

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°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.

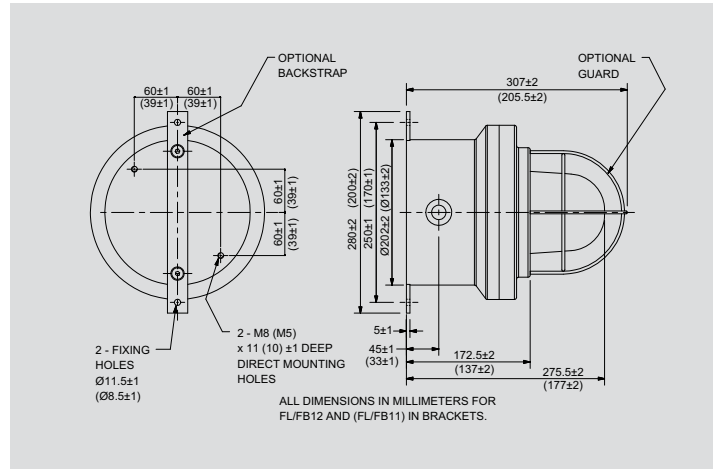
Voltage: FL11 & FL12 – 24V d.c., 240V a.c.
 FB11 & FB12 – 24V d.c., 48V d.c.
 – 110V a.c., 120V a.c., 220V a.c., 240V a.c., 254V a.c.

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																																																																																																				
<input type="text"/> FL11 FB11 FL12 FB12	<table border="1"> <tr> <th>Certification</th> <th>Code</th> </tr> <tr> <td>Uncertified</td> <td>W</td> </tr> <tr> <td>ATEX</td> <td>B</td> </tr> <tr> <td>IECEX</td> <td>J</td> </tr> <tr> <td>UL Listed</td> <td>UL*</td> </tr> <tr> <td>GOST 'R'</td> <td>G</td> </tr> <tr> <td>Inmetro</td> <td>DM</td> </tr> </table> <p>* UL listed only available FB11 & FB12.</p>	Certification	Code	Uncertified	W	ATEX	B	IECEX	J	UL Listed	UL*	GOST 'R'	G	Inmetro	DM	<table border="1"> <tr> <th>Voltage</th> <th>Code</th> </tr> <tr> <td>24V d.c.</td> <td>024</td> </tr> <tr> <td>48V d.c.</td> <td>048*</td> </tr> <tr> <td>110V a.c.</td> <td>110*</td> </tr> <tr> <td>120V a.c.</td> <td>120†</td> </tr> <tr> <td>220V a.c.</td> <td>220*</td> </tr> <tr> <td>240V a.c.</td> <td>240</td> </tr> <tr> <td>254V a.c.</td> <td>254*</td> </tr> </table> <p>Other voltages available, please specify. *FB11 & FB12 only †FB12 UL Listed only</p>	Voltage	Code	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*	<table border="1"> <tr> <th>Wattage</th> <th>Code</th> </tr> <tr> <td>FL11† 5W d.c. (1x5W tube)</td> <td>5*</td> </tr> <tr> <td>10W a.c. (1x10W tube)</td> <td>10*</td> </tr> <tr> <td>FB11† 10W a.c. & d.c. (1x10W bulb)</td> <td>10</td> </tr> <tr> <td>FL12 13W a.c. & d.c. (1x13W tube)</td> <td>13*</td> </tr> <tr> <td>26W a.c. (2x13W tubes)</td> <td>26*</td> </tr> <tr> <td>39W a.c. (3x13W tubes)</td> <td>39*</td> </tr> <tr> <td>FB12 60W a.c. & d.c. (1x60W bulb)</td> <td>60</td> </tr> <tr> <td>100W a.c. & d.c. (1x100W bulb)</td> <td>100</td> </tr> </table> <p>* Not available in UL versions. † Inmetro Only available on FL11 & FB11</p>	Wattage	Code	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	<table border="1"> <tr> <th>Colour</th> <th>Code</th> </tr> <tr> <td>Clear</td> <td>C</td> </tr> <tr> <td>Red</td> <td>R</td> </tr> <tr> <td>Blue</td> <td>B</td> </tr> <tr> <td>Green</td> <td>G</td> </tr> <tr> <td>Yellow</td> <td>Y</td> </tr> <tr> <td>Amber</td> <td>A</td> </tr> </table>	Colour	Code	Clear	C	Red	R	Blue	B	Green	G	Yellow	Y	Amber	A	<table border="1"> <tr> <th>Guard</th> <th>Code</th> </tr> <tr> <td>None</td> <td>N</td> </tr> <tr> <td>Yes</td> <td>Y</td> </tr> </table>	Guard	Code	None	N	Yes	Y	<table border="1"> <tr> <th>Fixing</th> <th>Code</th> </tr> <tr> <td>Direct Mounting</td> <td>D</td> </tr> <tr> <td>Backstrap</td> <td>B</td> </tr> </table>	Fixing	Code	Direct Mounting	D	Backstrap	B	<table border="1"> <tr> <th>Continuity</th> <th>Code</th> </tr> <tr> <td>None</td> <td>N</td> </tr> <tr> <td>Yes</td> <td>Y*</td> </tr> </table> <p>* Please specify wording</p>	Continuity	Code	None	N	Yes	Y*	<table border="1"> <tr> <th>Label</th> <th>Code</th> </tr> <tr> <td>None</td> <td>N</td> </tr> <tr> <td>Yes</td> <td>Y*</td> </tr> </table> <p>* Please specify</p>	Label	Code	None	N	Yes	Y*	<table border="1"> <tr> <th>Finish</th> <th>Code</th> </tr> <tr> <td>Grey</td> <td>G</td> </tr> <tr> <td>Red</td> <td>R</td> </tr> <tr> <td>Blue</td> <td>B</td> </tr> <tr> <td>Yellow</td> <td>Y</td> </tr> <tr> <td>White</td> <td>W</td> </tr> <tr> <td>Special</td> <td>S*</td> </tr> </table> <p>* Please specify</p>	Finish	Code	Grey	G	Red	R	Blue	B	Yellow	Y	White	W	Special	S*
Certification	Code																																																																																																												
Uncertified	W																																																																																																												
ATEX	B																																																																																																												
IECEX	J																																																																																																												
UL Listed	UL*																																																																																																												
GOST 'R'	G																																																																																																												
Inmetro	DM																																																																																																												
Voltage	Code																																																																																																												
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*																																																																																																												
Wattage	Code																																																																																																												
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																																																																																																												
Colour	Code																																																																																																												
Clear	C																																																																																																												
Red	R																																																																																																												
Blue	B																																																																																																												
Green	G																																																																																																												
Yellow	Y																																																																																																												
Amber	A																																																																																																												
Guard	Code																																																																																																												
None	N																																																																																																												
Yes	Y																																																																																																												
Fixing	Code																																																																																																												
Direct Mounting	D																																																																																																												
Backstrap	B																																																																																																												
Continuity	Code																																																																																																												
None	N																																																																																																												
Yes	Y*																																																																																																												
Label	Code																																																																																																												
None	N																																																																																																												
Yes	Y*																																																																																																												
Finish	Code																																																																																																												
Grey	G																																																																																																												
Red	R																																																																																																												
Blue	B																																																																																																												
Yellow	Y																																																																																																												
White	W																																																																																																												
Special	S*																																																																																																												

