

YXQ TM-1703

YXQ TM-1703 Micro Limit Switch User Manual

1. INTRODUCTION

This manual provides essential information for the safe and effective installation, operation, and maintenance of the YXQ TM-1703 Micro Limit Switch. The TM-1703 is designed to monitor the position of moving parts in various mechanical systems. It is suitable for use in safety circuits, control circuits, and auxiliary circuits for terminal limit protection.

2. SAFETY INFORMATION

WARNING: Electrical shock hazard. Always disconnect power before installation, maintenance, or troubleshooting.

- Ensure all wiring is performed by a qualified electrician in accordance with local and national electrical codes.
- Verify that the voltage and current ratings of the switch are compatible with your application.
- Do not exceed the specified electrical ratings to prevent damage to the switch or connected equipment.
- Protect the switch from excessive moisture, dust, and corrosive environments unless specifically rated for such conditions.

3. PRODUCT OVERVIEW

The YXQ TM-1703 is a micro limit switch featuring a long hinge roller lever actuator. It provides momentary contact action with 1 Normally Open (NO), 1 Normally Closed (NC), and 1 Common (Com) contact configuration, utilizing screw terminals for secure electrical connections.



Image of the YXQ TM-1703 Micro Limit Switch, showing the main body and the long hinge roller lever.

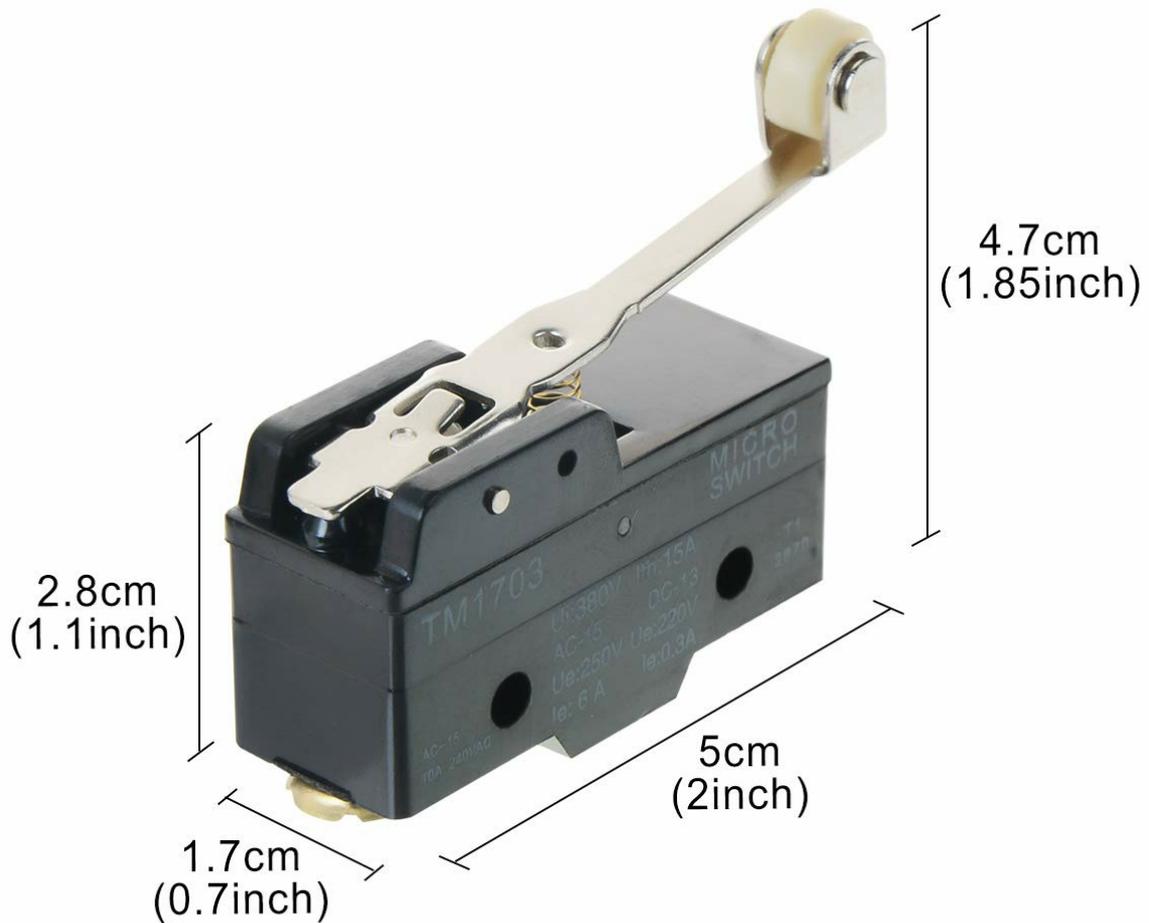


Diagram illustrating the dimensions of the YXQ TM-1703 Micro Limit Switch, including length, width, height, and lever length.

4. INSTALLATION

4.1 Mounting

1. Select a suitable mounting location where the switch actuator can be reliably engaged by the moving part it is intended to monitor.
2. Ensure the mounting surface is flat and stable.
3. Align the switch body with the desired position. The switch body dimensions are approximately 50 x 30 x 18mm (L*W*H).
4. Secure the switch using appropriate fasteners through the mounting holes. The hole center distance is 26mm (1 inch) and the hole diameter is 4.3mm (0.2 inch).

4.2 Wiring

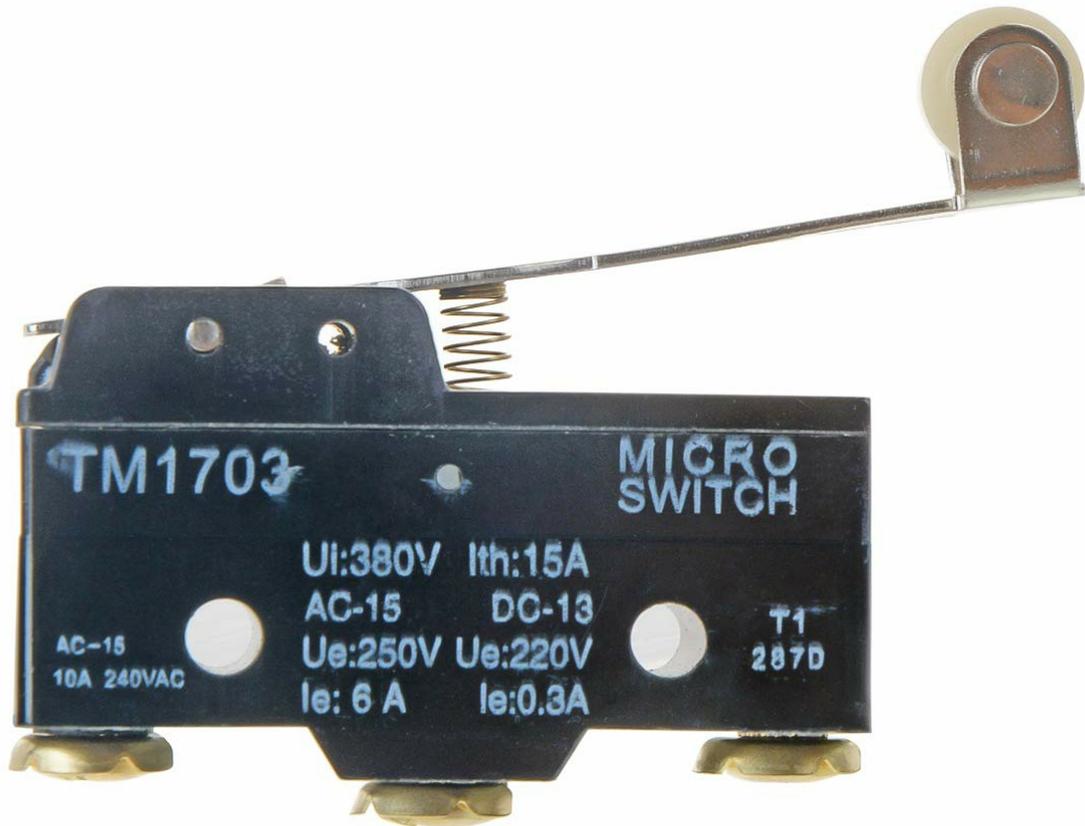
The TM-1703 features screw terminals for electrical connections. Identify the terminals before wiring:



View of the YXQ TM-1703 Micro Limit Switch from the bottom, highlighting the screw terminals for electrical connections.

- **Common (Com):** This is the shared terminal for both NO and NC contacts.
- **Normally Open (NO):** This contact is open (no current flow) when the actuator is not pressed and closes when the actuator is pressed.
- **Normally Closed (NC):** This contact is closed (current flows) when the actuator is not pressed and opens when the actuator is pressed.

1. Ensure power is disconnected from the circuit.
2. Strip the insulation from the wire ends to an appropriate length for the screw terminals.
3. Connect the wires to the corresponding terminals (Com, NO, NC) as required by your circuit design.
4. Tighten the screw terminals securely to ensure good electrical contact and prevent loose connections.



Top view of the YXQ TM-1703 Micro Limit Switch, displaying electrical ratings and model number printed on the casing.

5. OPERATION

The TM-1703 operates as a momentary switch. When the long hinge roller lever is actuated (pressed or moved) by a mechanical force, the internal contacts switch their state:

- The Normally Open (NO) contact closes.
- The Normally Closed (NC) contact opens.

Upon release of the actuator, the lever returns to its original position, and the contacts revert to their normal (unactuated) state. The roller on the lever helps reduce friction and wear when interacting with moving parts.

6. MAINTENANCE

The YXQ TM-1703 Micro Limit Switch is designed for reliable operation with minimal maintenance. However, periodic checks can extend its lifespan and ensure consistent performance:

- **Inspection:** Regularly inspect the switch for any signs of physical damage, wear on the roller lever, or

loose connections.

- **Cleaning:** Keep the switch free from excessive dust, debris, or oil buildup that could impede the actuator's movement or affect electrical contacts. Use a dry, soft cloth for cleaning.
- **Connection Check:** Periodically verify that the screw terminals remain tight and that wires are securely connected.

7. TROUBLESHOOTING

If the switch is not functioning as expected, consider the following:

- **No Contact Change:**
 - Check if the actuator lever is being fully engaged by the moving part. Adjust the position if necessary.
 - Inspect the lever for damage or obstruction.
- **Intermittent Operation:**
 - Verify all wiring connections are secure and free from corrosion.
 - Ensure the switch is not exposed to excessive vibration.
- **Switch Overheating/Damage:**
 - Confirm that the operating voltage and current do not exceed the switch's specified ratings.
 - Check for short circuits in the connected wiring.

If issues persist after basic troubleshooting, consult a qualified technician.

8. SPECIFICATIONS

Feature	Specification
Product Name	Micro Switch
Model No.	TM-1703
Brand	YXQ
Actuator Type	Long Hinge Roller Lever
Actuator Action	Momentary
Contact Type	1 NO, 1 NC, 1 Com (Normally Open, Normally Closed, Common)
Terminal Type	Screw Terminals
Rated Insulation Voltage (Ui)	380V
Rated Thermal Current (Ith)	15A
AC-15 (Resistive Load)	Ue: 250V, Ie: 6A
DC-13 (Inductive Load)	Ue: 220V, Ie: 0.3A

Feature	Specification
Body Size (L x W x H)	50 x 30 x 18mm / 2" x 1.2" x 0.7"
Lever Length	63mm / 2.5"
Roller Size (D x T)	10 x 4mm / 0.4" x 0.15"
Mounting Hole Center Distance	26mm / 1"
Mounting Hole Diameter	4.3mm / 0.2"
Material	Metal, Plastic
Color	Black
Net Weight	36g
Operation Mode	Manual
Mounting Type	Surface Mount
Circuit Type	1-way

9. WARRANTY AND SUPPORT

For specific warranty information and technical support regarding your YXQ TM-1703 Micro Limit Switch, please refer to the product packaging or contact the manufacturer directly. General support inquiries can often be directed to the point of purchase or the official YXQ brand store online.

Visit the [YXQ Store](#) for more products and information.