




# POINT FLASHING BEACON PFB-AX LED ATEX-IECEX ZONE 1 & 2 MEDIUM INTENSITY RED BEACONS

Compliances: IECEx Listed: Ex db eb op is IIB T6 Gb Ta -40 to +55-deg C, IP66 & IP67  
 ATEX Listed:  II 2 G Ex db eb op is IIB T6 Gb Ta -40 to +55-deg C, IP66 & IP67  
 ETL Verified FAA L-864 to FAA Advisory Circular 150/5345-43H  
 Compliance to ICAO Annex 14 Medium Intensity Types B & C  
 Compliance to Transport Canada CL864  
 Compliance to UK CAP 168 Medium Intensity & Low Intensity (Group B)  
 Registered ISO 9001:2015  
 American Bureau of Shipping (ABS) Type Approved Product

The PFB-AX red medium intensity LED flashing beacons are specified for use on aviation obstructions.

- The castings are copper-free (< 0.25%) aluminum.
- The lens is glass.
- The hardware is 316 (A4) stainless steel.
- The LED's are rated for 100,000 hours.
- Isolated wiring compartment.
- IP66 & IP67 tested and listed.
- Standard with the exclusive Point Lighting Marine Treatment finish that is bonded to the metal and far exceeds the corrosion resistance of the standard FAA approved finish. See page 5.
- Six (6) years limited warranty subject to Point Lighting "Terms & Conditions of Sale".

Point Type	Color	Voltage	Class	Standard & Options
PFB-37002	R: Red	1: AC 96 to 264V 3: DC 10.8 to 26.4V 5: DC 43.2 to 52.8V	AX: ATEX IECEX zones 1 & 2	SEE TABLE ON PAGE 2

Wattage: 41.7 watts AC Peak at 120V  
 44.0 watts AC Peak at 220V  
 7.0 watts AC Average F4-B-T4  
 33.0 watts AC Average C

Volt-Amps: 66.0 VA AC Peak at 120V  
 73.0 VA AC Peak at 220V

Dimensions: Length: 11.1 (282)  
 Width: 12.9 (327)  
 Height: 9.8 (249)

Weight: 25.0 lbs 11.3 kg

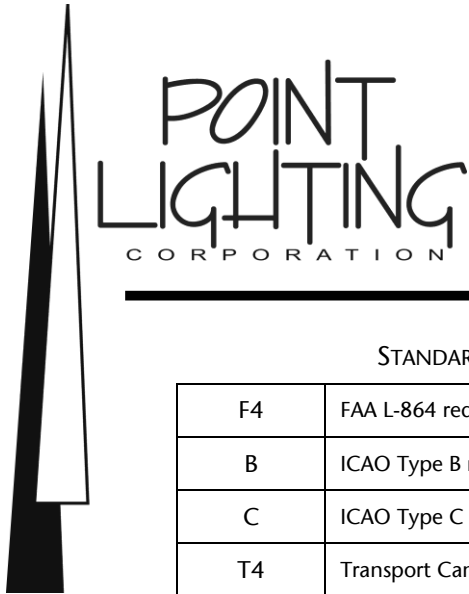
Mounting: 4 Holes on a 12.5 (318) circle  
 Inches (mm)

**PFB-37002-R-1-AX-B-MT**  
 ICAO MEDIUM INTENSITY TYPE B RED BEACON  
 STANDALONE WITH GREEN MARINE TREATMENT  
 NOTE: STANDARD FINISH IS YELLOW MARINE TREATMENT



ATEX Certificate Number: CML 17ATEX1250X  
 IECEx Certificate Number: IECEx CML 17.0141X





# POINT FLASHING BEACON

## PFB-AX LED

### ATEX-IECEX ZONE 1 & 2

#### MEDIUM INTENSITY RED BEACONS

#### STANDARDS & OPTIONS

F4	FAA L-864 red flashing medium intensity beacon
B	ICAO Type B red flashing medium intensity beacon
C	ICAO Type C red steady medium intensity beacon
T4	Transport Canada CL864 red flashing beacon
DL	UK CAA CAP 168 steady low intensity Group B
DM	UK CAA CAP 168 steady medium intensity beacon
NC	NVG Compatibility for night vision
MT	Green Marine Treatment finish in place of the standard yellow Marine Treatment
-Fxxx	Custom Flash Rate in flashes per minute
-Cxxx	Custom versions as assigned by Point Lighting Corporation

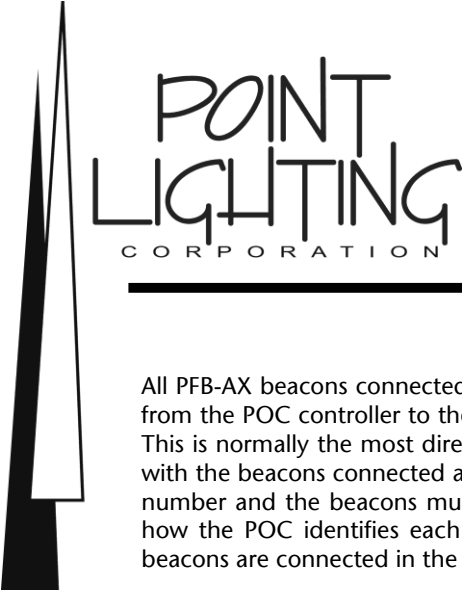
#### CONTROL & ALARMING OPTIONS

Note: Every beacon without one of these control options has line voltage powered alarm conductor.	
K	Required on every beacon connected to any POC-68xxx series digital controller.
SA2	Voltage Free (dry) Alarm Contact (alarm line is powered by an external source by others)
The MA options are required for two or three PFB-AX beacons to be synchronized without a controller. For four (4) or more PFB-AX beacons, a POC controller is required.	
MA1M	Master PFB-AX beacon to be synchronized with one or more secondary beacons with internal flasher & non-isolated alarm line powered by the line voltage; one master beacon per system.
MA1S	Secondary PFB-AX beacon synchronized by the above master beacon with internal flasher & non-isolated alarm line powered by the line voltage; 1 or 2 secondary beacons per system.

#### ENTRY THREADED HUB OPTIONS

Standard with one ¾-inch NPT Hub	
10B	1-Inch NPT
M20	Metric M20 x 1.5mm
M25	Metric M25 x 1.5mm

Note: The basic PFB-AX beacon catalog number is intended for use with a Point POC Controller for most applications. Other configuration options above are available to be factory installed at time of order. Add the separate FAA Photoelectric Controller to all systems. Add the POC Controller as required by the system. Touchscreen is optional for safe area POC controllers.



# POINT FLASHING BEACON PFB-AX LED ATEX-IECEX ZONE 1 & 2 MEDIUM INTENSITY RED BEACONS

## DATA CABLE

All PFB-AX beacons connected to a POC system controller require a data cable. This cable is one run from the POC controller to the first beacon location and then to each beacon in turn ("daisy-chain"). This is normally the most direct method, but the cable is a data bus and may be routed as required with the beacons connected at any point. Each beacon is tagged and labeled with a location address number and the beacons must be connected to the data cable run in that numerical order. This is how the POC identifies each specific beacon and the system will not operate properly unless the beacons are connected in the specified order.

Options continue on page 3

A data cable is **REQUIRED**.\*

You may purchase the data cable from Point Lighting under stock number PL10836.

You may purchase the same data cable from others as Belden 9207 Twinax – Twinaxial Cable.

You may purchase a data cable from others equal to the above Belden cable with the characteristics listed below. Note: You are responsible to confirm the specifications are equal to the above cable which was used during certification testing. Use of inferior cable may result in improper operation of the system.

The data cable is used as one (1) run from the POC controller to the beacon #1 junction box and then to each beacon junction box in turn ("daisy-chain") that terminates at the last numbered beacon. The beacons are numbered in sequence and **MUST** be installed on the data cable in that sequence. This allows the POC system controller to identify and monitor each beacon and synchronize the flashing.

The data cable is a data bus and may be routed as required with the numbered beacons connected at any point. Each beacon is tagged and labeled with a location address number and the beacons must be connected to the data cable run in that numerical order.

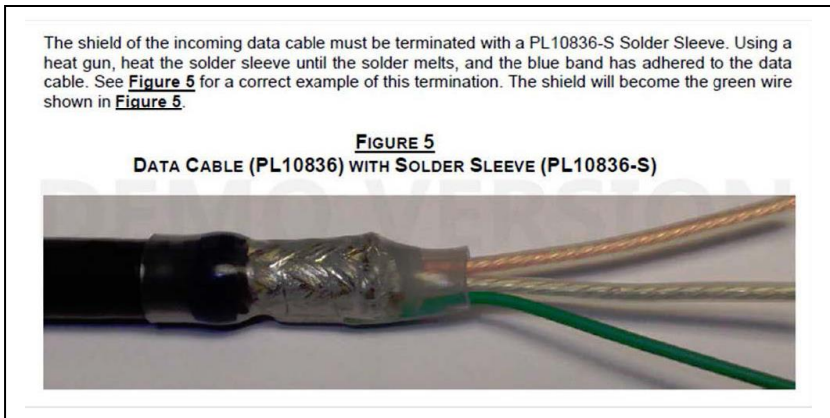
PL10836-S shield solder sleeve is required to terminate shield at junction boxes or in-line splice the data cable.

\* A data cable is not required for a standalone beacon not connected to a POC system controller.

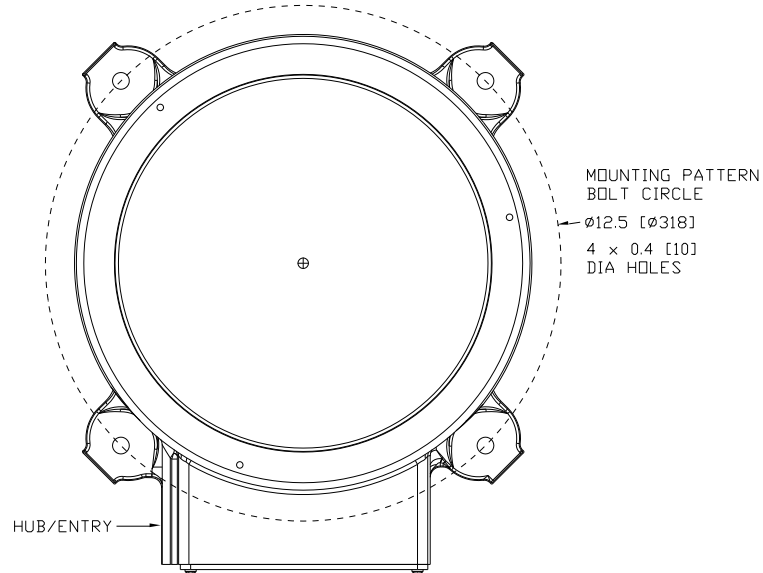
### Specifications for your cable supplier:

20 AWG stranded (7x28) one tinned copper conductor, one bare copper conductor, polyethylene (PE) insulation, PE inner jacket, metal foil-polyester taped shield 100% coverage, tinned copper braid shield 85% coverage, PVC outer jacket, suitable for outdoor use, UL maximum operating voltage 300V RMS.

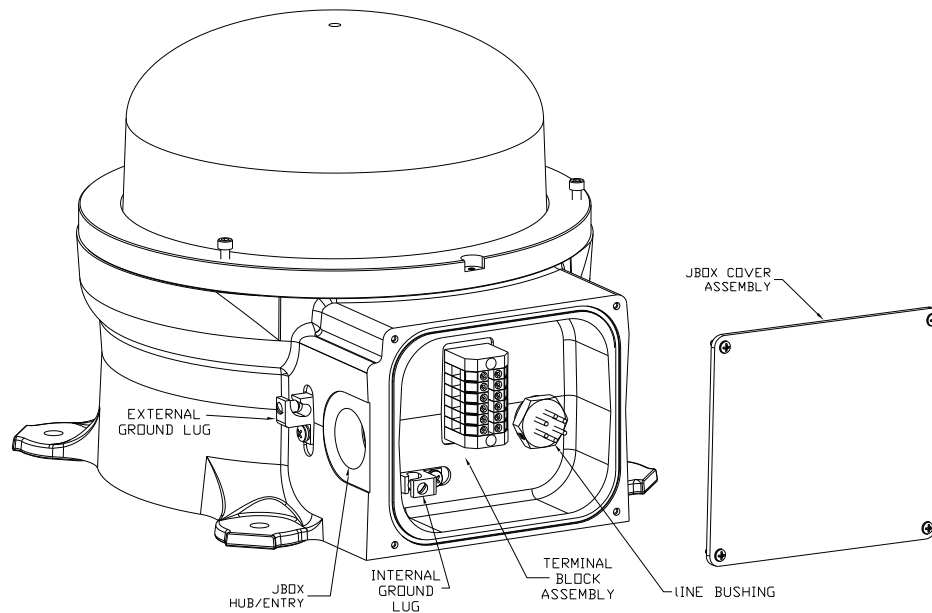
- Conductors: Single pair (2 wires); #20 AWG; 7x28 strand
- Insulation: Polyethylene
- Outer Shield: Metal foil-polyester tape with tinned copper braid
- Standard: NEC/UL CMG & CL2 with CE mark
- Impedance: 100 ohms      Inductance: 0.155  $\mu$ H/ft      VP: 66%      Delay: 1.54 ns/ft
- Capacitance conductor to cond.: 14.5 pF/ft      Capacitance cond. to shield: 23.0 pF/ft



MOUNTING PATTERN



WIRING COMPARTMENT





# POINT LIGHTING CORPORATION

## POINT FLASHING BEACON PFB-AX LED ATEX-IECEX ZONE 1 & 2 MEDIUM INTENSITY RED BEACONS

### MARINE TREATMENT INCLUDED

Our Marine Treatment tolerates marine, high salt content air and other corrosive environments. The paint finish used by competitors flakes and fails in a short time under such conditions.

*The fixture shall be treated for marine conditions by cleaning per US Department of Defense TT-C-490 method III, pretreated with chrome-free aluminum conversion coating per US MIL-C-5541 type II, epoxy powder base coat primer and glossy polyester powder coat finish in color yellow. Powder coating per US Department of Defense MIL-PRF-24712A type VI and oven cured.*

### OPTIONAL PL40139 HEAT SHIELD

The beacon heat limit is 55-deg C. Installation in higher temperature locations is not warranted.

The heat shield is framed in stainless steel to be suspended in the air space between the heat source and the beacon. The heat shield is fabricated of a rigid alumina fiber matrix that is stable for continuous use at temperatures up to 3128-deg F (1720-deg C). The material is not affected by oil or water and is resistant to chemicals. The heat shield is 24-inches wide by 36-inches high. The shield should be oriented as required to maximize protection.

Shown below on a flare shielding an incandescent beacon.



The PL40139 Heat Shield limits transmission of heat in accordance with these tested temperatures:

STACK FACE	BEACON FACE
800	252 F
1200	343 F
1600 F	429 F

These temperatures are surface measurements on opposite faces of the PL40139 Heat Shield. It is expected that the air spaces between the stack skin and the shield and between the shield and the beacon will further limit the heat transmission. See file OL-8.3.0 for details.

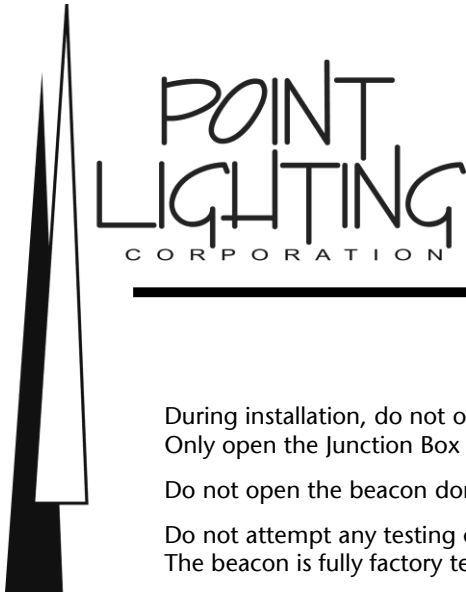
### SYSTEM CONTROLLER WITH TOUCHSCREEN POC-68003-90-1-TS



### Handheld Programmer PL11248

Required for assigning in the field each beacon's data cable address for replacements and for relocated beacons.





# POINT FLASHING BEACON PFB-AX LED ATEX-IECEX ZONE 1 & 2 MEDIUM INTENSITY RED BEACONS

## INSTALLATION & SERVICE

- During installation, do not open the dome lens.
- Only open the Junction Box cover and follow instructions.
- Do not open the beacon dome lens before contacting Point Lighting Corporation for consultation.
- Do not attempt any testing or procedure not stated in the manual.
- The beacon is fully factory tested and operated for hours before shipment.
- Any prohibited action will make the warranty void. You may return the unit for factory repair service.

PFB-37002-R-1-AX-F4-K  
MEDIUM INTENSITY RED BEACON



## SPARE PARTS

We recommend purchasing a spare PFB beacon matching the catalog number of the installed beacons. A spare PFB beacon must be assigned the data address location number of the beacon it is replacing. Therefore, the handheld Field Programmer device must also be purchased (one per site).

- |                         |               |   |
|-------------------------|---------------|---|
|                         | PL11248       | Handheld programmer for assigning the beacon address in the field |
| Upper dome removal kit: | PL11308       | Lens Wrench   |
|                         | PL10166-274-S | O-ring  |
|                         | 39901         | Loctite   |

# POINT LIGHTING CORPORATION

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