activated. Common causes include:
  - Faulty heating element
  - Malfunctioning thermostat
  - Blocked ventilation or fan failure leading to excessive heat buildup
  - Overload condition
- **Replacement:** Only replace the fuse after the underlying issue has been resolved. Always use a replacement fuse with identical specifications (voltage, current, and cut-off temperature).

9. Warranty and Support

As a consumable safety component, thermal fuses typically do not come with an extended warranty against normal operation (i.e., blowing when intended). However, if you believe there is a manufacturing defect with an unused fuse, please contact uxcell customer support through your purchase channel.
For technical assistance or inquiries, please refer to the uxcell official website or contact their customer service department.