

Flasher & Incandescent Beacon Alarm Relay

FB120A/FB230A

Tower Lighting Control



10 YEAR WARRANTY

- Senses Failed Flashing Incandescent Beacon Lamps
- Senses Failed Beacon Flasher
- Toroidal Current Sensing
- One 5 A SPDT Isolated Alarm Output
- Two 1 A Solid State Line Voltage Alarm Outputs
- Trip Delays Prevent Nuisance Alarms

Description

The FB120A and FB230A are used to monitor the operation of one two-lamp incandescent beacon and one beacon flasher (or auxiliary module). The flasher and lamps are monitored by sensing the flow of current in the circuit. If the lamp(s) or the flasher fail to operate properly, a solid state output and an isolated SPDT relay energize. When connected to a site monitoring system, this unit provides the remote beacon monitoring protection required by the FAA/FCC. On a multiple beacon structure, one unit is required for each two-lamp incandescent beacon (one unit per beacon for LED beacons).

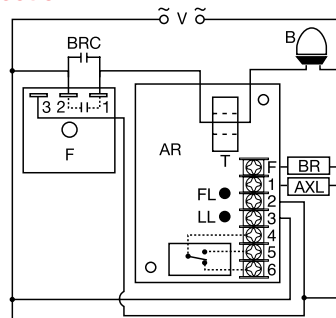
Operation

FB120A and FB230A

If one lamp in an incandescent beacon fails, the relay and solid state lamp failure outputs energize after 10 s. If the flasher fails in the ON or OFF condition, the relay and the solid state flasher failure output energizes after 6 s. If both failures occur, all three outputs energize after their trip delays.

Note: If both incandescent lamps fail, all three outputs will energize. The relay and solid state flasher failure output after 6 s, and the solid state lamp failure output after 10 s.

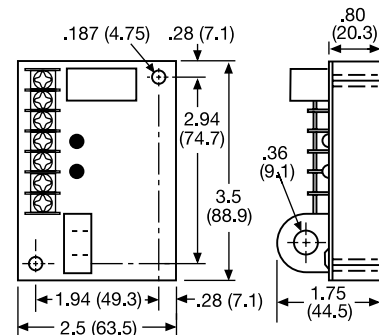
Connection



Note: Flasher module may be located on either the line or load side of the toroidal sensor.

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

Mechanical View



Inches (Millimeters)

Ordering Table

Input	Lamp Type	Part Number
120 V AC	Incandescent Beacon	FB120A
230 V AC	Incandescent Beacon	FB230A

Technical Data

Input Voltage

FB120A
 FB230A
 Lamp Socket Voltage

120 V AC +/-15%; 50 ... 60 Hz
 230 V AC +/-15%; 50 ... 60 Hz
 +/-10%; 50 ... 60 Hz

Alarm Outputs

Type

3 Total -- 1 relay, 2 solid state
 One isolated SPDT relay rated 5 A resistive
 Two solid state line voltage outputs rated 0.5 A steady, 5 A inrush

Lamp Failure Detection

FB120A
 FB230A

For two 620 W or 700 W lamps
 For two 500 W or 700 W lamps

Trip Delays

Flasher Failure
 Lamp Failure

Fixed at 6 s; -0/+40%
 Fixed at 10 s; -0/+40%

LEDs

Lamp Failure (Red)
 Flasher Failure (Red)

Glowes when one or both lamps fail
 Glowes when the flasher fails

Protection

Circuitry
 Mounting
 Package
 Termination

Encapsulated
 Surface mount with two #6 (M3.5 x 0.6) screws
 3.5 x 2.5 x 1.75 in. (88.9 x 63.5 x 44.5 mm)
 7 position barrier block for 20 AWG (0.5 mm²) to 14 AWG (2.5 mm²) wire

Environmental

Operating / Storage Temperature
 Weight

-40°C ... +60°C / -40°C ... +85°C
 ≅ 7 oz (198 g)