

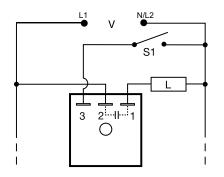
SLR SERIES

Solid-State Relay - Non-Isolated





Wiring Diagram



V = Voltage S1 = Initiate Switch L = Load

Note: Normally open output is shown. Normally closed output is also available.

Description

The SLR Series has no isolation between the control switch input and the solid-state output. Select the SLR for applications where the control switch is the same voltage source as the load. Provides the noiseless, reliability and long life of a solid-state relay, without the cost of isolation circuitry. The SLR Series offers random switching and is normally used for inductive loads. When fully insulated female terminals are used on the connection wires, the system meets the requirements for touch-proof connections.

Operation

The solid-state output is located between terminals 1 and 2 and can be ordered as either normally open or normally closed, when voltage is applied and S1 is open. When S1 is closed, the solid-state output between terminals 1 and 2 closes (or opens). If S1 is opened, the solid-state output will open (or close).

Reset: Opening S1 resets the output to its original state. Reset is also accomplished by removing input voltage.

Features & Benefits

FEATURES	BENEFITS		
Compact design measures 2 in. (50.8mm) square	Perfect for OEM applications where space is limited		
Totally solid state and encapsulated	No moving parts to arc and wear out over time and encapsulated to protect against shock, vibration, and humidity		
Up to 20A steady, 200A inrush output rating	Provides direct control of heavy inductive, resistive, or incandescent loads		
Metalized mounting surface	Facilitates heat transfer in high current applications		

Accessories



P1015-13 (AWG 10/12), P1015-64 (AWG 14/16), P1015-14 (AWG 18/22) Female Quick Connect These 0.25 in. (6.35 mm) female terminals are constructed with an insulator barrel to provide strain relief.



P1015-18 Quick Connect to Screw Adapter Screw adapter terminal designed for use with all modules with 0.25 in. (6.35 mm) male quick connect terminals.

Ordering Information

MODEL	SWITCHING	INPUT VOLTAGE	OUTPUT RATING	OUTPUT FORM
SLR1420A	Random	120VAC	20A	Normally open
SLR1610A	Random	230VAC	10A	Normally open

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SLR SERIES

Specifications

Output (Contact)

Type Non-isolated solid state
Form SPST, NO or NC
Voltage 24, 120, or 230VAC

Tolerance ±20%

Ratings	Steady State	Inrush*	Output Device
	1A	10A	SCR & Bridge
			Rectifier
	6 A	60A	Triac
	10A	100A	Triac
	20A	200A	Triac

Minimum Load Current

Voltage Drop

(at Rated Current) $\approx 2.0 \text{V} - 6$, 10, & 20A units; $\approx 2.5 \text{V} - 1 \text{A}$ units

≃ 50mA

Leakage Current (Open State) $\leq 5mA$

Initiate Switch Voltage Same as the output voltage

Power Consumption $\leq 0.5W$

Protection

Circuitry Encapsulated

Dielectric Breakdown ≥ 2000V RMS terminals to mounting surface

Insulation Resistance ≥ 100Mg

Mechanical

Mounting* Surface mount with one #10 (M5 x 0.8) screw

Dimensions H 50.8 mm (2.0"); **W** 50.8 mm (2.0");

D 38.4 mm (1.51")

Termination 0.25 in. (6.35 mm) male quick connect

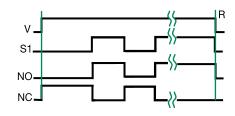
terminals

Environmental

Operating/Storage

Temperature -20° to 60° C / -40° to 85° CHumidity95% relative, non-condensingWeight1A units: ≈ 2.4 oz (68 g);6, 10, 20A units: ≈ 3.9 oz (111 g)

Function Diagram



^{*}Must be bolted to a metal surface using the included heat sink compound. The maximum mounting surface temperature is 90°C. Inrush: Non-repetitive for 16ms.

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SLR1610A SLR1420A