DELFIT 5840-31ZY-M8

DELFIT 5840-31ZY-M8 DC Worm Gear Motor Instruction Manual

Adjustable Speed Self-Locking Micro DC Electric Worm Geared Motor

1. Product Overview

The DELFIT 5840-31ZY-M8 is a high-torque DC worm gear motor designed for various micro-automation applications. It features an M8 threaded shaft and a self-locking mechanism, ensuring the shaft remains securely in position when power is disconnected. This motor supports adjustable speed operation and can be powered by either 12V or 24V DC.

Key Features:

- **Rated Voltage:** DC 12V or DC 24V.
- **Speed Range:** 5-470 RPM (adjustable).
- **Shaft Type:** M8 Threaded Shaft, approximately 116mm long.
- **Self-Locking Function:** Shaft locks securely when power is off.
- **Direction Control:** Supports Clockwise (CW) and Counter-Clockwise (CCW) rotation by reversing power polarity.
- **Material:** Constructed with copper components for durability.

2. Package Contents

Verify that all components are present in your package before proceeding with installation.



Image 2.1: The package typically includes the DELFIT DC Worm Gear Motor and a mounting bracket with screws.

3. Setup and Installation

3.1 Power Connection

Connect the motor to a DC power source (12V or 24V) according to your project requirements. Ensure correct polarity for desired rotation direction. Reversing the positive and negative connections will change the motor's rotation direction.

3.2 Mounting

Secure the motor using the provided mounting bracket. Ensure the motor is firmly attached to a stable surface to prevent movement during operation.

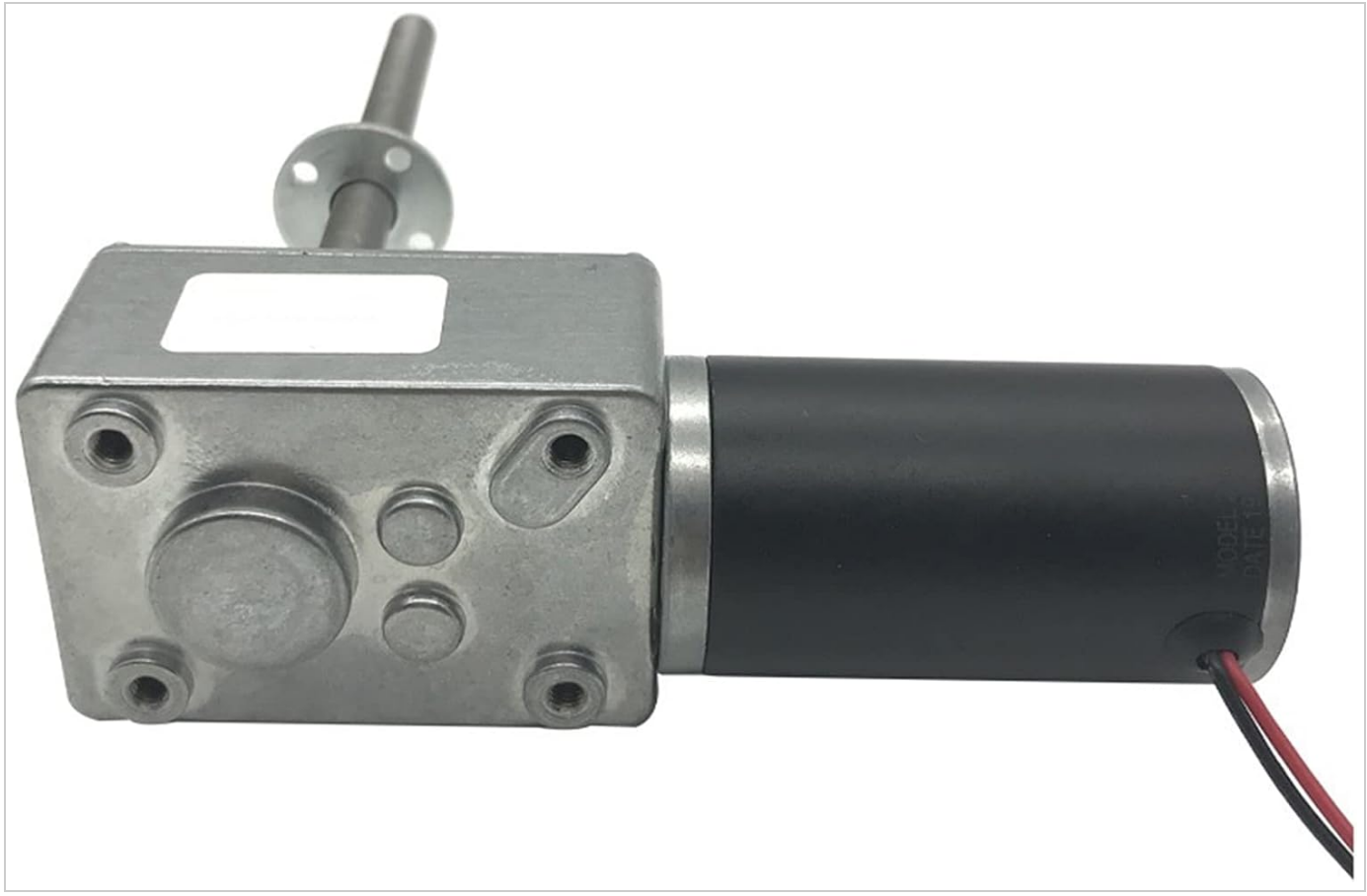


Image 3.1: Rear view of the motor, illustrating the power connection points.

3.3 Speed Adjustment

To adjust the motor's speed, an external speed controller (not included) is required. Connect the speed controller between the power source and the motor according to the controller's instructions.

4. Operating Instructions

4.1 Initial Operation

Once connected to power, the motor will begin to rotate. Observe the rotation direction and adjust power polarity if a different direction is needed.

4.2 Self-Locking Function

The motor features a self-locking mechanism. When the power supply is disconnected, the M8 threaded shaft will be securely locked and cannot be easily moved by external force. This feature is useful for applications requiring the shaft to maintain its position without continuous power.

4.3 Load Considerations

It is crucial that your project's load does not exceed the motor's specified working load torque. Exceeding the torque limits can lead to motor damage or reduced performance.

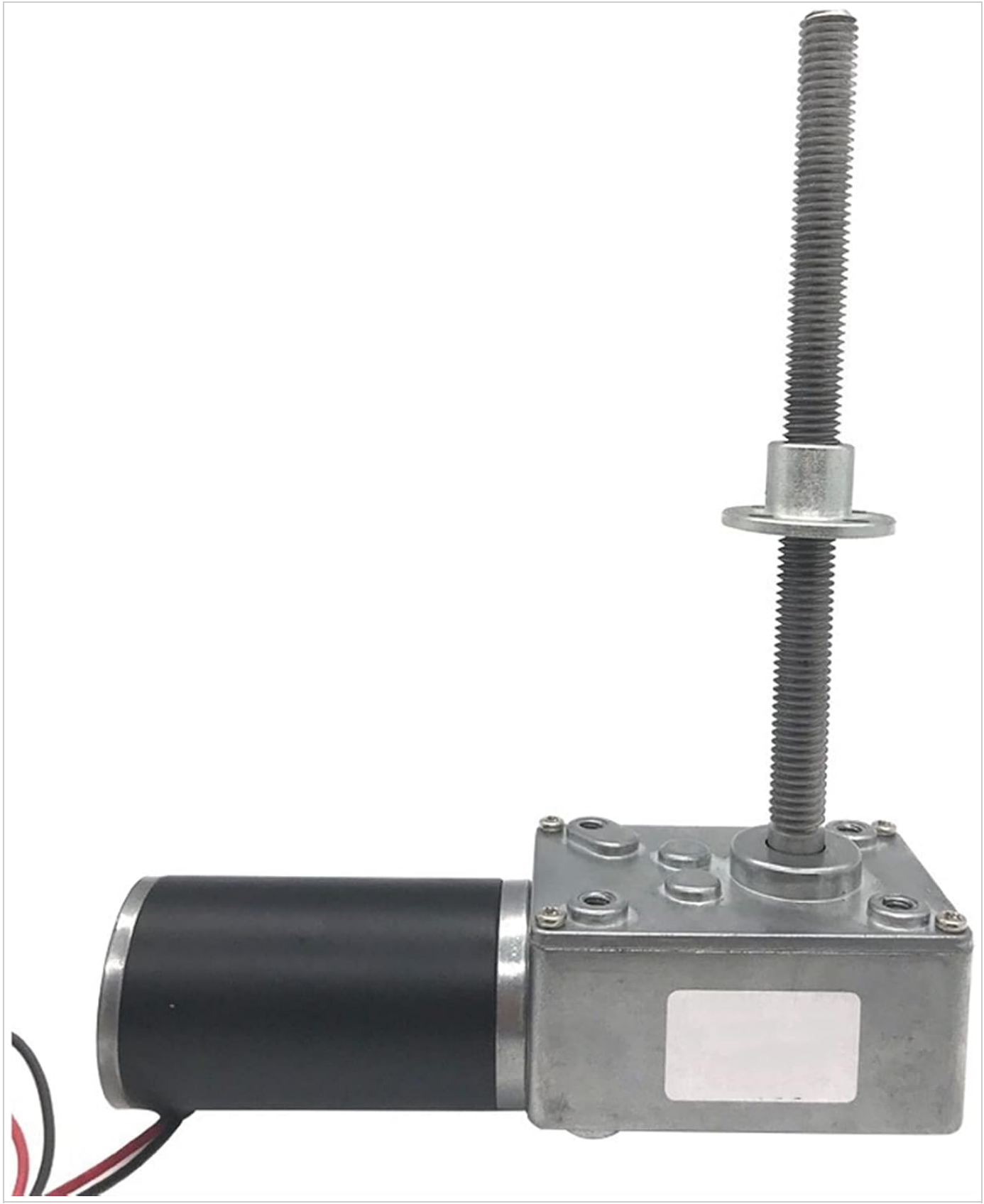


Image 4.1: Side view of the motor, highlighting the M8 threaded shaft.

5. Maintenance

The DELFIT DC Worm Gear Motor is designed for reliable operation with minimal maintenance. Follow these guidelines to ensure longevity:

- **Keep Clean:** Regularly clean the exterior of the motor to prevent dust and debris accumulation, which can affect cooling and performance.

- **Avoid Moisture:** Protect the motor from water and excessive humidity to prevent electrical damage and corrosion.
- **Inspect Connections:** Periodically check all electrical connections to ensure they are secure and free from corrosion.
- **Lubrication:** The internal gearing is pre-lubricated. Avoid disassembling the motor for lubrication unless performed by a qualified technician.

6. Troubleshooting

6.1 Motor Not Operating

- **Check Power Supply:** Ensure the power source is providing the correct voltage (12V or 24V DC) and is properly connected.
- **Verify Connections:** Confirm that all wires are securely connected and there are no loose contacts.
- **Exceeded Load:** Ensure the load on the motor does not exceed its working torque capacity. Reduce the load if necessary.

6.2 Shaft Shake During Rotation

- **Normal Behavior:** The motor shaft is approximately 116mm long. Due to its length, a slight shake is normal during rotation.
- **Speed Impact:** The amplitude of the shaft shake will be more noticeable at higher rotational speeds. At lower speeds, the shake will be minimal. This is an inherent characteristic of the design and not a defect.

6.3 Increased Operating Noise

- **Normal Noise:** The motor produces a standard operating noise during use.
- **Reverse Rotation:** When the motor is operating in reverse (counter-clockwise), the working sound may be slightly greater than during forward rotation. This is considered normal operation.

7. Specifications

Specification	Value
Brand	DELFIT
Model	5840-31ZY-M8
Rated Voltage	DC 12V or DC 24V
Speed Range	5 - 470 RPM
Shaft Type	M8 Threaded Shaft
Shaft Length	Approx. 116 mm
Self-Locking	Yes
Material	Copper
Item Weight	500 Grams

7.1 Dimensional Drawings

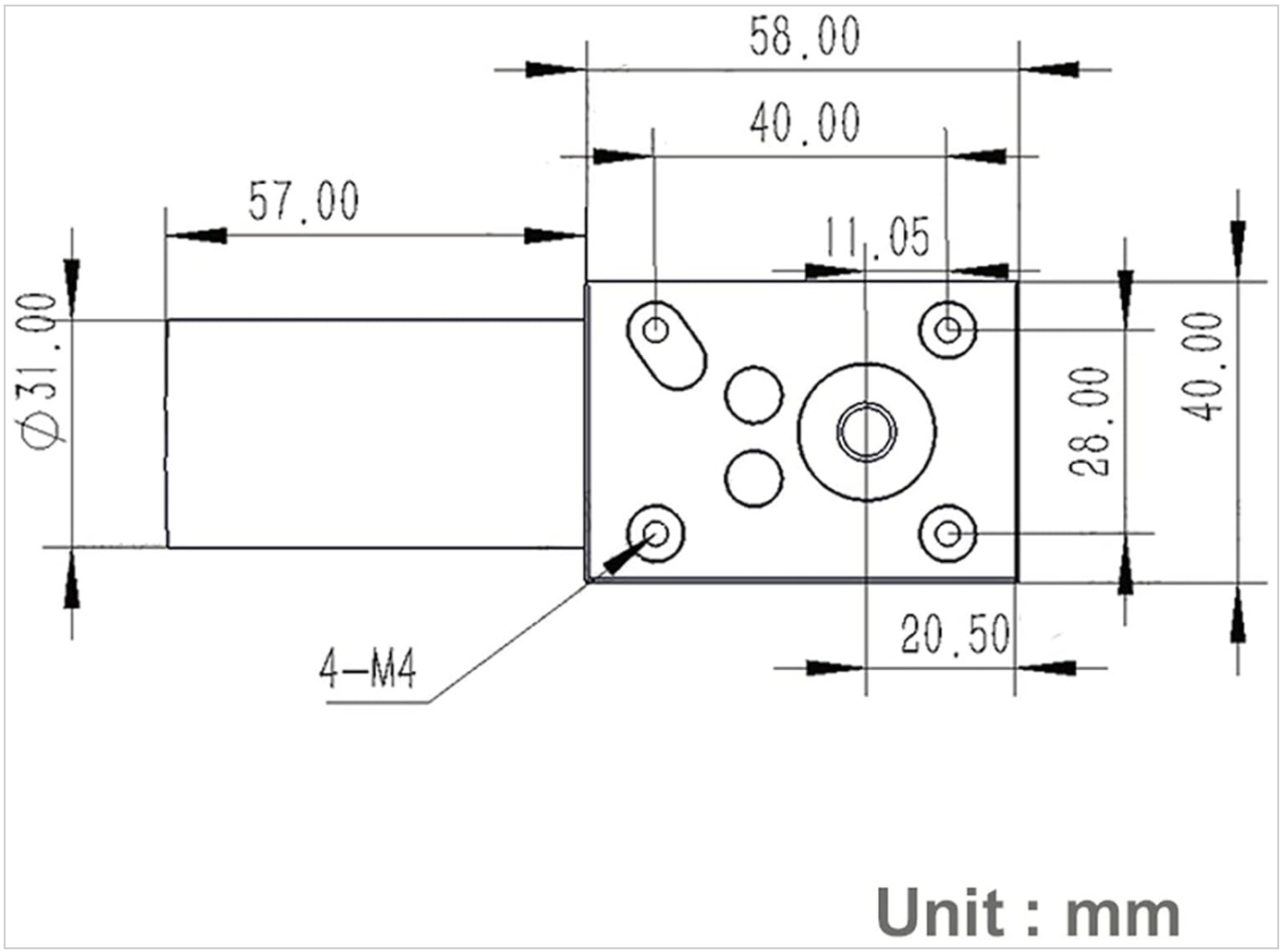


Image 7.1: Top-down view with key dimensions in millimeters.

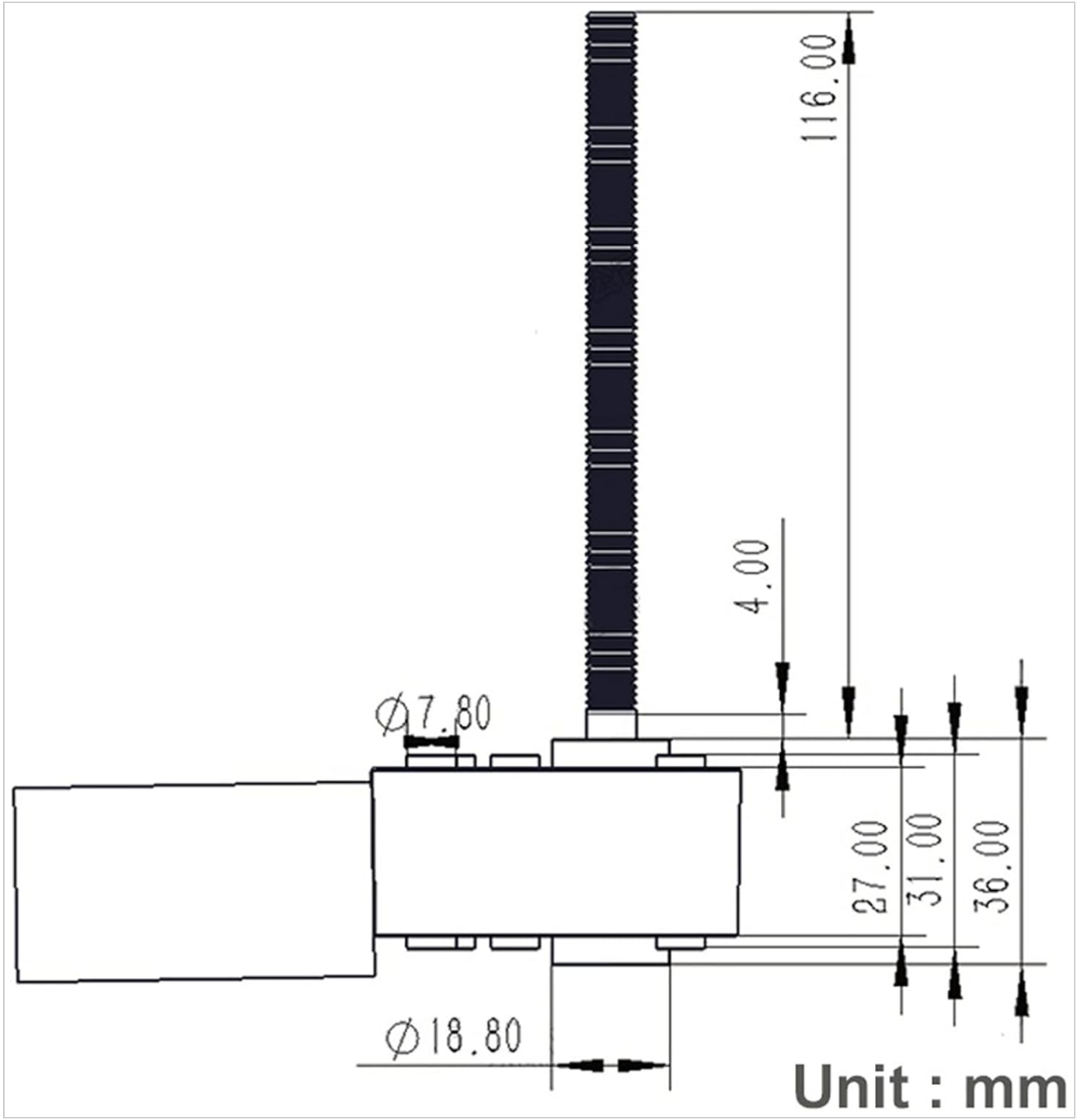


Image 7.2: Side view with key dimensions in millimeters, including shaft length.

8. Warranty and Support

For warranty information and technical support, please refer to the documentation provided at the time of purchase or contact the seller directly. Keep your purchase receipt as proof of purchase.

Ask a question about this manual

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.

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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