Relay series with push-in plus technology

PYF-PU, P2RF-PU, G2RV-SR/ G3RV-SR, G70V
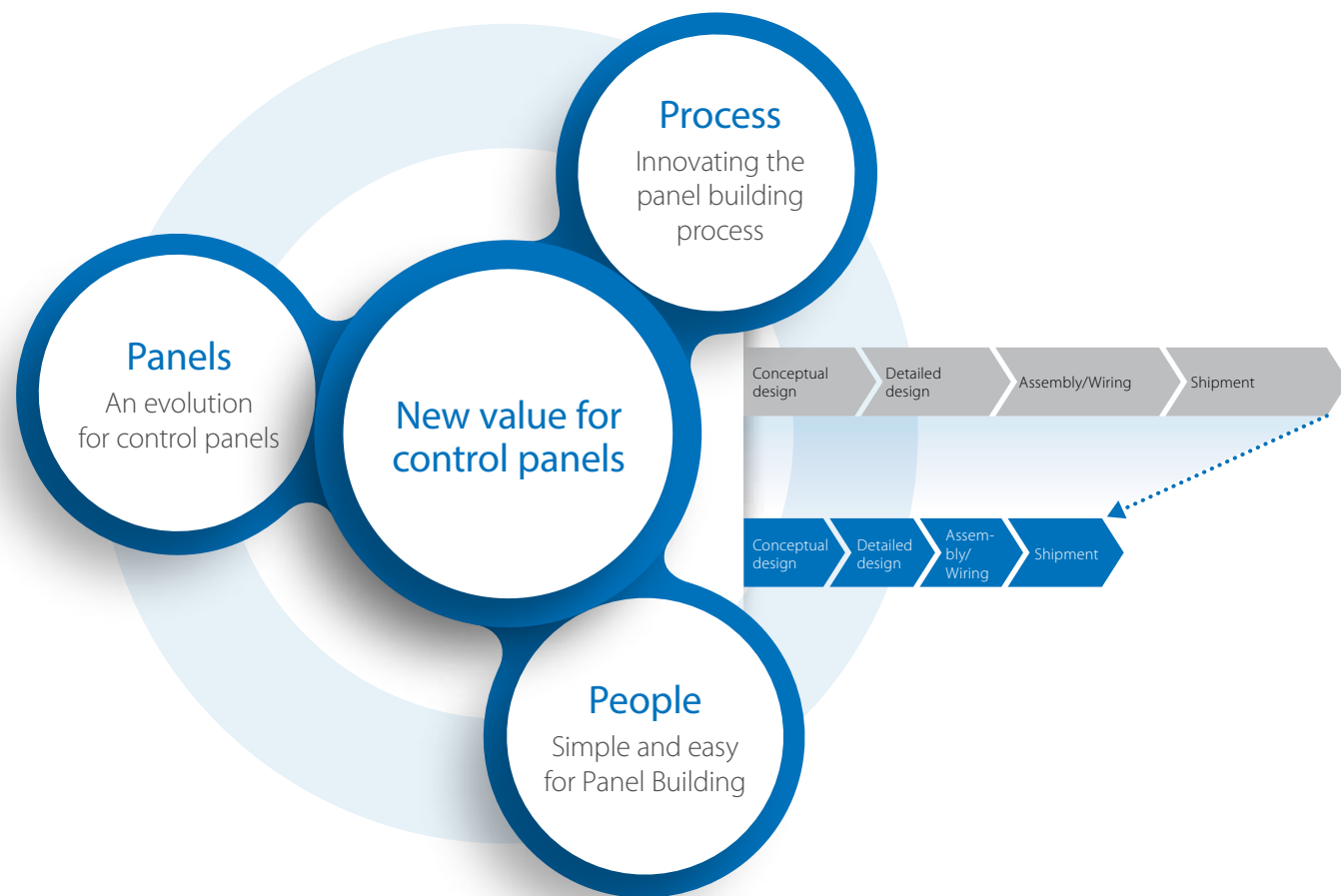
- Push-in plus technology for easy wiring
- More flexible in-panel wiring
- Compact design and unique structure

industrial.omron.eu
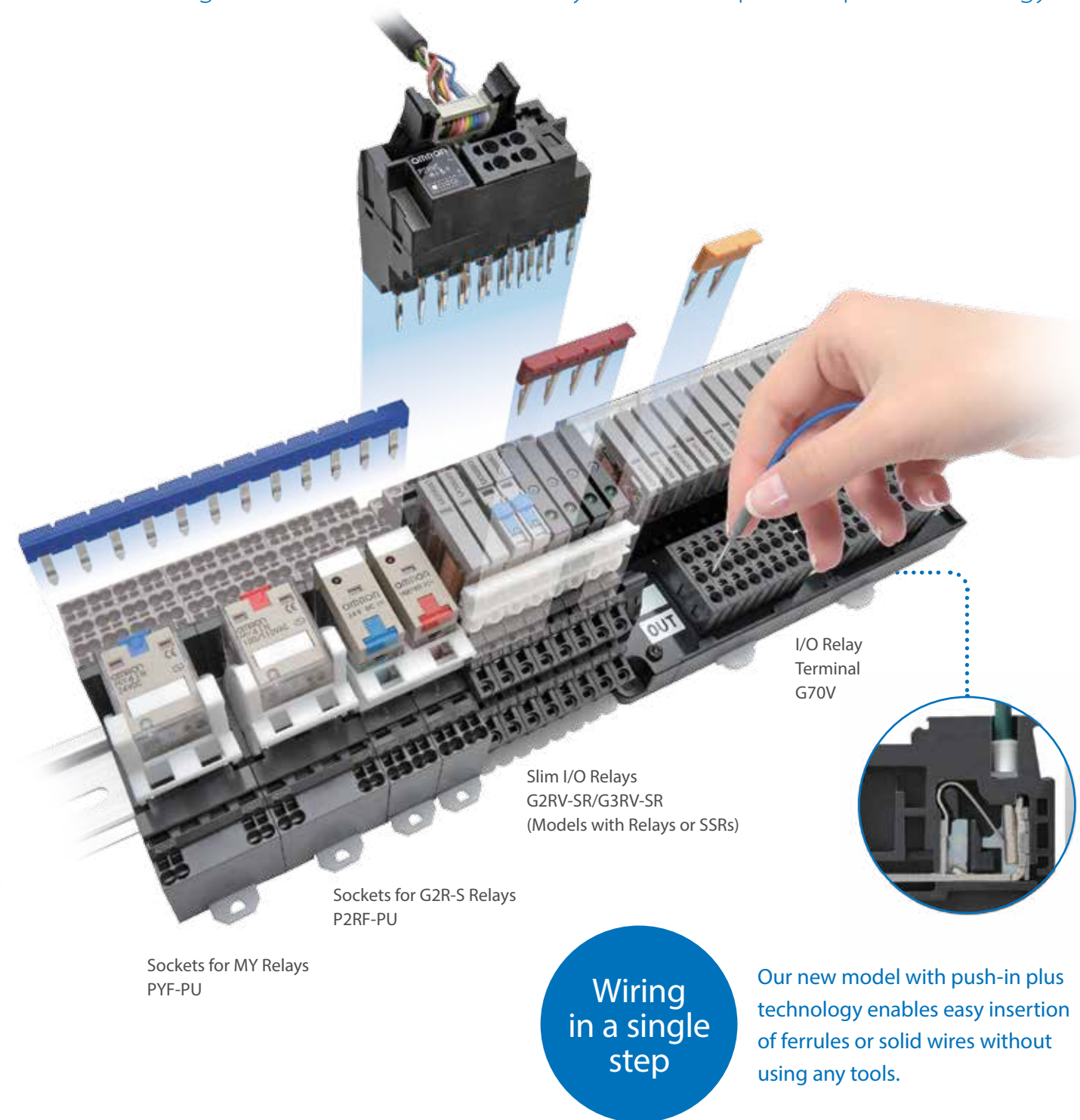
New value for control panels

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

Process
Innovating the panel building process

Panels
An evolution for control panels

New value for control panels

People
Simple and easy for Panel Building

| Conceptual design | Detailed design | Assembly/Wiring | Shipment |

| Conceptual design | Detailed design | Assembly/Wiring | Shipment |

Value Design for Panel

*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 within control panels will create new value for our control panel customers. Combining multiple products that share the Value Design concept will further increase the value provided.

Less wiring and work with the new relay series with push-in plus technology

I/O Relay Terminal G70V

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

Sockets for G2R-S Relays
P2RF-PU

Sockets for MY Relays
PYF-PU

Wiring in a single step

Our new model with push-in plus technology enables easy insertion of ferrules or solid wires without using any tools.

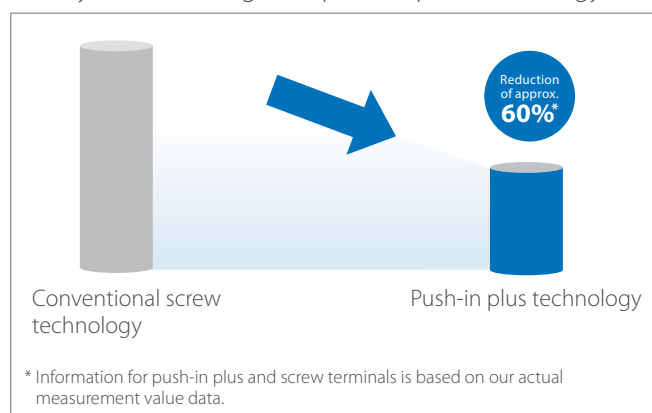## We provide many accessories that make I/O products more convenient.

Push-in plus technology for easy wiring

Fast wiring via push-in plus technology

Just insert the wires – no tools required. Do all your wiring in less than half the time needed with screw type terminals.

Greatly reduce wiring with push-in plus technology.

Reduction of approx.
60%*

Conventional screw technology

Push-in plus technology

* Information for push-in plus and screw terminals is based on our actual measurement value data.

Screwdriver held in place to free both of 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

Our push-in plus technology is as easy as inserting to an earphone jack – reducing your work load while improving wiring quality at the same time.
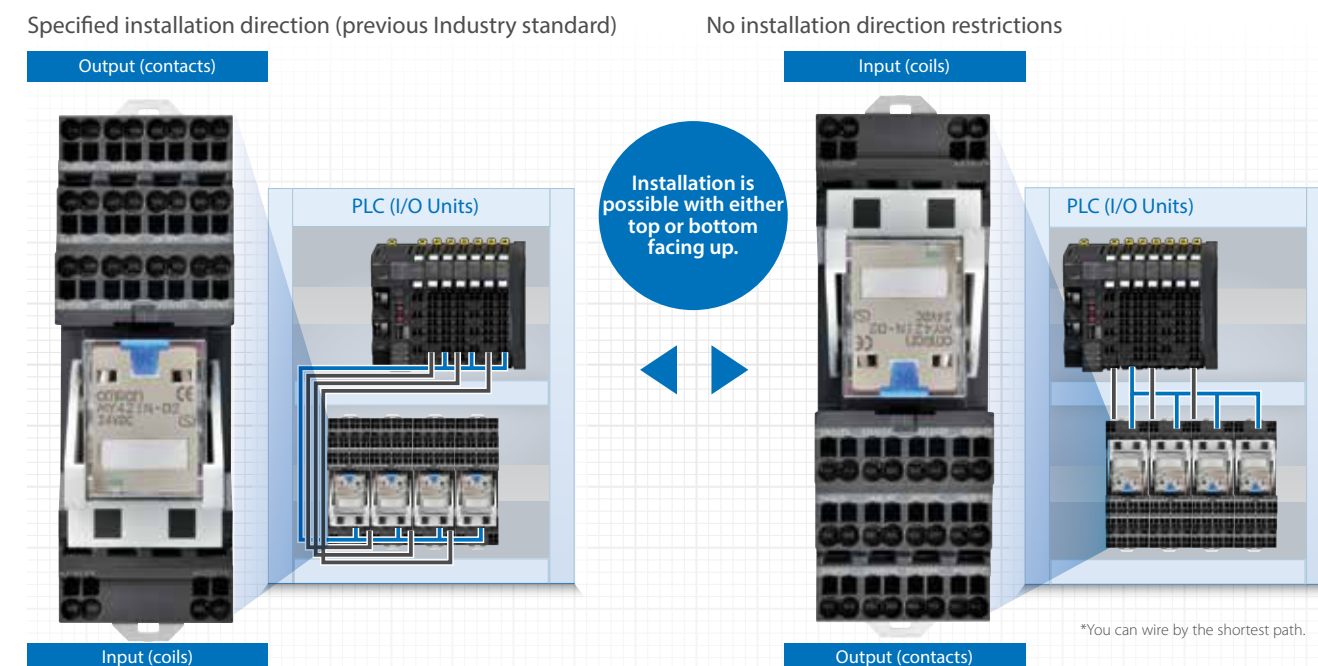
Held firmly in place

Even though less insertion force is required than other relays series with push-in technology, the wires are held firmly in place – thanks to the advanced mechanism design and manufacturing technology.

No retightening required

Retightening screws is often necessary for screw terminals, but with push-in plus, there is no (re) tightening.

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

Specified installation direction (previous Industry standard)

No installation direction restrictions

Output (contacts)

Input (coils)

PLC (I/O Units)

Installation is possible with either top or bottom facing up.

PLC (I/O Units)

*You can wire by the shortest path.

Input (coils)

Output (contacts)

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 Relays series with push-in plus technology 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.

c**UL**us
LISTED

D/E

CE

Relay series with push-in plus technology

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 used to downsize panels by 25% over our previous Relays.

Comparison with previous Omron Relay
25%
Smaller in size

PAT. Stopper for preventing incorrect operation

Protective cover

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

Mechanical indicator
Linked to contacts to enable operation confirmation.

Transparent case
Easy confirmation of Relay contact state

80 mm

90 mm

Release lever
Easy Relay locking and releasing

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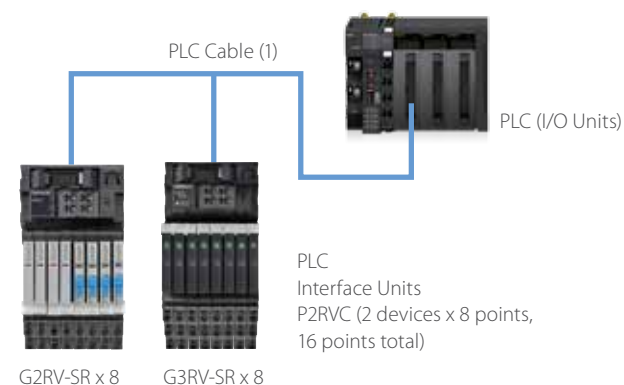Provide reliability because the terminals don't bend during replacement work.

With latching lever   Basic model

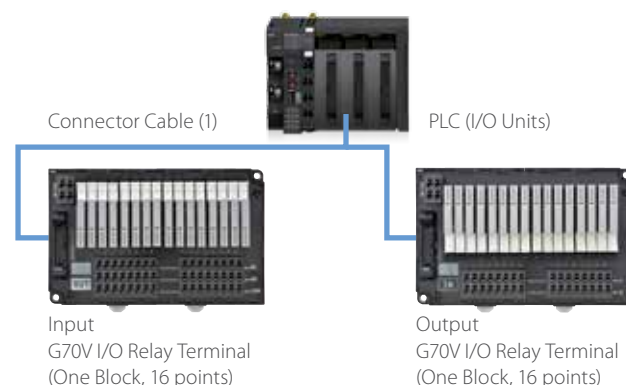### G2RV-SR/G3RV-SR, G70V - PLC cables reduce wiring even further.

Using a PLC interface with G2RV-SR/ G3RV-SR slim I/O relays
Thanks to P2RVC it is possible to connect 8 I/O points directly with just one PLC cable.

PLC Cable (1)

PLC (I/O Units)

PLC Interface Units P2RVC (2 devices x 8 points, 16 points total)

G2RV-SR x 8   G3RV-SR x 8

Using a G70V I/O Relay Terminal
G70V is the perfect Relay terminal to connect 16 I/O points reducing wiring work and maximize space efficiency. From 2017 the G70V will also be available with internal connection (input models: 16 point/ common, output models: 4 points/common).

Connector Cable (1)   PLC (I/O Units)

Input
G70V I/O Relay Terminal
(One Block, 16 points)

Output
G70V I/O Relay Terminal
(One Block, 16 points)

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.

Slim I/O Relays

		For inputs		For outputs	
Model	No internal connections	G70V-SID16P-1	G70V-SID16P	G70V-SOC16P-1	G70V-SOC16P
	Internal connections	G70V-SID16P-1-C16*	G70V-SID16P-C16*	G70V-SOC16P-1-C4*	G70V-SOC16P-C4*
Transistor output		PNP	NPN	PNP	NPN
Appearance					

Replacement Parts and Accessories Available for Different Applications
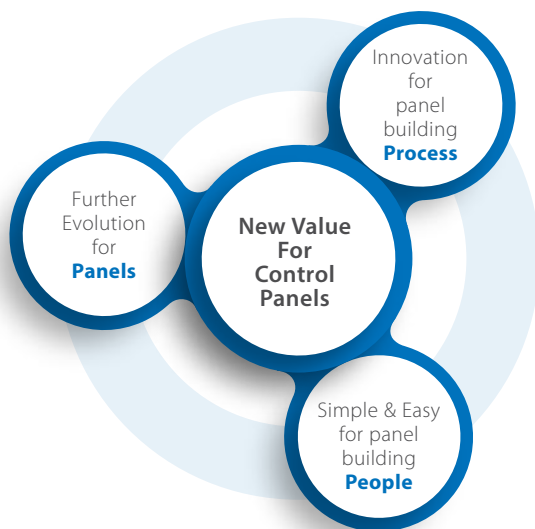Accessories that make I/O products more convenient

	Short Bars		Separator Plate	PLC Interface Units / PLC Cables	Connector Cables for I/O Relay Terminal
Model	PYDN	XW5S-P2.5	XW5Z-EP12	P2RVC / P2RV	XW2Z-R
Application	Reducing wiring and device connections		Insulation	Reducing wiring	Reducing wiring
Applicable models	PYF-PU P2RF-PU G2RV-SR G3RV-SR	P7SA-PU	G2RV-SR G3RV-SR	G2RV-SR G3RV-SR	G70V
Appearance	Product color ● ● ●				

The photo shows the PYDN-7.75 model.

OMRON

Would you like to know more?

OMRON EUROPE

📞 +31 (0) 23 568 13 00

💻 industrial.omron.eu

Innovation for panel building **Process**

Further Evolution for **Panels**

New Value For Control Panels

Simple & Easy for panel building **People**

Panels
• Space saving
• Vibration resistance
• Improve airflow

Process
• Designing with CAD & Eplan Library
• Swift customisation
• Express delivery within Europe

People
• Front-in and front-release Easy wiring

Our Panelbuilding portfolio

NEW 2017 Released in April

Switch Mode Power Supplies (30W)

DIN Track Terminal Blocks (5.2 mm/6.2 mm)

I/O Relay Terminal models with internal terminal connection

2016 Released In October

Switch Mode Power Supplies (240W/480W)

Sockets for Safety Relays

Push-In Plus Series Pushbutton Switches

Power Monitors (Mounted On-Panel)

Machine Automation Controller

2016 Released In April

Switch Mode Power Supplies (60/120W)

Solid-state Timers

Measuring and Monitoring Relays

Power Monitors (DIN Track mounting)

Common Sockets (for MY/H3Y(N)-B)

Common Sockets (for G2R-S/H3RN-B/ K7L-B)

Slim I/O Relays

Solid-state Timers

Solid-state Timers

Liquid Leakage Sensor Amplifiers

I/O Relay Terminals

DIN Track Terminal Blocks

2015 Released

Digital Temperature Controllers

Solid State Relays for Heaters

EtherCAT Slave Terminals

Uninterruptible Power Supply (UPS)