

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

Reference: AM9110

EAN13: -

HS code: 85364190



## Product attributes:

## 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 description:

The Omron G5V-2 miniature signal relay in standard design is designed for switching low to medium loads in control and automation circuits. Thanks to the DPDT configuration (2× changeover contact), it is suitable for switching two independent signal branches or for galvanic isolation of the control and power parts.

## Technical specifications

- Model series: G5V-2
- Design: standard
- Coil voltage rating: 12 V DC
- Contact configuration: DPDT (2c), 2× changeover
- Rated contact load (resistive load): 0.5 A at 125 VAC; 2 A at 30 VDC
- Rated continuous contact current: 2 A
- Maximum switching voltage: 125 VAC, 125 VDC
- Maximum switching current: 2 A
- Coil current rating (12V, standard): 41.7mA
- Coil resistance (12 V, standard): 288 Ω
- Coil power consumption (standard): 500 mW
- Switching voltage: max. 75% of rated voltage (at 23 °C)
- Breakdown voltage: min. 5% of rated voltage (at 23 °C)
- Maximum coil voltage: 120% of rated voltage (at 23°C)
- Contact resistance (initial value, standard): max. 50 mΩ
- Switching time: max. 7 ms
- Opening time: max. 3 ms
- Insulation resistance: min. 1000 MΩ (at 500 VDC)
- Dielectric strength between coil and contacts: 1000 VAC, 50/60 Hz for 1 min
- Dielectric strength between contacts: 1000 VAC, 50/60 Hz for 1 min
- Impulse withstand voltage: 1500 V (10 x 160 μs)
- Mechanical life: min. 15,000,000 operations
- Electrical life (standard): min. 100,000 operations
- Ambient operating temperature (free of frost and condensation, standard): -25 °C to +65 °C
- Operating ambient humidity: 5% to 85%
- Weight: 5g

## Functions and features

- DPDT contact arrangement for switching two circuits
- Suitable for switching resistive loads in both AC and DC circuits within the specified limits
- Fast response for control and signal applications
- Galvanic isolation between coil and contacts

## Ideal for

- Control and automation systems
- Switching signals and smaller loads in industrial electronics
- Interface between logic (12 V DC) and switching circuit
- Measuring and testing devices

## Package contents

- Relay G5V-2, 12 V DC, standard version

## Why choose this product?

- Clearly defined switching parameters for both AC and DC loads
- DPDT design allows universal use in switching applications
- Verified electrical insulation parameters and service life values

## Installation and operating instructions

- When designing, consider the type of load (resistive/inductive) and use appropriate protection elements (e.g. RC element, varistor, diode for DC coils in the external circuit).
- Observe the nominal coil voltage of 12 V DC and the maximum coil voltage limits.
- For long-term reliable operation, verify the switching conditions in a real application (current, voltage, switching frequency, temperature).

## Safety notice

- Hazardous voltages may be present when switching 125 VAC or 125 VDC. Perform installation and service only with power disconnected and in accordance with applicable standards.
- Ensure sufficient insulation distances on the PCB and appropriate shielding according to application requirements.

