

Non Isolated SLR1/SLR2 Series Solid State Relay



- SLR1 - Random Switching for Inductive Loads
- SLR2 - Zero Voltage Switching for Resistive & Incandescent Loads
- Normally Open or Normally Closed Output
- 1 ... 20 A with up to 200 A Inrush
- 0.25 in. (6.35 mm) Termination with Single Hole Mounting
- Noiseless Switching, Reliability, and Long Life

Approvals:

Description

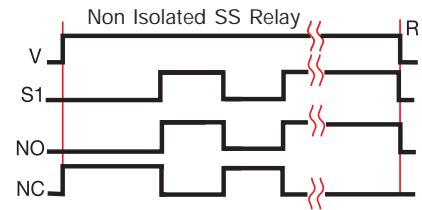
The SLR Series has no isolation between the control switch input and the solid state output. Select the SLR for applications where the control switch is the same voltage source as the load. Provides the noiseless, reliability and long life of a solid state relay without the cost of isolation circuitry. Zero voltage switching SLR2 can extend the life of an incandescent lamp up to 10 times its normal life. Random switching SLR1 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).

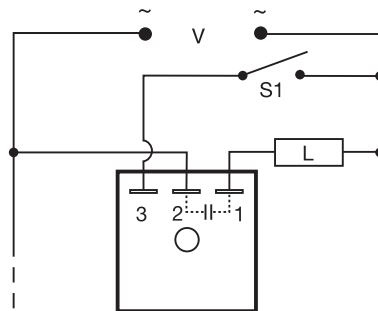
Reset: Opening S1 resets the output to its original state. Reset is also accomplished by removing input voltage.

Function



V = Voltage S1 = Initiate Switch R = Reset
NO = Normally Open Output
NC = Normally Closed Output
—||— = Undefined time

Connection



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

Dashed lines are internal connections.

L = Load S1 = Initiate Switch

Accessories



Female quick connect P/Ns:
P1015-13 (AWG 10/12)
P1015-64 (AWG 14/16)
P1015-14 (AWG 18/22)



Quick connect to screw adaptor
P/N: **P1015-18**

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See accessory pages for specifications.

Ordering Table

X Series	X Voltage	X Rating	X Form
SLR1 (Random Switching)	-2 - 24 V AC	1 A	A - Normally Open
SLR2 (Zero Voltage Switching)	-4 - 120 V AC	6 A	B - Normally Closed
	-6 - 230 V AC	10 A	
		20 A	

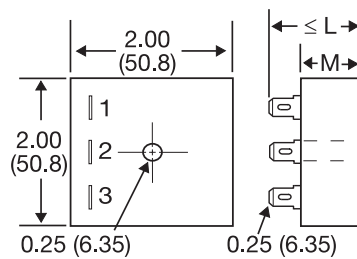
Example P/N: **SLR1410A, SLR2220B**

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Technical Data

Output (Contact)	<p>Type Form Voltage Tolerance Ratings</p> <p>Non-isolated solid state SPST, normally open or normally closed 24, 120, or 230 V AC +/-20%</p> <table border="1"> <thead> <tr> <th>Steady State</th> <th>Inrush*</th> <th>Output Device</th> </tr> </thead> <tbody> <tr> <td>1 A</td> <td>10 A</td> <td>SCR & Bridge Rectifier</td> </tr> <tr> <td>6 A</td> <td>60 A</td> <td>Triac</td> </tr> <tr> <td>10 A</td> <td>100 A</td> <td>Triac</td> </tr> <tr> <td>20 A</td> <td>200 A</td> <td>Triac</td> </tr> </tbody> </table> <p>*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 16 ms.</p>	Steady State	Inrush*	Output Device	1 A	10 A	SCR & Bridge Rectifier	6 A	60 A	Triac	10 A	100 A	Triac	20 A	200 A	Triac
Steady State	Inrush*	Output Device														
1 A	10 A	SCR & Bridge Rectifier														
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<p>Minimum Load Current Voltage Drop (at Rated Current) Leakage Current (Open State) Initiate Switch Voltage Power Consumption</p>	<p>Minimum Load Current Voltage Drop (at Rated Current) Leakage Current (Open State) Initiate Switch Voltage Power Consumption</p> <p>≅ 50 mA ≅ 2.0 V - 6, 10, & 20 A units; ≅ 2.5 V - 1 A units ≤ 5 mA Same as the output voltage ≤ 0.5 W</p>															
Protection	<p>Circuitry Dielectric Breakdown Insulation Resistance</p> <p>Encapsulated ≥ 2000 V RMS terminals to mounting surface ≥ 100 MΩ</p>															
Mechanical	<p>Mounting* Termination</p> <p>Surface mount with one #10 (M5 x 0.8) screw 0.25 in. (6.35 mm) male quick connect terminals</p>															
Environmental	<p>Operating Temperature Storage Temperature Humidity Weight</p> <p>-20°C ... +60°C -40°C ... +85°C 95% relative, non-condensing ≅ 3.9 oz (111 g)</p>															

Mechanical View



	1A	6A+
L	1.21 (30.7)	1.51 (38.4)
M	0.75 (19.1)	1.08 (27.4)

Inches (Millimeters)