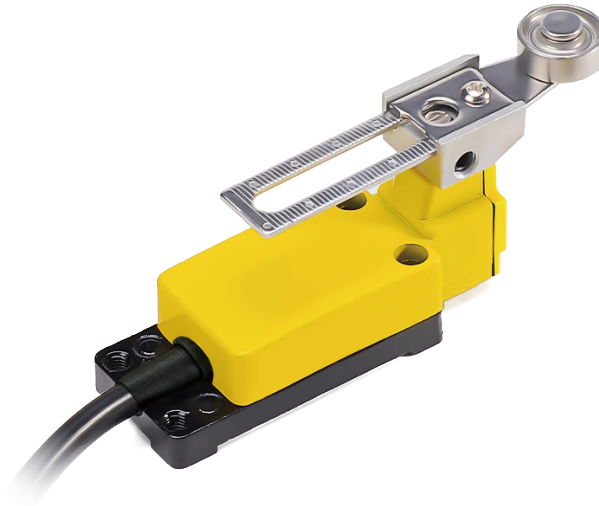


TrolMaster Position Switch (TPS-1) User Manual



The TrolMaster Position Switch (TPS-1) can be linked to the DMC-1 (24V DC Motor Controller) to enhance automated control of mechanical movements, particularly in greenhouse applications. This integration allows the TPS-1 to provide real-time position feedback to the DMC-1, ensuring precise operation of curtain systems and optimizing environmental conditions for plant growth. By combining these two devices, users can achieve a more efficient and responsive automation system tailored to their specific needs.

OVERVIEW

Thank you for choosing the TrolMaster Position Switch (TPS-1). The TPS-1 is designed for use in controlling and limiting the position of mechanical movements, especially for curtain control for outdoor uses . It connects to a Trolmaster 24V DC Motor Control (DMC-1) controller and communicates via RS485, providing position feedback for automated systems. This manual provides installation instructions, operation guidance, and safety precautions to ensure optimal performance and long-term reliability.

The TPS-1 Position Switch automatically controls mechanical movement by switching the circuit based on the position of its internal moving parts. It is suitable for use with a variety of automated systems and offers feedback to DMC-1.

PRODUCT INFORMATION

Model	TPS-1 (TrolMaster Position Switch)
Input Voltage	12V (powered by DMC-1)
Power Consumption	< 1W (no load)
Communication Method	RS485 (4-pin waterproof connector)
Maximum Cable Length	500 meters
Waterproof Rating	IPX7 (submersible for up to 1 week)
Ambient Temperature	32-104°F (0-40°C)
Relative Humidity	5-95% RH

PACKAGE CONTENTS

- 1x TrolMaster Position Switch (TPS-1)
- 1x ThinkGrow 12' Daisy Chain Control Cable (ECS-7)

INSTALLATION INSTRUCTIONS

Follow these steps for installing the TPS-1 Position Switch:

Preparation:

- Ensure the TPS-1 is mounted in a secure location where it can effectively monitor mechanical movement.
- Ensure that the DMC-1 controller is prepared for connection.

Mounting:

- Securely mount the TPS-1 Position Switch using suitable fixtures.
- The device's yellow and black casing is water-resistant (IPX7 rating), so it can be used in wet environments.

Connection:

- Connect the 4-pin waterproof connector to the DMC-1.
- Ensure the maximum cable length between the TPS-1 and DMC-1 does not exceed 500 meters to maintain optimal signal transmission.

OPERATION INSTRUCTIONS

Once installed, the TPS-1 operates automatically based on the mechanical movement it monitors. Here's how it works:

Communication with the DMC-1:

- When the internal movement of the switch reaches a certain position, the TPS-1 sends an open or close signal through RS485 to the DMC-1 controller.
- You will see the DMC-1's green indicator light flash when the TPS-1 limit switch is triggered, confirming that the feedback signal has been received.

Testing:

- After installation, test the TPS-1 by moving the mechanical system it's monitoring. Confirm that the DMC-1 controller's green light blinks as the limit switch triggers, indicating proper operation.

SAFETY AND MAINTENANCE

Safety Precautions:

- Disconnect power before installing or performing maintenance.
- Avoid dropping or striking the device, as this can cause damage.
- Do not exceed the recommended operating temperature of 40° C, as this may cause damage or reduce the lifespan of the device.

Maintenance:

- Regularly inspect the device for signs of wear or damage.
- Ensure the connector and wiring are secure and free of corrosion.
- If the device malfunctions or sustains damage, disconnect it and contact technical support for assistance.

WARRANTY

TrolMaster only uses high quality components. Under normal operating conditions, the mechanical and electronic components are covered by a three-year warranty from the original date of purchase. For service, return the TrolMaster Position Switch (TPS-1) in the original packaging to your shop with the original sales receipt.

Components that are excluded from warranty are components that have failed due to abnormal usage.

In the case of defects of the TrolMaster Position Switch (TPS-1), the Controller will either be replaced or repaired using new or reconditioned products or parts. If the Controller will be replaced this limited warranty shall apply to the replacement product for the remaining initial warranty period, i.e. (three) 3 years from the date of purchase of the original product.

RETURNS

All returns need to be done in the original packaging in order to avoid. Damages of the product during transport. Defective products need to be returned to the factory or service shop for repair. Non-professionals DO NOT open the cabinet to prevent electric shock or damage to the equipment.

RETOURS

Pour tout retour, le produit doit être remplacé dans son emballage d'origine afin d'éviter qu'il soit endommagé pendant le transport. Les produits défectueux doivent être renvoyés à l'usine ou à l'atelier d'entretien pour réparation. Avis aux non professionnels: n'ouvrez pas l'armoire afin d'éviter tout risque de choc électrique ou de dommages matériels.

For any issues or concerns with our products, DO NOT return them to the store. Please contact our tech support department at support@trolmaster.com or call **877-420-9876**.

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