

## Exd, Weatherproof



## Features

- Zone 1 and Zone 2 use.
- Ex d IIB T3/T4/T5/T6.
- ATEX approved, Ex II 2GD\*.
- UL listed for USA and Canada\*
  - Class I, Div. 2, Groups C & D.
  - Class I, Zone 1, AExd IIB T4/T5.
- BASEEFA Certified.
- IECEx certified Gb, Db\*.
- GOST 'R' certified.
- Brazilian (Inmetro) certified.
- Fluorescent.
- Filament.
- IP66 and IP67.
- Certified temperature:  $-55^{\circ}\text{C}$  to  $+70^{\circ}\text{C}$ \*.
- Corrosion resistant GRP.
- Optional stainless steel backstrap.
- Various lens colours.
- Optional lens guard.
- 2 x M20 or 2 x 1/2" NPT cable entries.
- Earth continuity option.

\*Model dependent.

## Introduction

These certified steady beacons have been designed for use in potentially explosive atmospheres and harsh environmental conditions. The enclosures are suitable for use offshore or onshore, where light weight combined with corrosion resistance is required.

The beacon housing is manufactured completely from a U.V. stable, glass reinforced polyester.

Stainless steel screws and mounting bracket are available ensuring a totally corrosion free product.

Units can be painted to customer specification and supplied with identification labels.



# Specification

**Models:** FL11 & FL12 – Fluorescent, Exd.  
 FB11 & FB12 – Filament, Exd.  
 FB12 – Filament, Exd & UL Listed.

**Certification:** Certified to IEC60079-0, IEC60079-1, IEC60079-31  
 Certified to EN60070-0, EN60079-1, EN60079-31  
 Note: IEC60079-31 and EN60079-31 applies to FB11 & FL11 only.  
 FB11/FL11 ATEX Cert. No. BAS99ATEX2195  
 FB11 Ex II 2 GD Ex d IIB T4/T5/T6 Gb, Ex tb IIIC T70°C/T85°C/T110°C Db  
 FL11 Ex II 2 GD Ex d IIB T4/T5/T6 Gb, Ex tb IIIC T70°C/T85°C/T110°C Db  
 FB12/FL12 ATEX Cert. No. BAS99ATEX1296  
 FB12 Ex II 2 G Ex d IIB T3/T4/T5 Gb  
 FL12 Ex II 2 G Ex d IIB T4/T5/T6\* Gb  
 FB11/FL11 IECEX Cert. No. IECEX BAS 10.0101  
 Ex d IIB T4/T5/T6 Gb, Ex tb IIIC T70°C/T85°C/T110°C Db  
 FB12/FL12 IECEX Cert. No. IECEX BAS 10.0094  
 FB12 Ex d IIB T3/T4/T5 Gb  
 FL12 Ex d IIB T4/T5/T6\* Gb  
 UL Listed for USA and Canada (FB11 & FB12 only)  
 – Class I, Div. 2, Groups C & D and  
 – Class I, Zone 1, AExd IIB T4/T5. UL Listing No. E187814.  
 GOST 'R': 1Exd IIB (for T ratings see table).  
 Brazilian (Inmetro) Certified: BR-Ex d IIB T4/T5/T6

**Material:** Body: Glass reinforced polyester (GRP).  
 Lens: Glass.  
 Cover Screws + Backstrap: Stainless steel 316.

**Finish:** Natural black or painted to customer specification.

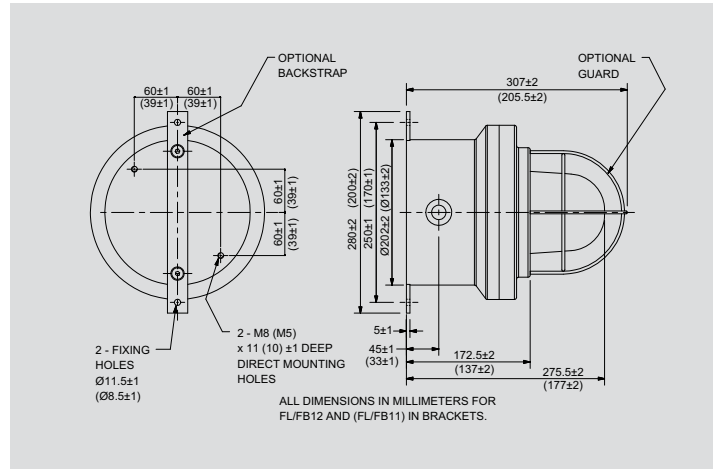
**Voltage:** FL11 & FL12 – 24V d.c., 240V a.c.  
 FB11 & FB12 – 24V d.c., 48V d.c.  
 – 110V a.c., 120V a.c., 220V a.c., 240V a.c., 254V a.c.

**Filament:** FB11 – 10W filament fitted as standard – (SBC lamp holder).  
 FB12 – 60W or 100W single filament fitted as standard. Others may be available (UL Listed – 60W only) – (ES27 lamp holder).

**Fluorescent:** 5 Watt type light output 250 Lumens (FL11 24V d.c. version only) – G23 lamp holder.  
 10 Watt type light output 600 Lumens (FL11 240V a.c. version only) – G23 lamp holder.  
 13 Watt type light output 900 Lumens (FL12, per tube) – G24Q-1 lamp holder.

**Certified Temp:** FB11 & FB12, EExd = –55°C to +70°C\*.  
 FL11 & FL12, EExd = –20°C to +70°C\*.  
 \*Model dependent – see table for details.

**Terminals:** FL11, FB11 – 2.8 kg\*.  
 FL12 – 7.2 kg\*.  
 FB12 – 7.6 kg\*.  
 \*Model dependent



**Ingress Protection:** IP66 and IP67.

**Entries:** 2 x M20 ISO EExd.  
 2 x 1/2" NPT UL Listed.

**Labels:** Duty/Tag Label optional.

**Fire Retardancy:** GRP is fire retardant to ISO 1210.

**Earth Continuity:** Optional for metal glands provided via a brass plate.

## Certified Temperature Ratings

Type	Voltage/Wattage	T Class	Min. Amb.	Max. Amb.
FB11	All	T4	-55°C	+70°C
		T5	-55°C	+55°C
		T6	-55°C	+40°C
FL11	All	T4	-20°C	+70°C
		T5	-20°C	+55°C
		T6	-20°C	+40°C
FB12	100	T3	-55°C	+20°C
	60	T4	-55°C	+55°C
FL12	39	T5	-55°C	+30°C
		T4	-20°C	+40°C
		T5	-20°C	+70°C
	26	T4	-20°C	+70°C
		T5	-20°C	+55°C
		T6	-20°C	+40°C
	13	T4	-20°C	+70°C
		T5	-20°C	+55°C
		T6	-20°C	+40°C

## Ordering Requirements

The following code is designed to help in selection of the correct unit. Build up the reference number by inserting the code for each component into the appropriate box.

Model	Certification	Voltage	Lamp Wattage	Lens Colour	Lens Guard	Fixing	Earth	Tag/Duty	Finish
<b>FL11</b> <b>FB11</b> <b>FL12</b> <b>FB12</b>	<b>Certification Code</b> Uncertified W ATEX B IECEX J UL Listed UL* GOST 'R' G Inmetro DM	<b>Voltage Code</b> 24V d.c. 024 48V d.c. 048* 110V a.c. 110* 120V a.c. 120† 220V a.c. 220* 240V a.c. 240 254V a.c. 254*	<b>Wattage Code</b> FL11† 5W d.c. (1x5W tube) 5* 10W a.c. (1x10W tube) 10* FB11† 10W a.c. & d.c. (1x10W bulb) 10 FL12 13W a.c. & d.c. (1x13W tube) 13* 26W a.c. (2x13W tubes) 26* 39W a.c. (3x13W tubes) 39* FB12 60W a.c. & d.c. (1x60W bulb) 60 100W a.c. & d.c. (1x100W bulb) 100	<b>Colour Code</b> Clear C Red R Blue B Green G Yellow Y Amber A	<b>Guard Code</b> None N Yes Y	<b>Fixing Code</b> Direct Mounting D Backstrap B	<b>Continuity Code</b> None N Yes Y* * Please specify wording	<b>Label Code</b> None N Yes Y* * Please specify	<b>Finish Code</b> Grey G Red R Blue B Yellow Y White W Special S* * Please specify

All the above specifications, dimensions, weights and tolerances are nominal (typical) and Cooper MEDC reserve the right to vary all data without prior notice. No liability is accepted for any consequence of use.

