

POINT LIGHTING CORPORATION

**THE ONLY MANUFACTURER OF AVIATION OBSTRUCTION LIGHTING SYSTEMS THAT ARE:
LISTED FOR CLASS I, DIVISION 2 (ZONE 2) HAZARDOUS AREAS
& FAA APPROVED AS VERIFIED BY INTERTEK**



CERTIFIED BUILDER OF INDUSTRIAL CONTROL PANELS

ALL PRODUCTS ARE MADE IN USA



**FAA L-810 & ICAO TYPES A & B
LOW INTENSITY SINGLE & DOUBLE
OBSTRUCTION LIGHTS – SEE PAGE 4**



**FAA L-864 & L-865
ICAO TYPES A & B
MEDIUM INTENSITY BEACONS
SEE PAGE 3**

FLARE STACK HEAT SHIELD – SEE PAGE 6

DATA CABLE – SEE PAGE 7

POWER & DATA CABLE – SEE PAGE 8



**FAA CERTIFIED PHOTOCONTROL &
SYSTEM CONTROLLERS
SEE PAGE 5**

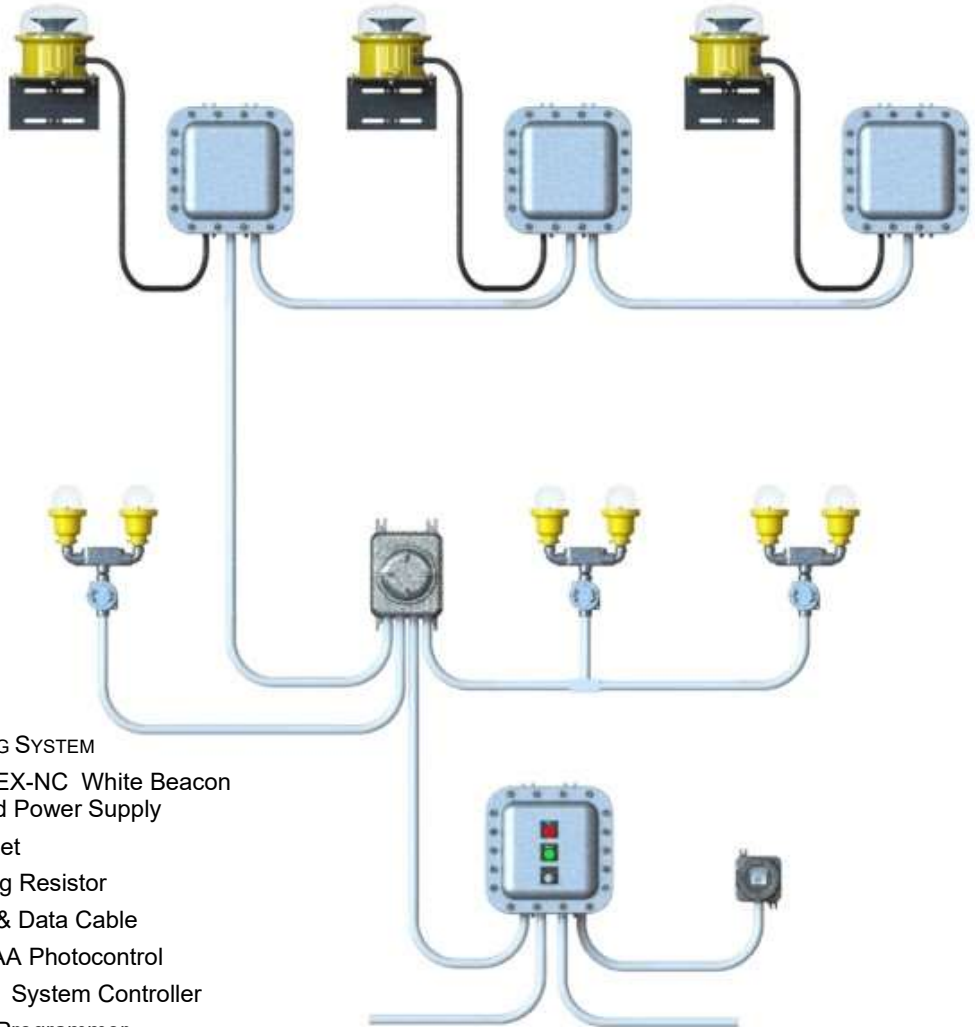


TYPICAL SYSTEMS FOR SOLID STRUCTURES

FAA L-865 WHITE BEACONS
FOR TOP LEVEL ONLY

FAA L-864 RED BEACONS &
FAA L-810 RED DOUBLE LIGHT
FOR TOP LEVEL & MID-LEVEL

FAA L-864/865 DUAL
RED-WHITE BEACONS &
FAA L-810 RED DOUBLE LIGHT
FOR TOP LEVEL & MID-LEVEL



QUANTITY	WHITE LIGHTING SYSTEM
3	PFB-37002-W-1-F5-EX-NC White Beacon with Wall-Mounted Power Supply
3	PL11215 Wall Bracket
1	PL11266 Terminating Resistor
--	PL11665-12 Power & Data Cable
1	PPC-40702-1-EX FAA Photocontrol
1	POC-68503-90-x-EX System Controller
1	PL11248 Handheld Programmer

QUANTITY	RED LIGHTING SYSTEM
3	PFB-37002-R-1-EX-F4-K-NC Red Beacon
3	PL11675-01-EX Junction Box
3	PL11215 Wall Bracket
1	PL11266 Terminating Resistor
--	PL11665-12 Power & Data Cable
3	POL-21005-xF-R-10B-EX-D Double Red Light with PL10760-x-D2 Monitoring & Control Unit
1	PL11220-94-EX Mid-Level riser junction box
1	PPC-40700-1-EX FAA Photocontrol
1	POC-68003-94-x-EX System Controller
1	PL11248 Handheld Programmer
	For Flare Stack, add:
3	PL40139-SS Heat Shield

QUANTITY	DUAL RED-WHITE LIGHTING SYSTEM
3	PFB-37002-RW-1-EX-F4F5-NC Dual Beacon with Wall-Mounted Power Supply
3	PL11215 Wall Bracket
1	PL11266 Terminating Resistor
--	PL11665-12 Power & Data Cable
3	POL-21005-xF-R-10B-EX-D Double Red Light with PL10760-x-D2 Monitoring & Control Unit
1	PL11220-94-EX Mid-Level riser junction box
1	PPC-40702-1-EX FAA Photocontrol
1	POC-68503-94-x-EX System Controller
1	PL11248 Handheld Programmer
	For Flare Stack, add:
3	PL40139-SS Heat Shield



CLASS I, DIVISION 2 (ZONE 2)
MEDIUM INTENSITY FLASHING OBSTRUCTION BEACONS

FAA L-864 & ICAO TYPE B & C RED BEACONS

FAA L-865 & ICAO TYPE A WHITE BEACONS

FAA L-864/865 & ICAO TYPE B/A DUAL RED-WHITE BEACONS

PLEASE SEE CATALOG FILE OL213 FOR COMPLETE DETAILS



PFB-37002-R-1-EX-F5-NC
FAA L-865 MEDIUM INTENSITY WHITE BEACON
CLASS I, DIVISION 2, GROUPS A B C D, T5
THE BEACON FLASHHEAD IS SHOWN
POWER SUPPLY IS INCLUDED BUT NOT SHOWN

PFB-37002-R-1-EX-F4-NC
FAA L-864 MEDIUM INTENSITY RED BEACON
CLASS I, DIVISION 2, GROUPS A B C D, T5



PFB-37002-RW-1-EX-F4F5-NC
FAA DUAL RED-WHITE BEACON L-864/865
CLASS I, DIVISION 2, GROUPS A B C D, T5
THE BEACON FLASHHEAD IS SHOWN
POWER SUPPLY IS INCLUDED BUT NOT SHOWN



PFB-37002-EX RED BEACON WITH
PL11215 WALL BRACKET KIT &
PL11545-EX JUNCTION BOX
Includes stainless steel hardware &
cable gland for PFB cable loop



PFB-37002-EX DUAL BEACON WITH
CID2 POWER SUPPLY (INCLUDED) &
PL11215 WALL BRACKET KIT
Includes stainless steel hardware &
cable gland for PFB cable loop



PFB-37002-EX RED BEACON WITH
PL11215-TPM CLAMP-ON BRACKET KIT &
PL11545-EX JUNCTION BOX
Includes stainless steel hardware &
cable gland for PFB cable loop

All painted surfaces receive Point Lighting Marine Treatment finish in standard aviation yellow at no additional charge which tolerates marine, high salt content air and other corrosive environments:

Our paint finish is bonded to the metal and far exceeds the corrosion resistance of the standard FAA approved finish. 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. Powder coating per US Department of Defense MIL-PRF-24712A type VI and oven cured.

CLASS I, DIVISION 2 (ZONE 2) LOW INTENSITY OBSTRUCTION LIGHTS

FAA L-810 & ICAO TYPE A & B RED LIGHTS

PLEASE SEE CATALOG FILE OL193 FOR COMPLETE DETAILS

Point Type	Power Supply	Photometric Specification	Color	Entry	Classified Area*	Style & Options
POL-21005	1: 120v 2: 220v 3: 12v DC 4: 24v DC 5: 48v DC	F: FAA L-810 B: ICAO Type B B: Trans. Canada B: UK CAP 168 Group A	R: Red	10B: 1-inch, Bottom 34B: 3/4-inch, Bottom M20B: Metric, Bottom M25B: Metric, Bottom	EX: Explosion-Proof Class I, Division 2 Class I, Zone 2	D: Double ** NC: NVG Compatible S3: w/Junction Box single only ** MT: Green Finish

* T6 at -40 deg C to +40 deg C

** 1-inch thread only

For alarm, transfer, flashing and other control options, see OL193POLEXv5



POL-21005-1F-R-10B-EX-S3

WITH CLASS I, DIVISION 2 JUNCTION BOX
WITH OPTION -MT GREEN FINISH AT LEFT

POL-21005-1F-R-10B-EX-D-MT
WITH OPTIONAL GREEN MARINE TREATMENT

POL-21005-1F-R-10B-EX-D
WITH STANDARD YELLOW MARINE TREATMENT

CONTROL & MONITORING OPTIONS

ADD THE SELECTED UNIT TO EACH POL LIGHT *

- PL10760-x-S2 NON-ISOLATED FAILURE ALARM
- PL10760-x-DT ONE HEAD OPERATING & ONE HEAD STANDBY.
NO ALARM FUNCTION
- PL10760-x-D2 ONE HEAD OPERATING & ONE HEAD STANDBY
WITH AC ALARM LINE
- PL10760-x-D2.2 BOTH HEADS OPERATING WITH AC ALARM LINE

* The PL10760 Control Unit is Class I, Division 2 and must be installed within 3-ft (1-meter) of its POL-EX obstruction light.
x = voltage code



POL-21005-1F-R-34B-EX

WITH STANDARD YELLOW MARINE TREATMENT

Our yellow Marine Treatment finish is standard at no additional charge which tolerates marine, high salt content air and other corrosive environments. Use option -MT for green color finish. The FAA specified finish used by competitors flakes and fails in a short time under such conditions.

The Marine Treatment finish shall be bonded to the metal. 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. Powder coating per US Department of Defense MIL-PRF-24712A type VI and oven cured.

CLASS I, DIVISION 2 (ZONE 2) OBSTRUCTION LIGHTING SYSTEM CONTROLLERS & FAA PHOTOCONTROL

PLEASE SEE CATALOG FILES OL302 & OL420 FOR COMPLETE DETAILS

POINT LIGHTING CORPORATION IS AN INTERTEK ETL CERTIFIED BUILDER OF INDUSTRIAL CONTROL PANELS UNDER UL 508A 2ND AND CSA C22.2 No. 286. SAFE AREA SYSTEM CONTROLLERS ARE AVAILABLE AS AN ALTERNATIVE FOR A CID2 SYSTEM.

The POC controller provides the control and monitoring functions for an LED obstruction lighting system. Together with PFB flashing LED beacons and POL red LED low intensity lights, the POC powers and monitors an integrated obstruction lighting system. One PPC FAA photoelectric controller (order separately) provides automatic lighting activation.

POC SYSTEM CONTROLLER WITH CLASS I, DIVISION 2 ENCLOSURE

POC-68003-90-1-EX

Note: Touchscreen is not available for hazardous areas



CONTROLLER	NUMBER & TYPES OF LIGHTS	
	MEDIUM INTENSITY	LOW INTENSITY
POC-68002-04-x	NONE	1 – 4 POL
POC-68002-08-x	NONE	1 – 8 POL
POC-68002-x	NONE	CUSTOM
POC-68003-98-x	1 – 9 PFB RED ONLY	1 – 8 POL
POC-68003-x	CUSTOM	CUSTOM
POC-68503-90-x	1 – 9 PFB WHITE OR DUAL	NONE
POC-68503-98-x	1 – 9 PFB DUAL	1 – 8 POL
POC-68503-x	CUSTOM	CUSTOM

x = VOLTAGE CODE



PPC PHOTOCONTROL CLASS I, DIVISION 2 ENCLOSURE

VOLTAGE	CATALOG NUMBER
96 – 305V AC	PPC-40700-1-EX
10.8 – 52.8V DC	PPC-40700-5-EX
96 – 305V AC	PPC-40702-1-EX*



* PPC-40702-1 is for use with Point Lighting white & dual beacon power supplies & controllers that operate day & night.
Rated load: 8A maximum (AC & DC)

PL40139 HEAT SHIELD

DESIGNED TO PROTECT AN OBSTRUCTION LIGHT FROM EXCESSIVE HEAT

When exposure of lighting equipment to the detrimental effects of the high heat is unavoidable, it is recommended that heat shields be deployed. It is not possible to warrant against damage from the unpredictable severe conditions present at the top of a flare stack or other hot process structure. At the request of our customers, we have developed a heat shield product PL40139 to extend the life of the lighting components. The PL40139 Heat Shield may be installed suspended in the air space between the hot metal surface and the lighting fixture. Note! Point Lighting makes no claims regarding the appropriateness of this product for use in a specific application. We present the technical data about the product and the customer bears full responsibility for its selection, mounting position and use. There is **no warranty** given or implied for this product.

The heat shield is fabricated of a rigid alumina fiber matrix that remains stable for continuous use at temperatures up to 3128-deg F (1720-deg C). The material is not affected by oil or water and it is resistant to chemicals. Do not use in the presence of hydrofluoric acid, phosphoric acid & very strong alkalis. The heat shield is 24-inches wide by 36-inches high and may be mounted in any position. The unit is supplied complete with a carbon steel mounting frame for welding to the structure at both the top and bottom of the heat shield. Option –SS for 316L stainless steel mounting frame.

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

<u>Stack Side*</u>	<u>Light Fixture Side*</u>
800 F	252 F
1200 F	343 F
1600 F	429 F

* These temperatures are surface measurements on opposite faces of the heat shield. It is expected that the air spaces between the stack's metal surface and the shield and between the shield and the light fixture will further limit the heat transmission.

PL40139	HEAT SHIELD	STAINLESS STEEL 316L FACE PLATES; CARBON STEEL ANGLE WELD BRACKETS
PL40139-SS	HEAT SHIELD	STAINLESS STEEL 316L FACE PLATES; SS 316L STEEL ANGLE BRACKETS



ALUMINA FIBER THERMAL BARRIER
BETWEEN 316L STAINLESS STEEL
SHEETS

SHIELD IN PLACE AFTER YEARS OF USE
ON THE GULF OF MEXICO

ALL HARDWARE SS 316L

90% OF THE COST
OF THIS PRODUCT IS
IN THE ADVANCED TECHNOLOGY
INSULATING MATERIAL

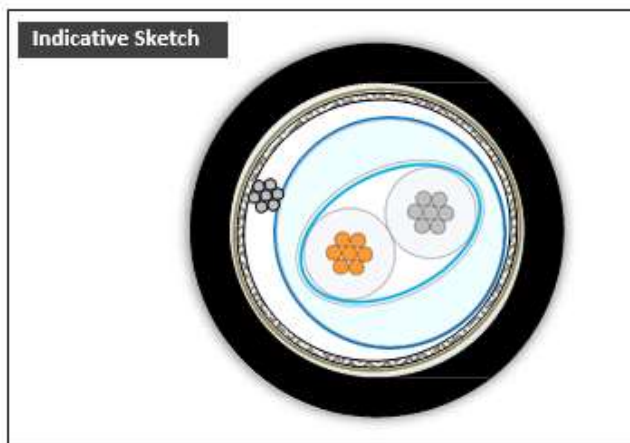


POINTUSA® Data Cable PL10836 is REQUIRED

The data cable is REQUIRED for systems using POC-68003, POC-68503 and POC-68504 controllers.
The data cable is NOT required for systems using POC-68002 and POC-60301 controllers.

The data cable is used as one (1) run from the POC controller to the first beacon flashhead's (FH) power supply (PS) and then to each successive beacon PS in turn ("daisy-chain") that terminates at the last numbered beacon PS with the PL11266 Terminating Resistor installed. 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 of the system.

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.



UL
Homologation UL AWM Style: 2661

CE Accordance to Directives:
2014/35/UE; 2011/65/CE; 2015/863/UE

UK CA Accordance to Directives:
Electrical Equipment (Safety) Regulations 2016
The Restriction of the Use of Certain Hazardous Substances in
Electrical and Electronic Equipment Regulations 2012.

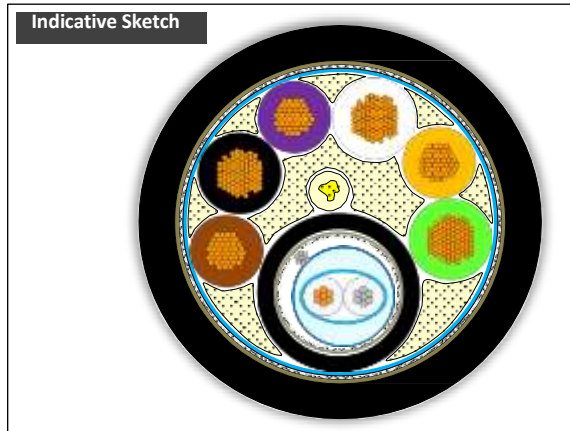
RoHS

- Conductors:** Stranded bare copper wire; Nom. 0.56mm² - 2 x AWG20; nominal diameter 1mm.
Lay agree with UL 758 tab 5.9; conforms to EN 13602 - ETP1, DIN 40500 E-Cu 58.
- Insulation:** Polyolefin compound; Nominal diameter 2.05mm
- Inner jacket:** Polyolefin compound; Nominal diameter 5.1mm
- Shield:** Al/PET/Al over inner jacket; Optical coverage 100%.
Braid type; Tinned copper wire; Nominal optical coverage 85%.
- Drain Wire:** Stranded tinned copper wire; Nom. 0.34mm² - AWG22; nominal diameter 0.75mm; Under braid shield
- Jacket:** PVC; hardness 79 ShA; Diameter 8.4 ±0.3mm; Colour Black similar RAL9005; Conform to UL AWM Style 2464
- Cable Markings:** *POINTUSA D-CABLE TWINAX 100 OHM - PL10836 - E172949 AWM STYLE 2661 90°C 300V
AWM I/II A/B 90°C 300V FT1 - (2xAWG20)C 100 Ω - CE - RoHS - UKCA "week/year"*

Electric:	Operating voltage	300 Vrms
	Voltage test	2000 VAC
	Max conductor resistance (bare)	34.1 Ω/Km - 10.4 Ω/1000ft (IEC60344) - 9.9 ohm/1000ft (linear)
	Max conductor resistance (tinned)	34.8 Ω/Km - 10.6 Ω/1000ft (IEC60344) - 10.1 ohm/1000ft (linear)
	Nominal capacitance	50 pF/m - 15.24 pF/ft
	Nominal impedance	100 Ω
Physical:	Operating temperature range	-25°C to +90°C (fixed)
	Operating temperature range	-10°C to +90°C (flex, free movement not continuous)
Chemical:	Silicone, Pb, Cd, Hg, FCKW free	Yes
Flame:	Flame resistant	UL Cable flame test; CSA FT1; IEC 60332-1-2

PointUSA Power & Data Cable sect. (2 x AWG20)C + 3 x AWG12 + 3 x AWG14 – Braid shielded – TPE jacket
AWM Style 20626 (90°C / 600V)

POINT LIGHTING CORPORATION part number: **PL11665-12**



Homologation UL AWM Style: 20626



Accordance to Directives:
2014/35/UE; 2011/65/CE; 2015/863/UE



Accordance to Directives:

Electrical Equipment (Safety) Regulations 2016
The Restriction of the Use of Certain Hazardous Substances in
Electrical and Electronic Equipment Regulations 2012.



Printing text (White ink):

POINTUSA PD-CABLE - PL11665-12 - E172949 AWM STYLE 20626 90°C 600V - AWM I/II A/B 90°C 600V FT1 – (2xAWG20)C 100Ω + 3xAWG12 + 3xAWG14 - - RoHS - UKCA “week/year”

1xAWG20	
Conductor:	Stranded bare copper wire; Nom. 0.56mm ² - AWG20; nominal diameter 1mm. Lay agree with UL 758 tab 5.9; conform to EN 13602 - ETP1, DIN 40500 E-Cu 58.
Insulation:	Polyolefin compound; Nominal diameter 2.05mm; Colour core: Natural.
1xAWG20	
Conductor:	Stranded tinned copper wire; Nom. 0.56mm ² - AWG20; nominal diameter 1mm. Lay agree with UL 758 tab 5.9; conform to EN 13602 - ETP1, DIN 40500 E-Cu 58.
Insulation:	Polyolefin compound; Nominal diameter 2.05mm; Colour core: Natural.
Assembly:	Two cores twisted together; Six twist per foot.
Protective tape:	Tape over assembly.
Inner jacket:	Polyolefin compound; Nominal diameter 5.1mm; Colour: Natural.
Shield:	- Al/PET/Al over inner jacket; Optical coverage 100%. - Braid type; Tinned copper wire; Nominal optical coverage 85%.
Jacket:	DW: Stranded tinned copper wire; Nom. 0.34mm ² - AWG22; nominal diameter 0.75mm; Under braid shield. PVC; hardness 78 ShA; Diameter 8.4 ±0.3mm; Colour Black similar RAL9005.
3xAWG12	
Conductor:	Stranded bare copper wire; Nom. 4mm ² - AWG12; nominal diameter 2.55mm. Lay agree with UL 758 tab 5.9; conform to EN 13602 - ETP1, DIN 40500 E-Cu 58.
Insulation:	PVC compound; Nominal diameter 4.3mm; Colour cores: Black – White – Green.
3xAWG14	
Conductor:	Stranded bare copper wire; Nom. 2.5mm ² - AWG14; nominal diameter 2mm. Lay agree with UL 758 tab 5.9; conform to EN 13602 - ETP1, DIN 40500 E-Cu 58.
Insulation:	PVC compound; Nominal diameter 3.8mm; Colour core: Brown – Violet – Orange.
Total assembly:	(2xAWG20)C + 3xAWG12 + 3xAWG14 stranded together around a central filler;
Solid Filler:	Para-aramid fibre (Kevlar®); Density: 1.44 gr/cm ³ ; Elongation at break: 3,4 %; Tenacity typical: 600N.
Total shield:	Braid type; Tinned copper wire; Nominal optical coverage 85%.
Protective tape:	Tape under and over total shield.
Jacket:	TPE; hardness 76 ShA; Diameter 20.8 ±0.7mm; Colour Black similar RAL9005; conform to UL AWM style 20626.