

Ex d, 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*.
- CUTR 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 lightweight combined with corrosion resistance is required.

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

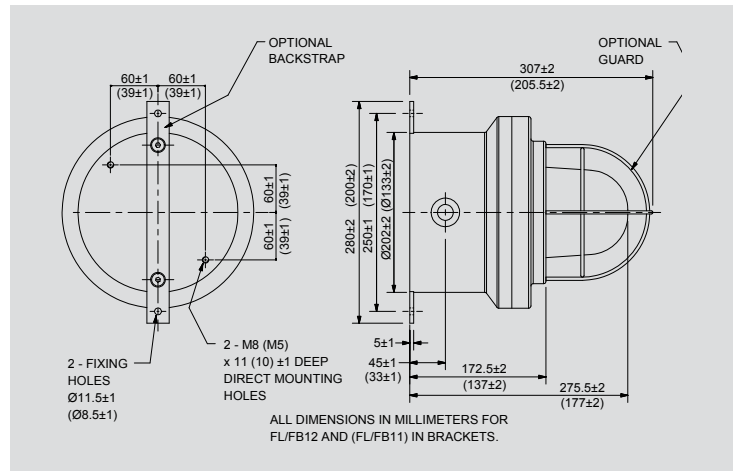
Stainless steel screws and mounting bracket are available ensuring a totally corrosion free product.

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



Certification and Specification

Models:	FL11 & FL12 – Fluorescent, Exd. FB11 & FB12 – Filament, Exd. FB12 – Filament, Exd & UL Listed.
FB11/FL11 ATEX Ex d:	Cert. no. BAS99ATEX2195. Certified to: EN60079-0, EN60079-1, EN60079-31. Ex II 2GD, Ex d IIB T4/T5/T6 Gb, Ex tb IIIC T70°C/T85°C/T110°C Db.
FB11/FL11 IECEx Ex d:	Cert. no. IECEx BAS 10.0101. Certified to: IEC60079-0, IEC60079-1, IEC60079-31. Ex d IIB T4/T5/T6 Gb, Ex tb IIIC 70°C/85°C/110°C Db.
FB12/FL12 ATEX Ex d:	Cert. no. BAS99ATEX2196. Certified to: EN60079-0, EN60079-1. Ex II 2G, Ex d IIB T3/T4/T5/T6 Gb.*
FB11/FL11 IECEx Ex d:	Cert. no. IECEx BAS 10.0094. Certified to: IEC60079-0, IEC60079-1. Ex d IIB T3/T4/T5/T6 Gb.*
FB11/FB12 UL:	Listing no. E187814. Class I, Div 2, Groups C & D. Class I, Zones 1, AExd IIB T4/T5.
FB11/FL11 CUTR Ex d:	1Ex d IIB T4/T5/T6 Gb, Ex tb IIIC 70°C/85°C/110°C Db.
FB12/FL12 CUTR Ex d:	1Ex d IIB T3/T4/T5/T6 Gb.*
Inmetro Ex d:	Ex d IIB T3/T4/T5/T6 Gb. *Model dependent.
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 = -55°C to + 70°C*. *Model dependent – see table for details. * Operating temp is -20°C
Weight:	FL11, FB11 – 2.8 kg*. FL12 – 7.2 kg*. FB12 – 7.6 kg*. *Model dependent
Terminals:	FL (a.c.) 4 x 2.5mm ² FL11 (d.c.), FB11 6 x 2.5mm ² FB12/FL12 6 x 6.0mm ² FB12 UL 6 x 10 AWG



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
		T5	-55°C	+30°C
FL12	39	T4	-20°C	+40°C
		T5	-20°C	+70°C
	26	T4	-20°C	+70°C
		T5	-20°C	+55°C
	13	T6	-20°C	+40°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																																																																																																						
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>CUTR</td><td>G</td></tr> <tr><td>Inmetro</td><td>DM</td></tr> </table>	Certification	Code	Uncertified	W	ATEX	B	IECEx	J	UL Listed	UL*	CUTR	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>	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>	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>Fixings</th><th>Code</th></tr> <tr><td>Direct mount without backstrap</td><td>D</td></tr> <tr><td>Direct mount with backstrap</td><td>B</td></tr> </table>	Fixings	Code	Direct mount without backstrap	D	Direct mount with 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>	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>	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>Natural Black</td><td>N</td></tr> <tr><td>Special</td><td>S*</td></tr> </table>	Finish	Code	Grey	G	Red	R	Blue	B	Yellow	Y	White	W	Natural Black	N	Special	S*
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* UL listed only available FB11 & FB12.

* Not available in UL versions.
† Inmetro Only available on FL11 & FB11.

Other voltages available, please specify.
*FB11 & FB12 only.
†FB12 UL Listed only.

* Please specify.

* Please specify wording.