



The SCR490D Series is used to provide remote monitoring of steady burning incandescent marker and obstruction lighting. Four onboard switches allow operator programming for lighting systems with two through nine lamps on a single AC circuit. The SCR490D uses a toroidal sensor and electronic circuitry to sense the failure of one or more lamps.

For more information see:
Appendix B, page 167, Figure 32 for dimensional drawing.
Appendix C, page 171, Figure 32 for connection diagram.

Operation

When a lamp fails, the SCR490D senses a decrease in current flow. Then, after a fixed time delay, it transfers to its alarm mode. In alarm mode, the LED indicator, the output relay (SPDT isolated contacts), and a non-isolated solid-state output are energized. Replacement of the failed lamps resets the alarm outputs and the LED indicator. To prevent false alarm signals, power must be applied to the SCR490D at the same time that lamps are energized.

Features:

- Senses failed obstruction lamps
- 2 - 9 steadily burning lamps can be monitored
- Toroidal current sensing
- Isolated, 10A, SPDT alarm output contacts
- 1A, solid-state line voltage alarm output
- 6 second trip delay prevents nuisance alarms

Approvals:  

Available Models:

SCR490D

Order Table:

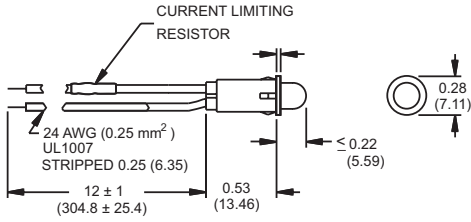
Input	Part Number
120VAC	SCR490D

Specifications

Operation		
Number of Lamps	2 - 9 (selectable)	
Lamp Wattage	116W, incandescent lamps	
Rated Lamp Voltage	120 or 130VAC (selectable)	
Monitored Voltage	120VAC ±3%	
Trip Delay	≅ 6s fixed	
Voltage	120VAC	
AC Line Frequency	50/60Hz	
Tolerance	120VAC	- 20% - 10%
Line Voltage Output (Solid State Rated)	≤ 125W to operate a spare lamp or alarm	
Isolated Alarm Output	10A @ 120VAC or 30VDC resistive; 1/4 hp @ 125VAC; 1/2 hp @ 250VAC	
Mounting	Surface mount with two #6 (M3.5 x 0.6) screws	
Dimensions	3.5 x 2.5 x 1.75 in. (88.9 x 63.5 x 44.5 mm)	
Termination	Screws with captive clamps for up to 14 AWG (2.45 mm ²) wire	
Circuitry	Encapsulated	
Operating / Storage Temperature	-40° to 65°C / -40° to 85°C	
Humidity	95% relative, non-condensing	
Weight	≅ 6.8 oz (193 g)	

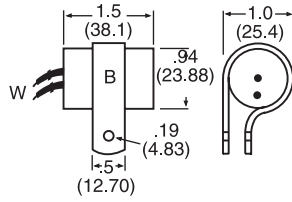
Appendix B - Dimensional Drawings

FIGURE 24



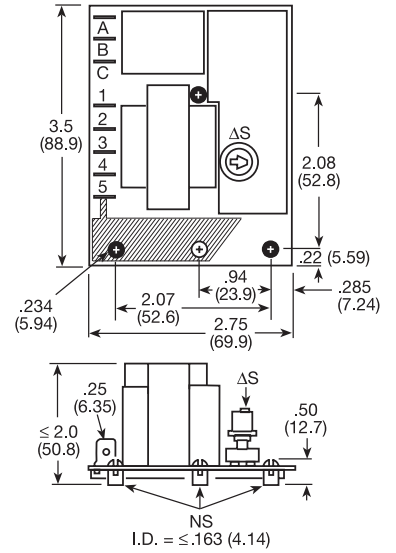
LPM

FIGURE 25



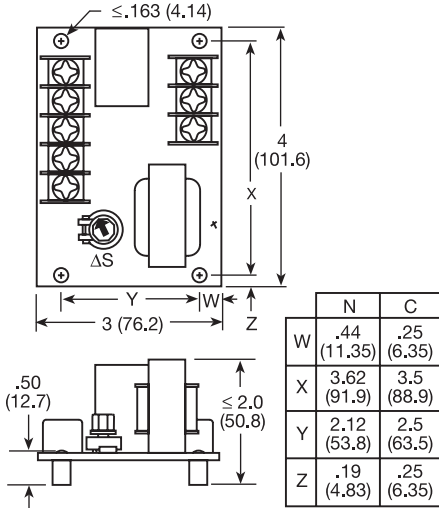
MSM

FIGURE 26



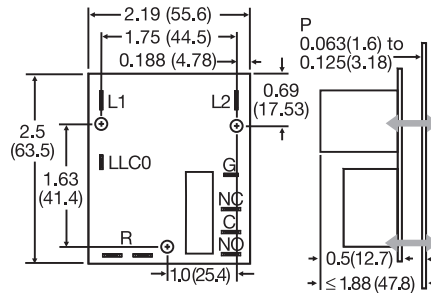
LLC1

FIGURE 27



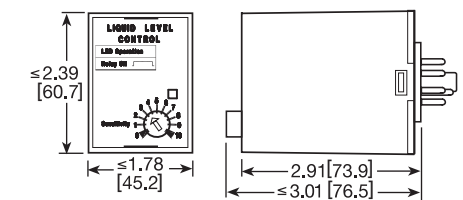
LLC2

FIGURE 28



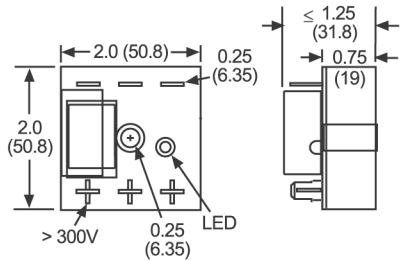
LLC8

FIGURE 29



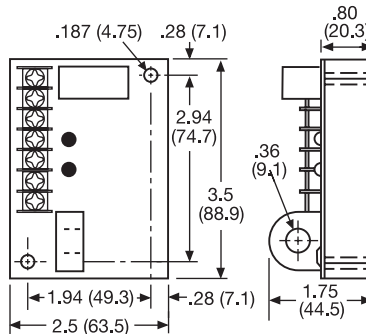
LLC5

FIGURE 30



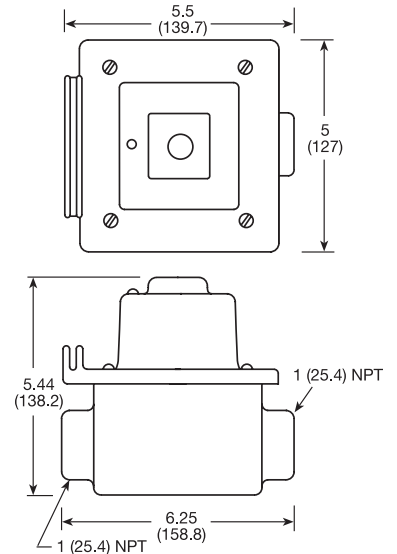
TVM; TVW

FIGURE 32



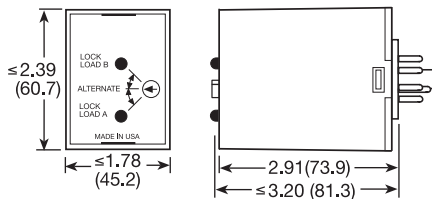
FB; SCR

FIGURE 33



PCR

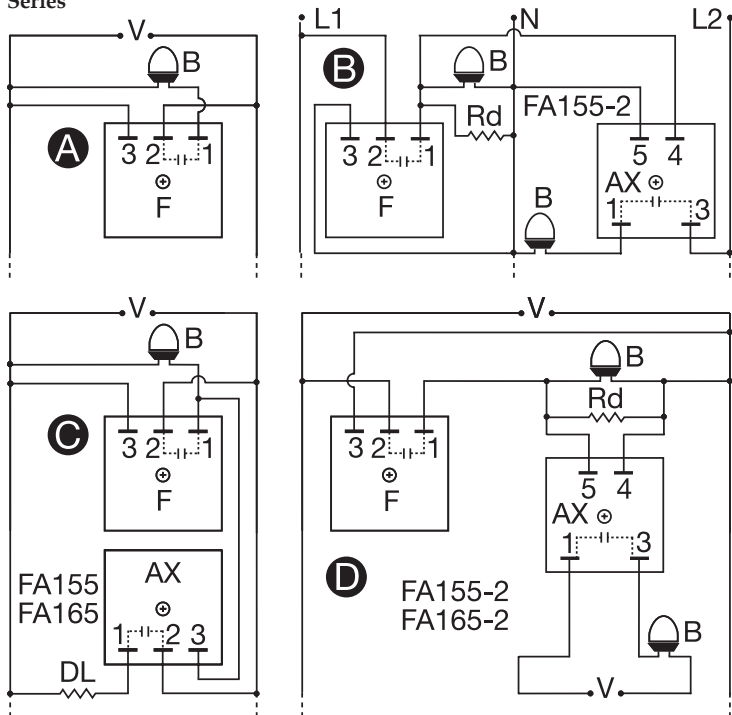
FIGURE 31



ARP

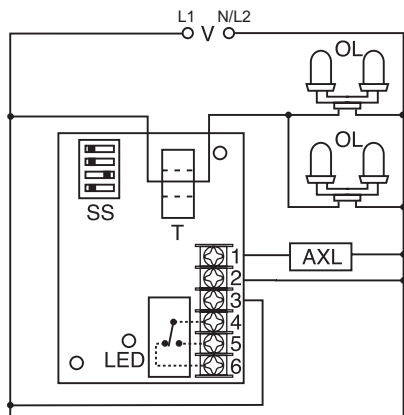
inches (millimeters)

FIGURE 30 - FS155 & FS165 & FA Series



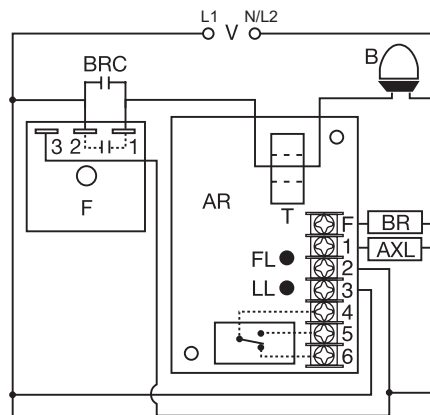
F = Flasher (FS155-30T, FS155-30RF, FS165-30T, FS165-30RF)
 AX = Auxiliary Unit
 B = Beacon
 DL = Dummy Load for Constant Line Loading
 DL = 3.3 KΩ @ 5W for 120VAC
 8.5 KΩ @ 5W for 230VAC

FIGURE 32 - SCR490D



V = Voltage
 OL = Obstruction Lamps
 T = Toroid
 SS = Selector Switch
 AXL = Auxiliary Load/Alarm
 Relay contacts are isolated.

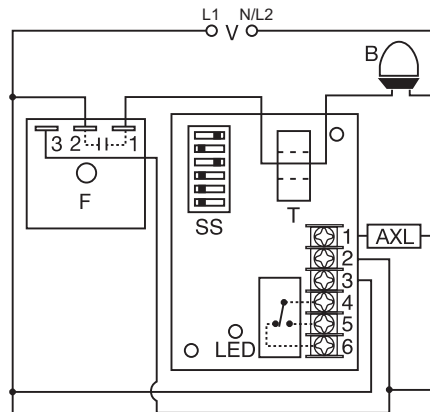
FIGURE 31 - FB Series



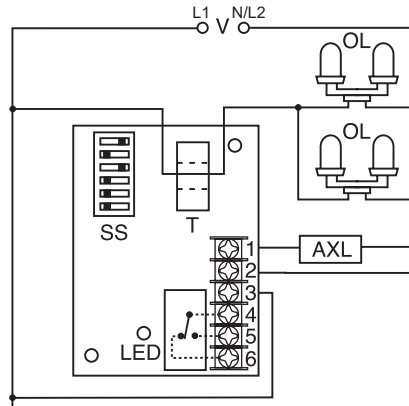
V = Voltage
 B = Beacon
 F = Flasher
 BRC = Flasher Bypass Relay Contacts
 T = Toroid
 AR = FB Alarm Relay
 BR = Bypass Relay Coil
 FL = Flasher Failure LED
 LL = Lamp Failure LED
 AXL = Lamp Alarm Relay Coil
 NOTE: Flasher module may be located on either the line or load side of the toroidal sensor.

FIGURE 33 - SCR Series

Beacon Connection Diagram



Obstruction Lamp Connection Diagram



V = Voltage
 B = Beacon Lamps
 SS = Selector Switch
 T = Toroid
 F = Flasher
 AXL = Auxiliary Load/Alarm
 OL = Obstruction Lamps
 Relay contacts are isolated.