

INDUSTRIAL RELAYS

Quality relays for every industrial application



» Uncompromising high quality

» Flexibility to match your needs

» Fault-free connectivity every time

There's more to Omron relays than meets the eye...

Although relays are often viewed as rather basic elements, their role is crucial to the trouble-free running of a plant and the technology behind them is far from simple. 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. We are constantly innovating and looking for market trends like hybrid car battery switching.

We produce in excess of 800 million relays a year all overseen by our state-of-the-art facility in Japan, which is large enough to cover 30 football fields. Approximately 9,000 employees (from our entire workforce of 36,000) are active within the area of relays at five dedicated production centres, including Kumamoto, which is our main production plant and headquarters. The outstanding performance of our relays is the result of careful design considerations and our complete commitment to quality.



Globally, Omron sells 25 relays every second, 24/7.



World-leading relay technology with a difference

Uncompromising high quality

Omron doesn't compromise when it comes to design and raw material selection. For Omron this means that every relay should work perfectly for at least 1.3 times the number of specified operations. For instance, due to its superior design our 6 mm G2RV relay offers double the lifespan of average 6 mm relays (6A; 250VAC NC/NO)

Flexibility to match your needs

Thanks to a pin-compatible line-up of both electro-mechanical relays (EMRs) and solid state relays (SSRs), there will always be a ready-made Omron solution to match your needs. And if the standard general purpose MY-S relay doesn't suit, Omron also offers a hermetically sealed, PCB terminal and latching version as well as an identical model with bifurcated contacts suitable for switching low-level signals.

Fault-free connectivity every time

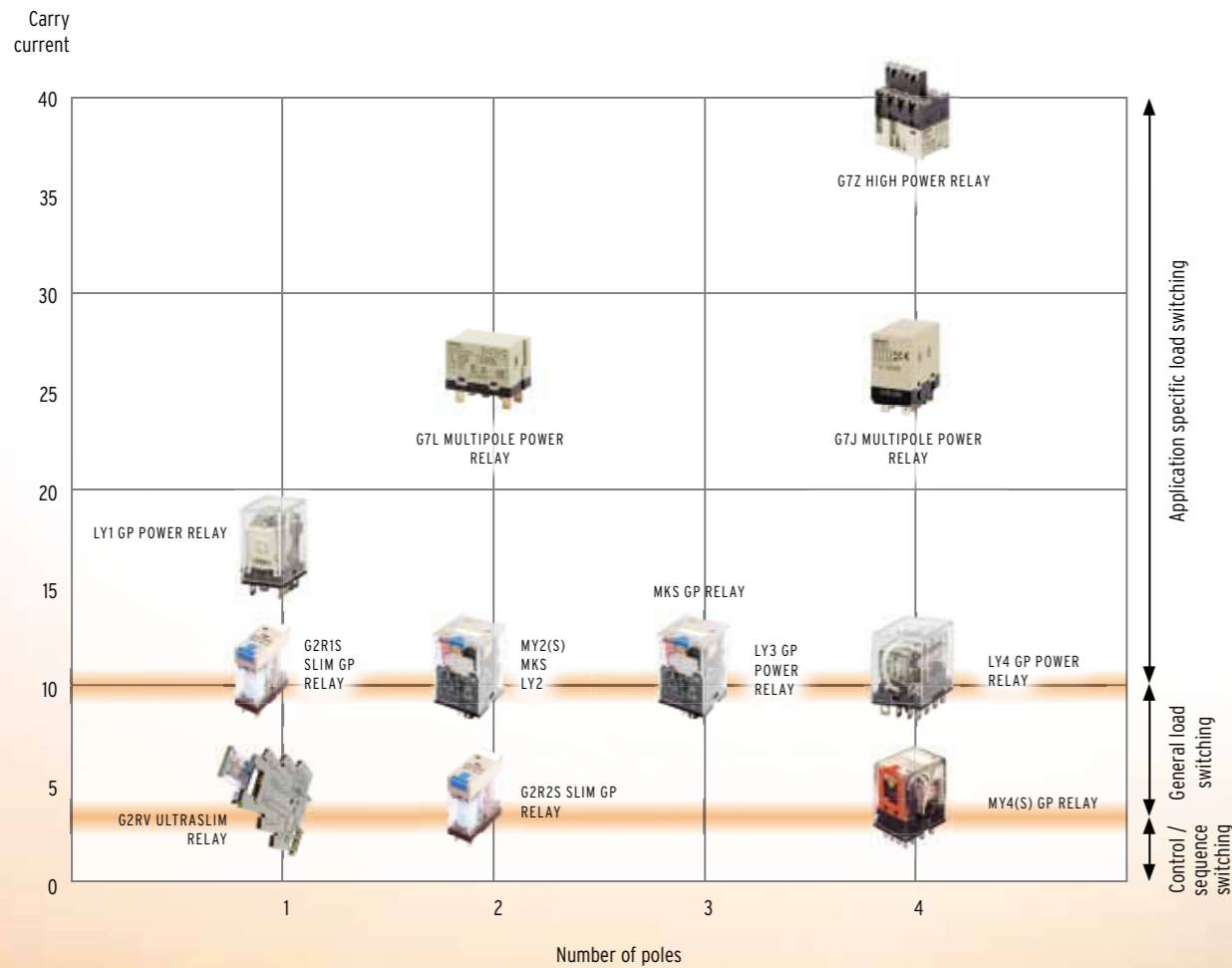
The introduction of smaller-sized, high-power relays for use as PLC interfaces revolutionized the field of industrial automation. Wiring systems have been introduced eliminating concerns such as the availability of personnel and wiring mistakes. With the G2RV industrial interfacing solution, you can interface the relays to any PLC by following three quick and simple steps.

No environment is too tough reliability is never an issue

Omron manufactures a broad range of power and (low-)signal relays for diverse applications. Although this guide focuses on the key, DIN-rail mountable panel products, all of the relays in our portfolio

have one thing in common: outstanding quality that provides the highest reliability. And with our global supply chain, this quality and reliability is the same, wherever you buy or install Omron relays.

Electromechanical relay portfolio



GP = General Purpose

Wind turbines are exposed to the full forces of nature, so specifications within this industry are very high and warranty times are long. Maintenance costs are also high, as helicopters are required for offshore wind farms to perform even routine maintenance. Naturally, Omron relays are the first choice for this industry.

A line-up you can depend on

Omron offers electromechanical relays for general purpose applications and solid state relays for endurance and where high frequencies are encountered. They are extremely robust and able to withstand the harshest environments. Take for example our fully hermetically sealed MY4H relay, which is ideal for use in hazardous locations.

The difference is in the detail

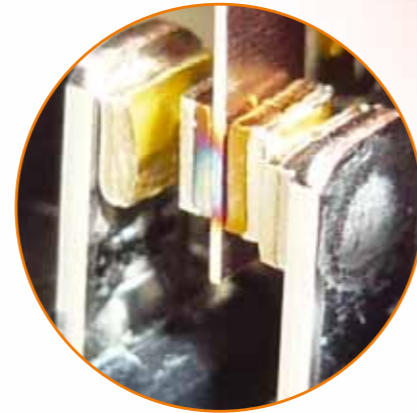
The difference of an Omron relay is its design and the special precautions taken during the manufacturing process. For example, by using round edged shapes, avoiding burr and the use of cleanroom facilities during assembly. But the differences don't stop there.



Hermetically sealed relay MY4H

Top-performing EMRs for loads of any kind

The electromechanical relays of Omron are an excellent choice for a broad range of applications. They have special performance and lifetime enhancing design features, such as, the contacts of the G2RS which are made from a silver tin indium alloy because of its well-balanced performance for various load characteristics, including DC-load and inrush current switching. It's performance is far superior when compared to alternative models available with silver nickel alloy, as this has a poor performance for other loads than standard AC-load (especially inrush current switching). The contacts of the MY-S series (4-pole versions) are gold-clad to ensure excellent contact reliability.



Gold-clad contacts for optimal protection.



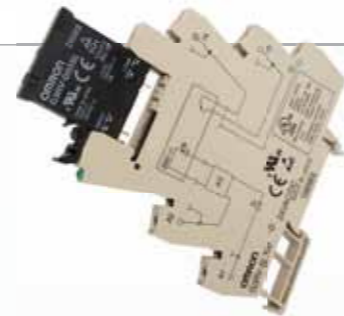
Industrial (solid state) relays are commonly used in industries like Food & Beverage, for instance to switch the various actuators on a bottling line.



G2RV Slim (6 mm) plug-in relay

The only truly industrial 6 mm relay on the market. Offering significant space and time savings without compromising on reliability.

- SPDT type 6A
- Double the lifespan of average 6 mm relays (6A 250VAC NC/NO)
- Large contact area and non-bendable pins guarantee secure and reliable connections
- LED indicator and transparent housing make it easy to check operation and condition
- Mechanical flag indicates actual operating status of contacts



G3RV Slim (6 mm) plug-in SSR - same dimensions as G2RV

A strong, space-saving relay offering quick and easy connection to a PLC. Power switching with DC outputs is managed by a MOSFET in the output.

- 2A and 3A output current
- LED indicator built-in
- Just click to connect to PLC
- Push-in terminals and accessories for easy wiring



G2RS Plug-in relay with enhanced features

Slimline interface relays with enhanced features and flexibility for user-friendly installation, commissioning and operation.

- SPDT type 10A, DPDT type 5A
- Ag3SnIn contact material offers an extremely well balanced performance for various load characteristics
- Industrial pins guarantee higher conductivity and less temperature increase



G3R-I/O Compact SSR - G2RS compatible

For I/O interfaces requiring high dielectric-strength. Compatible with G2RS electromechanical relays. High-speed models with optimum input ratings for a variety of sensors are also available.

- 1.5A and 2A output current
- 5 to 200VDC/100 to 240VAC output voltages
- DIN-rail mounting via sockets
- Indicator to confirm input

SSRs for high switching capacities and frequencies

Omron's SSRs are well established in the market and have a reputation for their excellent durability. A natural choice for temperature and process control applications. SSRs contain absolutely no moving parts and are therefore exceptionally reliable, fast (switching frequency) and maintenance free.

All Omron relays (both electromechanical and SSR) have strong, broad contact pins that do not bend and offer a 125% larger contact area in the case of the G3RV. This means higher conductivity, lower terminal resistance and lower operating temperature.



Large plug-in pins.

SSRs are ideal for applications where fast and repetitive load switching is required. An example of this is pneumatic nailers in the wood processing industry.



MY-S Versatile plug-in relay

Mini power relays with enhanced features offering a flexibility that has made them the standard. Over 500 million have been produced since production started.

- 10A (DPDT) and 5A (4PDT) contact types
- Gold-clad contacts (MY4(S))
- Test button (lockable)
- Hermetically sealed, latching and PCB types available
- 2.6 mm wide pins offer higher conductivity and less temperature increase



G3FD Plug-in SSR - MY-S compatible

This SSR is fully compatible in shape and size with the MY series of electromechanical power relays.

- 2A and 3A output current
- 4 to 110VDC/100 to 240VAC output voltages
- DIN-rail mounting via sockets
- Indicator to confirm input



MK-S Plug-in relay

Reliable general-purpose relays offering the same basic function/operation as the MY-S and G2RS families.

- 8-pin DPDT and 11-pin 3PDT contact types
- Switching current up to 10-A
- Test button (lockable)
- Temperature rating -40°C up to 60°C



G3B Plug-in SSR - MK-S compatible

This SSR is compatible in shape and in size with the MK-S electromechanical relay and there is also a DC-output model for high-voltage applications.

- 3A and 5A output current
- 5 to 110VDC/100 to 240VAC output voltages
- DIN-rail mounting via sockets
- Indicator to confirm input

Accessories for every purpose

Naturally, Omron offers a full range of accessories to customize your relays and adapt them to your specific situation.



Sockets

Omron offers a vast selection of sockets varying from screw to screwless solutions. Today's screwless, push-in clamp connections offer an easy and quick alternative to the conventional attachment of wiring using screws.



Clips

Hold-down clips are available for extra security in environments with high ambient vibration and to guarantee that the relays become loose during transportation.



Labels

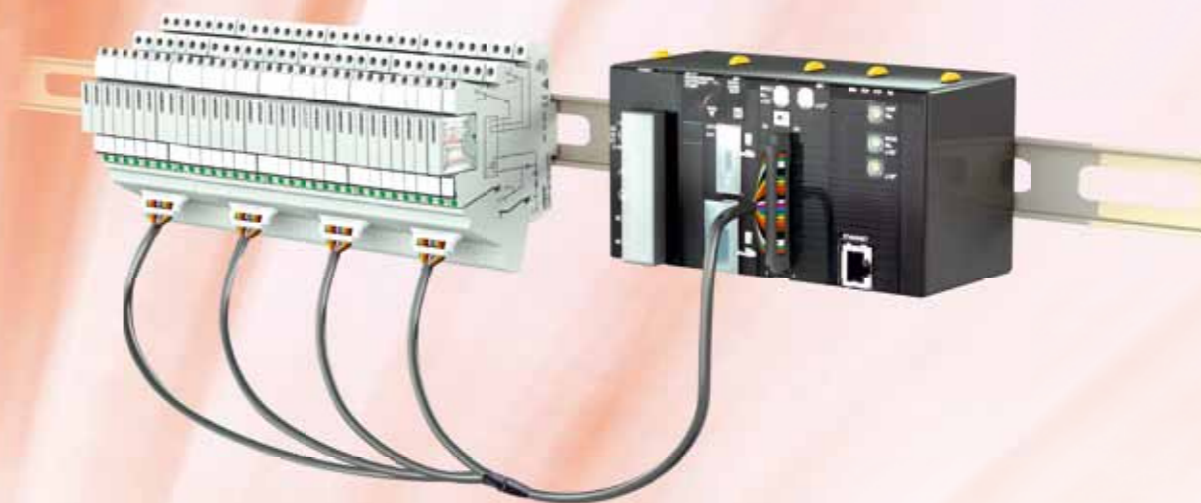
Identification labels are available for application to individual relays/sockets.



Crossbars

Crossbars for the G2RV/G3RV are available in various colours and number of poles for easy connection and in order to keep waste to a minimum.

Industrial interfacing made easy



Omron offers an industrial interfacing solution that makes the installation and replacement of relays easy. Based on Omron's slim (6 mm) industrial relay series, it takes just three easy steps to interface our connectors securely and reliably to any type of PLC.

- Space saving
- Interfaces blocks of 8 relays to your PLC
- No faulty connections
- Power switching capacity
- Double the lifespan of average 6 mm relays (6A 250VAC NC/NO)
- Excellent relay connection due to large plug-in pins
- Easy maintenance



More information

For further information on our extensive industrial relay range, please ask for our Industrial Automation Guide.

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- Programmable logic controllers (PLC) • Human machine interfaces (HMI) • Remote I/O
- Industrial PC's • Software

Motion & Drives

- Motion controllers • Servo systems • Inverters • Robots

Control Components

- Temperature controllers • Power supplies • Timers • Counters • Programmable relays
- Digital panel indicators • Electromechanical relays • Monitoring products • Solid-state relays
- Limit switches • Pushbutton switches • Low voltage switch gear

Sensing & Safety

- Photoelectric sensors • Inductive sensors • Capacitive & pressure sensors
- Cable connectors • Displacement & width-measuring sensors • Vision systems
- Safety networks • Safety sensors • Safety units/relay units • Safety door/guard lock switches

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