XB15 5, 10, 15 & 21 joule GRP xenon beacon range



Ex db, weatherproof Hazardous locations, ordinary locations

Overview

These certified 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 flagship XB15 range now centres around a new universal base for greater application flexibility and simplified ordering (ATEX and IECEx certified; UL certification pending).

Improved standard features include a customer-removable guard, upgraded mounting hardware, and swappable lens covers to reduce spares inventory and enable easy relocation. Users can select the appropriate lens colour to indicate procedures, processes underway, or emergency alerts.

The housings are manufactured from UV-stable, glass-reinforced polyester and fitted with stainless steel screws and mounting brackets for complete corrosion resistance. The XB15 is certified for operation in temperatures from –55°C to +85°C (–58°F to 185°F)*.

Certifications

- Zones 1, 2, 21 & 22
- Ex db IIC, T3/T4/T5/T6
- ATEX certified, Ex II 2GD
- IECEx certified Gb, Db
- UL certified for USA and Canada:
  - Hazardous locations:
    - Class I, Div. 2, Groups A, B, C & D
    - Class II, Div 2 Groups F & G
    - Class I, Zone 1, AExd IIC T4/T5/T6
  - Ordinary locations: visual-signal device
  - Marine listed
  - Conforms to ULC regulated power supplies
- ULC certified to Canadian Safety Standards
- CCC Ex certified
- GB (GuoBiao) certified
- CCCF certified
- INMETRO certified
- CCOE certified
- CSFM certified
- EN54-23 certified
- SIL 2 certified
- IP66 & IP67

Features

- Certified temperature from –55°C to +85°C (–67°F to +158°F)*
- 5, 10, 15J & 21J versions available
- 21J dual tube option available
- Pipe mount or direct mount
- Corrosion-free GRP
- Four wire and supervisory diode
- Optional remote initiate (installer configurable, telephone or 24Vdc)
- Removable stainless steel backstrap
- Swappable coloured lens covers†
- Removable wire lens guard
- Improved inrush current characteristics
- Consistent extreme temperature start-up
- Automatic synchronization option
- LED version available (see datasheet dsmc0028 for LD15)
- Metallic version available (see datasheet dsmc0059 for XB15M)

*For full temperature and T-ratings, see specification table
†ATEX, IECEx and INMETRO only

INTEC AUTOMATIZARI E-mail: sales@intec-automatizari.ro www.intec-automatizari.ro GSM : +40 72/335.1968

Certifications

ATEX Ex db	Cert. no. Baseefa 04ATEX0009X Certified to: EN IEC 60079-0, EN 60079-1, EN 60079-31 Ex II 2 GD Ex db IIC T3/T4/T5/T6 Gb, Ex tb IIIC T200°C/T135°C/T100°C/T85°C Db
IECEx Ex db	Cert. no. IECEx BAS 05.0048X Certified to: IEC 60079-0, IEC 60079-1, IEC 60079-31 Ex db IIC T3/T4/T5/T6 Gb, Ex tb IIIC T200°C/T135°C/T100°C/T85°C Db
UL/ULC Haz Locs	Cert. no. E187894 Class I, Div 2, Groups A, B, C & D Class II, Div 2, Groups F & G Class I, Zones 1, AExd IIC T4/T5/T6
UL/ULC Ord Locs/Marine	Cert. no. S8128. Visual signal appliance UL1638. CSA C22.2 no. 205-12
INMETRO Ex db	Ex db IIC T3/T4/T5/T6 Gb, Ex tb IIIC T200°C/T135°C/T100°C/T85°C Db
CCC Ex	Ex db IIC T4/T5/T6 Gb, Ex tb IIIC T85°C/T100°C/T135°C Db
GB (GuoBiao)	Ex db op is IIC T4/T5/T6 Gb, Ex tb op is IIIC T85°C/T100°C/T135°C Db
SIL	SIL2 certified to IEC61508. Cert number FSP 12004. (21J pending)
EN54-23	LPCB: 1120b/01, CPR: 0832-CPR-F0761 (White) LPCB: 1120b/02, CPR: 0832-CPR-F0762 (Red)
CCCF	Chinese Compulsory Certification for Fire Systems (CCCF)

Specifications

Material	Body: glass reinforced polyester (GRP) Lens: borosilicate glass Lens cover: polycarbonate (ATEX, IECEx and INMETRO only) Backstrap: stainless steel 316L Wire guard: stainless steel wire 316L Certification label: polymer
Finish	Universal lens cover ring may be painted to customer specification. Body is always natural black. UL certified bases can be painted the same colour as the lens cover ring.
Lens colour	UL orders will be provided with a lacquered lens. ATEX and IECEx (universal mount) orders will be provided with an interchangeable polycarbonate lens cover.
Models	Available in direct and pipe mount configuration. Triple certification (AJU) is not available with pipe mount or the universal base - please refer to the GA drawings for which certification applies to which base.
Voltage	24, 48Vdc, 110-120Vac (50/60Hz) or 220-240Vac (50Hz)
Tube energy	5,10, 15 and 21 joule. 21 joule dual tube also available.
Tube life	>1 x 10^6 flashes
Flash rate	60, 80, 120 fpm
Certified temp ATEX, IECEx and INMETRO	21J: -55°C to +85°C (T3), to +60°C (T4) 15J: -55°C to +85°C (T3), to +65°C (T4), to +70°C (T4) DC 10J: -55°C to +85°C (T3), to +75°C (T4), to +40°C (T5), to +80°C (T4) DC, to +45°C (T5) DC 5J: -55°C to +85°C (T4), to +55°C (T5), to +40°C (T6), to +65°C (T5) DC, to +50°C (T6) DC
Certified temp UL, CCC Ex + GB	15J: -55°C to +65°C (T4), to +70°C (T4) DC 10J: -55°C to +70°C (T4), to +40°C (T5), to +45°C (T5) DC 5J: -55°C to +70°C (T4), to +55°C (T5), to +40°C (T6), to +65°C (T5) DC, to +50°C (T6) DC
Certified temp SIL 2	-50°C to +70°C (-58°F to +158°F)
Weight	ATEX/IECEx universal and UL direct mount: 3.0kg (6.6lbs), UL pipe mount: 2.6kg (5.7lbs).
Ingress protection	IP66 & IP67
Entries	Direct mount: 2x M20 with 1x SS316 plug (side) Direct mount: 2x 3/4" NPT with 1x SS316 plug (side) Pipe mount: 1x 3/4" NPT (bottom) Other entry configurations available upon request.
Terminals	12 x 2.5mm²/14AWG unless pipe mount: 8 x 2.5mm²/14AWG
Earth continuity	Fitted as standard to ATEX and IECEx units (M20 and M25 threads). Not applicable for UL (NPT threads).
Remote initiate	Telephone: operates from ringing voltage (default). Relay: operates with 24Vdc activation (selected by link position).
Certification labels	Certification labels always affixed to the base. IECEx, UL & CSA-approved high-durability, laser-marked polymer. Stainless steel 316 labels available as option 'C'.
Tag/duty labels	Optional. Tag & duty labels, if required, attach to the wire guard as swing tags and are packed separately to be attached on-site at point of installation. If tag and duty labels are required, please specify this when placing your order using the below part numbers: Single-sided tag: PX99904142 Single-sided duty: PX99904143 Double-sided duty/tag: PX99904144
Synchronization	Up to 6 beacons on a loop can synchronize without the need for an external controller. Beacons will need to be the same flashrate and need the A code selected in the options.
EOL Resistor	Customers may fit a monitoring resistor to DC units. The maximum total power dissipation through the resistor must be limited to 2W. Please see technical manual for further details.

Electrical ratings

	Current at Nominal Voltage (Max.) mA			
Energy	**24Vdc** (16-33V dc)	**48Vdc** (33-58V dc)	**120V ac 60Hz** (99-132V ac)	**240V ac 50Hz** (207-264V ac)
5J	380	170	135	70
10J	690	350	230	115
15J	920	480	265	150
21J*	1148	598	360	200

*UL and ULC certification not available for 21J version

Light outputs

Light output - effective candela*

	5J	10J	15J	21J
Effective (cd)	277	732	873	1338

*Data represents clear lens at optimum voltage @60fpm

UL/ULC rated light output (tested to UL 1638/ULC-S526-07)

Effective (cd) (60fpm)	24Vdc (@16Vdc)	48Vdc (@38.4Vdc)	120Vac (@96Vac)	240Vac (@192Vac)
5J	10.8*	9*	13*	14*
10J	31.5	31.5	22.5	21
15J	49.5	63	23.3	25.5
21J	N/A	N/A	N/A	N/A

*Less than 15cd is not suitable for public mode.
Tested in worst-case operating conditions with no guard.

Multiplying factors for coloured lenses

tested with cover lens

Red	Blue	Amber	Green	Yellow	Magenta
0.16	0.35	0.58	0.15	0.73	0.10

tested with lacquered glass (UL/ULC only)

Red	Blue	Amber	Green	Yellow	Magenta
0.2	0.27	0.36	0.24	0.65	N/A

EN54-23 rating:

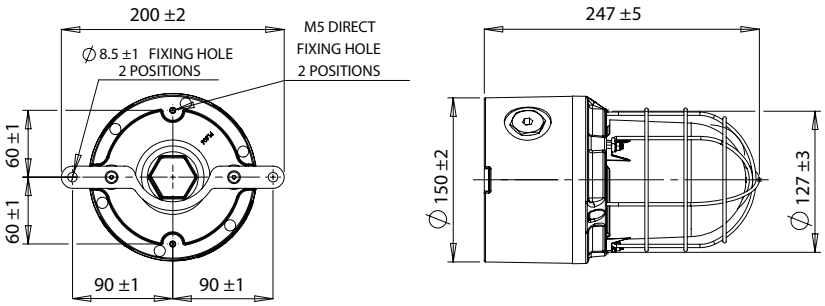
White		Red	
Rating	**Volume (m³)**	**Rating**	**Volume (m³)**
C-3-32	2,413	C-3-16	603
C-6-31	4,529	C-6-6	170
C-9-12	1,018		
W-8-13	1,352	W-3-5	75

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General arrangement drawing (all dimensions in mm)

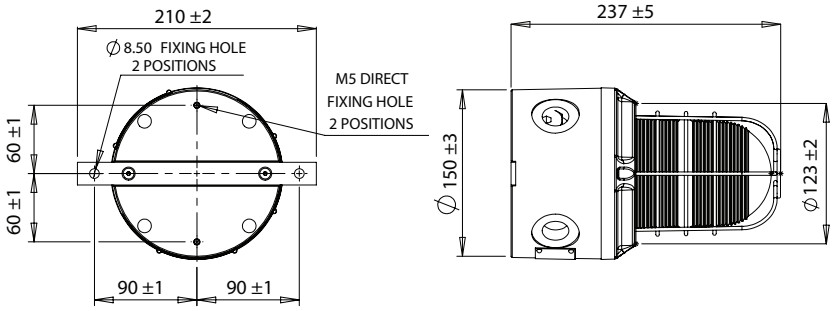
ATEX, IECEx and INMETRO certified universal base (direct or pole mount)

Certification codes: AJ, W



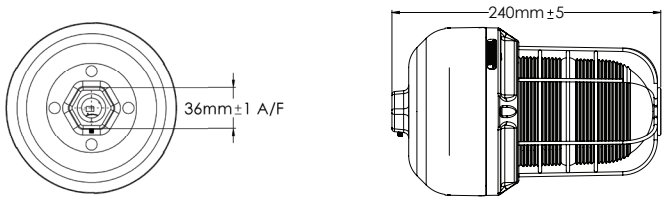
UL/ULC certified base (direct mount)

Certification codes: AJ54, AJQ, AJU, UL, UW, QF, DM, W54



UL/ULC certified base (pipe mount)

Certification codes: UL, UW, QF. Please note, triple certification is not available as pipe mount.



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: XB15

Certification

Certification	Code
Dual ATEX/IECEx	AJ
ATEX/IECEx/EN54-23	AJ54
ATEX/IECEx/CCCEx	AJQ
Triple ATEX/IECEx/UL	AJU*
UL	UL
UL(ordinary locations)	UW
CCCF	QF
INMETRO	DM
Weatherproof	W
Weatherproof +EN54-23	W54

*Triple certification is not available on the universal or pipe mount base.

Voltage

Voltage	Code
24Vdc	024†
48 Vdc	048
110-120Vac	110
220-240Vac	230

† EN54/CCCF must be 24Vdc.

Tube energy

Energy	Code
5 Joule	05
10 Joule	10
15 Joule	15†
21 Joule	21*
21 Joule dual tube	21D*

† EN54/CCCF & UM must be 15J.
* Only available in ATEX/IECEX and weatherproof.

Flashrate

Flashrate	Code
60/min	06*
80/min	08
120/min	12

* EN54/CCCF must be 60/min.

Lens colour

Lens	Code
Red	R*†
Blue	B
Green	G
Amber	A
Yellow	Y
Magenta	M§
Clear	C

UL and EN54 orders will be supplied with a lacquered lens.
* EN54 must be red or clear.
† CCCF must be red.
§ Magenta not available with UL.

Lens guard

Guard	Code
None	N*
Wire	W

*Only selectable with EN54/CCCF.

Entries

Entries	Code
2x M20 with 1x SS316 plug (side)	A*
2x ¾" NPT with 1x SS316 plug (side)	E
1x ¾" NPT (bottom)	P†

For any other configuration, please contact MEDC.
* Option A for UL is achieved via adapters.
† Non UL pipe mount will use the universal enclosure.

Options

Option	Code
None	N
SS316 cert labels	C
Remote initiate	R†
EOL resistor	E§
Auto Sync	A‡

† Available only for ATEX/IECEx. Refer to specifications table for details.
§ Please specify.
‡ 24Vdc only and not available in 21J or EN54. If tag and duty labels are required, see specification table for full details.

Finish

Finish	Code
Natural black	N
Red	R
Special	S*

Note: on universal base, finish applies to lens cover ring only, body is always natural black.
*Please specify.

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