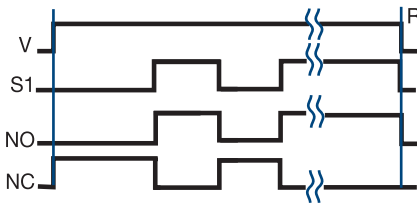


The SLR Series has no isolation between the control switch input and the solid-state output. Select the SLR for applications where the control switch is the same voltage source as the load. Provides the noiseless, reliability and long life of a solid-state relay, without the cost of isolation circuitry. 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.

For more information see:
Appendix B, page 165, Figure 4 for dimensional drawing.
Appendix C, page 172, Figure 38 for connection diagram.

Function:



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

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:

- SLR1 - Random switching for inductive loads
- SLR2 - Zero voltage switching for resistive & incandescent loads
- Normally open or normally closed output
- 1 - 20A with up to 200A inrush
- 0.25 in. (6.35 mm) termination with single hole mounting
- Noiseless switching, reliability, and long life

Approvals:

Auxiliary Products:

- **Quick connect to screw adaptor:**
P/N: P1015-18
- **Female quick connect:**
P/N: P1015-13 (AWG 10/12)
P/N: P1015-64 (AWG 14/16)
P/N: P1015-14 (AWG 18/22)

Available Models:

SLR1410B
SLR1420A
SLR1610A

If desired part number is not listed, please call us to see if it is technically possible to build.

Order Table:

<p>X Series</p> <ul style="list-style-type: none"> -SLR1 - Random Switching -SLR2 - Zero Voltage Switching 	<p>X Voltage</p> <ul style="list-style-type: none"> -2 - 24VAC -4 - 120VAC -6 - 230VAC 	<p>X Output Rating</p> <ul style="list-style-type: none"> -1 - 1A -6 - 6A -10 - 10A -20 - 20A 	<p>X Output Form</p> <ul style="list-style-type: none"> -A - Normally Open -B - Normally Closed
--	---	---	---

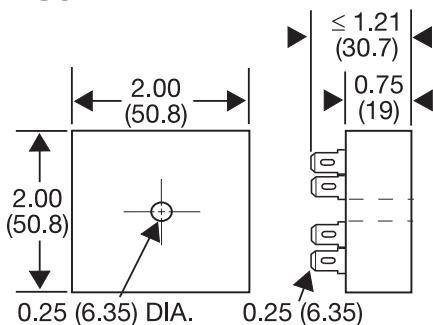
Specifications

<p>Output (Contact)</p> <p>Type Non-isolated solid state</p> <p>Form SPST, NO or NC</p> <p>Voltage 24, 120, or 230VAC</p> <p>Tolerance ±20%</p> <p>Ratings.....</p> <table border="0" style="margin-left: 20px;"> <tr> <td>Steady State</td> <td>Inrush*</td> <td>Output Device</td> </tr> <tr> <td>1A</td> <td>10A</td> <td>SCR & Bridge Rectifier</td> </tr> <tr> <td>6 A</td> <td>60A</td> <td>Triac</td> </tr> <tr> <td>10A</td> <td>100A</td> <td>Triac</td> </tr> <tr> <td>20A</td> <td>200A</td> <td>Triac</td> </tr> </table> <p>Minimum Load Current ≥ 50mA</p> <p>Voltage Drop (at Rated Current) ≥ 2.0V - 6, 10, & 20A units; ≥ 2.5V - 1A units</p> <p>Leakage Current (Open State) ≤ 5mA</p> <p>Initiate Switch Voltage Same as the output voltage</p> <p>Power Consumption ≤ 0.5W</p>	Steady State	Inrush*	Output Device	1A	10A	SCR & Bridge Rectifier	6 A	60A	Triac	10A	100A	Triac	20A	200A	Triac	<p>Protection</p> <p>Circuitry Encapsulated</p> <p>Dielectric Breakdown ≥ 2000V RMS terminals to mounting surface</p> <p>Insulation Resistance ≥ 100MΩ</p> <p>Mechanical</p> <p>Mounting* Surface mount with one #10 (M5 x 0.8) screw</p> <p>Dimensions 2 x 2 x 1.51 in. (50.8 x 50.8 x 38.4 mm)</p> <p>Termination 0.25 in. (6.35 mm) male quick connect terminals</p> <p>Environmental</p> <p>Operating / Storage Temperature -20° to 60°C / -40° to 85°C</p> <p>Humidity 95% relative, non-condensing</p> <p>Weight 1A units: ≥ 2.4 oz (68 g); 6, 10, 20A units: ≥ 3.9 oz (111 g)</p>
Steady State	Inrush*	Output Device														
1A	10A	SCR & Bridge Rectifier														
6 A	60A	Triac														
10A	100A	Triac														
20A	200A	Triac														

*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.

Appendix B - Dimensional Drawings

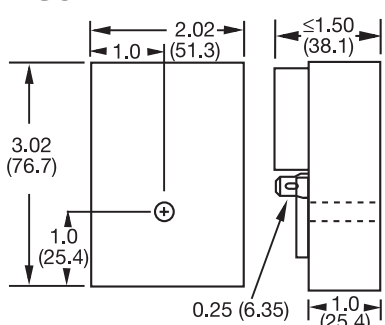
FIGURE 1



0.25 (6.35) DIA. 0.25 (6.35)

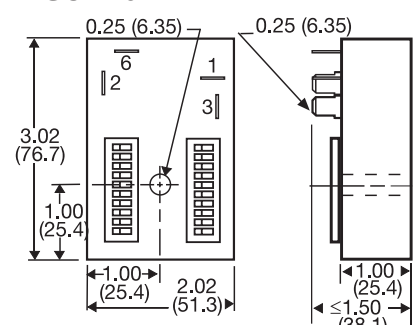
CT; ESD5; ESDR; FS100; FS200; FS300; KR3; KR9; KRDB; KRDI; KRDM; KRDR; KRDS; KRPD; KRPS; KSD1; KSD2; KSD3; KSD4; KSDB; KSDR; KSDS; KSDU; KSPD; KSPS; KSPU; KVM; T2D; TA; TAC1; TAC4; TDU; TDUB; TDUI; TDUS; TL; TMV8000; TS1; TS2; TS4; TS6; TSB; TSD1; TSD2; TSD3; TSD4; TSD6; TSD7; TSDB; TSDR; TSDS; TSS; TSU2000

FIGURE 2



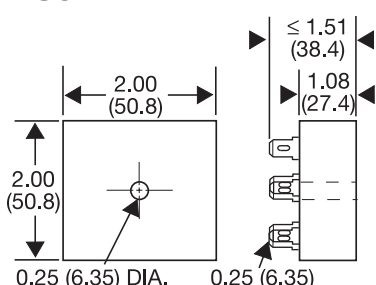
HLV; HRD3; HRD9; HRDB; HRDI; HRDM; HRDR; HRDS; HRID; HRIS; HRIU; HRPD; HRPS; HRPV; HRV; RS

FIGURE 3



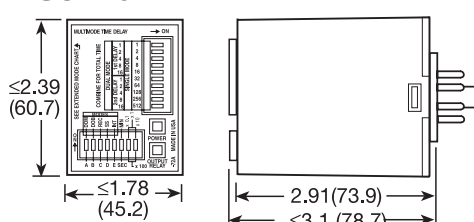
HSPZ

FIGURE 4



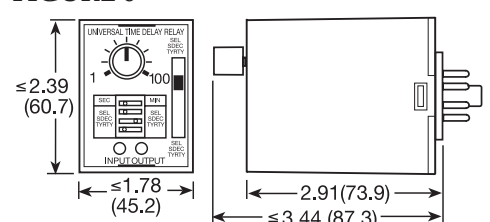
FA; FS; FSU1000*; NHPD; NHPS; NHPV; NLF1*; NLF2*; PHS*; PTHF*; SIR1; SIR2; SLR1*; SLR2*; TH1; TH2; THC; THD1; THD2; THD3; THD4; THD7; THDB; THDM; THDS; THS

FIGURE 5



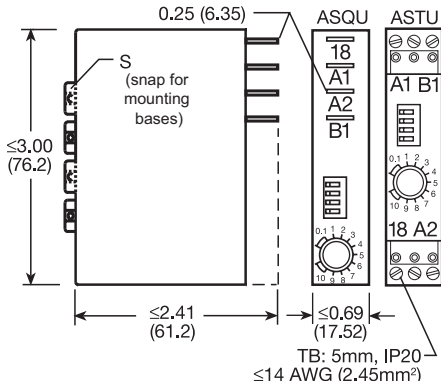
TRDU

FIGURE 6



TRU

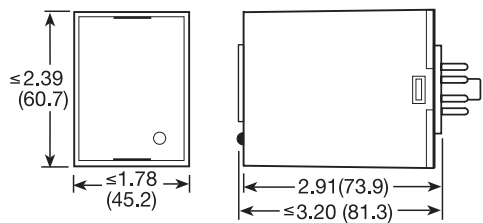
FIGURE 7



ASQU; ASTU; DSQU; DSTU

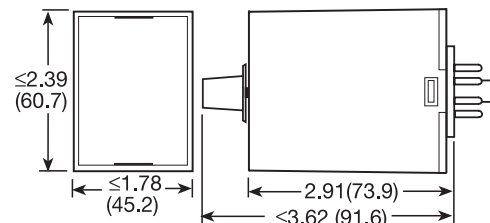
TB: 5mm, IP20
≤14 AWG (2.45mm²)

FIGURE 8



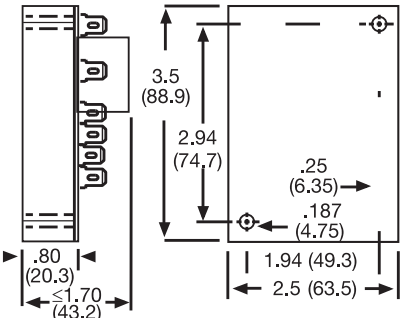
PLM; PLR; TDB; TDBH; TDBL; TDI; TDIH; TDIL; TDM; TDMB; TDMH; TDML; TDR; TDS; TDSH; TDSL

FIGURE 9



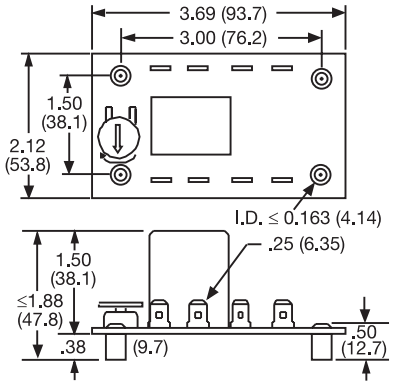
FS500; PRLB; PRM; PRLS; TRB; TRM; TRS

FIGURE 10



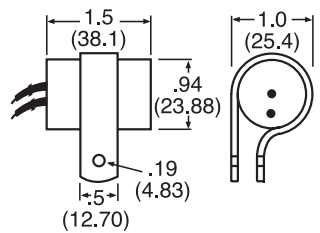
ERD3; ERDI; ERDM

FIGURE 11



ORB; ORM; ORS

FIGURE 12

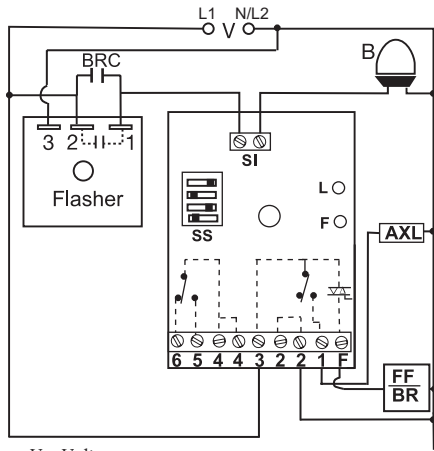


FS100; FS400

inches (millimeters)

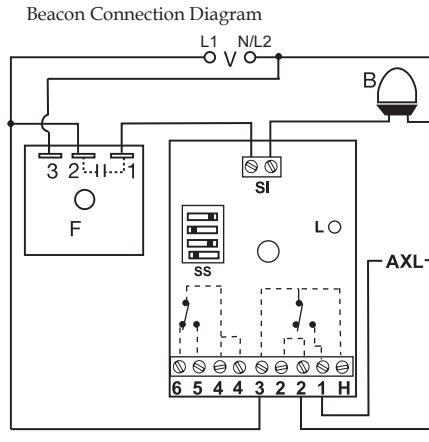
Appendix C - Connection Diagrams

FIGURE 34 - FB9L



V = Voltage
 B = LED Beacon
 SS = Selector Switch
 SI = Sensor Input
 L = Indicator
 F = Flasher Failure LED
 AXL = Auxiliary Load/Alarm
 FF = Flasher Failure/Bypass Relay
 BR = Bypass Relay Contacts

FIGURE 35 - SCR9L



V = Voltage
 B = Beacon Lamps
 SS = Selector Switch
 L = LED Indicator
 F = Flasher
 AXL = Auxiliary Load/Alarm
 OL = Obstruction Lamps
 SI = Sensor Input
 H = "3" Spare AC Hot Connection (2A max.)

Obstruction Lamp Connection Diagram

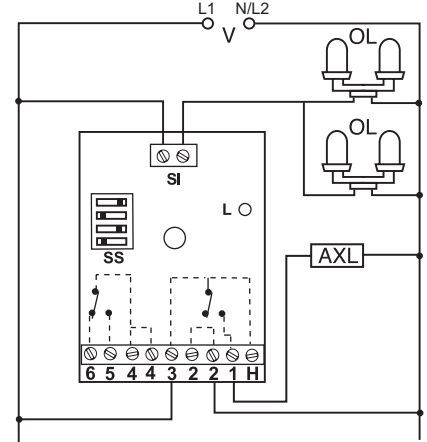
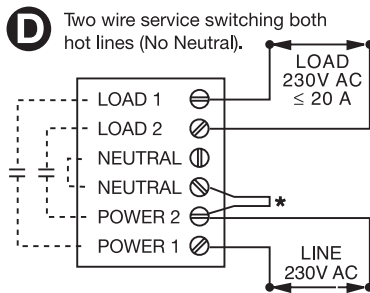
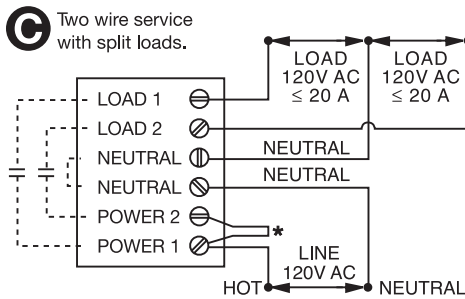
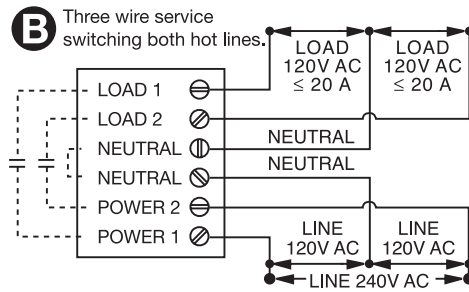
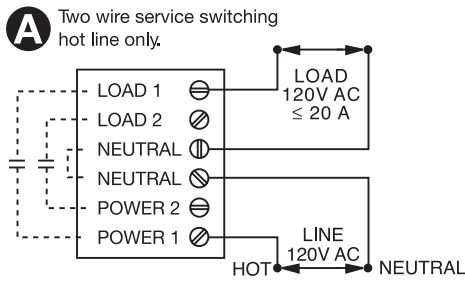
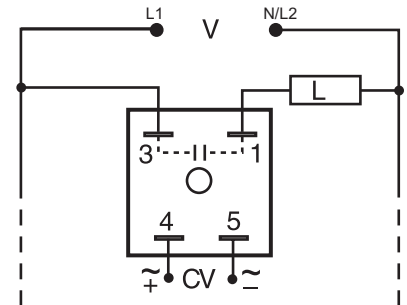


FIGURE 36 - PCR Series



* Customer Supplied Jumper - - - - Internal Connection

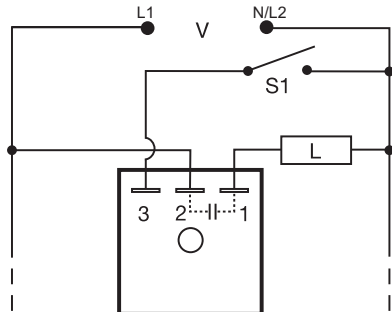
FIGURE 37 - SIR1/SIR2 Series



V = Voltage
 CV = Control Voltage
 R = Reset
 NC = Normally Closed Output
 NO = Normally Open Output
 —||— = Undefined time

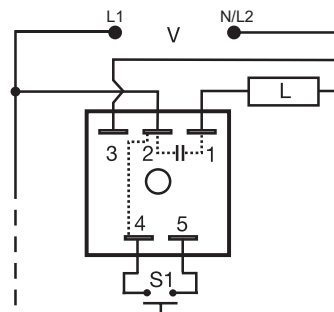
Load may be connected to terminal 3 or 1.
 Note: Normally open output is shown. Normally closed output is also available.

FIGURE 38 - SLR Series



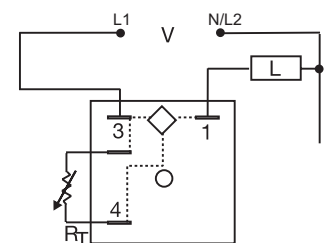
L = Load
 S1 = Initiate Switch
 Note: Normally open output is shown. Normally closed output is also available.

FIGURE 39 - NLF1/NLF2 Series



L = Load
 S1 = Control Switch
 Internal connections between terminals 2 & 4.

FIGURE 40 - PHS Series



Triac Output Device
 V = Voltage
 L = Load
 R_t = External Adjustment