

[Manuals.plus](#) /

› [Baomain](#) /

› Baomain BM-1703 Micro Switch Instruction Manual

Baomain BM-1703

Baomain BM-1703 Micro Switch Instruction Manual

Model: BM-1703 (TM-1703)

1. INTRODUCTION

The Baomain BM-1703 Micro Switch is a precision electrical component designed for reliable control in various industrial and commercial applications. This switch features a long hinge roller lever actuator and screw terminals, making it suitable for both AC and DC control circuits. It is primarily used to detect the presence or limit the movement of mechanical parts, ensuring automated monitoring and control within systems.

This manual provides essential information regarding the installation, operation, maintenance, and specifications of the BM-1703 Micro Switch to ensure safe and effective use.

2. PRODUCT FEATURES

- **Actuator Type:** Long Hinge Roller Lever for precise mechanical actuation.
- **Termination Type:** Three screw terminals for secure and versatile wiring in AC and DC circuits.
- **Mounting Type:** Panel Mount for stable installation.
- **Electrical Ratings:** Ui: 380V, Ith: 15A.
- **Contact Mechanism:** Designed for a quick change in contact state upon reaching the trip point, with finite travel to reset to prevent multiple state changes due to vibration.

The switch's design ensures that the amount of contact travel is independent of the actuator's travel, contributing to consistent performance.



Figure 2.1: Two Baomain BM-1703 Micro Switches.

3. SAFETY INFORMATION

Please read and understand all safety instructions before installing or operating the BM-1703 Micro Switch. Failure to follow these instructions may result in electric shock, fire, or serious injury.

- **Electrical Hazard:** Always disconnect power to the circuit before installing, wiring, or performing maintenance on the switch.
- **Qualified Personnel:** Installation and wiring should only be performed by qualified electricians or technicians.
- **Voltage and Current:** Do not exceed the specified voltage (380V AC) and current (15A) ratings.
- **Proper Wiring:** Ensure all connections are secure and correctly wired according to circuit diagrams. Loose connections can cause overheating or malfunction.
- **Environmental Conditions:** Do not expose the switch to excessive moisture, dust, or corrosive environments unless specifically rated for such conditions.

4. SETUP AND INSTALLATION

The BM-1703 Micro Switch is designed for panel mounting. Follow these steps for proper installation:

4.1 Mounting

1. Identify the desired mounting location on your panel or equipment.
2. Drill appropriate holes for the mounting screws, matching the dimensions of the switch body.
3. Secure the switch firmly using suitable screws. Ensure the switch is stable and does not wobble.



Figure 4.1: Bottom view of the micro switch, illustrating mounting points.

4.2 Wiring

The BM-1703 Micro Switch features three screw terminals. These terminals typically correspond to Common (C), Normally Open (NO), and Normally Closed (NC) contacts. Refer to your specific application's circuit diagram for correct connections.

1. **Identify Terminals:** The terminals are usually marked or can be identified by their position relative to the switch's internal mechanism.
2. **Prepare Wires:** Strip the insulation from the ends of your connecting wires to expose enough conductor for a secure connection.

3. **Connect Wires:** Loosen the screw terminals, insert the appropriate wire, and tighten the screw firmly to ensure a good electrical contact.
4. **Verify Connections:** Double-check all wiring against your circuit diagram before applying power.



Figure 4.2: Close-up of the screw terminals for wiring connections.

5. OPERATING INSTRUCTIONS

The BM-1703 Micro Switch operates by detecting mechanical movement. When an external force acts upon the long hinge roller lever, it causes the internal contacts to switch state.

- **Actuation:** The roller lever is designed to be actuated by a moving part of machinery or equipment.
- **Trip Point:** As the lever is depressed, a specific point is reached where the internal contacts rapidly change their state (e.g., Normally Open contacts close, and Normally Closed contacts open).
- **Reset Point:** When the actuating force is removed, the lever returns to its original position, and the contacts revert to their initial state. The distance between the trip and reset point (hysteresis) is designed to prevent chattering or false triggers from minor vibrations.

Ensure that the mechanical part actuating the switch applies sufficient force and travel to reliably reach the trip point

without over-stressing the lever mechanism.

6. MAINTENANCE

The Baomain BM-1703 Micro Switch is designed for durability and requires minimal maintenance. However, periodic inspection can help ensure long-term reliable operation.

- **Visual Inspection:** Regularly check the switch for any signs of physical damage, corrosion, or wear on the lever and housing.
- **Connection Integrity:** Verify that all screw terminals remain tight and that wires are securely connected.
- **Actuator Function:** Ensure the roller lever moves freely and returns to its original position without obstruction.
- **Cleaning:** If necessary, gently clean the exterior of the switch with a dry, soft cloth. Avoid using harsh chemicals or solvents.
- **Environmental Check:** Confirm that the operating environment remains within the specified conditions (temperature, humidity).

7. TROUBLESHOOTING

If you encounter issues with your BM-1703 Micro Switch, consider the following troubleshooting steps:

- **Switch Not Actuating:**
 - Check if the mechanical part is making proper contact with the roller lever.
 - Ensure sufficient travel of the mechanical part to reach the switch's trip point.
 - Inspect the lever for any obstructions or damage.
- **Intermittent Operation:**
 - Verify all wiring connections are tight and free from corrosion.
 - Check for excessive vibration in the system that might cause false triggers or inconsistent actuation.
 - Ensure the switch is securely mounted.
- **No Electrical Response:**
 - Confirm that power is supplied to the circuit.
 - Test continuity across the switch terminals (Common to NO, Common to NC) in both actuated and unactuated states using a multimeter.
 - Check for any blown fuses or tripped circuit breakers in the control circuit.

If problems persist after performing these checks, it may indicate a faulty switch or a more complex issue within the control system. Consult a qualified technician.

8. SPECIFICATIONS

The following table details the technical specifications for the Baomain BM-1703 Micro Switch:

Feature	Specification
Model Number	BM-1703 (TM-1703)
Actuator Type	Long Hinge Roller Lever
Termination Type	Screw Terminal (3 terminals)

Feature	Specification
Mounting Type	Panel Mount
Rated Insulation Voltage (Ui)	380V AC
Rated Thermal Current (Ith)	15A
Operating Voltage	380 Volts
Current Rating	15 Amps
Contact Type	Normally Open (NO) / Normally Closed (NC)
Operation Mode	Automatically
Roller Size	10 x 4mm (Diameter x Thickness)
Body Dimensions (L x W x H)	Approx. 50mm x 20mm x 18mm (2" x 0.79" x 0.71")
Net Weight	Approx. 72g (per switch)

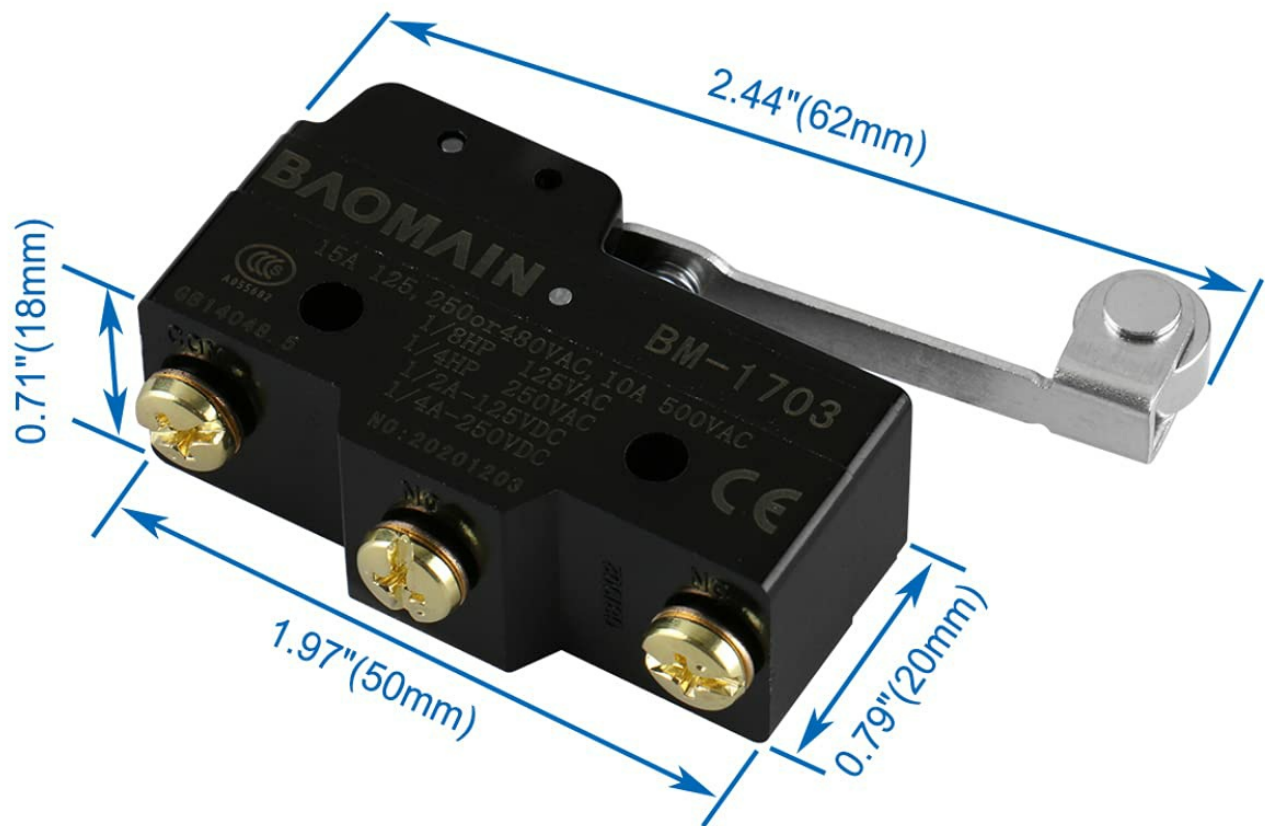


Figure 8.1: Dimensional drawing of the BM-1703 Micro Switch.



Figure 8.2: Electrical ratings printed on the switch body.

9. WARRANTY AND SUPPORT

For warranty information or technical support regarding your Baomain BM-1703 Micro Switch, please refer to the retailer or manufacturer's official website. Keep your purchase receipt as proof of purchase.

For further assistance, you may contact Baomain customer service through their official channels.

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question

Open the live page

<https://manuals.plus/asin/B01HKVDL2U>

More documents and user manuals: <https://manuals.plus/>