

# Flasher & Incandescent Beacon Alarm Relay

## FB120A/FB230A

### Tower Lighting Control



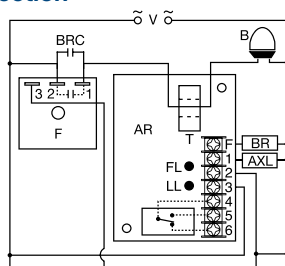
10  
YEAR  
WARRANTY

- 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).

#### 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

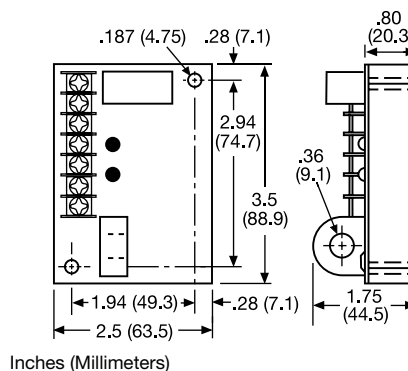
#### Operation

##### 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.

#### Mechanical View



Inches (Millimeters)

#### Available Models-

- FB120A
- FB230A

Don't see what you need? Call us for a minimum quantity and price quote!

#### 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

Alarm Outputs

Type

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

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

+/-10%; 50 ... 60 Hz

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 mm<sup>2</sup>)

to 14 AWG (2.5 mm<sup>2</sup>) wire

##### Environmental

Operating / Storage Temperature

Weight

-40°C ... +60°C / -40°C ... +85°C

≅ 7 oz (198 g)