

Relay G5V-2-H1, 12V DC/125V AC 2A

Product codes:

Reference: AM2145

EAN13: -

UPC: 85364190



Product features:

Voltage: 12 V DC

Waterproof grade: IP65

Number of pins: 8-pin

Max. switching current: 2 A

Max. switching voltage: 125V AC/125V DC

Contact type: DPDT

Product attributes:

Product description:

Omron G5V-2-H1 is a miniature signal relay in the High-sensitivity version, designed for switching low to medium power in control and measurement circuits. Thanks to the 12 V DC coil and DPDT (2c) contacts, it is suitable for applications where reliable galvanic isolation and switching of two independent circuits is required.

Technical specifications

- Model: G5V-2-H1
 - Contact type: DPDT (2c)
 - Coil voltage rating: 12 V DC
 - Nominal coil current: 12.5 mA
 - Coil resistance: 960 Ω
 - Coil consumption: approximately 150 mW
 - Rated contact load (resistive): 0.5 A at 125 V AC; 1 A at 24 V DC
 - Maximum switching voltage: 125 V AC, 125 V DC
 - Maximum switching current: 1 A
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- Contact material: Ag + Au alloy
- Contact resistance (High-sensitivity): 100 mΩ max.
- Switching time: 7 ms max.
- Opening time: 3 ms max.
- Insulation resistance: 1000 MΩ min. (at 500 V DC)
- Dielectric strength between coil and contacts: 1000 V AC, 50/60 Hz for 1 min
- Dielectric strength between contacts of the same polarity (High-sensitivity): 500 V AC, 50/60 Hz for 1 min
- Dielectric strength between contacts of different polarity: 1000 V AC, 50/60 Hz for 1 min
- Impulse withstand voltage: 1500 V (10 x 160 μs)
- Ambient operating temperature: -25 °C to +70 °C (without icing and condensation)
- Weight: approximately 5 g

Functions and features

- High-sensitivity version for applications with limited coil excitation power
- Double changeover contacts (2c) for simultaneous switching or switching of two circuits
- Bifurcated crossbar arrangement for stable contact at low signals
- Contacts with Ag + Au alloy for switching signals and low currents
- Galvanic isolation between coil and contacts

Ideal for

- Control and automation modules
- Measurement technology and signal paths
- Switching outputs in low-voltage DC circuits
- Switching resistive loads within the specified limits

Package contents

- 1 pc Omron relay G5V-2-H1, coil 12 V DC

Why choose this product?

- Proven signal relay design with DPDT (2c) contacts
- Parameters suitable for precise and low-energy control applications
- Defined switching limits for both AC and DC loads including a maximum switching voltage of 125 V

Installation and operating instructions

- When designing, consider the type of load (resistive/inductive) and use appropriate protective elements (e.g. RC element, diode,
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varistor) to limit overvoltage

- Observe the nominal coil voltage of 12 V DC and ensure a stable power supply including correct polarity if relevant to your wiring
- For long-term reliability, do not exceed the maximum switching voltage and current and verify temperature rise under real-world conditions.

Safety notice

- The relay can switch voltages up to 125 V AC/DC; working with dangerous voltages requires professional competence and compliance with applicable standards
- Before handling, disconnect the device from the power supply and verify that there is no voltage.
- Ensure sufficient insulation distances and shielding according to the specific application

Product gallery:

