

G2RV-ST highlights

Industrial 6 mm relay

Security Lever

- Relay-off protection from socket even in accidentally case
- Better Visibility/Identification of the coil by color: Red: AC, Blue: DC, White: AC/DC



LED Visibility

Top and wider identification



2.5mm² wiring for Easy insertion

- Big and angled hole for easy insertion of the cable

LED / mechanical flag

check operation

Strong relay holding structure

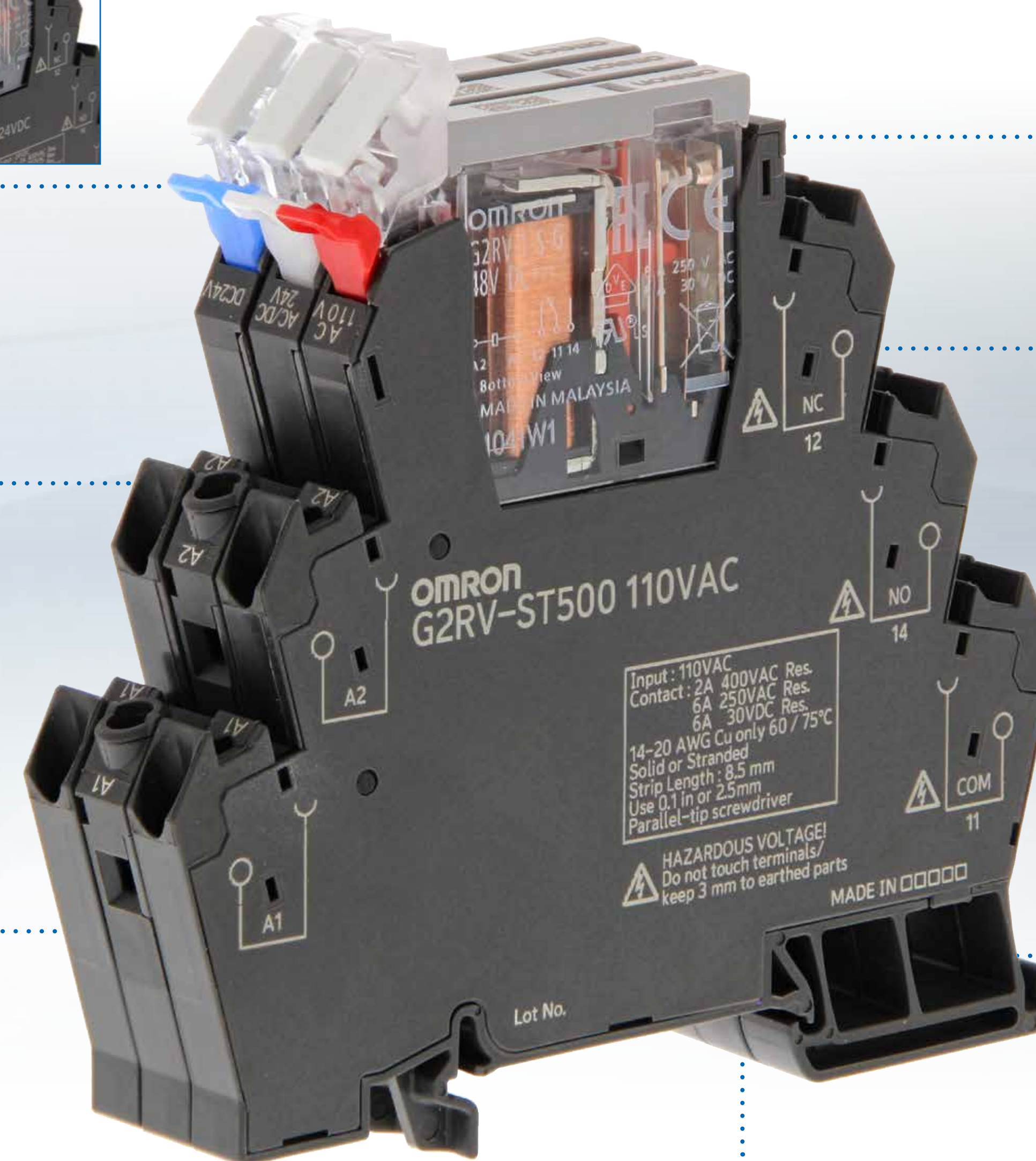
Large plug-in pins

excellent connection

Special input type

with gold plated contacts

Robust DIN attachment and slidable



Omron Relays: outstanding reliability for all application needs

Durable

Long-term electrical and mechanical life: helping to reduce the maintenance frequency



Resistant

Wide ambient operating temperature: reliability for high density mounting and in cold locations



Robust

Robustness against external impacts: reduced malfunctions caused by unexpected external shocks



Accurate

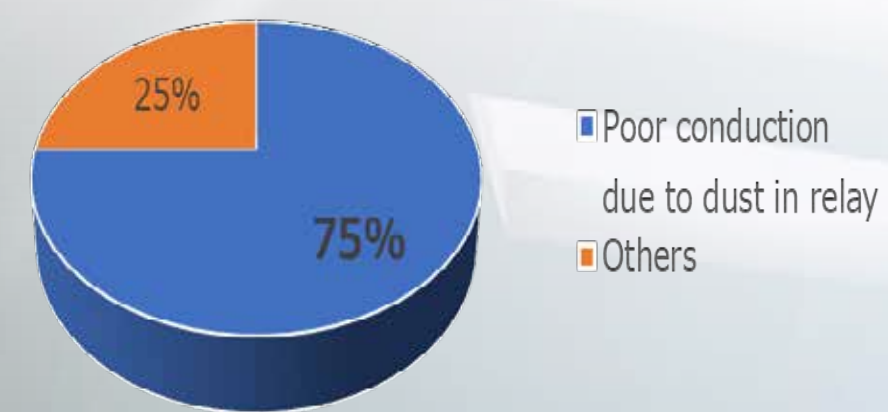
Details that make the difference: full set of sockets and accessories for every need



Relay quality - Unique OMRON productions technique

Sometimes machine suffer of unexpected stops but the cause couldn't be identified and when restarted or the relays are replaced, it runs without any problem.

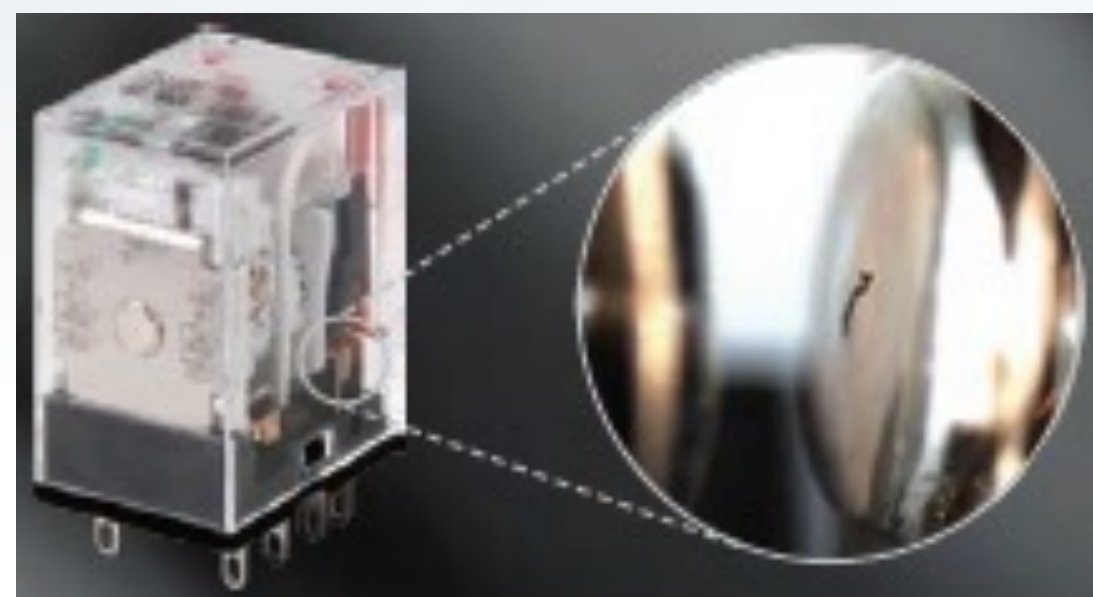
OMRON discovered that this type of issue could be caused by poor conduction in relays.



Based on OMRON research it has been possible to identify as main cause of relays fault, around the 75% , is related to poor conduction

One of the reasons of the poor conduction in relays is primarily due to the dust caught between the contacts during the production process. This type of dust is coming from the following environments:

- Resin scrap coming from relay parts
- Textile fibers coming from workers during production



OMRON Solution to avoid poor conduction in relays



1. Avoid the generation of the dust

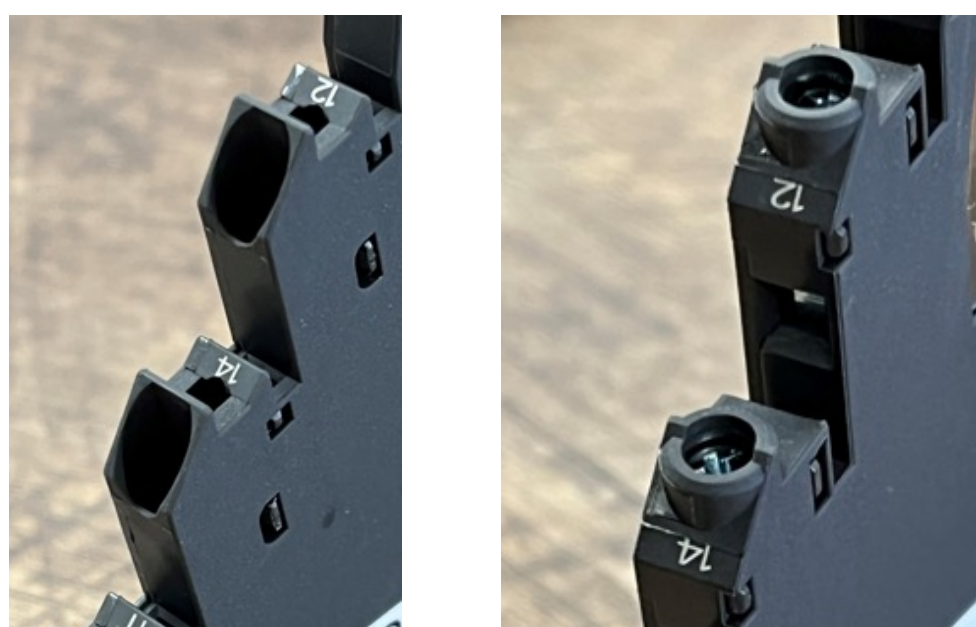
2. Avoid to introduce dust

3. Avoid to leave dust

OMRON's three commitments for relay production towards improved reliability:

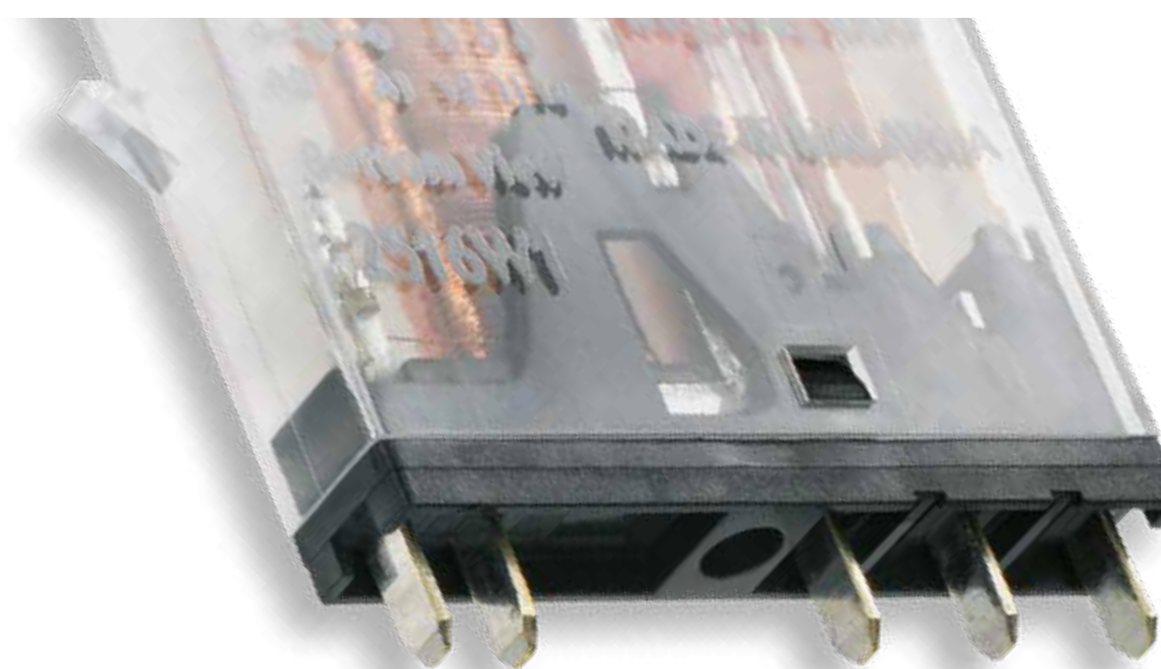
- Avoid the generation of dust by providing standardized product design
- Avoid to introduce dust by producing the products in clean room with strict entry/exit control rules
- Avoid to leave dust by utilizing OMRON's unique dust removal technology

G2RV New Design



- Easy wiring thanks to angle inclination and 2.5 mm² wire dimensions
- Wiring options: screw wiring with anti-loss structure; Push-in plus technology

Industrial quality pins



- Larger contact surface for greater conductivity
- No bending during maintenance

Test and Inspection of the relay

- LED indicates that the coil is powered up
- Mechanical flag indicates movement/position of contacts
- Lockable test switch to test panel, machine or system functionality, the protection cover prevents accidental operation

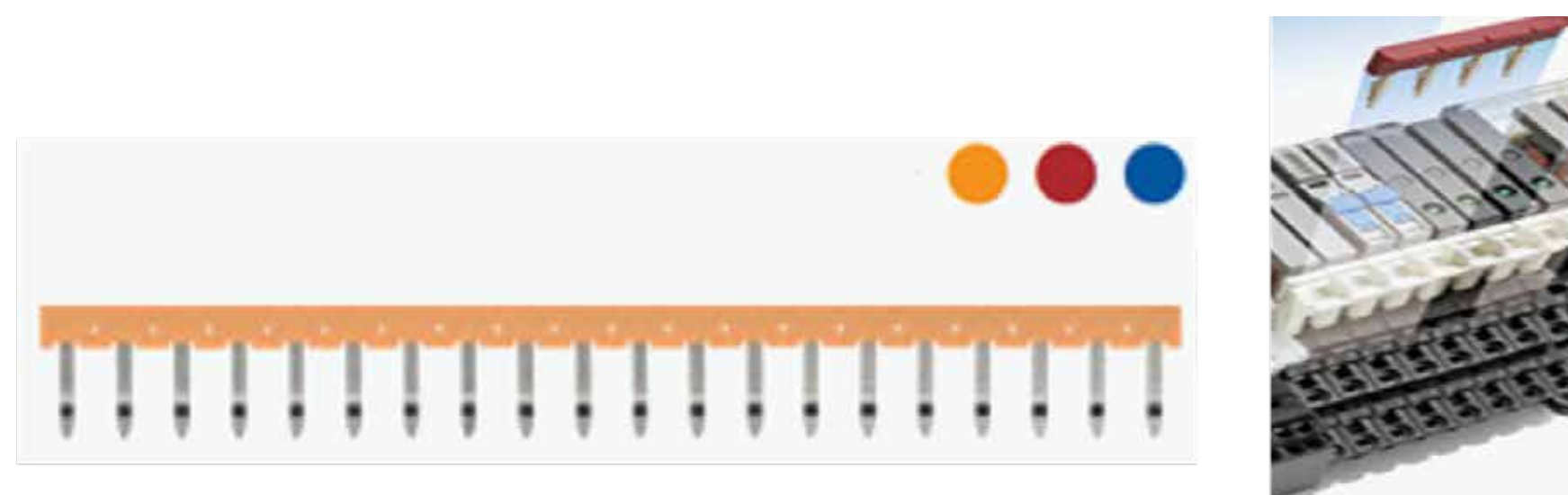


Relay-fall protection: the Security Lever



- Security Lever studied to protect from relay mis-use
- Security lever to keep the relays firmly held and prevent fall caused by external hit

Short bar studied to simplify the production



- Easy cut short-bar
- Physical feeling of secure connection, click sound after insertion

MG-CPM-04 Harmonized labelling concept



Labels are of the most common dimensions 5x10 and are harmonized with the other OMRON sockets for the relays line-up. They can be mounted on PYF-PU; P2RF-PU / P2RFZ-; PTF-PU; G2RV-ST and G3RV-ST; and also Terminal Blocks XW5_-P

Applications

G2RV suitable for general purpose application where dimensions are reduced and small loads (signal switching to small actuators Electro-mechanical valve, contactor-coils). However the OMRON Slim relay is often seen in panels to control systems for wind turbines, packaging machines and as Interface unit for the PLC.

Application for renewable industry

System availability and reliability is key for wind energy, as breakdowns are related to very high costs. The G2RV is the perfect match due to;

- Vibration resistance
- Fast wiring due to Push-In Plus terminals
- Comprehensive range of global standards and certificates supporting global usage for exporting machine makers
- Lockable testbutton for easy commissioning



Application for packaging machine

G2RV is a perfect match for Industrial Packaging machines such as for Food, Beverage or Pharma industry supporting customer demand and market trends such as...

- Space saving panel design due to compact format and side-byside mounting
- Fast wiring due to Push-In Plus terminals
- Easy I/O interfacing by connector + versatile cable system
- Comprehensive range of global standards and certificates supporting global usage for exporting machine makers



Application for panel building

The panel building process is located down stream in the automation process. As a consequence, panelbuilders suffer frequent design changes, deal with urgent orders and continuous cost down requests. Available resources are limited and procurement requires a high degree of effort, typically due to many suppliers. Tough competition on price and speed of delivery often leads to a low profit structure. The G2RV is offering;

- Wiring time reduction up to 60% due to Push-In-Plusterminals
- Compact size to allow more space in a panel
- Harmonised accessories including labels



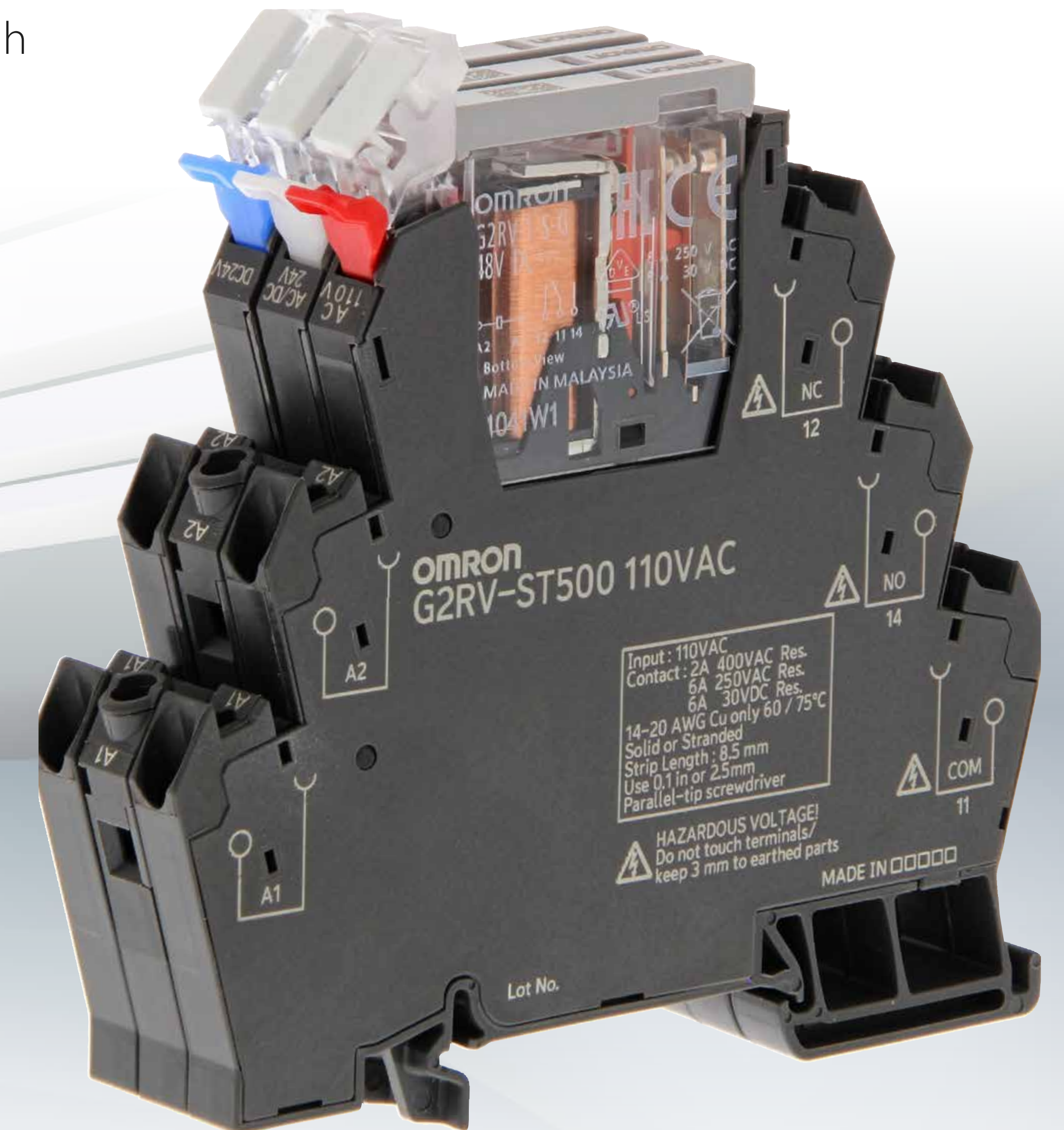
G2RV-ST

Additional features:

Anyone who is familiar with OMRON products and services will not be surprised by all this attention to a relay. Although these units are often viewed as rather basic elements, their role is crucial to the trouble-free running of a plant. OMRON has been designing and manufacturing relays for well over 50 years and has grown to become the world's largest single-brand relay manufacturer. The outstanding performance of these relays is the result of careful design considerations and a complete commitment to quality.

Having been designed from first principles, instead of being adapted from a PCB relay, OMRON's G2RV series is the only slim industrial relay on the market. As a result, the G2RV offers a wide array of benefits to machine manufacturers and panel builders. Just 6mm wide, the relay is ideal for compact panels and equipment, yet it offers all of the durability and reliability required for industrial applications.

- Push-in plus Technology – easy wiring
- Lockable test switch models available
- Large plug-in pins – excellent connection
- LED/mechanical flag – check operation
- Transparent housing – check condition
- Slim outline – space saving
- Special input type with gold plated contacts
- G3RV compatible



Available Accessories for MY-G2R(S)-LY and G2RV families

Accessories for usability improvement					
	SHORT BAR	LABELS	SEPARATE AND END PLATE	PLC I/OINTERFACE SYSTEM	PLC CABLE
Items	PYDN	MG-CPM	Separate plate: XW5Z-EP12 End plate: XW5Z-EP6	P2RVC - _ _ _ _ -	XW2Z
Appearance					
Use	Connections for sockets	Marking	Insulation and stability	-	Connector
Applicable products	PYF-PU PTF_-PU G2RV-ST / G3RV-ST	PYF-PU P2RF-PU / P2RFZ-_E PTF-PU G2RV-ST G3RV-ST	MY G2R-(S) LY G2RV-ST G3RV-ST	G2RV-SRG3RV-ST	G2RV-SRG3RV-ST G70V
Features	<ul style="list-style-type: none">• Color : Blue, Red, Yellow• Easy cutting• Maximum carry current 32A	<ul style="list-style-type: none">• Harmonized concept of labels• Termo-transfer printing with MG3printer*		<ul style="list-style-type: none">• Input / OutputPNP/NPN	OMRON PLC

*The printer for MG-CPM 04 is not sold by OMRON but by Cembre, OMRON partner for marking system, ask to your OMRON contact for more information

Electromechanical relay portfolio

RATED CURRENT

40A

25A

10A

5A



1-pole

2-pole

3-pole

4-pole

NUMBER OF POLES

Application specific switching

General load

switching

Control/

sequence

switching