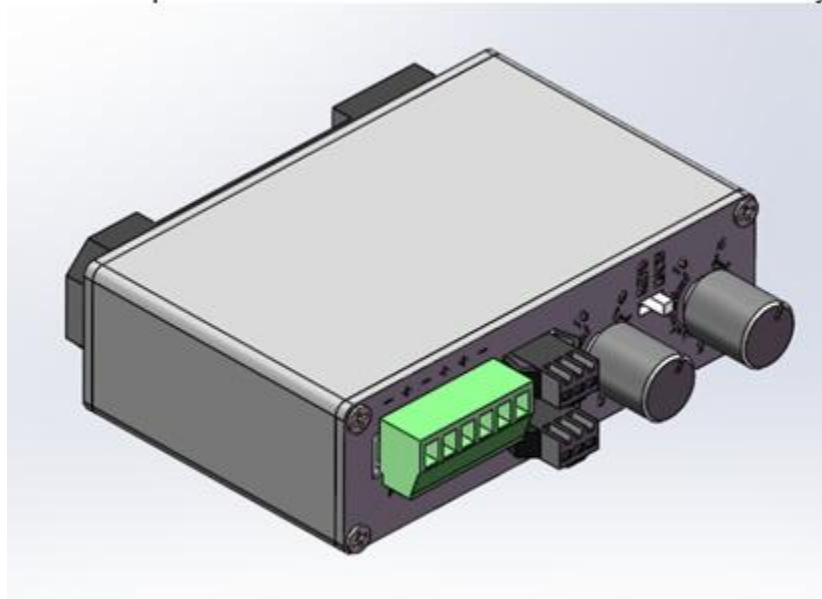


PS-DPZ50W-24-2 CONTROLLER

User Manual & Catalogue



1. Product Overview

The PS-DPZ50W-24-2 controller is specifically designed to provide brightness-control power for 24V LED lighting used in machine vision applications. It supports a maximum rated output current of 2A and provides high-precision brightness control. The controller can be activated by an external trigger and is particularly suitable for machine-vision systems requiring precise brightness control.

2. Features

- Compatible with universal light sources and equipped with automatic overload protection.
- External triggering with selectable high/low trigger levels for flexible operation.
- Brightness adjustment by potentiometer for simple operation.
- Compact size with easy and convenient rail mounting.

3. Technical Specifications

Parameter	Specification
Model	PS-DPZ50W-24-2
Input voltage	DC 24V
Output voltage	24V
Output current	2A total; 1A per channel
Maximum power	50W
Channels	2
Output interface	SMP-03V: Pin 1 = Output +; Pin 2 = NC; Pin 3 = Input -
Over-current protection	Peak current above 2A
Environment	Indoor use only
Temperature	0–60°C
Humidity	20–85% RH, non-condensing
Trigger delay time	PWM mode <30 μ s; SPS mode <10 μ s
Trigger voltage	5–24V

4. Panel Description

In digital PWM operation, the controller regulates the brightness of the connected light source. Rotate the brightness adjustment knob clockwise to increase brightness and counterclockwise to decrease brightness.

- MANU — Steady mode (always ON).
- REMO — Trigger mode.
- DC — DC 24V power input.
- TR1 — Trigger input port (5–24V).
- CH1 / CH2 — Light-source output channels.

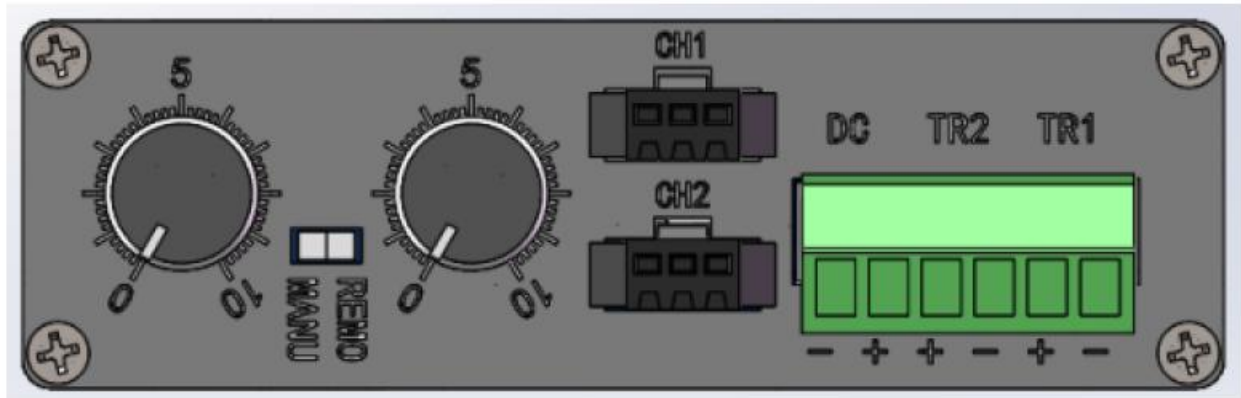


Figure 1. Controller panel and control layout.

5. Operating Modes

5.1 MANU — Steady Mode

Select MANU for continuous light operation. Adjust the brightness using the corresponding potentiometer.

5.2 REMO — Trigger Mode

Select REMO when the light source is to be controlled by an external trigger signal. The specified trigger voltage is 5–24V, and high/low trigger levels are selectable.

6. External Trigger Connection

The source manual provides two external-trigger connection diagrams: PNP wiring and NPN wiring. Use the wiring configuration appropriate to the customer's control system.

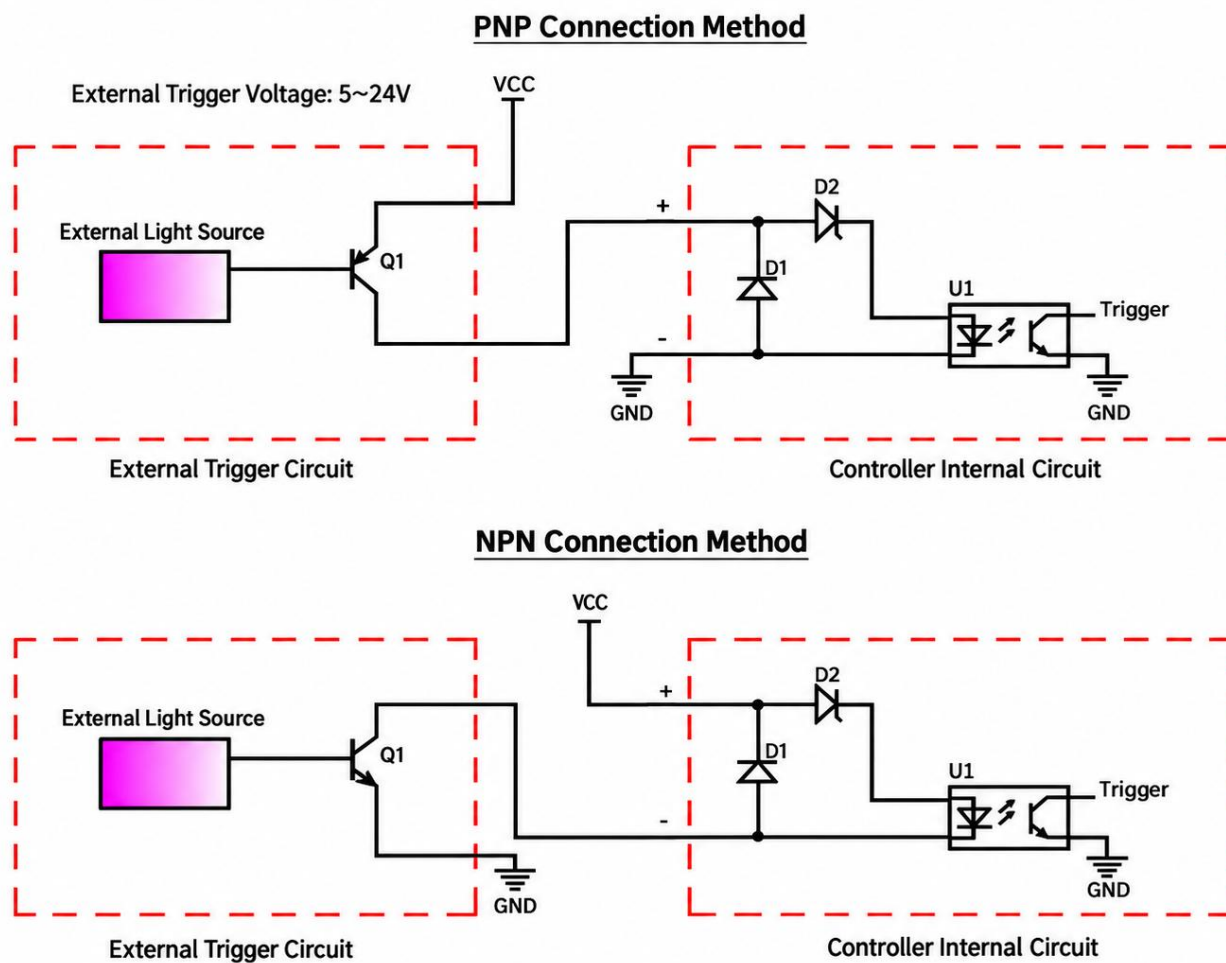


Figure 2. External trigger connection diagrams — PNP connection (top) and NPN connection (bottom).

7. Installation and Mounting

The controller is designed for simple rail mounting. Install it securely on the rail and operate it within the specified indoor environmental conditions.

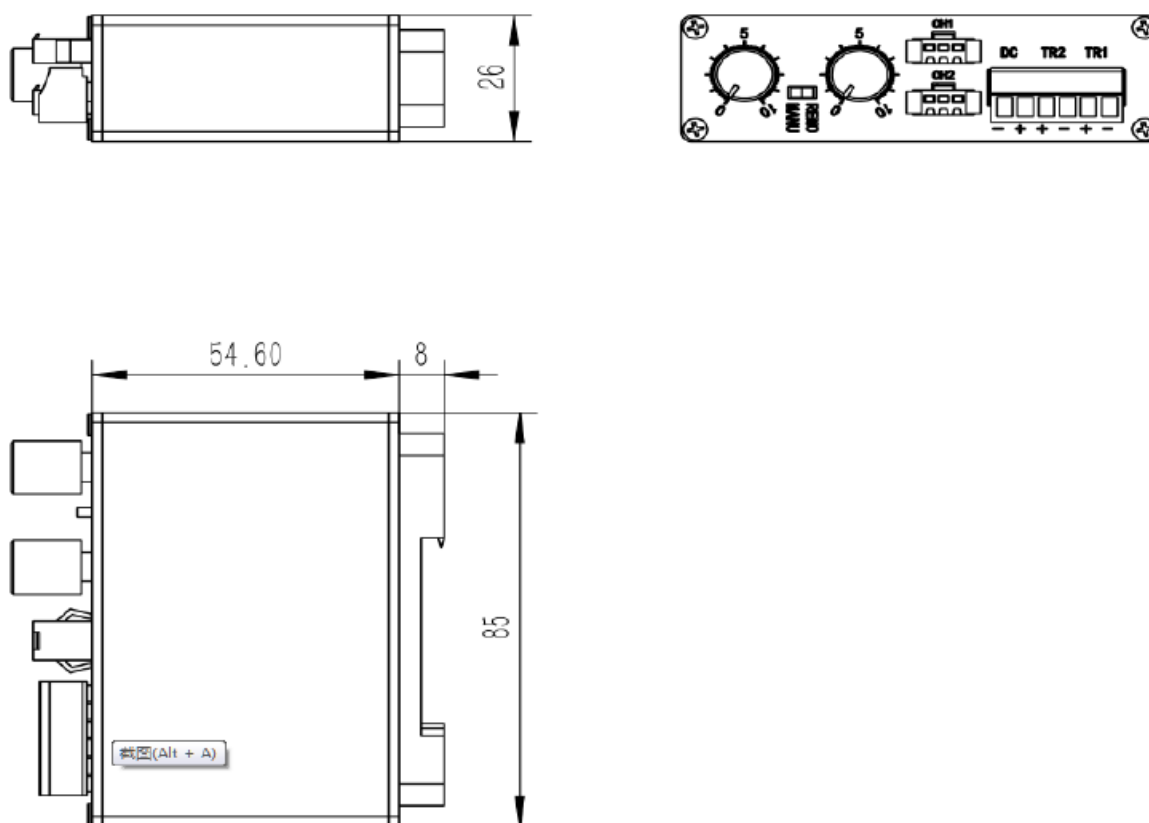


Figure 3. Product installation dimensions and mounting arrangement.

8. Important Operating Notes

- Use a DC 24V power supply as specified.
- Do not exceed 2A total output current or 1A per channel.
- Use the controller only in an indoor environment.
- Maintain an operating temperature of 0–60°C.
- Maintain humidity of 20–85% RH and avoid condensation.
- Ensure that the external trigger voltage is within 5–24V.
- Use the appropriate PNP or NPN trigger wiring shown in the connection diagram.
- Automatic overload protection is provided; however, operation within the specified ratings is required.

9. Quick Reference

Item	Specification
Model	PS-DPZ50W-24-2
Power input	DC 24V
Output	24V, 2A total / 1A per channel
Maximum power	50W
Channels	2
Modes	MANU / REMO
Trigger voltage	5–24V
Trigger delay	PWM <30 μ s / SPS <10 μ s
Mounting	Rail mounting
Operating environment	Indoor; 0–60°C; 20–85% RH, non-condensing