

# Push-In Plus Terminal Block Relay Series

PYF-PU ( Sockets for MY Relays )

P2RF-PU ( Sockets for G2R-S Relays )

G2RV-SR/G3RV-SR ( Slim I/O Relays )

G70V ( I/O Relay Terminals )

A New Standard for Reducing Work in Control Panels



- Push-In Plus terminal blocks for easy wiring
- Installation with either top or bottom facing up for more flexible in-panel wiring
- A compact design and unique structure help reduce work from designing to maintenance

# New Value For Control Panels

Control Panels: The Heart of Manufacturing Sites.

Evolution in control panels results in large evolution in production facilities.

And if control panel design, control panel manufacturing processes, and human interaction with them are innovated, control panel manufacturing becomes simpler and takes a leap forward.

OMRON will continue to achieve a control panel evolution and process innovation through many undertakings starting with the shared Value Design for Panel <sup>\*1</sup> concept for the specifications of products used in control panels.

## \*1 Value Design for Panel



Our shared Value Design for Panel (herein after referred to as "Value Design") concept for the specifications of products used in control panels will create new value to our customer's control panels.

Combining multiple products that share the Value Design concept will further increase the value provided to control panels.



Innovation for  
panel building  
Process

Further Evolution  
for  
Panels

New Value  
For  
Control Panels

Process

Conceptual design Detailed design Assembly/Wiring Shipment

Conceptual design Detailed design Assembly/Wiring Shipment

Panels

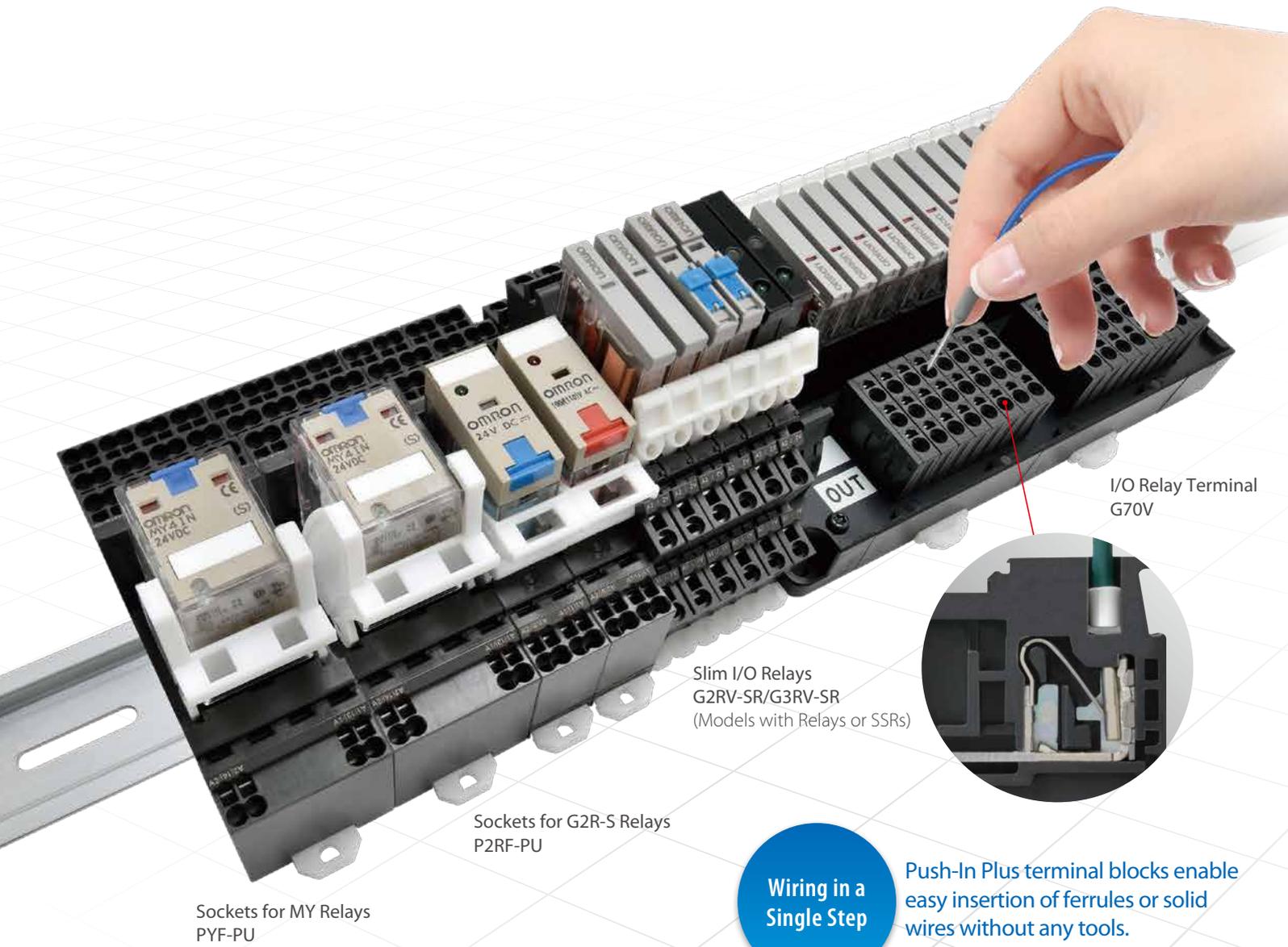
Simple & Easy  
for panel business  
People

People



# A New Standard for Reducing Work in Control Panels

## Less Wiring and Less Work by Uniting a Wealth of Relay Models with the New Easy-to-use Push-In Plus Terminal Block Relay Series



Slim I/O Relays  
G2RV-SR/G3RV-SR  
(Models with Relays or SSRs)

I/O Relay Terminal  
G70V

Sockets for G2R-S Relays  
P2RF-PU

Sockets for MY Relays  
PYF-PU

**Wiring in a Single Step**

Push-In Plus terminal blocks enable easy insertion of ferrules or solid wires without any tools.

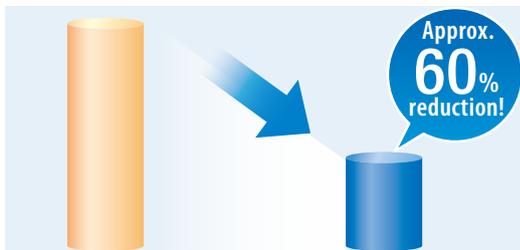
OMRON provides many accessories that make I/O products more convenient.

# Push-In Plus Terminal Blocks for Easy Wiring

## Just Insert Wires: No Tools Required

Now you can use Push-In Plus terminal blocks to reduce the time and work involved in wiring.

Greatly Reduce Wiring Work with Push-In Plus Terminal Blocks



Conventional screw terminal blocks    OMRON Push-In Plus terminal block  
\*Information for Push-In Plus and screw terminal blocks is based on OMRON's actual measurement value data.

## Screwdriver Held in Place to Free Both Your Hands

Optimized shape to hold the screwdriver was created by the resin parts and the spring. Work goes smoothly when connecting stranded wires directly to the terminal because it's easier to aim at the desired terminal.



## Easy to Insert

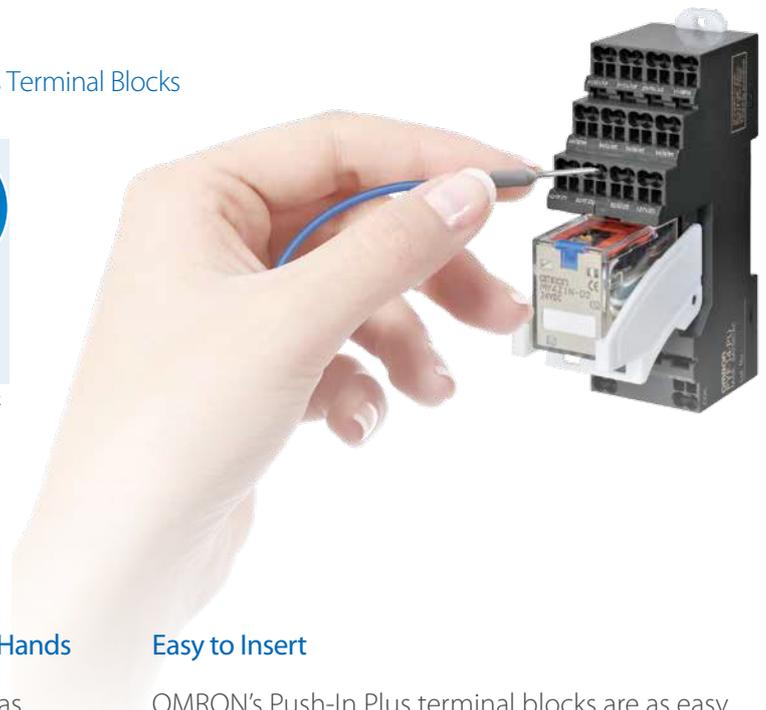
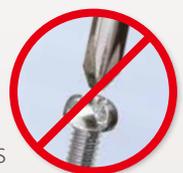
OMRON's Push-In Plus terminal blocks are as easy as inserting to an earphone jack. They help reduce the work load and improve wiring quality.

## Held Firmly in Place

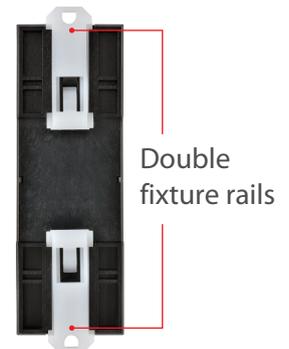
Even though less insertion force is required, the wires are held firmly in place. The advanced mechanism design technology and manufacturing technology produced a spring that ensures better workability and reliability. The same strength as screw terminal blocks is provided.

## No Retightening Required

Tightening screws is necessary for screw terminal blocks, but with Push-In Plus terminal blocks, there is no need for retightening for inspections, delivery (shipping), or maintenance.



# PYF-PU, P2RF-PU, G2RV-SR/G3RV-SR Installation with Either Top or Bottom Facing Up for More Flexible In-panel Designing



Back of Push-In Plus Terminal Block Socket

There are no installation direction restrictions, which enables flexible, efficient wiring inside panels.

Specified Installation Direction ( Previous Industry Standard )

Output (contacts)

Input (coils)

Installation is possible with either top or bottom facing up.

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No Installation Direction Restrictions

Input (coils)

Output (contacts)

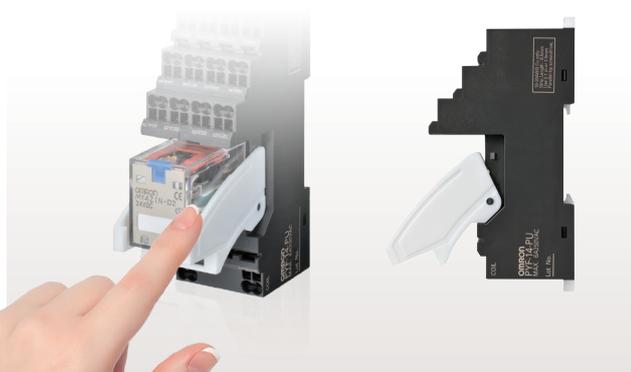
\*You can wire by the shortest path.

The ability to be installed with either top or bottom facing up simplifies designing and reduces wiring. A unified height of 90 mm enables sharing short bars, reduces work in managing stocks, and reduces design work.

And the fixture rails can be pulled out to mount the Relays with screws. (Applicable models: PYF-PU and P2RF-PU)

## Standard-feature Release Levers

All Relays in the Push-In Plus Terminal Block Relay Series come with release levers as standard for easy Relay locking and releasing.



## Certified for Main Safety Standards

Globally applicable design for reliable use in most countries around the world.



## G2RV-SR

# Compact Design and Unique Structure Help Reduce Work from Designing to Maintenance

G2RV Relays, which were optimally designed for in-panel applications, can be mounted to downsize panels by 25% over previous OMRON Relays.

Previous OMRON

**Comparison with previous OMRON Relay**  
**25%**  
 Smaller in size

**Protective cover**  
**PAT.** Stopper for preventing incorrect operation

**Latching lever**  
 Reduces circuit checking, operation confirmation, and inspection work.

**Mechanical indicator**  
 Linked to contacts to enable operation confirmation.

**Plug-in terminals**  
 Provide reliability because the terminals don't bend during replacement work.

**Transparent case**  
 Easy confirmation of Relay contact state

**Release lever**  
 Easy Relay locking and releasing

**80 mm**

**90 mm**

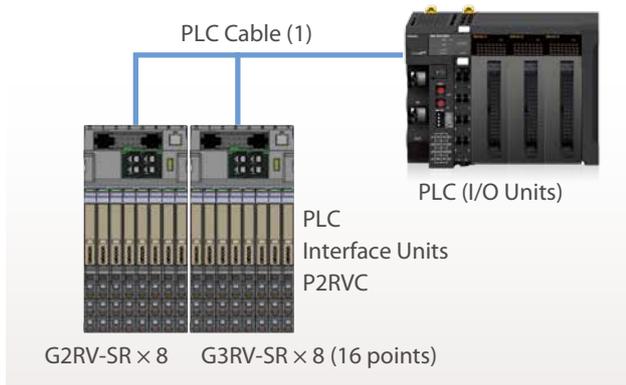
**With latching lever**    **Basic model**

## G2RV-SR/G3RV-SR, G70V

# PLC Cables Reduce Wiring Even Further

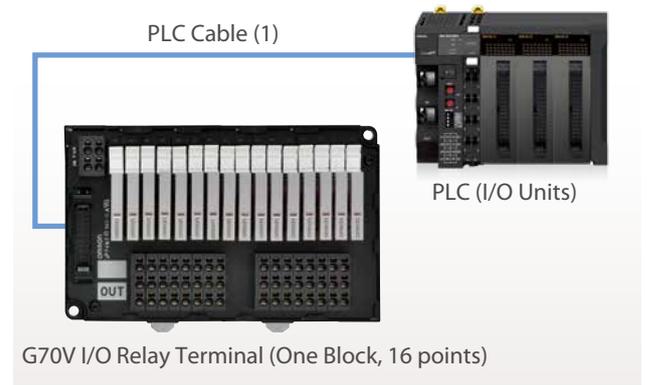
### Using a PLC Interface Unit with G2RV-SR/G3RV-SR Slim I/O Relays

You can connect 8 I/O points directly with just one PLC cable to effectively reduce wiring work.



### Using a G70V I/O Relay Terminal

You can connect 16 I/O points with just one PLC cable to reduce wiring work.



## Product Lineup

### Sockets for Relays

	MY Series		G2R-S Series	
Model	PYF-08-PU	PYF-14-PU	P2RF-05-PU	P2RF-08-PU
No. of poles	2 poles	4 poles	1 pole	2 poles
Appearance				

### Slim I/O Relays

	Basic model	With latching lever	For microloads (gold-plated contacts)	Solid State Relays (SSRs)
Model	G2RV-SR500*	G2RV-SR501*	G2RV-SR500-AP*	G3RV-SR500*
AC load	6 A at 250 VAC	6 A at 250 VAC	50 mA at 30 VAC	2 A at 100 to 250 VAC
DC load	6 A at 30 VDC	6 A at 30 VDC	50 mA at 36 VDC	3 A at 5 to 24 VDC
Appearance				

\*Relays are also available with screw terminals.

### I/O Relay Terminals

	For inputs		For outputs	
Model	G70V-SID16P-1	G70V-SID16P	G70V-SOC16P-1	G70V-SOC16P
Transistor output	PNP	NPN	PNP	NPN
Appearance				

## Replacement Parts and Accessories Available for Different Applications

Accessories Accessories that make I/O products more convenient

	Short Bars	Separator Plate	PLC Interface Units / PLC Cables	Cables for I/O Relay Terminal
Model	PYDN-□-□	XW5Z-EP12	P2RVC / P2RV	XW2Z
Application	Reducing wiring and device connections	Insulation	Reducing wiring	Reducing wiring
Applicable models	PYF-PU P2RF-PU G2RV-SR G3RV-SR	G2RV-SR G3RV-SR	G2RV-SR G3RV-SR	G70V

# Products That Create New Value in Control Panels



Switch Mode Power Supplies S8VK-S



Uninterruptible Power Supply (UPS) S8BA



Power Monitors KM-N2



Digital Temperature Controllers E5CC-B/E5EC-B



Measuring and Monitoring Relays K8DT



Solid-state Timers H3DT



Solid-state Timers H3Y-□-B/H3YN-B



Solid-state Timers H3RN-□-B



Liquid Leakage Sensor Amplifiers K7L-□□B



Sockets for MY series, H3Y-□-B and H3YN-B PYF-PU-□



Sockets for G2R-S, H3RN-□-B and K7L-□□B P2RF-PU



Slim I/O Relays G2RV-SR



Slim I/O Relays G3RV-SR



I/O Relay Terminals G70V



Solid State Relays for Heaters G3PJ



DIN Track Terminal Blocks XW5T

Panel Assist Web

[www.ia.omron.com/solution/panel/](http://www.ia.omron.com/solution/panel/)



Proposal for Innovation of Control Panel Building Cat. No. Y218

Refer to the PYF-□□-PU/P2RF-□□-PU Push-In Plus Terminal Block Sockets Datasheet (Cat. No. J212), the G2RV-SR/G3RV-SR Slim I/O Relays Datasheet (Cat. No. J214), and the G70V I/O Relay Terminal Datasheet (Cat. No. J215) for details.

Before you place an order, please read and understand "Agreement for Using the Product" available on Omron's latest "Best control devices Omron", "General Brochure" or Omron's website.

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