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1. PRODUCT OVERVIEW

The Aexit TZ-8108 is an adjustable roller lever limit switch designed for use as an electrical control switch in mechanical and other industrial applications. This momentary action switch features a rotary adjustable lever arm with a roller, allowing for precise activation based on mechanical movement. Its robust design ensures reliable performance in various environments.



Figure 1: Aexit TZ-8108 Adjustable Roller Lever Limit Switch. This image displays the complete limit switch assembly, highlighting the main body, the adjustable lever arm, and the roller at its tip.

2. SAFETY INFORMATION

Please read and understand all safety instructions before installing or operating the TZ-8108 limit switch. Failure to follow these instructions may result in electric shock, fire, or serious injury.

- **Electrical Hazard:** Ensure all power is disconnected at the main circuit breaker before performing any installation, wiring, or maintenance.
- **Qualified Personnel:** Installation and wiring should only be performed by a qualified electrician or trained personnel familiar with electrical systems and safety standards.
- **Rated Specifications:** Do not exceed the rated voltage (250V) or current (5A) of the switch. Overloading can cause damage or fire.
- **Environmental Conditions:** Ensure the operating environment is suitable for the switch's IP20 rating. Avoid exposure to excessive moisture or dust beyond its specified protection level.
- **Secure Mounting:** Mount the switch securely to prevent accidental dislodgement or damage during operation.

3. PACKAGE CONTENTS

Verify that all components are present and undamaged upon opening the package:

- 1 x Aexit TZ-8108 Limit Switch

4. PRODUCT FEATURES

- **Model No.:** TZ-8108
- **Actuator Action:** Momentary
- **Actuator Type:** Rotary Adjustable Lever Arm with Roller
- **Contact Configuration:** 1 Normally Open (NO), 1 Normally Closed (NC) - Single Pole Double Throw (SPDT)
- **IP Rating:** IP20
- **Lever Arm Adjustment:** Can be rotated 90 degrees to the left and 90 degrees to the right.

5. SPECIFICATIONS

Feature	Specification
Product Name	Limit Switch
Model No.	TZ-8108
Rated Voltage	250V AC
Rated Current	5A
IP Rating	IP20
Actuator Type	Rotary Adjustable Lever Arm with Roller
Contact Configuration	1NO, 1NC (SPDT)
Roller Dimension	1.8 x 0.7 cm / 0.7 x 0.25 inches (Diameter*Thickness)
Lever Arm Length	10.5 cm / 4.1 inches
Fixing Thread Diameter	0.4 cm / 0.16 inches
Total Size (L*W*H)	12.7 x 2.9 x 5.1 cm / 5 x 1.1 x 2 inches
Mounting Size (L*W)	56 x 21 mm / 2.2 x 0.8 inches
Material	Rubber, Plastic & Metal
Main Color	Gray, Silver Tone, Black
Net Weight	64g

6. SETUP AND INSTALLATION

The TZ-8108 limit switch is designed for wall mount applications. Proper installation is crucial for safe and reliable operation.

1. **Power Disconnection:** Before beginning any installation, ensure that the power supply to the circuit where the switch will be installed is completely disconnected and locked out.
2. **Mounting Location:** Select a suitable mounting location that is stable, free from excessive vibration, and allows for the proper operation of the lever arm. Consider the path of the object that will actuate the switch.
3. **Mounting:** Secure the limit switch to the desired surface using appropriate fasteners through the mounting holes. The mounting size is 56 x 21 mm (2.2 x 0.8 inches). Ensure the switch is firmly attached.
4. **Wiring:** Connect the electrical wires to the switch terminals according to your application's wiring diagram. The switch has a 1NO, 1NC (SPDT) contact configuration. Refer to the specific circuit requirements for connecting the Normally Open (NO) and Normally Closed (NC) contacts. Ensure all connections are tight and secure.
5. **Lever Arm Adjustment:** Adjust the rotary lever arm to the desired position. The arm can be rotated 90 degrees left or right to align with the actuating mechanism. Ensure the roller makes proper contact with the moving part to trigger the switch reliably.
6. **Verification:** After installation and wiring, double-check all connections and mounting security.
7. **Power Restoration:** Restore power to the circuit and test the switch's operation carefully.

7. OPERATION

The Aexit TZ-8108 is a momentary action limit switch. Its operation is straightforward:

- When the roller on the lever arm is actuated by a moving object, the internal contacts of the switch change state.
- The Normally Open (NO) contact will close, and the Normally Closed (NC) contact will open.
- Once the actuating force is removed, the lever arm returns to its original position, and the contacts revert to their initial state (NO opens, NC closes).
- The adjustable lever arm allows for fine-tuning the point at which the switch is actuated, providing flexibility for various applications.

8. MAINTENANCE

Regular maintenance helps ensure the longevity and reliable performance of your limit switch:

- **Inspection:** Periodically inspect the switch for any signs of physical damage, wear on the roller or lever arm, or loose connections.
- **Cleaning:** Keep the switch clean and free from dust, debris, or foreign objects that could impede the movement of the lever arm or roller. Use a soft, dry cloth for cleaning. Do not use harsh chemicals or abrasive materials.
- **Lubrication:** The roller mechanism is generally self-lubricating. Avoid applying excessive lubricants unless specifically recommended by the manufacturer, as this can attract dust.
- **Environmental Protection:** Ensure the switch remains within its specified IP20 environmental conditions. Protect it from excessive moisture or corrosive substances.

9. TROUBLESHOOTING

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

- **No Response:**
 - Check if the power supply to the circuit is active.
 - Verify all wiring connections are secure and correct according to the circuit diagram.
 - Ensure the lever arm and roller are making proper contact with the actuating object and are moving freely.
 - Inspect for any physical obstruction preventing the lever from moving.
- **Intermittent Operation:**
 - Check for loose wiring connections.
 - Ensure the actuating object consistently makes firm contact with the roller. Adjust the lever arm position if necessary.
 - Inspect the roller and lever arm for wear or damage that might cause inconsistent actuation.
- **Switch Stuck:**
 - Check for physical damage or foreign objects jamming the lever mechanism.
 - Ensure the mounting is not causing undue stress or binding on the switch mechanism.

If problems persist after performing these checks, it is recommended to consult a qualified technician or contact the product supplier for further assistance.

10. WARRANTY AND SUPPORT

Specific warranty information for the Aexit TZ-8108 limit switch may vary depending on the retailer and region of purchase. Please refer to your purchase documentation or contact the seller directly for details regarding warranty coverage and return policies.

For technical support or inquiries, please reach out to your product supplier or the manufacturer, Aexit. When contacting support, please have your product model number (TZ-8108) and purchase details readily available.