

LITTELFUSE SOLID-STATE INDUSTRIAL RELAYS DELIVER UP TO 3X BETTER PERFORMANCE



Overview

Littelfuse solid-state industrial relays provide high-performance and reliability for industrial applications. The SRP1 Series outperforms competitors and delivers up to 750,000 life stress cycles. The relays use cutting-edge manufacturing techniques in direct bonding technology and incorporate high-end Littelfuse power semiconductors.

- **TVS Diode Overvoltage Protection** from electrical spikes in the network
- **IP20 Cover** for finger-safe protection
- **Thermal Pad included** for easy installation in the panel or heatsink
- **Screw or quick-connect terminals** are easy to install
- **LED input indicator**

Applications

- Industrial Ovens
- HVAC Equipment
- Plastic and Packaging Machinery
- Commercial Cooking Equipment
- Heating and Motion Control in Industrial Automation
- Theatrical, public & traffic lighting control

Benefits

Get Better Uptimes

IXYS high-end power semiconductors alongside Littelfuse TVS protection deliver uninterrupted switching.

Consistent Performance

SRP1 Series reduce costly downtime and are drop-in replacements for competitive products that are underperforming in demanding conditions.

Extended Service Life

In an application, SSRs face stressors (ambient temperature changes, unexpected overloads, aging, faulty connections, etc) that significantly reduce their lifespan. The SRP1 Series is proven to handle these challenges and last much longer.

Thermal Efficiency

High rated Littelfuse power components deliver better heat dissipation and less voltage drop.

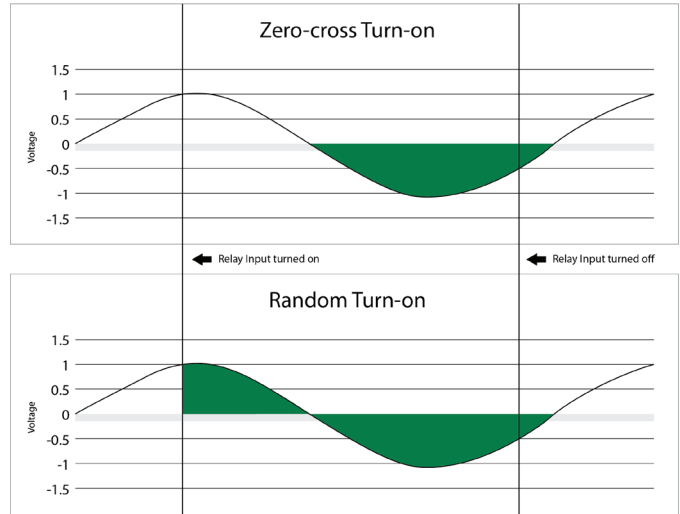
Robust Insulation

High-quality insulation and isolation between the input and output terminals eliminates exposure to high voltages and current and reduces risk from electric shock.

Features

Switching Types

Zero Cross Switching is commonly used to regulate heaters based on signals from a temperature controller. Instantaneous Switching is better suited for high-inductive loads such as motors, solenoids, transformers, or auxiliary electro-mechanical relays due to their phase shift in current and voltage.

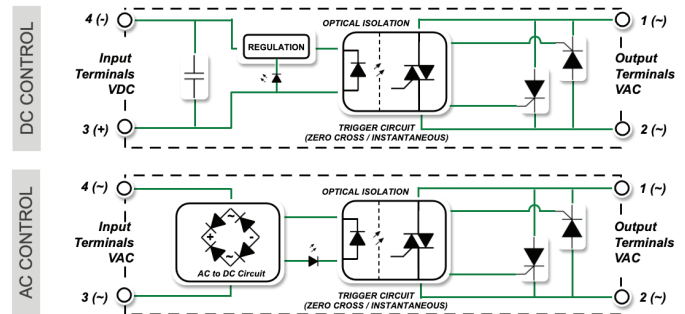


DC Control

The SSR can be activated with a direct current (DC) control signal from 4 Volts to 32 Volts. This flexibility allows the SSR to be compatible with various low-voltage control systems.

AC Control

The SSR can be directly connected to mains power, with the ability to handle standard mains power voltages ranging from 48 to 240V ac. This makes it suitable for industrial and commercial applications where direct control of high-powered equipment is required.



Compliance with Certifications and Standards

Meets third-party performance standards – cRUus (Covering UL508 & CAN/CSA C22.2 No.14-18) – and are RoHS and lead free. In addition, products meet CE requirements.



Available Parts



Screw Terminals
SRP1-CB Series

FOR HEATING CONTROL						
CATALOG #	OUTPUT MAX CURRENT	OUTPUT VOLTAGE	OUTPUT SWITCHING STYLE	OUTPUT OVERVOLTAGE PROTECTION	INPUT VOLTAGE RANGE	COMPLIANCE
SRP1-CBDZL-010NW-N	10 A	24-240 V AC	Zero Cross	-	4-32 V DC	cRUus, CE
SRP1-CBAZL-010NW-N	10 A	24-240 V AC	Zero Cross	-	90-280 V AC	cRUus, CE
SRP1-CBDZL-025NW-N	25 A	24-240 V AC	Zero Cross	-	4-32 V DC	cRUus, CE
SRP1-CBAZL-025NW-N	25 A	24-240 V AC	Zero Cross	-	90-280 V AC	cRUus, CE
SRP1-CBDZH-025NW-N	25 A	48-600 V AC	Zero Cross	-	4-32 V DC	cRUus, CE
SRP1-CBAZH-025NW-N	25 A	48-600 V AC	Zero Cross	-	90-280 V AC	cRUus, CE
SRP1-CBDZL-050NW-N	50 A	24-240 V AC	Zero Cross	-	4-32 V DC	cRUus, CE
SRP1-CBAZL-050NW-N	50 A	24-240 V AC	Zero Cross	-	90-280 V AC	cRUus, CE
SRP1-CBDZH-050NW-N	50 A	48-600 V AC	Zero Cross	-	4-32 V DC	cRUus, CE
SRP1-CBAZH-050NW-N	50 A	48-600 V AC	Zero Cross	-	90-280 V AC	cRUus, CE
FOR OTHER LOADS CONTROL						
SRP1-CBDRL-010NW-N	10 A	24-240 V AC	Instantaneous	-	4-32 V DC	cRUus, CE
SRP1-CBARL-010NW-N	10 A	24-240 V AC	Instantaneous	-	90-280 V AC	cRUus, CE
SRP1-CBDRL-025NW-N	25 A	24-240 V AC	Instantaneous	-	4-32 V DC	cRUus, CE
SRP1-CBARL-025NW-N	25 A	24-240 V AC	Instantaneous	-	90-280 V AC	cRUus, CE
SRP1-CBDRH-025NW-N	25 A	48-600 V AC	Instantaneous	-	4-32 V DC	cRUus, CE
SRP1-CBARH-025NW-N	25 A	48-600 V AC	Instantaneous	-	90-280 V AC	cRUus, CE
SRP1-CBDRL-050NW-N	50 A	24-240 V AC	Instantaneous	-	4-32 V DC	cRUus, CE
SRP1-CBARL-050NW-N	50 A	24-240 V AC	Instantaneous	-	90-280 V AC	cRUus, CE
SRP1-CBDRH-050NW-N	50 A	48-600 V AC	Instantaneous	-	4-32 V DC	cRUus, CE
SRP1-CBARH-050NW-N	50 A	48-600 V AC	Instantaneous	-	90-280 V AC	cRUus, CE



Quick Connect Terminals
SRP1-CB...F Series

FOR HEATING CONTROL						
CATALOG #	OUTPUT MAX CURRENT	OUTPUT VOLTAGE	OUTPUT SWITCHING STYLE	OUTPUT OVERVOLTAGE PROTECTION	INPUT VOLTAGE RANGE	COMPLIANCE
SRP1-CBDZL-010NF-N	10 A	24-240 V AC	Zero Cross	-	90-280 V AC	cRUus, CE
SRP1-CBDZL-025NF-N	25 A	24-240 V AC	Zero Cross	-	4-32 V DC	cRUus, CE
SRP1-CBDZH-050NF-N	50 A	48-600 V AC	Zero Cross	-	4-32 V DC	cRUus, CE



IP20 Cover and pre-attached thermal pad
SRP1-CR Series

FOR HEATING & LIGHTING CONTROL						
CATALOG #	OUTPUT MAX CURRENT	OUTPUT VOLTAGE	OUTPUT SWITCHING STYLE	OUTPUT OVERVOLTAGE PROTECTION	INPUT VOLTAGE RANGE	COMPLIANCE
SRP1-CRDZL-010TC-N	10 A	24-240 V AC	Zero Cross	TVS	4-32 V DC	cRUus, CE
SRP1-CRAZL-010TC-N	10 A	24-240 V AC	Zero Cross	TVS	90-280 V AC	cRUus, CE
SRP1-CRDZL-025TC-N	25 A	24-240 V AC	Zero Cross	TVS	4-32 V DC	cRUus, CE
SRP1-CRAZL-025TC-N	25 A	24-240 V AC	Zero Cross	TVS	90-280 V AC	cRUus, CE
SRP1-CRDZH-025TC-N	25 A	48-600 V AC	Zero Cross	TVS	4-32 V DC	cRUus, CE
SRP1-CRAZH-025TC-N	25 A	48-600 V AC	Zero Cross	TVS	90-280 V AC	cRUus, CE
SRP1-CRDZL-050TC-N	50 A	24-240 V AC	Zero Cross	TVS	4-32 V DC	cRUus, CE
SRP1-CRAZL-050TC-N	50 A	24-240 V AC	Zero Cross	TVS	90-280 V AC	cRUus, CE
SRP1-CRDZH-050TC-N	50 A	48-600 V AC	Zero Cross	TVS	4-32 V DC	cRUus, CE
SRP1-CRAZH-050TC-N	50 A	48-600 V AC	Zero Cross	TVS	90-280 V AC	cRUus, CE
FOR OTHER LOADS CONTROL						
SRP1-CRDRL-010TC-N	10 A	24-240 V AC	Instantaneous	TVS	4-32 V DC	cRUus, CE
SRP1-CRARL-010TC-N	10 A	24-240 V AC	Instantaneous	TVS	90-280 V AC	cRUus, CE
SRP1-CRDRL-025TC-N	25 A	24-240 V AC	Instantaneous	TVS	4-32 V DC	cRUus, CE
SRP1-CRARL-025TC-N	25 A	24-240 V AC	Instantaneous	TVS	90-280 V AC	cRUus, CE
SRP1-CRDRH-025TC-N	25 A	48-600 V AC	Instantaneous	TVS	4-32 V DC	cRUus, CE
SRP1-CRARH-025TC-N	25 A	48-600 V AC	Instantaneous	TVS	90-280 V AC	cRUus, CE
SRP1-CRDRL-050TC-N	50 A	24-240 V AC	Instantaneous	TVS	4-32 V DC	cRUus, CE
SRP1-CRARL-050TC-N	50 A	24-240 V AC	Instantaneous	TVS	90-280 V AC	cRUus, CE
SRP1-CRDRH-050TC-N	50 A	48-600 V AC	Instantaneous	TVS	4-32 V DC	cRUus, CE
SRP1-CRARH-050TC-N	50 A	48-600 V AC	Instantaneous	TVS	90-280 V AC	cRUus, CE

For more information and detailed datasheets, visit [Littelfuse.com/SSR](https://www.littelfuse.com/SSR)

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