



The SCR series is a universal lamp alarm relay designed to sense the failure of flashing or steady incandescent beacon lamps or steady side lights. The toroidal current sensor provides isolation and allows monitoring of more than one line at a time. The SCR Series energizes when one or more lamps fail. It will monitor the operation of one to four side lights and up to four beacon lamps.

For more information see:
Appendix B, page 167, Figure 32 for dimensional drawing.
Appendix C, page 171, Figure 33 for connection diagram.

Operation

When a lamp fails, the SCR Series senses a decrease in current flow. After a fixed time delay, the LED glows and the two alarm outputs energize. The outputs and the LED are reset when the failed lamps are replaced and the current returns to the nominal setting, or when the input voltage is removed. The SCR will sense an open flasher, it will not sense a continuously ON flasher (see FB Series).

Features:

- Monitors incandescent lamps for failure
- Senses failed flashing beacon or obstruction lamps
- Switch selectable number, voltage, & wattage of lamps
- Isolated, 10A, SPDT alarm output contacts
- 1A, solid-state line voltage alarm output
- Toroidal current sensing

Approvals:   (SCR430T only)

Available Models:

SCR430T
SCR630T

Order Table:

Input	Lamp Type	Part Number
120VAC	Incandescent	SCR430T
230VAC	Incandescent	SCR630T

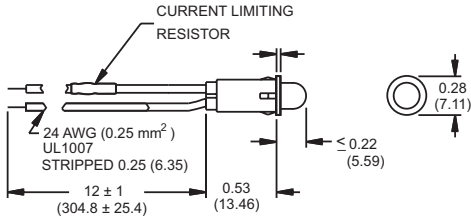
Specifications

Lamp Monitoring	
Capacity (in lamps)	.100W 116W 620W 700W
SCR430T 120VAC Lamps	4 4 4 n/a
SCR630T 230VAC Lamps	n/a 4 n/a 4
Time Delay	
Trip Delay	Factory fixed \approx 6s
Input	
Input Voltage/Tolerance	SCR430T - 120VAC \pm 10% SCR630T - 230VAC \pm 10%
AC Line Frequency	50/60Hz
Output	To operate a spare lamp or alarm
Line Voltage Output (Solid-state Rated)	\leq 125W @ 120VAC \leq 250W @ 240VAC
Isolated Alarm Output (SPDT)	10A @ 240VAC or 30VDC resistive; 1/4 hp @ 125VAC; 1/2 hp @ 250VAC

Mechanical	
Mounting	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
Protection	
Circuitry	Encapsulated
Environmental	
Operating Temperature	-40° to 65°C
Weight	\approx 6.8 oz (193 g)

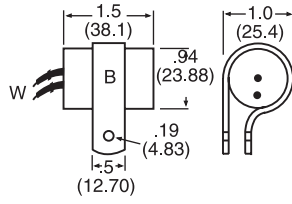
Appendix B - Dimensional Drawings

FIGURE 24



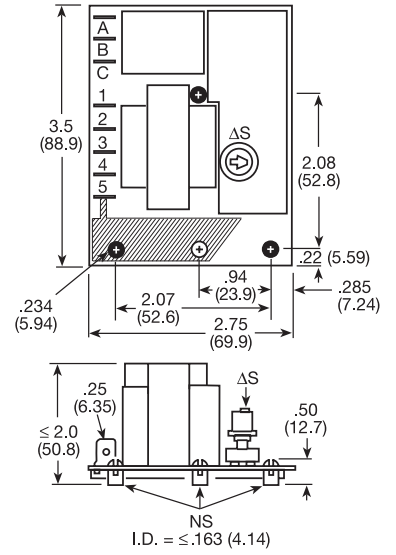
LPM

FIGURE 25



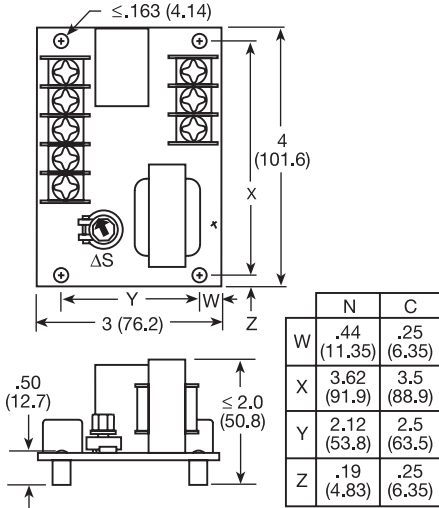
MSM

FIGURE 26



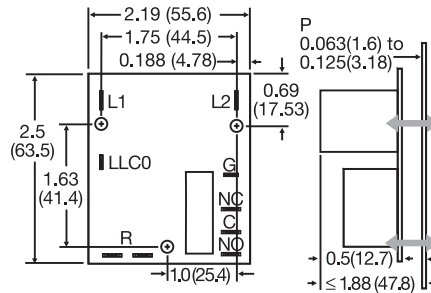
LLC1

FIGURE 27



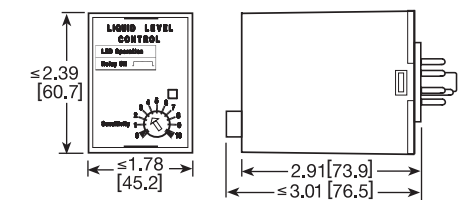
LLC2

FIGURE 28



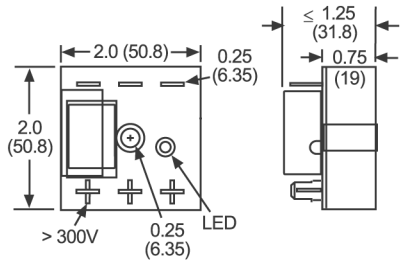
LLC8

FIGURE 29



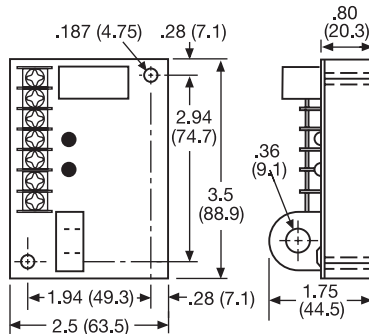
LLC5

FIGURE 30



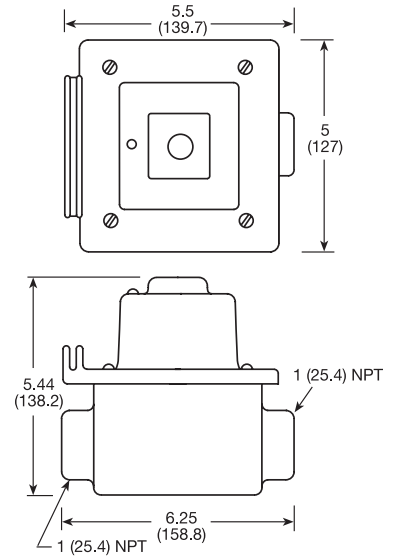
TVM; TVW

FIGURE 32



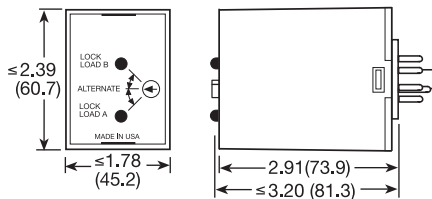
FB; SCR

FIGURE 33



PCR

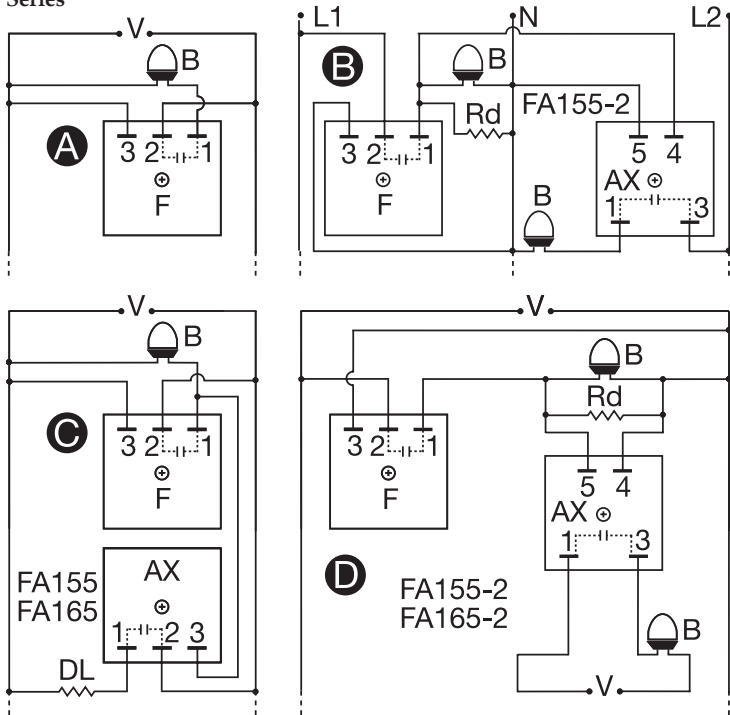
FIGURE 31



ARP

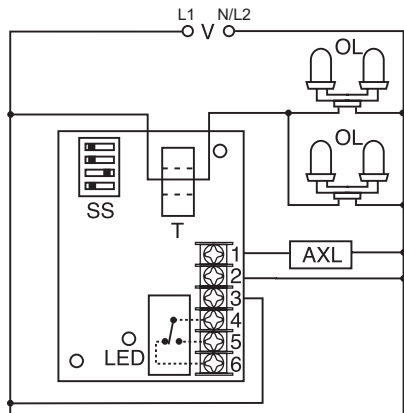
inches (millimeters)

FIGURE 30 - FS155 & FS165 & FA Series



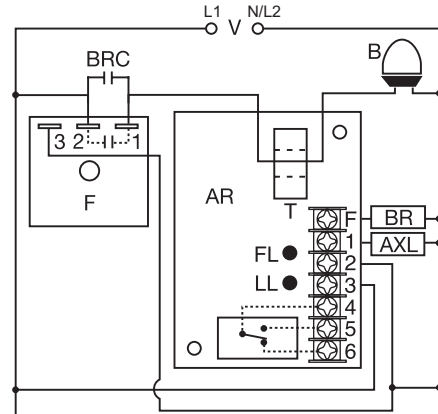
F = Flasher (FS155-30T, FS155-30RF, FS165-30T, FS165-30RF)
 AX = Auxiliary Unit
 B = Beacon
 DL = Dummy Load for Constant Line Loading
 DL = 3.3 KΩ @ 5W for 120VAC
 8.5 KΩ @ 5W for 230VAC

FIGURE 32 - SCR490D



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

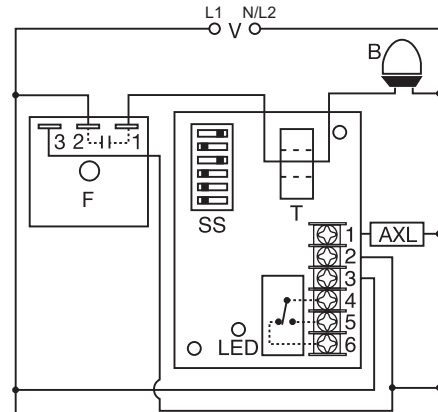
FIGURE 31 - FB Series



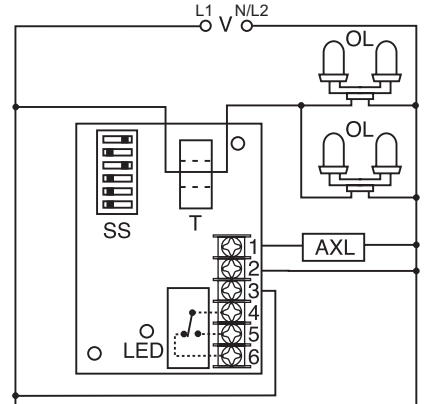
V = Voltage
 B = Beacon
 F = Flasher
 BRC = Flasher Bypass Relay Contacts
 T = Toroid
 AR = FB Alarm Relay
 BR = Bypass Relay Coil
 FL = Flasher Failure LED
 LL = Lamp Failure LED
 AXL = Lamp Alarm Relay Coil
 NOTE: Flasher module may be located on either the line or load side of the toroidal sensor.

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.