

MANUAL CALL POINTS

Intrinsically Safe (EExia), EExd, Weatherproof
SM87 BG & PB Range



Now VNIPO Approved



Introduction

These manual fire alarm, emergency shutdown breakglass and pushbutton units have been designed for the most arduous environmental conditions. The units are both easy to install and maintain. Intrinsically safe EExia and flameproof EExd versions of each model are available. A choice of either stainless steel or alloy makes the range suitable for either the offshore or onshore industries.

- ★ Zone 0, Zone 1 and Zone 2 use*.
- ★ EExia IIC T4 or EExd IIC T5/T6.
- ★ ATEX aproved, Ex II 1G (EExia) Ex II 2GD (EExd).
- ★ BASEEFA certified.
- ★ UL Listed (PB only), Class I, Div 1, Groups C & D.
- ★ GOST 'R' & 'K'* certified.
- ★ Chinese (CQST) certified.
- ★ Brazilian (Inmetro) certified.
- ★ CSA certified.
- ★ IP66 and IP67.
- ★ Certified temperature -55°C to $+70^{\circ}\text{C}$ *.
- ★ Stainless steel or marine grade alloy.
- ★ Robust yet lightweight.
- ★ Easy to maintain.

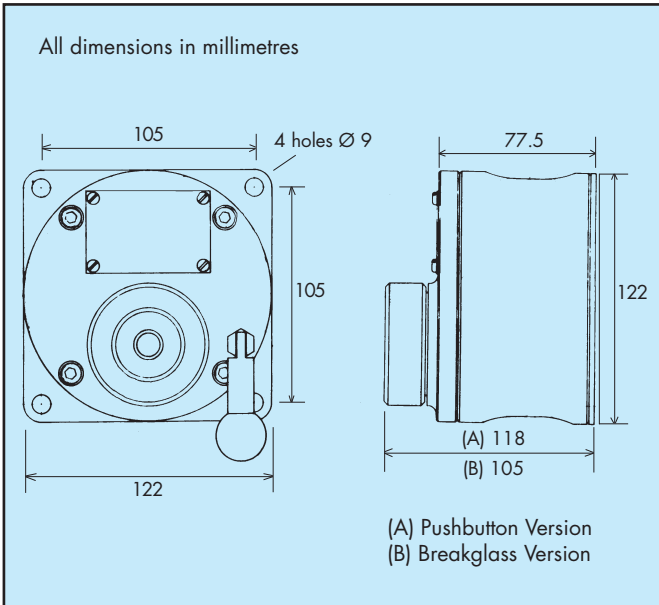
*Depending on version.

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SPECIFICATION

Breakglass unit, latching	Type SM87BGL
Lift flap, Breakglass, latching	Type SM87LBGL
Push button, latching, key reset	Type SM87PBL
Push button, self reset	Type SM87PBM
Voltage:	EExd 24V a.c./d.c. EExia 28V.
Rating:	2 amp.
Switches:	2 pole c/o, wired to terminals. Optional up to 4 pole (UL version 2 pole only).
Terminals:	Will accept up to 2.5mm ² cable.
Entries:	Up to 4 x 20mm or 25mm ISO EExd/EExia. Up to 4 x 1/2" or 3/4" NPT UL
Optional Indicator:	A red high intensity LED can be fitted for alarm indication.
Material:	Grade 316 ANC4B Stainless Steel or LM 25 TF Marine Grade Alloy.
Weight:	3.8 kg. steel (approx.) or 2.5 kg. alloy (approx.).
Finish:	Epoxy paint finish as standard or to customer's specification.
Certification:	CENELEC EN 50014, EN50018 (for Exd) and EN50020 (for Exi). EExiaIIC T4 Cert No. Baseefa 02 ATEX 0152X. EExdIIC T5/T6 Cert No. Baseefa 03 ATEX 0075. UL Listed: Class I, Div1 Groups C & D (PBL only). Listing No: 186629. CSA Certification: Class I Groups A-D I.S. version (SM87 PBL only). Class I, Div 1 & 2, Group D (Exd - SM87 PB & SM87 BG). GOST 'R' Certification: 1ExibIIC T4, 1ExdIIC T4 Russian Fire Approved (VNIIP0). GOST 'K' Certification: Exib IIC T4. Chinese Certification: CQST - Exia IIC T4, Exd IIC T5/T6. Brazilian (Inmetro) Certification: BR-Ex d IIC T5/T6 BR-Ex ia IIC T4
Certified Temperature:	EExd* -55°C to +70°C. Exi* -55°C to +55°C. -20°C to +55°C (LED version only). UL -55°C to +70°C, -20°C to +55°C (LED version only). CSA -50°C to +55°C (Exd), -50°C to +40°C (Exi). *Note: includes ATEX, GOST, Brazilian & Chinese versions.
Ingress Protection:	IP66 and IP67. SM87 PB IP68 (40m for 8 hours).
Resistor Values:	470R minimum (D.C. & I.S. units only).

Both the EExiaIIC T4 units and the EExdIIC T6 units have the same external appearance. Also the internal components are identical throughout the range. Each unit can be wired for either NO, NC or CO contacts to customer specification.

Ordering Requirements

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

Unit Type	Model	Material	Certification	Entries	Duty Label	Tag Label	Features	Finish																																																																																																																							
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NOTE: The units can be internally wired to suit customers' specifications. Please discuss your requirements with us.



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

MANUAL CALL POINT

EExed, Intrinsically Safe (EExia), Weatherproof BG2 Range



Introduction

This manual fire alarm call point has been designed for use in flammable atmospheres and harsh environmental conditions. The GRP enclosure is suitable for use offshore or onshore where light weight combined with a high level of corrosion resistance is required.

- ★ Zone 0, Zone 1 and Zone 2 use.
 - ★ EExed, EExia or weatherproof.
 - ★ ATEX approved – Ex II 1GD (EExia)
– Ex II 2GD (EExed)
 - ★ BASEEFA certified.
 - ★ IP66 and IP67.
 - ★ Certified temperature -40°C to +50°C*.
 - ★ Corrosion resistant red painted GRP.
 - ★ Retained stainless steel cover screws.
 - ★ Optional lift flap.
 - ★ Key operated test facility.
 - ★ Lightweight and robust.
 - ★ Breakglass hammer available.
- *Model dependent.

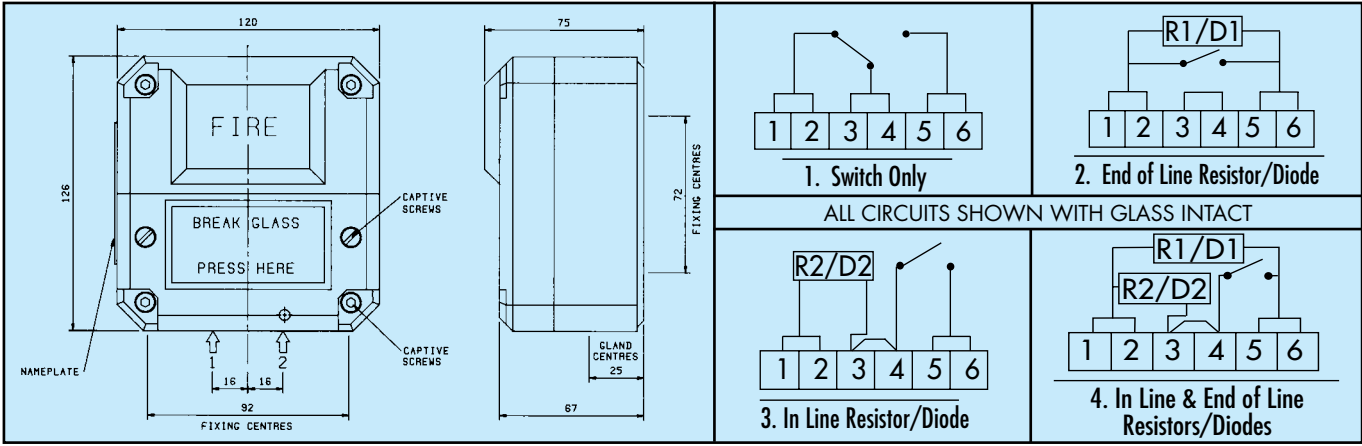
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Technical Specification

MODEL	BG2W	BG2E	BG2I
PROTECTION	Dust-tight and Weatherproof	Explosion Protected EExed (Increased Safety)	Explosion Protected EExia (Intrinsically Safe)
CERTIFICATION	Not Applicable	CENELEC EN50014, 018, 019, 028 Cert. No. BASO2ATEX2105X EExedIICT6 (switch only) EExedmICT4 (other versions) Suitable for use in Zones 1 & 2	CENELEC EN50014, 020 Cert. No. Baseefa03ATEX0084X EExia IIC T4 Suitable for use in Zones 0, 1 & 2
VOLTAGE	Up to 254V	Up to 250V (Switch only) Up to 24V (Resistors & Switch)	Up to 28V (IS)
CERTIFIED TEMPERATURE	-40°C to +55°C	-20°C to +50°C	-40°C to +50°C
INGRESS PROTECTION	IP66 & 67.		
BRITISH STANDARD FOR CALL POINTS	BS 5839 : Part 2 : 1983 (BG).		
TERMINALS	6 x 2.5mm ² .		
SWITCH RATINGS	DC: 0-30V 5A (resistive) or 3A (inductive) 30V-50V 1A resistive or inductive AC: 0-254V 5A resistive or inductive	NOT APPLICABLE	
RESISTOR VALUES	100R Minimum*	100R Minimum, 39k Maximum*	470R Minimum*
CABLE ENTRIES	2 x M20 bottom.		
WEIGHT	1.2 Kg.		
MATERIAL	U.V. resistant glass reinforced polyester.		
FINISH	Painted Red		

Ordering Requirements

The following code is designed to help in the selection of the correct unit. Build up the reference number by inserting the code for each component into the appropriate box. **For standard products, available ex-stock, contact sales office for details.**

The MEDC BG Range of Manual Alarm Call Points caters for numerous options such as variety of colours, LED indication, earth continuity, double switch, etc. See separate catalogue sheet for details.

Model/Voltage	Code	Wiring Diagram (as above)	Code	Lift Flap	Code
BG2W – AC or DC	BG2WNN	Switch only	1	Fitted*	F
BG2I – Up to 28V (I.S.)	BG2INN	End of line resistor	2*	Not Fitted	N
BG2E – DC	BG2EDC	In line resistor	3*		
BG2E – AC	BG2EAC	In line and end of line resistor	4*		
		Diode (specify location & value)	5		
					Red Painted
					R

*(Specify resistor values)

*Polycarbonate lift flap.



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MANUAL CALL POINTS

EExed, Intrinsically Safe (EExia),
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6DS067/R

Features

- ★ Polyester enclosure – light, strong and not subject to corrosion.
- ★ 2 models:
 - Breakglass.
 - Pushbutton.
- ★ 4 basic versions available:
 - (1) Explosion protected EExe (ATEX or Chinese [CQST], Or Brazilian [Inmetro]),
 - (2) Explosion protected EExi (ATEX, GOST 'R', GOST 'K', Chinese (CQST), Brazilian [Inmetro] or CSA),
 - (3) Explosion protected: Class I, Div. 2, Groups A-D
Class II, Div. 2, Groups F & G (PB only)
Class I, Zone 2
 - (4) Weatherproof & Dust-tight/UL ordinary locations.
- ★ In line and end of line resistors and/or zener diodes can be fitted.
- ★ Variety of colours available.
- ★ Up to 9 terminals available.
- ★ Liftflap available for extra protection against inadvertent operation.
- ★ Optional LED – this indicates that the unit has been operated – useful for testing purposes.
- ★ Earth continuity option for metal glands.
- ★ 1 or 2 changeover switches.
- ★ Captive cover screws.

Breakglass Model

- ★ No hammer required – the glass is covered by a membrane thus protecting the operator from glass fragments.
 - ★ A plastic 'Break glass' or deformable operating element is available to replace the break glass*.
- Once the flexible element is pressed it bends but will not break. The unit is reset by repositioning the element. All other functions remain the same.
- ★ Complies with the British Standard for call points.
 - ★ Key operated test facility – simple but secure.
 - ★ Breakglass hammer available.

Pushbutton Model

- ★ Stayput as standard or self reset available.
- ★ Lift Flap as standard. (Not turn and push model).

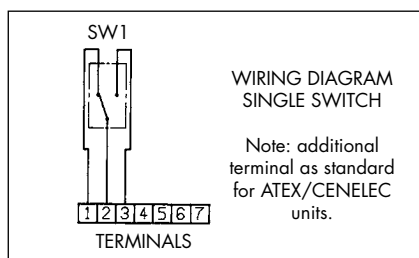
*Note: Deformable operating element does not comply with BS5839 Part 2.



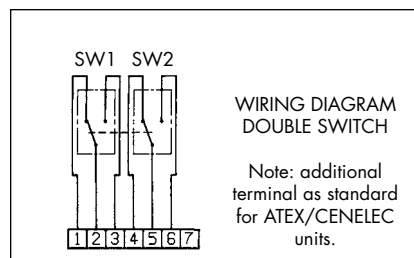
In addition to the BG & PB range of call points MEDC offer a range of stainless steel units. Details are available on request.

Technical Specification

MODEL	BGW & PBW	*BGUL & PBUL	BGE & PBE	BGI & PBI
PROTECTION	Weatherproof/ dust proof	Explosion Protected Class I, Div 2 Class II, Div 2	Explosion Protected EExed (Increased Safety)	Explosion Protected EExia (Intrinsically Safe)
CERTIFICATION	Weatherproof/ dust proof IP66/IP67	UL Listed to Class I, Div 2, Groups A-D BGUL & PBUL Class II, Div 2, Groups F & G (PBUL only) Listing No. E186629 UL listed for ordinary locations Listing No. S8117 *Refer to UL data sheet at rear of catalogue for complete information	ATEX approved Ex II 2GD BAS02ATEX2105X (BG & PB) EExedIICT6 (switch only) EExedmIICT4 (other versions) CENELEC EN50014 EN50019 EN50018 EN50028 Suitable for use in Zones 1 & 2 Chinese Certification (PBE & BGE): CQST – Exed IIC T6 (switch only) Exedm IIC T4 (other versions) GOST 'R' Certification (PBE & BGE): Exedm IIC T6 Exedm IIC T4 (other versions) Russian Fire (VNIIPO) Approved Brazilian (Inmetro) Certification: BR-Ex emd IIC T4 or BR-Ex ed IIC T6	ATEX approved Ex II 1GD Baseefa 03ATEX0084X (BG & PB) EExia IIC T4 CENELEC EN50014 EN50020 Suitable for use in Zones 0, 1 & 2 CSA Certification to C22.2 (PBI only): Nos.0-M, 0.4-M, 14-M, 25, 30-M, 94, 142-M1987, 157-M1987, 157-92, Enclosure Type 4. T4A Class I Groups A, B, C & D Cert. No. 79120 GOST 'R' Certification (PBI & BGI): Exia IIC T4 Russian Fire Approved (VNIIPO) GOST 'K' Certification (PBI only): Exia IIC T4 Chinese Certification (PBI & BGI): CQST – Exia IIC T4 Brazilian (Inmetro) Certification: BR-Ex ia IIC T4
VOLTAGE	Up to 254V	Up to 240V	Up to 250V	Up to 28V (IS)
CERTIFIED TEMPERATURE	-40°C to +55°C Weatherproof	-25°C to +55°C (PBUL) -25°C to +55°C (BGUL) UL Version	-20°C to +50°C	ATEX/CENELEC -40°C to +70°C (PBI) ATEX/CENELEC -40°C to +50°C (BGI) CSA -50°C to +40°C (PBI only)
INGRESS PROTECTION	IP66 & 67.			
BRITISH STANDARD FOR CALL POINTS	BS 5839 : Part 2 : 1983 (BG).			
TERMINALS	6 x 2.5mm ² – standard (BGUL only). 7 x 2.5mm ² – standard. 9 x 2.5mm ² optional – up to 60V only.			
SWITCH RATINGS (1 or 2 changeover switches fitted)	DC - 0-30v 30-50 AC - 0-254V Note: UL versions Max Rating 240VAC, 3A			5A (resistive) or 3A (inductive) 1A resistive or inductive 5A resistive or inductive
CABLE ENTRIES	Up to 4 entries, M16 or M20 top and bottom (1/2" NPT available on UL version).			
WEIGHT	1.2 kg. (Varies with model & entries).			
MATERIAL	Anti static U.V. resistant glass reinforced polyester.			
FINISH	Red epoxy painted finish as standard or to Customer's specification.			
RESISTORS & DIODES	Various configurations available on versions up to 24V and all "IS" versions. (Minimum Resistor value 100ΩPBE/BGE, 470ΩPBI/BGI).			
EARTH CONTINUITY	Internal & external earth continuity is provided via an optional earth plate.			
LED INDICATION	A high intensity red LED can be fitted as an optional extra to indicate operation on versions up to 24V and all "IS" versions.			
LABELLING	BG Glass label - reads either (1) Fire Break glass – press here (2) Break glass – press here (3) Worded to Client's requirements. Rivetted on. PB & BG Duty label - worded to Client's requirements. Screwed on. PB & BG Tag label - worded to Client's requirements. Screwed on.			

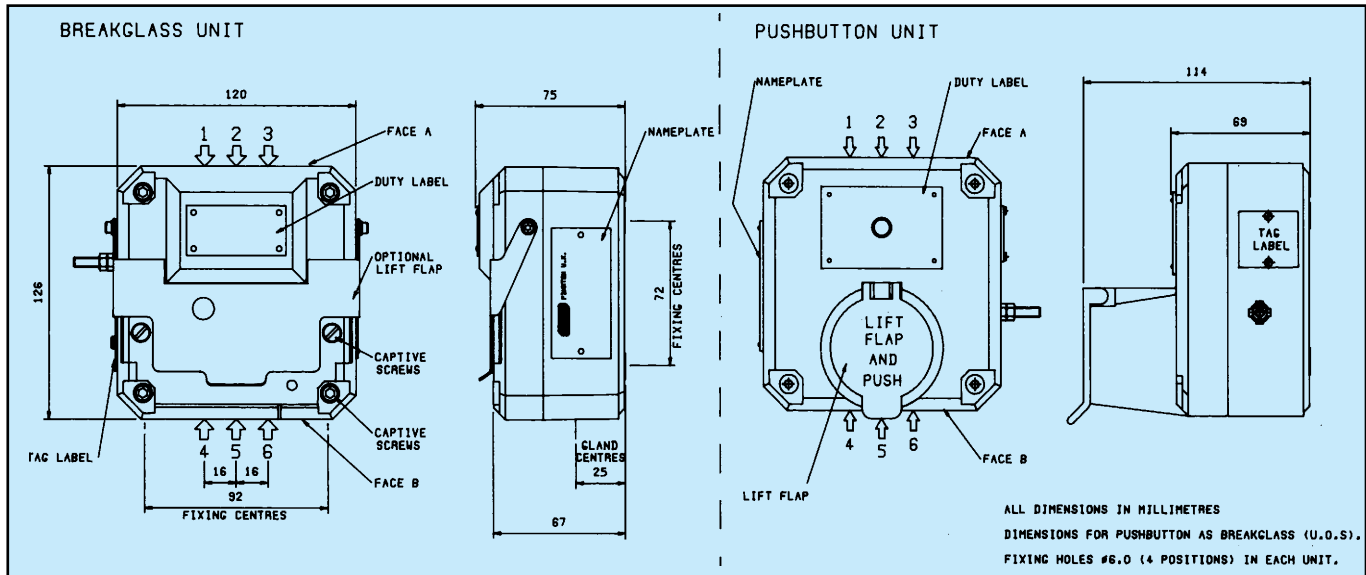


Basic single changeover switch wiring diagram



Basic double changeover switch wiring diagram

For versions containing inline and end of line resistors or diodes, please specify your requirements.



Ordering Requirements

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

Standard products available ex-stock as follows:

Product	Description
BGIB4B6B1DSN6R	Intrinsically safe, ATEX approved Ex II 1GD, certified EExia, T4, Zones 0, 1 & 2, glass label 'Fire Break Glass Press Here', single switch, no features, 2 x 20mm bottom entry, red finish.
BGEB4B6B1DSN6R	Explosion protected, ATEX approved Ex II 2GD, certified EExed, IIC T6, Zones 1 & 2, glass label 'Fire Break Glass Press Here', single switch, no features, 2 x 20mm bottom entry, red finish.
BGWN4B6B1ASN6R	Weatherproof, uncertified, glass label 'Fire Break Glass Press Here', single switch, no features, 2 x 20mm bottom entry only, red finish.

Model	Certification	Entries	Labels	Switches	Features	Terminals	Finish
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Model	Entries	Code	Labels	Code	Features	Code	Finish
BG	16mm	*A	None	0	None	N	Red (Standard)
PB	20mm	*B	Glass label (1) reqd.	1	LED	A	Natural Black
	1/2" NPT	*C	Glass label (2) reqd.	2	Lift Flap (BG only)	B	Blue
	*Prefix entry size (see diagram above) with entry position code e.g. 1A, 2A.		Glass label (3) reqd.	3	Resistor Series	*C	Yellow
	UL & CSA versions only available with 1/2" NPT entries.		Duty label reqd.	4	Resistor EOL	*D	Grey
			Tag label reqd.	5	Diode†	E	Yellow/Black
			Specify wording on 3, 4 or 5 as required.		Earth Continuity**	F	Stripes
					Turn & Push (PB only)†	T	Other – specify
					Self reset (PB only)	M	
					Resistor Series & EOL‡ *S		
					Plastic element replaces Break glass	P	
					*Specify values		
					†Not available for UL/CSA versions.		
					‡Choose for BGE or PBE only – on BG1/W or PBI/W choose C & D		
					**Must be selected when selecting CSA certification		
Certification	Code		Switches	Code		Terminals	Code
ATEX/CENELEC – EExe	EB		Single changeover	*S		*6 x 2.5mm ² (standard)	6
ATEX/CENELEC – EExi	IB		Double changeover	*D		7 x 2.5mm ² (standard)	7
CSA – Exi (PBI only)	IC		*Prefix with voltage			9 x 2.5mm ² (optional)	9
UL – Listed	UL		A for A.C. – D for D.C.				
UL – Ordinary locations	UW		except for BGI.				
GOST 'R'* – Exi	IG						
GOST 'R'* – Exe	EG						
GOST 'K' – Exi (PBI only)	IK						
Chinese – Exe	EQ						
Chinese – Exi	IQ						
Inmetro – Exe	EM						
Inmetro – Exi	IM						
Uncertified	WN						
			*VNIPO approved as standard				

*BGUL only available with six terminals



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

MANUAL CALL POINT

Intrinsically Safe (EExia), Weatherproof
BG3 Range




Now Chinese Certified

Introduction

This manual fire alarm call point is designed in accordance with the latest draft European Call Point Standard (EN54-11).

Weatherproof to IP66 and IP67 and available certified intrinsically safe, simple apparatus or uncertified, the units are manufactured from glass reinforced polyester (GRP) which provides a robust, corrosion free construction and ensures effective and reliable operation in harsh industrial and offshore environments.

Units are supplied in natural red GRP or painted to customer specification. 'Burning House'  duty label is provided as standard, other duty and tag labels may be supplied to customer specification.

- ★ Zone 0, Zone 1 and Zone 2 use.
 - ★ EExia IIC T4.
 - ★ ATEX Approved Ex II 1 G.
 - ★ BASEEFA certified.
 - ★ Chinese (CQST) certified.
 - ★ Designed in accordance with EN54-11.
 - ★ IP66 and IP67.
 - ★ Certified temperature -55°C to +55°C.
 - ★ Corrosion free GRP.
 - ★ Optional in line/end of line resistors/diodes.
 - ★ Optional LED indicator.
 - ★ Optional lift flap.
 - ★ Key operated test facility.
 - ★ Various body colours available.
- Contact MEDC for details.

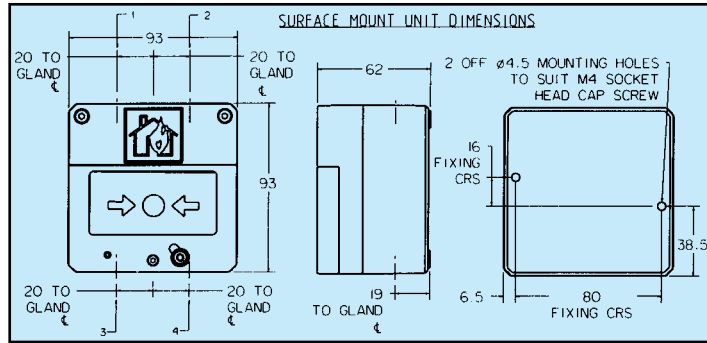
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MEDC Norway, Auglaendsmyrå 6,
4016, Stavanger, Norge.
Tel: +47 913 92 289
Fax: +47 914 46 030

Sales Enq. Fax: +44 (0)1773 582830 Sales Orders Fax: +44 (0)1773 582832
E-Mail: sales@medc.com Web: www.medc.com





Technical Specification

MODEL	BG3I	BG3W
PROTECTION	Explosion Protected EExi (Intrinsically Safe)	Dust-tight & Weatherproof
CERTIFICATION	CENELEC EN50014, 020 BASEEFA EExia IIC T4 Cert No. BAS00ATEX1067X Suitable for use in Zones 0, 1 & 2 Chinese Certification CQST – Exia IIC T4	Not applicable
VOLTAGE	Up to 28V (IS)	Up to 250V a.c.
CERTIFIED TEMPERATURE	-55°C to +55°C	Not applicable
INGRESS PROTECTION	IP66 & IP67	IP66 & IP67
EUROPEAN STANDARD FOR CALL POINTS	EN54-11	EN54-11
TERMINALS	6 x 4.0mm ²	6 x 4.0mm ²
SWITCH RATINGS	Not Applicable	DC: 0 - 30V 3A resistive or inductive 30V - 50V 1A resistive or inductive AC: 0 - 250V 3A resistive or inductive
RESISTOR VALUES	470R Minimum	270R Minimum
CABLE ENTRIES	2 x M20 top or bottom	2 x M20 top or bottom
WEIGHT	0.5Kg	0.5Kg
MATERIAL	UV resistant glass reinforced polyester	UV resistant glass reinforced polyester
FINISH	Natural Red GRP or Painted GRP to Customer requirements	
DUTY/TAG LABELS	Stainless steel as standard	Plastic as standard

Ordering Requirements

The following code is designed to help in the selection of the correct unit. Build up the reference number by inserting the code for each feature into the appropriate box. **Standard products available ex-stock as follows:**

PRODUCT	DESCRIPTION
BG3I1NBR	Intrinsically safe, ATEX approved Ex II 1G, certified EExia IIC T4, Glass Label 'Fire Break Glass Press Here', Duty Label 'Burning House', single switch, no features, 2 x 20mm bottom entry, natural red.
BG3W1NBR	Weatherproof, uncertified, Glass Label 'Fire Break Glass Press Here', Duty Label 'Burning House', single switch, no features, 2 x 20mm bottom entry, natural red.

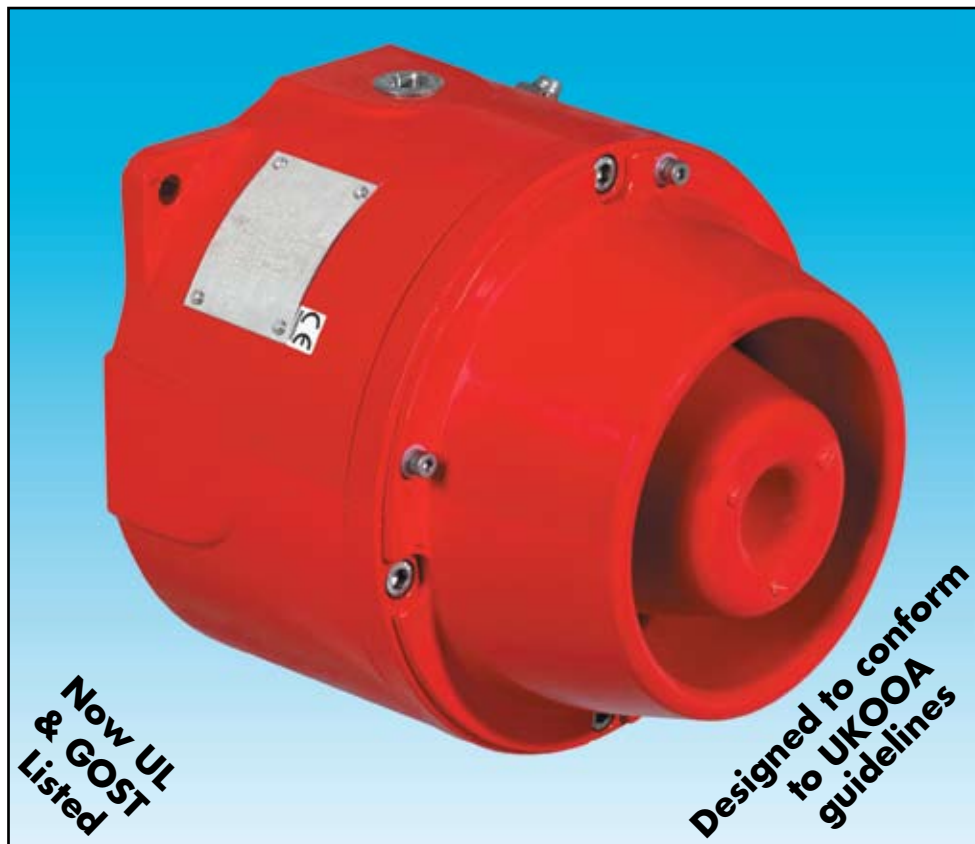
Model	Certification	Labels	Features	Entries	Body Colour				
BG3									
Certification	Code	Label Type	Code	Entries	Code	Colour	Code		
Weatherproof	W	Glass Label	None	2x20mm (bottom)	B	Natural Red	R		
EExia	I	Fire Break Glass 'Press Here'	Resistor Series	2 x 20mm (top)	T	Blue	B		
Chinese (CQST)	Q	Break Glass 'Press Here'	Resistor EOL	For blanking plugs add 'P' to code. e.g. BP, 2 x 20mm bottom entries with one blanking plug.			Green	G	
		Special	Diode					White	W
		European Standard (draft)	Polycarbonate Lift flap					Yellow	Y
		→○←	Stainless steel Lift flap					Special	S
		Duty Label (special)	LED						
		(Burning House as standard)	Double changeover						
		Tag Label	Plastic Element (replaces break glass)						
		Specify wording on '3', '5' & '6'							

* Please specify



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

SOUNDERS – Up to 113 dB(A) EExd, Weatherproof DB1 Range



**Now UL
& GOST
Listed**

**Designed to conform
to UKOOA
guidelines**

Introduction

This range of light weight, flameproof Sounders has been designed with a high weatherproof rating to cope with the harsh environmental conditions found offshore and onshore in the oil, gas and petrochemical industries.

New electronic circuitry allows the DB1P and DB1HP to be switched between two selectable tones by either reversing the supply polarity, or connecting a second voltage supply.

The higher output DB1H and DB1HP are particularly suitable for noisy environments.

- ★ Zone 1 and Zone 2 use.
- ★ EExd, IIB T3.
- ★ ATEX approved, Ex II 2G.
- ★ CENELEC approved, BASEEFA certified.
- ★ UL Listed – Class I, Div 1. Groups C & D.
- ★ GOST 'R' certified.
- ★ Australian (SAA) certified.
- ★ Brazilian (Inmetro) certified.
- ★ IP66.
- ★ Certified temperature -20°C to $+70^{\circ}\text{C}$.
- ★ Up to 113 dBA output.
- ★ Available in marine grade alloy or stainless steel.
- ★ 6 or 27 output tones, user selectable.
- ★ Telephone initiate option.
- ★ Tones can be selected remotely.
- ★ Tones comply with UKOOA/PFEER guidelines.
- ★ Any two tones may be switched via the external voltage supply.
- ★ End of line resistor option.

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Pinxton, Nottingham NG16 6JF, UK.
Tel: +44 (0)1773 864100
Fax: +44 (0)1773 582800

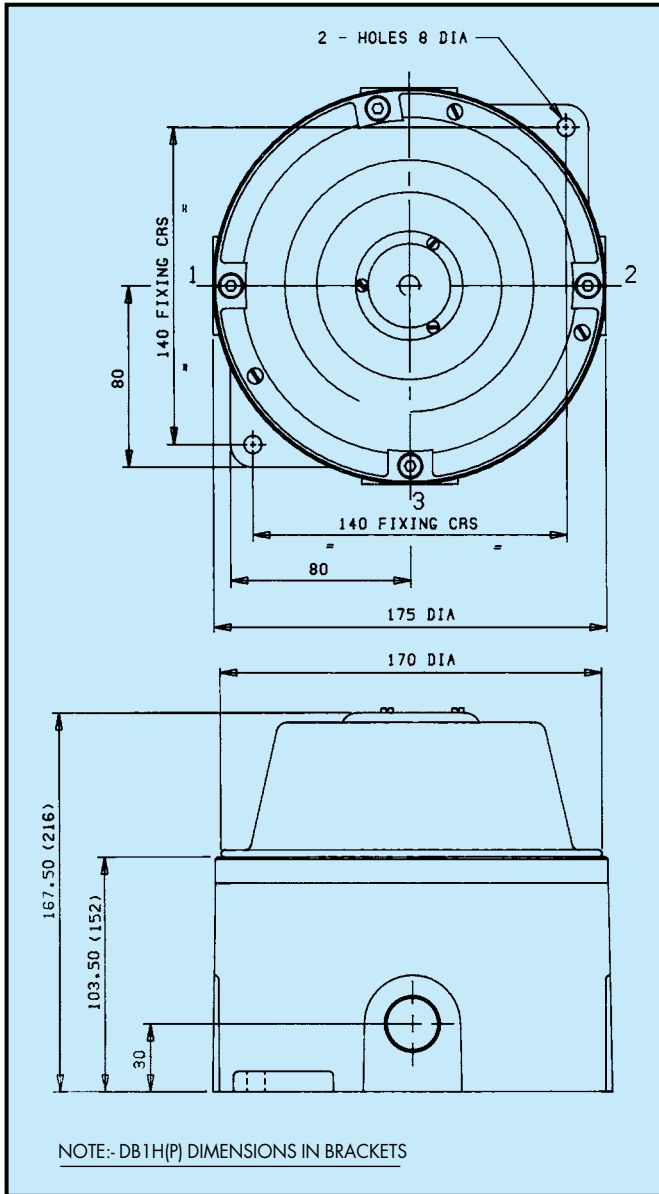
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Sales Enq. Fax: +44 (0)1773 582830 Sales Orders Fax: +44 (0)1773 582832
E-Mail: sales@medc.com Web: www.medc.com



Specification

Certification:	EN50014, 18. Certificate Nos: Baseefa 02ATEX0207 EExd IIB T3 for DB1(P) and Baseefa 02ATEX0209 EExd IIB T3 for DB1H(P). Zones 1 & 2. UL Listing: Class I, Div 1, Groups C & D. Listing No. E187688. Refer to UL data sheet at rear of catalogue for complete information. GOST 'R' Certification: 1Exd IIB T4 (DB1 & DB1P only). Brazilian (Inmetro) Certification: BR-Ex d IIB T3																			
Material:	LM25 corrosion resistant alloy or ANC4B stainless steel with stainless steel cover screws. ABS flare.																			
Finish:	Epoxy paint finish as standard or to customer's specification.																			
Max Sound Levels:	DB1(P)=103±3dB(A) (96±3dB(A) for 12V DB1). DB1H(P)=110 ± 3dB(A) @ 1 metre. Note: Sound level is dependent upon the tone selection.																			
Weight:	DB1(P) 3.5 Kg Alloy, 8.3 Kg stainless. DB1H(P) 5.6 Kg Alloy, 12.7 Kg stainless.																			
Certified Temperature:	ATEX/CENELEC -20°C to +55°C (DB1 & DB1P). ATEX/CENELEC -20°C to +70°C (DB1H & DB1HP). UL -25°C to +70°C.																			
Ingress Protection:	IP66.																			
Tone Selection:	Single Stage Unit ac. 27 user selectable tones including, PFEER/UKOOA tones. Two Stage Unit dc. Switchable between any two of the 27 tones by either: (i) Reversing the polarity of the supply, or (ii) by a 3 wire common +ve system, switching between the two -ve lines. Note: Reverse monitoring is achievable on Two Stage Version by selection of terminals.																			
Current Consumption:	<table border="1"> <thead> <tr> <th></th> <th>DB1(P)</th> <th>DB1H(P)</th> </tr> </thead> <tbody> <tr> <td>12V</td> <td>125mA</td> <td>900mA</td> </tr> <tr> <td>24V</td> <td>250mA</td> <td>700mA</td> </tr> <tr> <td>48V</td> <td>250mA</td> <td>-</td> </tr> <tr> <td>120V</td> <td>60mA</td> <td>200mA</td> </tr> <tr> <td>240V</td> <td>50mA</td> <td>100mA</td> </tr> </tbody> </table>			DB1(P)	DB1H(P)	12V	125mA	900mA	24V	250mA	700mA	48V	250mA	-	120V	60mA	200mA	240V	50mA	100mA
	DB1(P)	DB1H(P)																		
12V	125mA	900mA																		
24V	250mA	700mA																		
48V	250mA	-																		
120V	60mA	200mA																		
240V	50mA	100mA																		
Labels:	Duty and tag labels optional.																			
Entries:	Up to 3 x 25mm or 20mm ISO.																			
Terminals:	Suitable to accept up to 4mm ² cable.																			



Ordering Requirements

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

Unit Type	Certification	Material	Voltage	Cable Entries	Duty Labels	Tag Label	Features	Finish		
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>		
DB1P DB1HP										
Certification	Code	Voltage	Code	Entries	Code	Duty Labels	Code	Finish	Code	
ATEX/CENELEC	B	12V d.c.	012	20mm	A	None	N	Red	R	
UL	UL	24V d.c.	024	25mm	B	Required	D	Grey	G	
GOST 'R'	G	48V d.c.	048	1/2" NPT (UL Only)	C	(Please specify)			Special	S
UL - Available Alloy only.		110V a.c.	110	3/4" NPT (UL Only)	D					
-12V d.c., 24V d.c.,		240V a.c.	240	LHS	1	Tag	Label	Features	Code	
48V d.c.				RHS	2	None	N	Not required	N	
110V a.c. only.		Material	Code	Bottom	3	Required	T	Telephone Initiate	T	
Inmetro	DM	Alloy	A	*Prefix position with entry size code e.g. A1A3 = 20mm left and bottom entries.						
		Stainless						Relay Initiate	R	
		Steel	S					Remote	S	
								End of line resistor	E*	
								(*State value.)		



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

SOUNDERS – Up to 118 dB(A) EExd(e), Weatherproof DB3 Range



Sounder/Beacon
Combination Unit



Now VNIPO Approved

Introduction

This range of light weight all GRP, flameproof sounders is intended for use in potentially explosive gas and dust atmospheres and has been designed with high ingress protection to cope with the harsh environmental conditions found offshore and onshore in the oil, gas and petrochemical industries.

The flamepaths, flare and the body, are manufactured completely from a UV stable glass reinforced polyester. Stainless steel screws and sinter are incorporated thus ensuring a corrosion free product. A tapered flamepath is used to overcome the problems of assembly of parallel spigot flamepaths.

An optional Exe terminal chamber is available.

An uncertified version is available for use in non-explosive atmospheres.

- ★ Zone 1, Zone 2 and non-Ex use.
- ★ EExde IIC T5.
- ★ ATEX approved, Ex II 2GD.
- ★ Optional Exe terminal chamber.
- ★ BASEEFA certified.
- ★ UL Listed for USA and Canada
 - Hazardous locations:
 - Class I, Div 2, Groups A-D.
 - Class II, Div 2, Groups F & G
 - Class I, Zones 1 & 2, AExd IIC T4.
 - Ordinary locations: Audible-Signal Device.
- ★ GOST 'R' & 'K' certified.
- ★ Chinese (CQST) certified.
- ★ Australian (SAA) certified.
- ★ Brazilian (Inmetro) certified.
- ★ IP66 and IP67.
- ★ *Certified temperature -55°C to $+70^{\circ}\text{C}$.
- ★ All GRP corrosion free flamepaths.
- ★ Up to 118dBA output.
- ★ Integral volume control.
- ★ 27 tones, user selectable.
- ★ Tones comply with UK00A/PFEER guidelines.
- ★ Two tones may be switched via the external voltage supply – now available in AC and DC versions.
- ★ Tones may be programmed to customer specification.
- ★ d.c. version accepts any voltage between 12V d.c. and 48V d.c.
- ★ End of line resistor option.
- ★ Sounder/Beacon Combination Unit available.
 - *Depending on version.

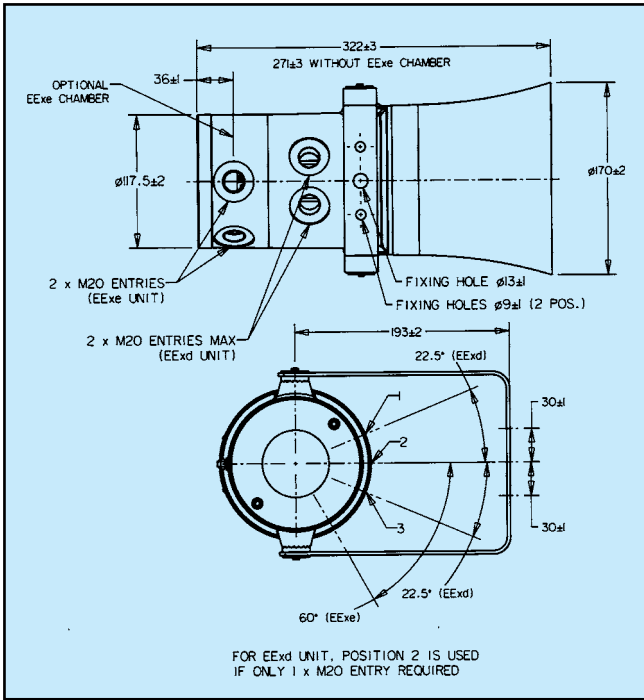
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Tel: +47 913 92 289
Fax: +47 914 46 030

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E-Mail: sales@medc.com Web: www.medc.com





Terminals:	4 x 2.5mm ² (a.c.), 6 x 2.5mm ² (d.c.).
Earth Continuity:	Included on EExde version.
Mounting:	Stainless steel bracket with ratchet facility.
Labels:	Duty and tag labels optional.
Cable Entries:	Up to 2 x 20mm EExd 2 x 20mm EExe. Up to 2 x 1/2" NPT UL. Note: ATEX/UL Dual Listed version up to 2x1/2" NPT or 2xM20 via adapter (fitted).
Tone Selection:	27 user selectable tones.
Sounder/Beacon Unit:	The DB3 may be combined with an MEDC beacon to create a combined audio/visual alarm. Contact MEDC for price and specification
Two Stage Unit DB3P:	Switchable between two tones: D.C. (i) Reversing the polarity of the supply, or (ii) by a 3 wire common +ve system, switching between the two -ve lines. A.C. (iii) Closing/opening connection between 2 terminals e.g. by using a volt free relay contact at the panel. 2 tones must be specified at time of order.
3/4 Tone Unit:	Remote 3 or 4 tone available – contact sales office for details.

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. **For standard products, available ex-stock, contact sales office for details.**

Unit Type		Certification		Voltage		Labels		Entries		Options		Colour	
<input type="text"/>		<input type="text"/>		<input type="text"/>		<input type="text"/>		<input type="text"/>		<input type="text"/>		<input type="text"/>	
Type	Details	Type	Code	Voltage	Code	Label	Code	Features	Code	Entries	Code	Colour	Code
DB3	Standard unit	Uncertified	W	12V - 48V d.c.	048	Duty	D*	None	N	1 x 20mm (EExd)	1B	Natural Black	N
DB3P	Two stage	EExd	D	110V a.c.	110	Tag	T*	End of line resistor	E*	2 x 20mm (EExd/EExde)	2B	Red	R
DB3L	Low temp. standard unit	EExde	E	120V a.c.	120	None	N	Special tone	S	1 x 1/2" NPT (UL only)	1C	Special	S
*DB3LP	Low temp. two stage	UL Listed	*UL	220V a.c.	220	*Please specify wording		*State value.		2 x 1/2" NPT (UL only)	2C	*Please specify	
		UL (Ordinary Locations)	UW	230V a.c.	230								
		ATEX/UL Dual Listed	AU	240V a.c.	240								
		GOST 'R' Exd	DG	254V a.c.	254								
		GOST 'R' Exde	EG										
		GOST 'K' Exd	DK										
		Chinese (CQST)	Q										
		Inmetro Exd	DM										
		Inmetro Exde	EM										

*Not all options are available UL listed.

Specification

Certification: CENELEC EN50014, 18, 19.
BASEEFA Cert. No. BAS00ATEX2097X, EExd IIC.
BASEEFA Cert. No. BAS00ATEX2098X, EExde IIC.
Zones 1 and 2.

UL Listed for USA and Canada

– Hazardous locations:
Class I, Div 2, Groups A-D.
Class II, Div 2, Groups F & G.
Class I Zones 1 & 2, AExd IIC T4.
Listing No: E203310.

– Ordinary locations: Audible-Signal Device.
Listing No. S8116.

Refer to UL data sheet at rear of catalogue for complete information.

GOST 'R' Certification: 1 Exd IIC T4 & 1 Exde IIC T4.
Russian Fire Alarm (VNIIP) Approved.

GOST 'K' Certification: Exd IIC T4.

Chinese (CQST) Certification: Exd IIC T4.

Brazilian (Inmetro) Certification: BR-Ex d IIC T5/T4/T135°C.
BR-Ex de IIC T5/T4/T135°C.

Material: Body & horn in anti-static, UV stable, glass reinforced polyester. Swivel bracket & captive cover screws in stainless steel.

Finish: Body and horn, natural black or epoxy paint coated to client's colour requirements.

Sound Output: Long Flare: 115dB(A) ± 3dB(A) (tone dependent).
Short Flare: 108dB(A) ± 3dB(A) (tone dependent).

Volume Control:	*Nominal Output (dBA)	Input Current (mA)
	93	50
	105	100
	108	150
	111	200
	112	250
	114	300
	115	350

*Output measured with 24V input voltage. Tone set to 970Hz continuous.

Weight: 6.0kg approx. dependent on model (+0.5kg for EExe).

Certified Temperature:	EExd	EExde	UL	GOST 'R' & 'K' Exd	GOST 'R' Exde	Chinese Exd
DB3 & DB3P	-20°C to +70°C	-20°C to +45°C	-55°C to +70°C	-20°C to +50°C	-20°C to +40°C	-20°C to +55°C
DB3L & DB3LP	-55°C to +55°C	-55°C to +70°C	n/a	-55°C to +55°C	-55°C to +55°C	n/a

Ingress Protection: IP66 and IP67.

Fire Retardancy: GRP is fire retardant to ISO 1210.

Voltage: Up to 48V d.c. Up to 254V a.c.

Current Consumption:	V	I
	12V d.c.	760mA
	24V d.c.	380mA
	48V d.c.	190mA
	110V a.c.	135mA
	120V a.c.	124mA
	220V a.c.	68mA
	230V a.c.	65mA
	240V a.c.	62mA
	254V a.c.	59mA



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

VOICE SOUNDERS – Up to 110 dB(A) EExd(e), Weatherproof DB3V Range



Sounder/Beacon
Combination Unit



Introduction

This range of light weight all GRP, flameproof voice sounders is intended for use in potentially explosive gas and dust atmospheres and has been designed with high ingress protection to cope with the harsh environmental conditions found offshore and onshore in the oil, gas and petrochemical industries.

The flamepaths, flare and the body, are manufactured completely from a UV stable glass reinforced polyester. Stainless steel screws and sinter are incorporated thus ensuring a corrosion free product. A tapered flamepath is used to overcome the problems of assembly of parallel spigot flamepaths.

This unit offers up to 20 seconds of speech which can be recorded via an integral microphone or an input from an external source. The unit incorporates a variable delay allowing speech to be repeated at equal intervals of up to approximately 15 seconds.

In addition, a 'mechanical bell' sound version is available.

An optional Exe terminal chamber is available.

An uncertified version is available for use in non-explosive atmospheres.

- ★ Zone 1, Zone 2 and non-Ex use.
 - ★ EExde IIC T5.
 - ★ ATEX approved, Ex II 2GD.
 - ★ Optional Exe terminal chamber.
 - ★ BASEEFA certified.
 - ★ GOST 'R' & 'K' certified.
 - ★ Chinese (CQST) certified.
 - ★ Australian (SAA) certified.
 - ★ Brazilian (Inmetro) certified.
 - ★ IP66 and IP67.
 - ★ *Certified temperature -55°C to $+70^{\circ}\text{C}$.
 - ★ All GRP corrosion free flamepaths.
 - ★ Up to 110dBA output.
 - ★ Integral volume control.
 - ★ d.c. version accepts any voltage between 12V d.c. and 48V d.c.
 - ★ End of line resistor option.
 - ★ Sounder/BeaconCombinationUnitavailable.
 - ★ Bell recording version available.
- *Depending on version.

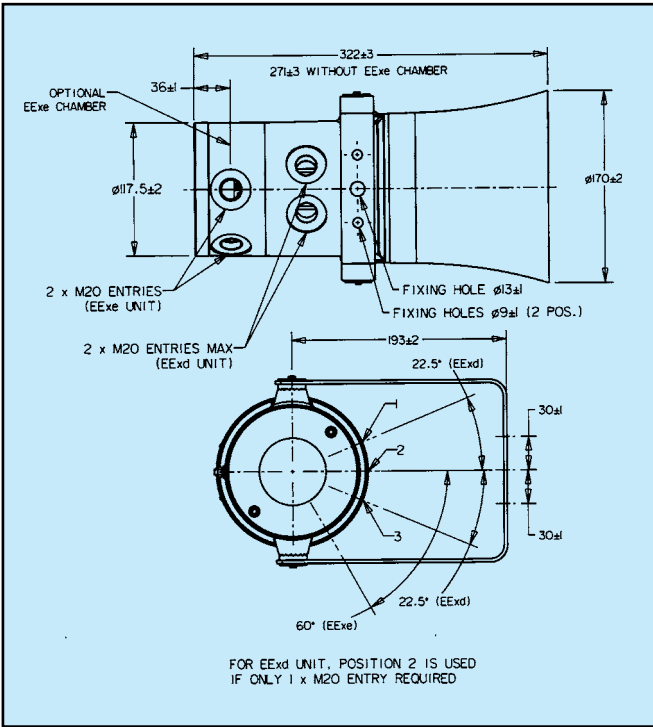
MEDC Ltd, Colliery Road,
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Tel: +44 (0)1773 864100
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Sales Enq. Fax: +44 (0)1773 582830 Sales Orders Fax: +44 (0)1773 582832
E-Mail: sales@medc.com Web: www.medc.com





Specification

Certification: CENELEC EN50014, 18, 19.
 BASEEFA Cert. No. BAS00ATEX2097X, EExd IIC.
 BASEEFA Cert. No. BAS00ATEX2098X, EExde IIC.
 Zones 1 and 2.
GOST 'R' Certification: 1 Exd IIC T4 & 1 Exd IIC T4.
 Russian Fire Alarm (VNIPO) Approved.
GOST 'K' Certification: Exd IIC T4.
Chinese (CQST) Certification: Exd IIC T4
Brazilian (Inmetro) Certification: BR-Ex d IIC T5/T4/T135°C.
 BR-Ex de IIC T5/T4/T135°C.

Material: Body & horn in anti-static, UV stable, glass reinforced polyester (GRP).
 Swivel bracket & captive cover screws in stainless steel.

Finish: Body and horn, natural black or epoxy paint coated to client's colour requirements.

Sound Output: 110dB(A) (message dependent).

Volume Control: Potentiometer

Weight: 6.0kg approx. dependent on model (+0.5kg for EExe).

Certified Temperature:	EExd	EExde	GOST 'R' & 'K' Exd	GOST 'R' Exde	Chinese Exd
DB3V	-20°C to +70°C	-20°C to +45°C	-20°C to +50°C	-20°C to +40°C	-20°C to +55°C
DB3LV	-55°C to +55°C	-55°C to +70°C	-55°C to +55°C	-55°C to +55°C	n/a

Ingress Protection: IP66 and IP67.

Fire retardancy: GRP is fire retardant to ISO 1210.

Voltage: Up to 48V d.c.

Current Consumption:	V	I
	12V d.c.	1.2A
	24V d.c.	600mA
	48V d.c.	300mA

Terminals: 6 x 2.5mm² (d.c.).

Earth Continuity: Included on EExde version.

Mounting: Stainless steel bracket with ratchet facility.

Labels: Duty and tag labels optional.

Cable Entries: Up to 2 x 20mm EExd.
 2 x 20mm EExe.

Voice Recording: Up to 20 seconds recording time.

Sounder/Beacon Unit: The DB3V may be combined with an MEDC beacon to create a combined voice/visual alarm.
 Contact MEDC for price and specification

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.

Unit Type	Certification	Options	Entries	Colour																																																		
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SPEAKERS – Up to 25 Watts EExd(e), Weatherproof DB4 Range



15W/20W/25W (Long Flare)



8W (Short Flare)

Introduction

This range of loudspeakers, intended for use in potentially explosive gas and dust atmospheres, has a power rating of up to 25 watts and is suitable for use in all gas groups including hydrogen.

The flamepaths, flare and the body, are manufactured completely from a UV stable glass reinforced polyester. Stainless steel screws and sinter are incorporated thus ensuring a corrosion free product. A tapered flamepath is used to overcome the problems of assembly of parallel spigot flamepaths.

An optional Exe terminal chamber is available.

An uncertified version is available for use in non-explosive atmospheres.

Models compliant to BS 5839, part 8 are available.

- ★ Zone 1, Zone 2 & non-Ex use.
- ★ EExd IIC T4/T5.
- ★ ATEX approved, Ex II 2GD.
- ★ BASEEFA certified.
- ★ UL listed for USA and Canada:
 - Class I, Div 2, Groups A-D.
 - Class I, Zones 1 & 2, AExd IIC, T4.
- ★ GOST 'R' & 'K' certified.
- ★ Australian (SAA) certified.
- ★ Brazilian (Inmetro) certified.
- ★ Optional Exe terminal chamber.
- ★ IP66 and IP67.
- ★ *Certified temperature -55°C to $+70^{\circ}\text{C}$.
- ★ GRP corrosion-free flamepaths.
- ★ 119dBA at 25 watts at 1 metre.
- ★ 8, 15, 20 and 25 watt versions.
- ★ BS 5839, part 8 compliant versions available.
- ★ Addressable capability.
- ★ Power tapings, via integral transformer.
- ★ Ratcheted swivel bracket.
- ★ Stainless steel sinter.
- ★ Stainless steel mounting bracket.
- ★ Tapered flamepath.
- *Depending on version.

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Specification

Rated Power: 8, 15, 20 or 25 watts RMS continuous (at 25°C).
 Certification: CENELEC EN50014, 18, 19.
 BASEEFA Cert. No. BAS00ATEX2097X.
 BASEEFA Cert. No. BAS00ATEX2098X.
 For T ratings and full list of certified temperatures, please ring MEDC.
 Zones 1 and 2. Not suitable for use in atmospheres containing carbon disulphide.
UL listed for USA and Canada:
 - Class I, Div 2, Groups A-D.
 - Class I, Zones 1 & 2, AExd IIC T4.
GOST 'R' Certification: 1Exd IIC T4 & 1Exde IIC T4.
 Russian Fire Alarm (VNIPO) approved.
GOST 'K' Certification: Exd IIC T4.
Brazilian (Inmetro) Certification: BR-Ex d IIC T5/T4/T135°C.
 BR-Ex de IIC T5/T4/T135°C.

Material: Body & horn in anti-static, UV stable, glass reinforced polyester.
 Swivel bracket in stainless steel.
 Captive cover screws in stainless steel.

Finish: Body and horn, natural black or epoxy paint coated to client's colour requirements.

Output: Long Flare: 107 dBA at 1 Watt at 1 metre.
 Short Flare: 100 dBA at 1 Watt at 1 metre.
 119 dBA at 25 Watts at 1 metre. 109 dBA at 8 Watts at 1 metre.
 Measured in accordance with IEC 268.

Weight: 5.0kg approx. dependent on model. (Add 0.5kg for Exe version).

Certified Temperature:	Exd (≤15W)	Exd (>15W)	Exde (≤15W)	Exde (>15W)	UL
DB4	-20°C +70°C	-20°C +50°C	-20°C +70°C	-20°C +40°C	-55°C +70°C
DB4L	-55°C +70°C	-55°C +50°C	-55°C +70°C	-55°C +50°C	n/a

Ingress Protection: IP66 & IP67.

Fire Retardancy: GRP is fire retardant to ISO 1210.

Frequency Range: 400Hz to 8kHz.

Voice Coil Impedance: 8 ohms.

Transformer: Used to vary the rated power by selecting different tapings (see table below).

Transformer Tappings	Power			
	25W	20W	15W	8W
1:2	25.0	20.0	15.0	8.0
2:3	12.5	10.0	7.5	4.0
3:4	6.0	6.0	5.0	2.0
1:3	4.0	5.0	4.0	1.5
2:4	2.0	2.0	2.0	0.7
1:4	1.0	1.5	0.8	0.4

- Transformer Options:**
- i) Standard Tapping: 4 terminal tap change. Loop in/Loop out (4 x 2) terminal tap change (8 terminals).
 - ii) Optional Tapping: 4 terminal tap change with 2 terminals (5 & 6), directly connected to driver (8 ohms).

Other tapings & driver impedances available on request.

Addressable: Consult MEDC for specification.

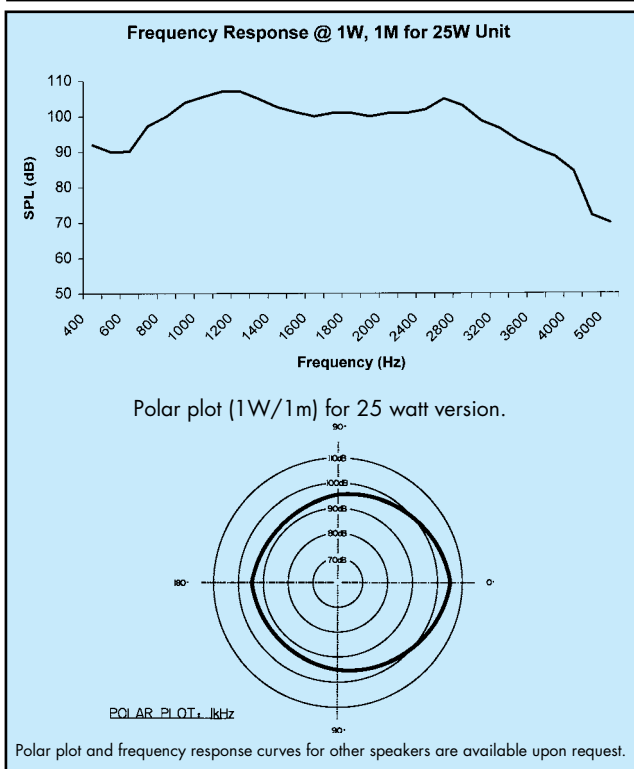
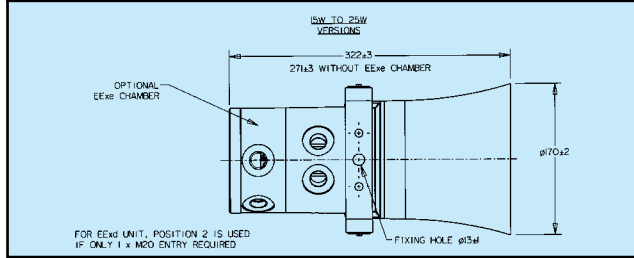
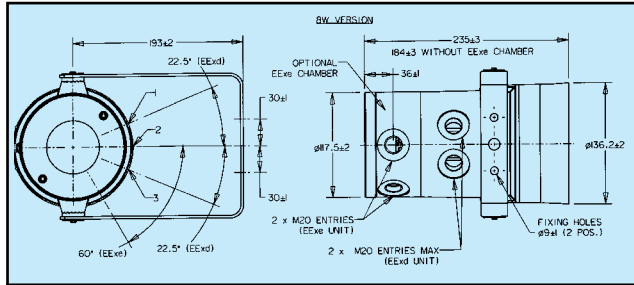
Terminals: 8 x 2.5mm².
 Other terminal arrangements available on request.

Earth Continuity: Included on Exe version.

Mounting: Bracket with ratchet facility.

Labels: Duty and tag labels optional.

Cable Entries: 1 x 20mm EExd.
 2 x 20mm EExd/EEExde.
 2 x 1/2" NPT.



Ordering Requirements

For standard products, available ex-stock, contact sales office for details.

Max. Rated Power DB4 *DB4L	Certification	Transformer	Labels	Entries	Colour																																																																								
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SOUNDERS – Up to 103 dB(A) Intrinsically Safe (EExia), Weatherproof DB5 Range



Introduction

This range of light weight, intrinsically safe Sounders has been designed with a high weatherproof rating to cope with the harsh environmental conditions found offshore and onshore in the oil, gas and petrochemical industries.

The unit is available in 2 models: 12V and 24V.

- ★ Zone 0, Zone 1 and Zone 2 use.
- ★ EExia T4.
- ★ ATEX approved Ex II 1G & Ex 1 M1.
- ★ BASEEFA certified.
- ★ FM Approved – Class I, Div. 1, Groups A-D.
- ★ CSA certified.
- ★ Brazilian (Inmetro) certified.
- ★ IP65.
- ★ Certified temperature -20°C to $+55^{\circ}\text{C}$.
- ★ Volume control as standard.
- ★ Up to 103 dB(A).
- ★ 26 different sound outputs, user selectable by internal switches.
- ★ Encapsulated electronics.
- ★ Second tone selectable using third wire.

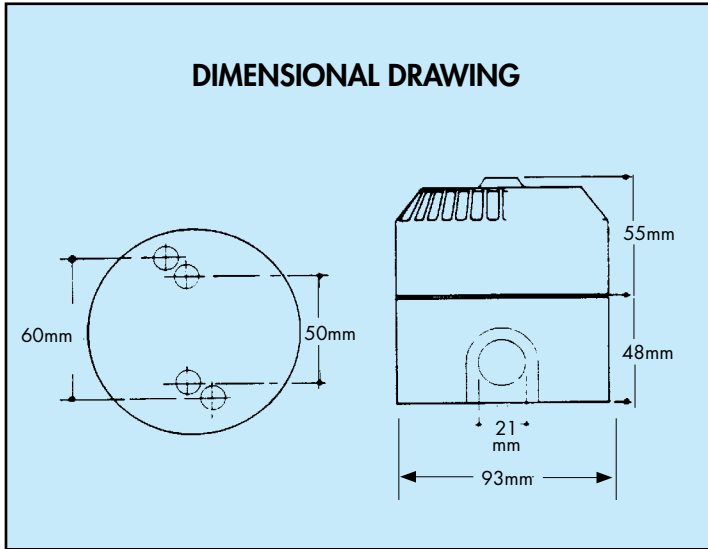
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Specification

- Certification:
1. BASEEFA, EN50014 and EN50020 & EN50284 EExia IIC T4. 12/24V version Cert. No. BAS00ATEX 1259 (unit) and 01E2024 (system).
 2. HSE(M) to EN50014 EN50020 and EN50303. EExia 1 Cert. No. MECS01ATEX4260 (unit) and 94Y7095 (system).
 3. FM Approved to Class 1, Div 1 groups A, B, C and D. J.I. 3008604.
Refer to FM Datasheet at rear of catalogue for complete information.
 4. CSA to C22.2 Nos. 0, 0.4, 0.5, 25, 30, 205. Class 1 groups A, B, C and D. Cert. No. 79122.
 5. Brazilian (Inmetro) certified BR-Ex ia IIC T4

Material: A.B.S. (Acrylonitrile Butadiene Styrene).

Finish: Available in Red as standard.

Certified

Temperature: -20°C to +55°C.

Weight: 0.3 kg.

Entries: Up to 1 x 21 mm Ø hole on each side via knockouts or 1 x 21 mm Ø rear.

Terminals: 6 off suitable to accept up to 2.5mm² cable, for looping.

Sound Output: 100± 3dB(A) for 12V and 24V versions.
Typical max value only – variable with tone.

Tones comply with BS 5839 Part 1.

Current Consumption

24V model – 14 mA max. nominal.

12V model – 12 mA max. nominal.

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. **Standard products, available ex-stock, as follows:**

Product	Description
DB5B012NR	Intrinsically safe, ATEX approved Ex II 1G, certified EExia IIC T4, Zones 0, 1 & 2, 103 dB(A), 12V d.c., choice of 26 tones, up to 3 x 20mm entries, natural red ABS plastic.
DB5B024NR	Intrinsically safe, ATEX approved Ex II 1G, certified EExia IIC T4, Zones 0, 1 & 2, 103 dB(A), 24V d.c., choice of 26 tones, up to 3 x 20mm entries, natural red ABS plastic.

Unit Type

DB5

Certification

Voltage

Tag Labels

Finish

Certification	Code
*BASEEFA GP 1	M
BASEEFA GP 2	B
FM	FM
CSA	C
Inmetro	IM

*12V only

Voltage	Code
12V	012
24V	024

Tag Label	Code
None	N
Yes	Y
(Please specify)	

Finish	Code
Red	R
Special	S
(Please specify)	



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ALARM BELL – Up to 109 dB(A) EExd, Weatherproof DB6 Range



Introduction

This explosionproof bell is available in two voltages. The bell is manufactured from cast iron finished in epoxy paint. Colour to customer's specification.

- ★ Zone 1 and Zone 2 use.
- ★ EExd IIB T5.
- ★ ATEX approved Ex II 2G.
- ★ BASEEFA certified.
- ★ Brazilian (Inmetro) certified.
- ★ IP65.
- ★ Certified temperature -20°C to $+55^{\circ}\text{C}$.
- ★ 2 cable entries.
- ★ Proven track record.
- ★ Captive cover screws.

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Sales Enq. Fax: +44 (0)1773 582830 Sales Orders Fax: +44 (0)1773 582832
E-Mail: sales@medc.com Web: www.medc.com



Specification

Certification: CENELEC EN 50014 & EN 50018.
 Cert. No. Baseefa 03ATEX0257, EExd IIB T5
 Brazilian (Inmetro) Certified: BR-Ex d IIB T5

Material: Cast iron.

Contact Spring: Phosphor Bronze.

Contacts: Silver.

Coil: Bakelite former.

Magnet: Laminated iron.

Armature: Pivoted to operate shaft and hammer at back of gong through flameproof bearing.

Finish: Grey epoxy paint as standard or to customer's specification.

Voltage: 24V d.c. or 200/254V a.c. 50/60 Hz.

Weight: 11 kg.

Certified -20°C to +55°C

Temperature:

Ingress Protection: IP65.

Earthing: M6 Internal and external earthing points provided.

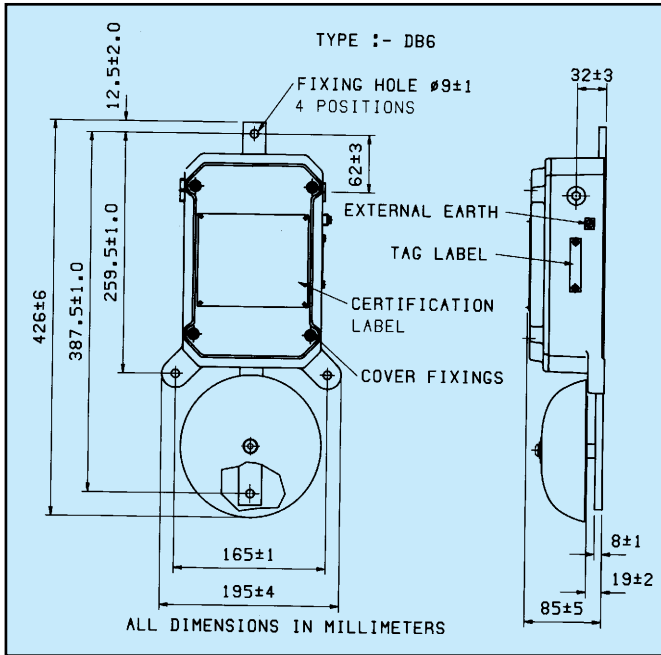
Termination: Terminals suitable for 4 x 4mm² cables.

Ratings:	Voltage	VA	Amps	DB(A) rating
	24V d.c.	1.92	0.08	98 ± 3
	200/254 a.c.	6/12.7	0.03/0.05	106 ± 3

24V d.c. unit polarised and suppressed for use on monitored fire alarm system sounder circuits

Label: Tag label available on request.

Cable Entries: 2 x 20mm² ISO with one EExd blank fitted.



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. **Standard product, available ex-stock, as follows:**

Product	Description
DB6BBNR	Explosion protected, certified, EExd, IIB T5, 98 dB(A), 24V d.c., 2 x 20mm entries, cast iron, painted red.

Model

DB6

Voltage

Voltage	Code
24V d.c.	B
240V a.c.	H

Certification

Certification	Code
ATEX	B
Inmetro	DM
Weatherproof	W

Tag Label

Tag Label	Code
Label (specify wording)	Y
None	N

Finish

Finish	Code
Grey	G
Red	R
Other (specify)	S

MEDC

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

SOUNDERS – Up to 110 dB(A) Intrinsically Safe (EExia), Weatherproof DB7 Range



Introduction

This range of ruggedised, intrinsically safe and weatherproof sounders, intended for use in potentially explosive atmospheres, has been designed with high ingress protection to cope with the harsh environmental conditions found offshore and onshore in the oil, gas and petrochemical industries.

The unit is available in 12V and 24V versions and for gas groups IIB or IIC.

A lower cost, uncertified version is available for use in non-explosive atmospheres.

- ★ Zones 0, 1, 2 and safe area use.
- ★ EExia IIB/IIC T4.
- ★ ATEX approved Ex II 1G.
- ★ Weatherproof uncertified version.
- ★ BASEEFA certified.
- ★ GOST 'R' certified.
- ★ IP66 & IP67.
- ★ Certified temperature -55°C to $+70^{\circ}\text{C}$.
- ★ Corrosion resistant red painted GRP.
- ★ Up to 110 dB(A) output.
- ★ 27 tones, user selectable.
- ★ Tones comply with UKOOA/PFEER guidelines.
- ★ Any two tones may be switched by the external voltage supply.
- ★ Retained stainless steel cover screws.

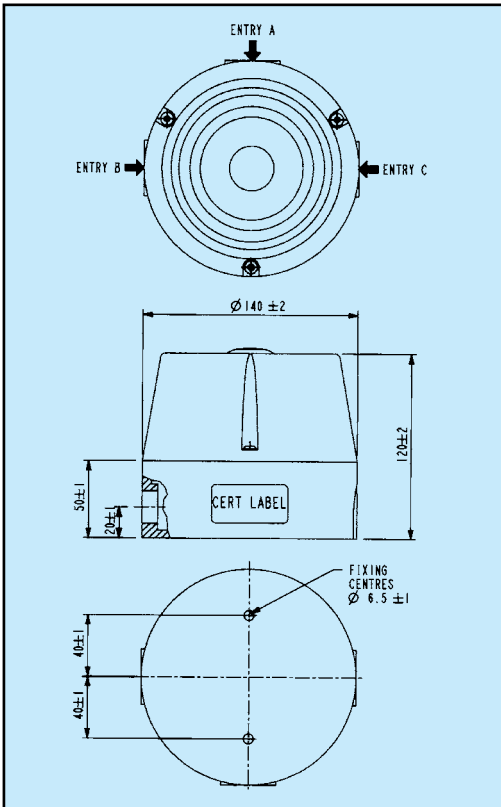
MEDC Ltd, Colliery Road,
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Fax: +47 914 46 030

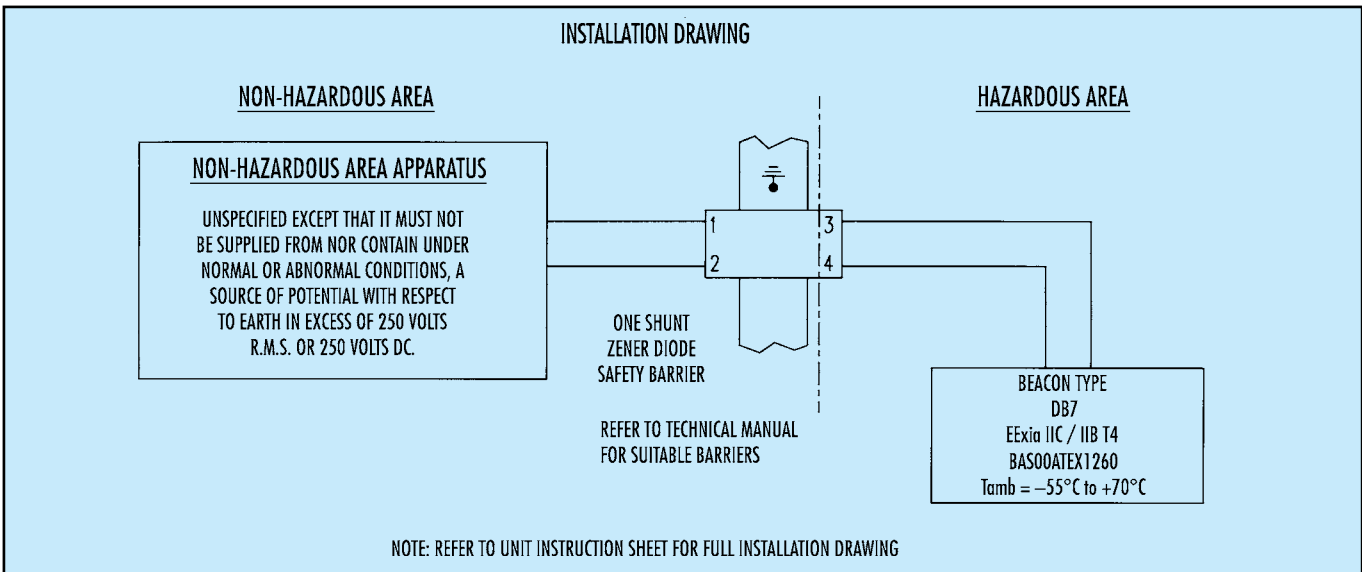
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E-Mail: sales@medc.com Web: www.medc.com

MEDC



Specification

Certification:	CENELEC EN 50014, 20 & 39. Certificate No. BAS00ATEX 1260 (apparus). Certificate No. 96D2362 (system). EExia IIC T4 or EExia IIB T4. Zones 0, 1 & 2. GOST 'R' Certification: 0EExia IIC T4, 0EExia IIB T4.
Material:	UV stable glass reinforced polyester. Retained stainless steel cover screws.
Finish:	Painted red as standard or to customer's specification.
Sound Output:	107± 3dB(A) at 1 metre for 12V and 24V IIB versions. 103± 3dB(A) at 1 metre for 12V and 24V IIC versions. Typical value only – variable with tone.
Tone Selection:	Switchable between any two of the 27 tones by reversing the polarity of the supply.
Weight:	1.0 kg.
Certified Temperature:	-55°C to +70°C.
Ingress Protection:	IP66 & IP67.
Voltage:	12V or 24V via suitable barrier.
Current Consumption:	24V models 34mA – 68mA. 12V models 25mA – 55mA.
Terminals:	8 x 2.5mm ² .
Labels:	Duty and tag labels available.
Cable Entries:	Up to 3 x M20 via knockouts.



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. **For standard products, available ex-stock, contact sales office for details.**

Unit Type	Certification	Voltage	Labels	Colour	
DB7P	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
Certification	Code	Voltage	Code	Colour	Code
Uncertified	W	12V	012	Painted Red	R
ATEX/CENELEC IIB	BB	24V	024	Special	S*
ATEX/CENELEC IIC	BC			*Please specify	
GOST 'R' IIB	GB				
GOST 'R' IIC	GC				
Label	Code				
Duty	D*				
Tag	T*				
None	N				
*Please specify wording					



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

SPEAKERS – Up to 20 Watts EExde, Weatherproof DB10 Range



20W & 15W (Long Flare)



8W (Short Flare)

Introduction

This range of loudspeakers, intended for use in potentially explosive gas atmospheres, has a power rating of up to 20 Watts and is suitable for use in gas groups IIB and hydrogen.

The flamepaths, flare and body, are manufactured from a UV stable glass reinforced polyester. Stainless steel screws and mounting stirrup are incorporated to ensure a corrosion-free product.

- ★ Zone 1, Zone 2 & non-Ex use.
 - ★ EExde IIB + H₂ T4/T5/T6.
 - ★ ATEX approved, Ex II 2G.
 - ★ BASEEFA certified.
 - ★ GOST 'R' & 'K' certified.
 - ★ Chinese (CQST) certified.
 - ★ Brazilian (Inmetro) certified.
 - ★ IP66 and IP67.
 - ★ Certified temperature -55°C to +70°C*.
 - ★ GRP corrosion-free flamepath.
 - ★ 116 dB(A) at 20 Watts at 1 metre.
 - ★ 8, 15 and 20 Watt versions.
 - ★ Power tapplings via integral transformer.
 - ★ Ratcheted swivel mounting stirrup.
 - ★ Stainless steel fixtures.
 - ★ Earth continuity available.
- *Model dependent.

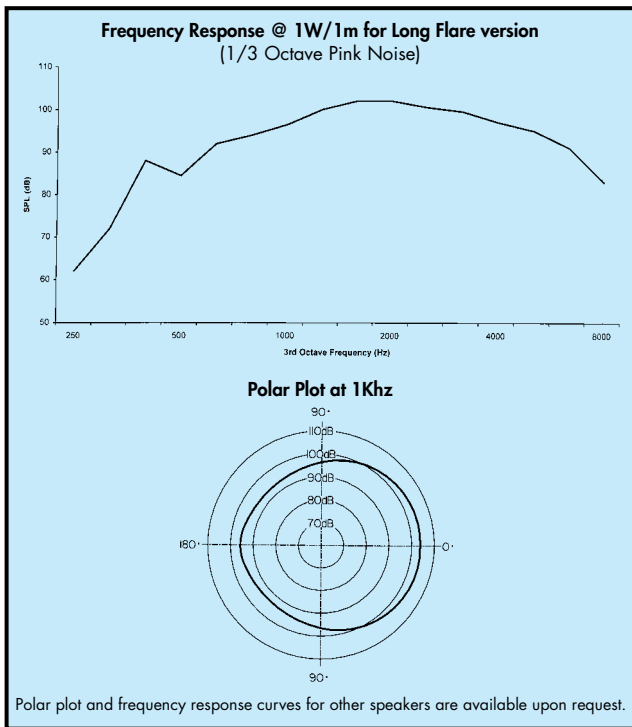
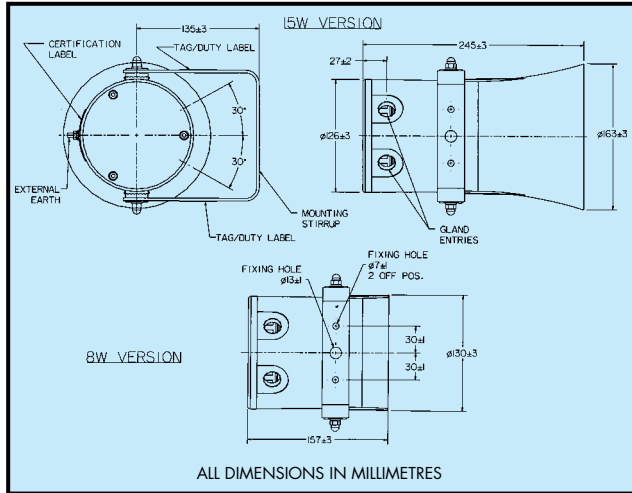
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Sales Enq. Fax: +44 (0)1773 582830 Sales Orders Fax: +44 (0)1773 582832
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Specification

Rated Power:	8, 15 & 20 Watts RMS continuous (at 25°C).																															
Certification:	CENELEC EN50014, 18, 19. BASEEFA Cert. No. BAS02ATEX 2086X. 20 Watt version: Ex II 2G, EExde IIB + H ₂ T ₄ . Certified Temp. -55°C to +50°C (T4). 8 & 15 Watt versions: Ex II 2G, EExde IIB + H ₂ T ₄ , T ₅ or T ₆ . Certified Temp. -55°C to +40°C (T6) -55°C to +55°C (T5) -55°C to +70°C (T4). GOST 'R' Certification: 2 Exde IIB + H ₂ T ₄ /T ₅ /T ₆ . GOST 'K' Certification: Exde IIB + H ₂ T ₄ /T ₅ /T ₆ . Chinese (CGST) Certification: Exde IIB + H ₂ T ₄ /T ₅ /T ₆ . Brazilian (Inmetro) Certification: BR-Ex de IIB + H ₂ T ₃ /T ₄ /T ₅ /T ₆ .																															
Material:	Body & horn in anti-static, UV stable, glass reinforced polyester. Mounting stirrup and fixtures in stainless steel.																															
Finish:	All natural or body and horn can be painted to client's requirements.																															
Output:	Long Flare: Maximum output at 1W/1m at 2kHz is 105dB(A). Maximum output at 20W/1m at 2kHz is 116dB(A). Maximum output at 15W/1m at 2kHz is 115dB(A). Short Flare: Maximum output at 1W/1m at 2kHz is 98dB(A). Maximum output at 8W/1m at 2kHz is 107dB(A).																															
Weight:	15W: 3kg approx. 8W: 2.5kg approx.																															
Ingress Protection:	IP66 & IP67.																															
Fire Retardancy:	GRP is fire retardant to ISO 1210.																															
Frequency Range:	400Hz to 8kHz.																															
Voice Coil Impedance:	8 ohms.																															
Transformer:	100V line as standard. Use by combining the rated power tapings below.																															
	<table border="1"> <thead> <tr> <th rowspan="2">Transformer Tappings</th> <th colspan="3">Power</th> </tr> <tr> <th>20W</th> <th>15W</th> <th>8W</th> </tr> </thead> <tbody> <tr> <td>1:2</td> <td>20</td> <td>15.0</td> <td>8.0</td> </tr> <tr> <td>2:3</td> <td>10</td> <td>7.5</td> <td>4.0</td> </tr> <tr> <td>3:4</td> <td>6.0</td> <td>5.0</td> <td>2.0</td> </tr> <tr> <td>1:3</td> <td>3.5</td> <td>4.0</td> <td>1.5</td> </tr> <tr> <td>2:4</td> <td>2.0</td> <td>2.0</td> <td>0.7</td> </tr> <tr> <td>1:4</td> <td>1.0</td> <td>0.8</td> <td>0.4</td> </tr> </tbody> </table>	Transformer Tappings	Power			20W	15W	8W	1:2	20	15.0	8.0	2:3	10	7.5	4.0	3:4	6.0	5.0	2.0	1:3	3.5	4.0	1.5	2:4	2.0	2.0	0.7	1:4	1.0	0.8	0.4
Transformer Tappings	Power																															
	20W	15W	8W																													
1:2	20	15.0	8.0																													
2:3	10	7.5	4.0																													
3:4	6.0	5.0	2.0																													
1:3	3.5	4.0	1.5																													
2:4	2.0	2.0	0.7																													
1:4	1.0	0.8	0.4																													
Transformer Tapping Options:	<p>Standard: Fig. i) 8 terminals (4 x 2), loop in/loop out for 6 tapings.</p> <p>Alternative: Fig. ii) 4 terminals (2 x 2), loop in/loop out, direct 8Ω connection to driver.</p>																															
Terminals:	8 x 2.5mm ² or 4 x 2.5mm ² .																															
Earth Continuity:	Available.																															
Mounting:	Via stirrup with ratchet facility.																															
Labels:	Optional stainless steel tag and duty labels.																															
Cable Entries:	Up to 2 x M20 ISO into EExe chamber.																															

Ordering Requirements

The following code is designed to help you in the selection of the correct unit. Build up the reference number by inserting the code for each feature into the appropriate box. **Standard products available ex-stock, as follows:**

Product	Description
DB10B8XN2BPN	ATEX approved, 8 Watt (short flare), 100V line transformer, 2 X M20 entries with one certified plug fitted, natural black finish.
DB10B15XN2BPN	ATEX approved, 15 Watt (long flare), 100V line transformer, 2 X M20 entries with one certified plug fitted, natural black finish.
DB10B20XN2BPN	ATEX approved, 20 Watt (long flare), 100V line transformer, 2 X M20 entries with one certified plug fitted, natural black finish.

Certification	Max. Rated Power	Transformer	Options	Entries	Colour
DB10					
Certification Code	Power Code	Transformer Code	Option Code	Entries Code	Colour Code
ATEX B	8 Watt 8	Yes X*	Duty D	1 x M20 1B	Natural Black N
GOST 'R' R	15 Watt 15	8 ohm version N	Tag T	2 x M20 2B	Red R
GOST 'K' K	20 Watt 20	*Std 100V	Earth Continuity E	2 x M20 entries 2BP	Special S
Chinese (CGST) Q		Other values available, specify voltage.	None N	with one certified plug fitted	
Inmetro EM					



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

SOUNDERS – Up to 110 dB(A) for Harsh Industrial & Marine Environments DB12 Range

IP66/67 Weatherproof
Corrosion Free All GRP



Introduction

This range of sounders has been specially designed for use in demanding industrial and marine environments where a robust construction and high ingress protection rating is required.

The body is manufactured completely from a UV stable glass reinforced polyester which is also highly flame retardant and impact resistant. Stainless steel screws are incorporated thus ensuring a corrosion free product.

MEDC can also provide a range of sounders suitable for use in potentially explosive atmospheres.

For more information, refer to the catalogue or contact MEDC.

- ★ IP66 & IP67.
- ★ Operating temperature -55°C to $+70^{\circ}\text{C}$.
- ★ Corrosion resistant red painted GRP.
- ★ Up to 110 dB(A) output.
- ★ 27 tones, user selectable.
- ★ Tones comply with UKOOA/PFEER guidelines.
- ★ Any two tones may be switched by the external voltage supply (d.c. version).
- ★ Retained stainless steel cover screws.
- ★ Available compliant to AFNOR NF S 32 001.

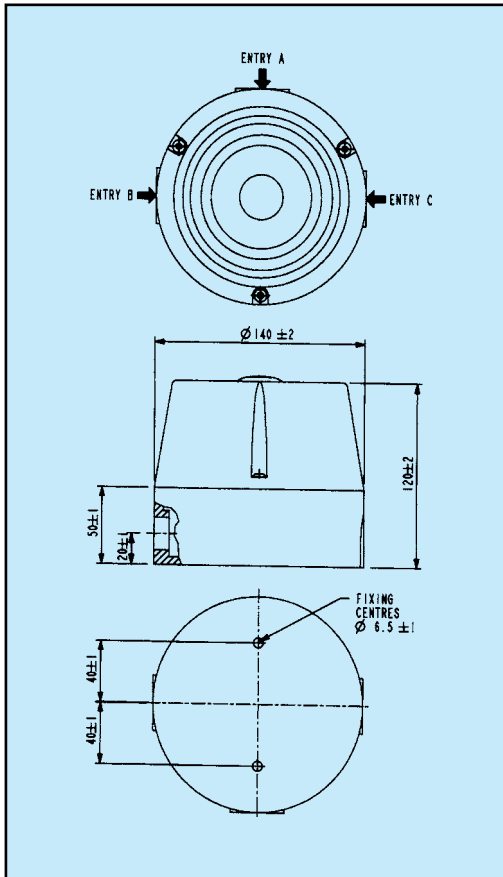
MEDC Ltd, Colliery Road,
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Specification

Material: UV stable glass reinforced polyester. Retained stainless steel cover screws.
 Finish: Painted red as standard or to customer's specification.
 Sound Output: 107 ± 3 dB(A) at 1 metre.
 Typical value only – variable with tone.

Volume Control: Integral volume control.

*Nominal Output (dBa)	Input Current (mA)
92	60
100	70
104	80
109	90

*Output measured with 24V input voltage. Tone set to 2850Hz continuous.

Tone Selection:

Single Stage DB12: 27 user selectable tones.

Two stage Unit DB12P: Switchable between any two tones by either:

- (i) Reversing the polarity of the supply, or
- (ii) by a 3 wire common +ve system, switching between the two -ve lines.

Note: Two stage unit available in d.c. versions only.

Weight: 1.0 kg. d.c., 1.2kg a.c.

Operating Temperature: -55°C to $+70^{\circ}\text{C}$.

Ingress Protection: IP66 & IP67.

Voltage: DC: 12V, 24V. AC: 115/230V.

Current Consumption: 24V operation 55mA - 100mA. 115V operation 8.5mA - 14mA.
 12V operation 55mA - 90mA. 230V operation 4.5mA - 7mA.

Terminals: 6 x 2.5mm².

Labels: Duty and tag labels available.

Cable Entries: Up to 3 x M20 via knockouts.

AFNOR NF S 32 001 compliant version available – contact sales office for details.

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. **Standard product, available ex-stock, as follows:**

Product	Description
DB12P024NR	Weatherproof, 110dB(A), 24V d.c., two stage sounder, 27 tones, painted red GRP.
DB12115NR	Weatherproof, 110dB(A), 115-230V a.c., single stage sounder, 27 tones, painted red GRP.

Unit Type		Voltage		Labels		Colour	
Type	Details	Voltage	Code	Label	Code	Colour	Code
DB12	Standard Unit	12V d.c.	012	Duty	D*	Painted Red	R
DB12P	Two Stage (d.c. only)	24V d.c.	024	Tag	T*	Special	S*
		115/230V a.c.	115	None	N	*Please specify	
				*Please specify wording			



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

SPEAKERS – Up to 15 Watts for Harsh Industrial & Marine Environments DB14 Range

IP66/67
Weatherproof
Corrosion Free
All GRP



Introduction

This range of loudspeakers has a power rating of 15 Watts and is suitable for use in demanding environments where a robust construction and high ingress protection rating is required.

The body is manufactured completely from a UV stable glass reinforced polyester which is also highly flame retardant and impact resistant. Stainless steel screws are incorporated thus ensuring a corrosion free product.

MEDC can also provide a range of speakers suitable for use in potentially explosive atmospheres.

For more information, refer to the catalogue or contact MEDC.

- ★ IP66 and IP67.
- ★ Temperature range -55°C to $+70^{\circ}\text{C}$.
- ★ Corrosion resistant grey painted GRP.
- ★ 117dBA at 15 watts at 1 metre.
- ★ 100V line transformer.
- ★ Power tapings, via integral transformer.
- ★ Addressable capability.
- ★ Stainless steel ratcheted mounting bracket.
- ★ Earth continuity available.
- ★ BS5839 part 8 compliant version available.

MEDC Ltd, Colliery Road,
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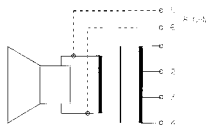
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Tel: +47 913 92 289
Fax: +47 914 46 030

Sales Enq. Fax: +44 (0)1773 582830 Sales Orders Fax: +44 (0)1773 582832
E-Mail: sales@medc.com Web: www.medc.com



Specification

Rated Power:	15 watts RMS continuous (at 25°C).
Material:	Body & horn in UV stable, glass reinforced polyester. Swivel bracket in stainless steel. Cover screws in stainless steel.
Finish:	Epoxy paint coated to client's colour requirements.
Output:	Maximum output at 1W/1m at 900Hz is 107 dBA. Maximum output at 15W/1m at 900Hz is 117 dBA.
Weight:	2.6kg approx. dependent on model.
Temperature Range:	-55°C to +70°C.
Ingress Protection:	IP66 & IP67.
Frequency Range:	400Hz to 7kHz.
Voice Coil Impedance:	8 ohms.
Addressable:	Consult MEDC for specification.
Terminals:	8 x 2.5mm ² . Other terminal arrangements available on request.
Earth Continuity:	Available.
Mounting:	Bracket with ratchet facility.
Labels:	Duty and tag labels optional.
Cable Entries:	2 x 20mm ISO.
Transformer:	Used to vary the rated power by selecting different tapings (see table below).



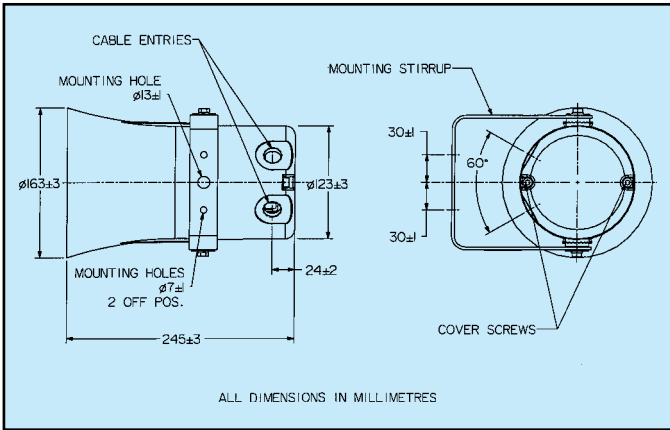
Transformer Tappings

Transformer Tappings	Power 15W
1:2	15.0
2:3	7.5
3:4	5.0
1:3	4.0
2:4	2.0
1:4	0.8

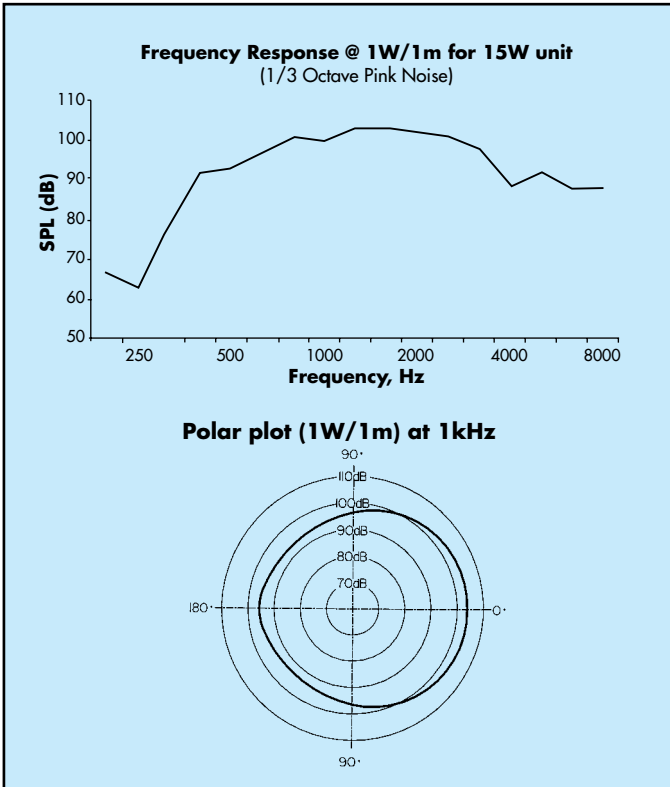
Transformer Options:

- i) Standard Tapping: Loop in/Loop out (4 x 2) terminal tap change (8 terminals).
- ii) Optional Tapping: 4 terminal tap change with 2 terminals (5 & 6), directly connected to driver (8 ohms).

Other tapings & driver impedances available on request.



ALL DIMENSIONS IN MILLIMETRES



Ordering Requirements

The following code is designed to help in the selection of the correct unit. Build up the reference number by inserting the code for each component into the appropriate box. **Standard products, available ex-stock, as follows:**

Product	Description
DB14XNG	15 Watt Industrial & Marine Loudspeaker, up to 117dB(A), 2 x 20mm entries, Grey painted GRP.

Transformer	
DB14	<input type="text"/>
Transformer	Code
Yes	X*
None	N
*Standard 100V Other voltages available, specify voltage.	

Option	
<input type="text"/>	<input type="text"/>
Option	Code
Duty label	D*
Tag label	T*
Earth continuity	E
BS5839, part 8 compliant	PT8
Blanking Plug	P
None	N
*Please specify wording	

Colour	
<input type="text"/>	<input type="text"/>
Colour	Code
Painted Grey	G
Red	R
Special	S*
*Please specify	



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

SOUNDERS – Up to 117dB(A) for Harsh Industrial & Marine Environments DB15 Range

IP66/67 Weatherproof
Corrosion Free All GRP



Introduction

This range of sounders have been specially designed for use in demanding industrial and marine environments where a robust construction and high ingress protection rating is required.

The body is manufactured completely from a UV stable glass reinforced polyester which is also highly flame retardant and impact resistant. Stainless steel screws are incorporated thus ensuring a corrosion free product.

MEDC can also provide a range of sounders suitable for use in potentially explosive atmospheres.

For more information, refer to the catalogue or contact MEDC.

- ★ IP66 and IP67.
- ★ Temperature range -55°C to $+70^{\circ}\text{C}$.
- ★ Corrosion resistant grey painted GRP.
- ★ Up to 117dB(A) output.
- ★ 27 user selectable tones.
- ★ Tones may be programmed to customer's specification.
- ★ Stainless steel ratcheted mounting bracket.
- ★ Earth continuity available.
- ★ Paint finish to customer requirement.
- ★ Available compliant to AFNOR NF S 32 001.

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Sales Enq. Fax: +44 (0)1773 582830 Sales Orders Fax: +44 (0)1773 582832
E-Mail: sales@medc.com Web: www.medc.com



Specification

Material: Body & horn in UV stable, glass reinforced polyester.
Swivel bracket in stainless steel.
Cover screws in stainless steel.

Finish: Epoxy paint coated to client's colour requirements.

Sound Output: DB15 117dB(A) Maximum.

Volume Control: Integral volume control

*Nominal Output (dBa)	Input Current (mA)
100	150
105	250
108	350
110	450
112	550

*Output measured with 24V input voltage. Tone set to 970Hz continuous.

Weight: 2.6kg approx. dependent on model.

Temperature Range: -55°C to +70°C.

Ingress Protection: IP66 and IP67.

Voltage: Up to 48V d.c. Up to 254V a.c.

Current Consumption:

V	I
12V d.c.	900mA
24V d.c.	600mA
48V d.c.	280mA
110V a.c.	150mA
120V a.c.	175mA
220V a.c.	93mA
240V a.c.	86mA
254V a.c.	80mA

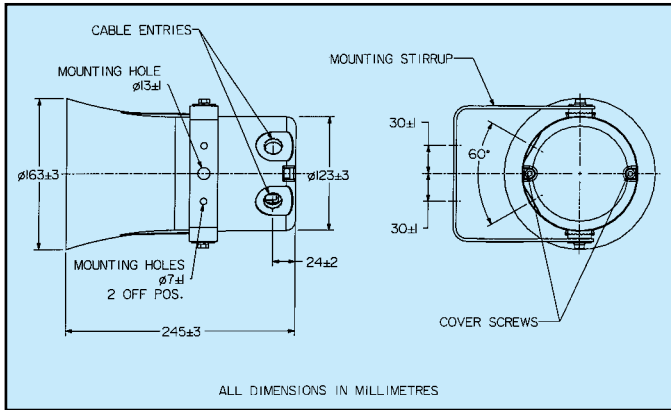
Terminals: 4 x 2.5mm² (a.c.), 6 x 2.5mm² (d.c.).

Earth Continuity: Available.

Mounting: Stainless steel bracket with ratchet facility.

Labels: Duty and tag labels optional.

Cable Entries: 2 x 20mm ISO.



Tone Selection

DB15: 27 user selectable tones available.
Additional 5 tones may be programmed.

DB15P (Two stage unit): Switchable between any two of the 27 tones by either:
(i) Reversing the polarity of the supply, or
(ii) by a 3 wire common +ve system, switching between the two -ve lines.

Note: Two stage unit available in d.c. versions (DB15P) only.

AFNOR NF S 32 001 compliant version available – contact sales office.

Ordering Requirements

The following code is designed to help in the selection of the correct unit. Build up the reference number by inserting the code for each component in the appropriate box. **Standard products, available ex-stock, as follows:**

PRODUCT	DESCRIPTION
DB15P048NG	DB15P Two Stage Sounder up to 117dB(A), 24V-48V d.c., choice of 27 tones, 2 x 20mm entries, grey painted GRP.
DB15P048NR	DB15P Two Stage Sounder up to 117dB(A), 24V-48V d.c., choice of 27 tones, 2 x 20mm entries, red painted GRP.
DB15240NG	DB15 Sounder up to 117dB(A), 240V a.c., choice of 27 tones, 2 x 20mm entries, grey painted GRP.
DB15240NR	DB15 Sounder up to 117dB(A), 240V a.c., choice of 27 tones, 2 x 20mm entries, red painted GRP.

Unit Type

DB15
DB15P

Voltage

Voltage	Code
12V d.c.	012
24V-48V d.c.	048
*110V a.c.	110
*120V a.c.	120
*220V a.c.	220
*240V a.c.	240
*254V a.c.	254
*DB15P not available in a.c. version.	

Options

Option	Code
Duty	D*
Tag	T*
Earth Continuity	E
End of Line Resistor R†	
Blanking Plug	P
None	N
*Please specify wording	
†Specify value	

Colour

Colour	Code
Painted Grey	G
Red	R
Special	S*
*Please specify	



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

SPEAKERS – Up to 30 Watts EExde, Weatherproof DB16 Range



Introduction

This range of loudspeakers, intended for use in potentially explosive gas and dust atmospheres, has a power rating of up to 30 Watts and is suitable for use in the harsh environmental conditions found offshore and onshore in the oil, gas and petrochemical industries.

With an integral increased safety chamber, for termination, this unit offers both high output and easy installation.

In addition, the 25 Watt version still offers superior output with a higher ambient certified temperature (+65°C).

The flamepaths, flare and body, are manufactured from a UV stable glass reinforced polyester. Stainless steel screws and mounting stirrup are incorporated to ensure a corrosion-free product.

- ★ Zone 1, Zone 2 & non-Ex use.
- ★ EExde IIB/IIC, T3/T4*.
- ★ ATEX approved, Ex II 2G/Ex II 2GD*.
- ★ BASEEFA certified.
- ★ UL listed for USA and Canada
 - Hazardous locations:
 - Class I, Div 2, Groups A-D*
 - Class I, Zone 1, AExde IIB/IIC T3/T4*
 - Ordinary locations: Signalling Speaker
- ★ GOST 'K' certified.
- ★ Brazilian (Inmetro) Certified.
- ★ IP66 and IP67.
- ★ Certified temperature –50°C to +65°C*.
- ★ GRP corrosion-free flamepath.
- ★ Up to 122dBA at 30 Watts at 1 metre*.
- ★ 25 and 30 Watt versions.
- ★ Power tapplings via integral transformer.
- ★ Ratcheted swivel mounting stirrup.
- ★ Stainless steel fixtures.
- ★ 100V line or 8 ohm versions available.

*Model dependent.

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Specification

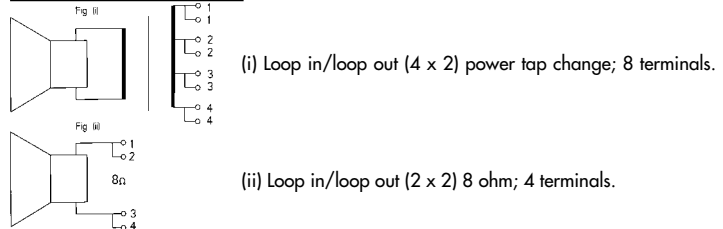
Rated Power: 30 Watts RMS continuous (at 25°C).
Certification: CENELEC EN50014, 18, 19.
IIB Version: Cert. No. Baseefa04ATEX0166X
30 Watt ATEX Ex II 2G EExde IIB T3 (Tamb. -50°C to +40°C)
25 Watt ATEX Ex II 2G EExde IIB T3 (Tamb. -50°C to +65°C)
IIC Version: Cert. No. Baseefa04ATEX0167X
30 Watt ATEX Ex II 2GD EExde IIC T110°C (Tamb. -50°C to +40°C)
25 Watt ATEX Ex II 2GD EExde IIC T110°C (Tamb. -50°C to +65°C)
Zones 1 and 2.
UL Listed for USA and Canada
 - Hazardous locations:
 Class I, Div 2, Groups C & D, Class I, Zone 1, AExde IIB T3
 Class I, Div 2, Groups A-D, Class I, Zone 1, AExde IIC T110°C
 - Ordinary locations: Signalling Speaker.
GOST 'K' Certification: Exde IIC T4/IIB T3.
Brazilian (Inmetro) Certification: BR-Ex de IIB T3.
 BR-Ex de IIC T5.

Material: Body & horn in anti-static, UV stable, glass reinforced polyester. Mounting stirrup and fixtures in stainless steel.
Finish: All natural or body and horn can be painted to client's requirements.
Output: IIB Version: Maximum output at 1W/1m is 110dBA
 Maximum output at 25W/1m is 121dBA
 Maximum output at 30W/1m is 122dBA
 IIC Version: Maximum output at 1W/1m is 107dBA
 Maximum output at 25W/1m is 118dBA
 Maximum output at 30W/1m is 119dBA

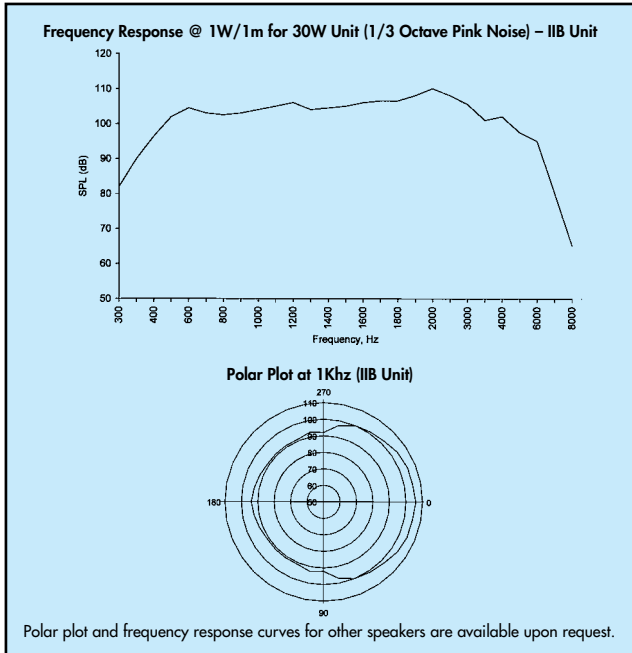
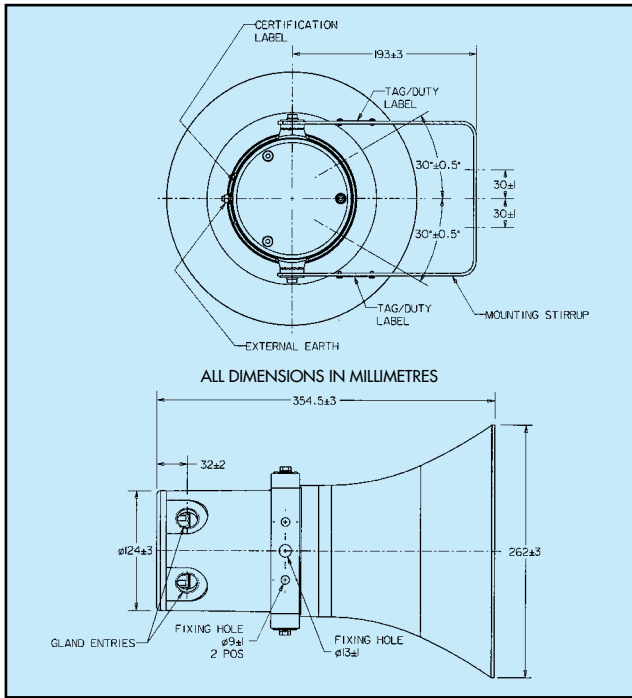
Weight: 5.5kg approx.
Certified Temperature: -50°C to +40°C (30W version) -50°C to +65°C (25W version).
Ingress Protection: IP66 & IP67.
Frequency Range: 370Hz to 8kHz.
Voice Coil Impedance: 8 ohms.
Transformer: Used by combining the rated power tapings below.

Transformer Tappings	Power (30W unit) (W)	Power (25W unit) (W)
1:2	30.0	25
2:3	25.0	12.5
3:4	12.0	6.0
1:3	6.0	4.0
2:4	4.0	2.0
1:4	2.0	1.0

Transformer Tapping Options:



Terminals: 8 x 2.5mm².
Earth Continuity: Available via optional earthing stud or by internal earth plate.
Mounting: Via stirrup with ratchet facility.
Labels: Optional stainless steel tag and duty labels.
Cable Entries: Up to 2 x M20, 2 x M25 ISO, 2 x 1/2" NPT or 2 x 3/4" NPT into termination (EExe) chamber.



Ordering Requirements

The following code is designed to help you in the selection of the correct unit. Build up the reference number by inserting the code for each feature into the appropriate box. **For standard products available ex-stock, contact sales office for details.**

DB16 Certification Max Rated Power Transformer Options Entries Finish

Certification	Code	Max Rated Power	Code	Option	Code	Entries	Code	Option	Code
ATEX IIB	BB	30 Watts	30	None	N	1 x M20	1B	Natural Black	N
ATEX IIC	BC	25 Watts	25*	Duty label	D	2 x M20	2B	Red	R
UL (C & D)*	UB			Tag label	T	1 x M25	1C	Special	S
UL (A-D)†	UC			Internal earth continuity	E	2 x M25	2C		
UL (ordinary locations)	UW			Earth stud	B	1 x 1/2" NPT	1M		
GOST 'K' IIB	KB					2 x 1/2" NPT	2M		
GOST 'K' IIC	KC					1 x 3/4" NPT	1N		
Inmetro IIB	MB					2 x 3/4" NPT	2N		
Inmetro IIC	MC								

Transformer Code: Yes X*, No N. *Std 100V. Other voltages available, specify voltage.

Max Rated Power Code: 30 Watts 30, 25 Watts 25*. *Only available in ATEX versions.

Unit suitable for gas groups: *C & D †A-D



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

SPEAKERS – Up to 15 Watts EEx nA, Weatherproof DB18



**ATEX compliant for Zone 2
gas & dust atmospheres**

Introduction

This loudspeaker, intended for use in Zone 2, potentially explosive gas and dust atmospheres, has a power rating of up to 15 Watts and is suitable for use in all gas groups including hydrogen.

The flare and body are manufactured from a UV stable glass reinforced polyester. Stainless steel screws and mounting stirrup are incorporated to ensure a corrosion-free product.

- ★ Zone 2 use.
- ★ EEx n II T4.
- ★ ATEX compliant, Ex II 3 GD.
- ★ BASEEFA tested.
- ★ IP66 & 67.
- ★ Ambient temperature -55°C to +55°C.
- ★ 117dbA at 15 Watts at 1 metre.
- ★ Power tapings via integral transformer.
- ★ Stainless steel ratcheted swivel mounting stirrup.
- ★ Stainless steel fixtures.

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E-Mail: sales@medc.com Web: www.medc.com



Specification

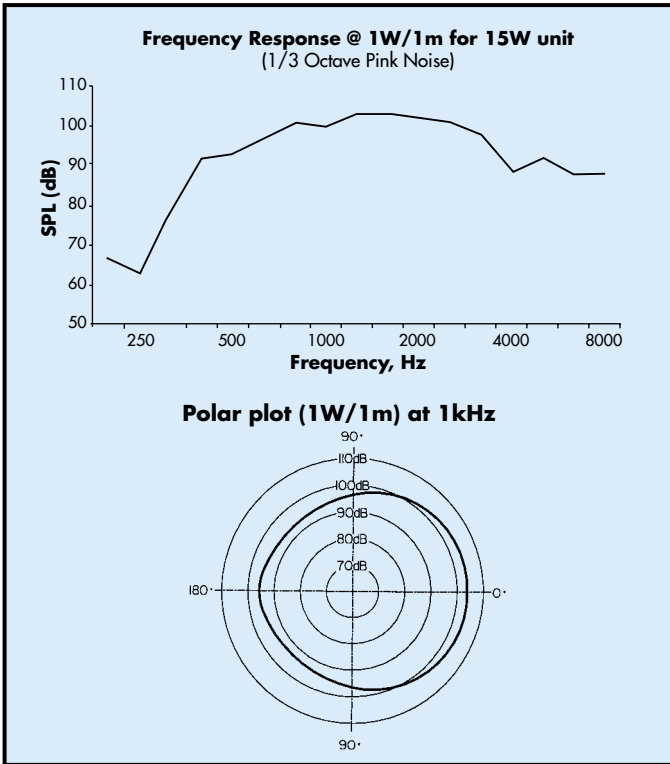
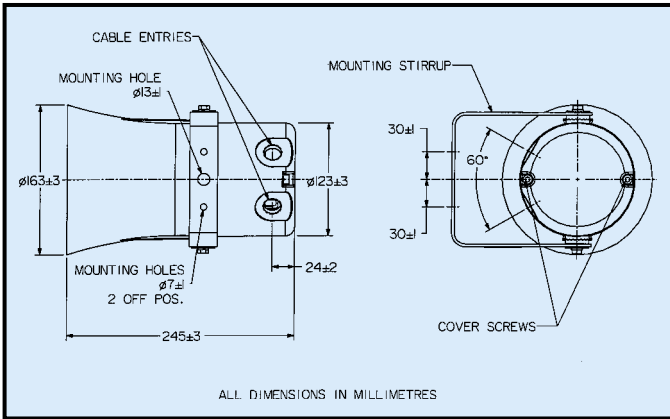
Rated Power:	15 watts RMS continuous (at 25°C).
Compliance:	CENELEC EN50014, 21. EEx nA II T 135°C (-55°C to +55°C) T4, Zone 2.
Material:	Body & horn in anti-static, UV stable, glass reinforced polyester. Mounting stirrup and fixtures in stainless steel.
Finish:	All natural or body and horn can be painted to client requirements.
Output:	Maximum output at 1W/1m at 900Hz is 107 dBA. Maximum output at 15W/1m at 900Hz is 117 dBA.
Weight:	2.6kg approx.
Ambient Temperature:	-55°C to +55°C.
Ingress Protection:	IP66 & IP67.
Fire Retardancy:	GRP is fire retardant to ISO 1210.
Frequency Range:	400Hz to 7kHz.
Voice Coil Impedance:	8 ohms.
Transformer:	Used by combining the rated power tapplings below.

Transformer Tappings	Power 15W
1:2	15.0
2:3	7.5
3:4	5.0
1:3	4.0
2:4	2.0
1:4	0.8

Transformer Options:

- Standard: i) Loop in/Loop out (4 x 2) power tap change; 8 terminals.
- Optional: ii) Loop in/loop out (2 x 2) 8 ohm; 4 terminals.
iii) 4 terminal tap change with 2 terminals (5 & 6), directly connected to driver (8 ohms).

Terminals:	Up to 8 x 2.5mm ² .
Earth Continuity:	Available.
Mounting:	Via stirrup with ratchet facility.
Labels:	Optional stainless steel tag and duty labels.
Cable Entries:	2 x M20 ISO.



Ordering Requirements

The following code is designed to help in the selection of the correct unit. Build up the reference number by inserting the code for each component into the appropriate box. **Standard product, available ex-stock, as follows:**

Product	Description
DB18XNN	EEx nA II compliant, 15 Watt, 100V line transformer, 2 x M20 entries, natural black finish

DB18	Transformer	Option	Colour																											
	<table border="1"> <thead> <tr> <th>Transformer</th> <th>Code</th> </tr> </thead> <tbody> <tr> <td>Yes</td> <td>X*</td> </tr> <tr> <td>Transformer and 8 ohm terminals</td> <td>X8</td> </tr> <tr> <td>None (direct to driver)</td> <td>N</td> </tr> </tbody> </table> <p>*Standard 100V Other voltages available, specify voltage.</p>	Transformer	Code	Yes	X*	Transformer and 8 ohm terminals	X8	None (direct to driver)	N	<table border="1"> <thead> <tr> <th>Option</th> <th>Code</th> </tr> </thead> <tbody> <tr> <td>Duty label</td> <td>D*</td> </tr> <tr> <td>Tag label</td> <td>T*</td> </tr> <tr> <td>Earth continuity</td> <td>E</td> </tr> <tr> <td>Blanking Plug</td> <td>P</td> </tr> <tr> <td>None</td> <td>N</td> </tr> </tbody> </table> <p>*Please specify wording</p>	Option	Code	Duty label	D*	Tag label	T*	Earth continuity	E	Blanking Plug	P	None	N	<table border="1"> <thead> <tr> <th>Colour</th> <th>Code</th> </tr> </thead> <tbody> <tr> <td>Natural Black</td> <td>N</td> </tr> <tr> <td>Red</td> <td>R</td> </tr> <tr> <td>Special</td> <td>S*</td> </tr> </tbody> </table> <p>*Please specify</p>	Colour	Code	Natural Black	N	Red	R	Special
Transformer	Code																													
Yes	X*																													
Transformer and 8 ohm terminals	X8																													
None (direct to driver)	N																													
Option	Code																													
Duty label	D*																													
Tag label	T*																													
Earth continuity	E																													
Blanking Plug	P																													
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Colour	Code																													
Natural Black	N																													
Red	R																													
Special	S*																													



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SPEAKERS – Up to 15 Watts EEx nA, Weatherproof DB19



Introduction

This music quality projector loudspeaker, intended for use in Zone 2, potentially explosive gas and dust atmospheres, has a power rating of up to 15 Watts and is suitable for use in all gas groups including hydrogen.

Designed for optimum sound reproduction, this rugged loudspeaker is ideal for PA and background music systems in industrial and commercial environments.

The body is manufactured in aluminium and powder coat finished to RAL 9010. Stainless steel screws and mounting stirrup are incorporated to ensure a corrosion-resistant product.

- ★ Zone 2 use.
- ★ EEx n II T4.
- ★ ATEX compliant, Ex II 3 GD.
- ★ BASEEFA tested.
- ★ IP54.
- ★ Ambient temperature -55°C to +55°C.
- ★ 104dbA at 15 Watts at 1 metre.
- ★ Power tapings via integral transformer.
- ★ Stainless steel mounting stirrup.
- ★ Aluminium body.
- ★ 100V line or 8Ω versions.

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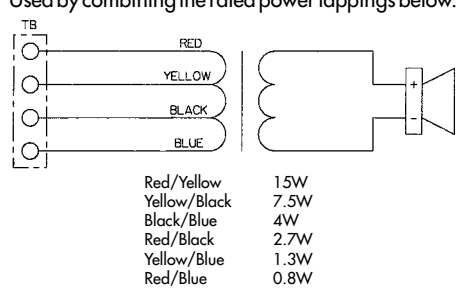
MEDC International, 5829 West Sam Houston Parkway,
North, Suite 1005, Houston, Texas 77041, USA.
Tel: +1 (713) 937 9772
Fax: +1 (713) 937 9773

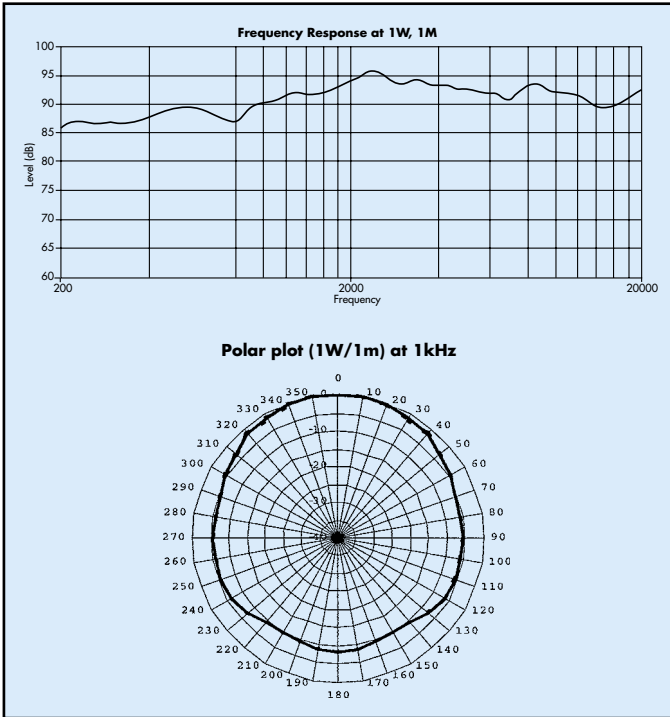
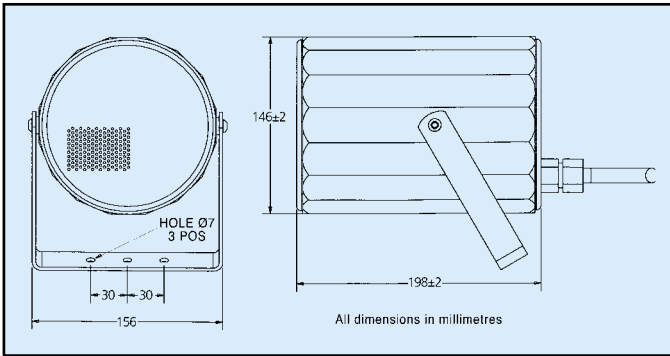
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E-Mail: sales@medc.com Web: www.medc.com



Specification

Rated Power:	15 watts RMS continuous (at 25°C).												
Compliance:	CENELEC EN50014, 21. EEx nA II T 135°C (-55°C to +55°C) T4, Zone 2.												
Material:	Body in aluminium. Mounting stirrup and fixtures in stainless steel.												
Finish:	Powder coated white to RAL 9010 as standard – can be painted to client's requirements.												
Output:	Maximum output at 1W/1m at 900Hz is 92 dBA. Maximum output at 15W/1m at 900Hz is 104 dBA.												
Weight:	2.4kg approx.												
Ambient Temperature:	-55°C to +55°C.												
Ingress Protection:	IP54.												
Frequency Range:	120Hz to 20kHz.												
Voice Coil Impedance:	8 ohms.												
Transformer:	Used by combining the rated power tapings below.												
	 <table border="1"> <tr> <td>Red/Yellow</td> <td>15W</td> </tr> <tr> <td>Yellow/Black</td> <td>7.5W</td> </tr> <tr> <td>Black/Blue</td> <td>4W</td> </tr> <tr> <td>Red/Black</td> <td>2.7W</td> </tr> <tr> <td>Yellow/Blue</td> <td>1.3W</td> </tr> <tr> <td>Red/Blue</td> <td>0.8W</td> </tr> </table>	Red/Yellow	15W	Yellow/Black	7.5W	Black/Blue	4W	Red/Black	2.7W	Yellow/Blue	1.3W	Red/Blue	0.8W
Red/Yellow	15W												
Yellow/Black	7.5W												
Black/Blue	4W												
Red/Black	2.7W												
Yellow/Blue	1.3W												
Red/Blue	0.8W												
Cable Entry:	M20 gland.												
Terminals:	4 x 2.5mm ² .												
Mounting:	Via stirrup.												
Dispersion at 1000Hz:	130.												
Degrees° Conical													
Input Impedance (ohms)	12.5k, 7.7k, 3.7k, 2.5k, 1.3k, 666.												



Ordering Requirements

The following code is designed to help in the selection of the correct unit. Build up the reference number by inserting the code for each component into the appropriate box. **Standard product, available ex-stock, as follows:**

Product	Description
DB19XW	EEx nA II compliant, 15 Watt, 100V line transformer, white to RAL 9010.

DB19	Transformer	Finish															
	<table border="1"> <thead> <tr> <th>Transformer</th> <th>Code</th> </tr> </thead> <tbody> <tr> <td>Yes</td> <td>X*</td> </tr> <tr> <td>None</td> <td>N</td> </tr> <tr> <td colspan="2">*Standard 100V.</td> </tr> </tbody> </table>	Transformer	Code	Yes	X*	None	N	*Standard 100V.		<table border="1"> <thead> <tr> <th>Colour</th> <th>Code</th> </tr> </thead> <tbody> <tr> <td>White to RAL 9010</td> <td>W</td> </tr> <tr> <td>Special</td> <td>S*</td> </tr> <tr> <td colspan="2">*Please specify</td> </tr> </tbody> </table>	Colour	Code	White to RAL 9010	W	Special	S*	*Please specify
Transformer	Code																
Yes	X*																
None	N																
*Standard 100V.																	
Colour	Code																
White to RAL 9010	W																
Special	S*																
*Please specify																	



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

SPEAKERS – Up to 8 Watts Exde, Weatherproof DB20 Range



Introduction

This range of loudspeakers, intended for use in potentially explosive atmospheres, has a power rating of up to 8 Watts and is suitable for use in the harsh environmental conditions found offshore and onshore in the oil, gas and petrochemical industries.

The body and cover are manufactured from a UV stable glass reinforced polyester. The flare is manufactured from UV stable ABS.

Stainless steel screws and mounting stirrup are incorporated to ensure a corrosion-free product.

- ★ Zone 1 & 2 (and Zone 21 & 22 : IIC version) plus non-Ex use
- ★ ATEX Approved Ex II 2G Ex de IIB T3/T4*
- ★ IIC Gas Group and Dust approved version available.
- ★ BASEEFA certified.
- ★ Brazilian (Inmetro) certified.
- ★ IECEx Approved
- ★ IP66.
- ★ Certified temperature -50°C to $+70^{\circ}\text{C}$ *
- ★ GRP corrosion-free flamepath.
- ★ 112dB(A) at 8 watts at 1 metre (IIB Version)
- ★ Power tapping via integral transformer.
- ★ Ratcheted swivel mounting stirrup
- ★ Stainless steel fixtures.
- ★ 100V or 70V line versions available.
- ★ Earth continuity available.

*Temperature class relates to ambient temperature (see over)

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Specification

Rated Power: 8 Watts RMS continuous (at 25°C).
 Certification: EN60079-0, 1, 7
 IEC60079-0, 1, 7 and IEC 61241-0, 1
 BASEEFA Cert. No. BASEEFA 05 ATEX0199X

IIB version: $\text{Ex d} \text{IIB T3/T4}^*$
 Zone 1 & 2

IIC version: $\text{Ex d} \text{IIC T4/T5}^*$
 Ex tD A21 IP65 T130°C
 Zone 1 & 2 and Zone 21 & 22
 *See Certified temperature below
 Brazilian (Inmetro) Certified: BR-Ex de IIB T3/T4
 BR-Ex de IIC T5/T1 15°C

Material: Body & Cover - UV stable, glass reinforced polyester.
 outer flare - UV stable ABS.
 Mounting stirrup and fixtures in stainless steel.

Finish: Natural black or painted or to client's requirements.

Output IIB version: Maximum output at 1W/1M is 103 dB(A)
 Maximum output at 4W/1M is 109 dB(A)
 Maximum output at 8W/1M is 112 dB(A)

IIC version: Maximum output at 1W/1M is 100 dB(A)
 Maximum output at 4W/1M is 106 dB(A)
 Maximum output at 8W/1M is 109 dB(A)

Weight: 1.5kg approx.

Certified Temperature:
 IIB version: Tamb -50°C to +70°C (T3) and Tamb -50°C to +40°C (T4)
 IIC version: Tamb -50°C to +70°C (T4) and Tamb -50°C to +40°C (T5)

Ingress Protection: IP66

Frequency Range: 400Hz to 7kHz.

Voice Coil Impedence: 8 ohms.

Transformer: Used by combining the rated power tapings below.

Transformer Tappings	Power (Watts)	
	(8W unit)	(4W unit)
1:2	8.00	4.00
2:3	4.00	2.00
3:4	2.00	1.00
1:3	1.50	0.75
2:4	0.75	0.38
1:4	0.40	0.20

Terminals: 4 x 2.5mm².

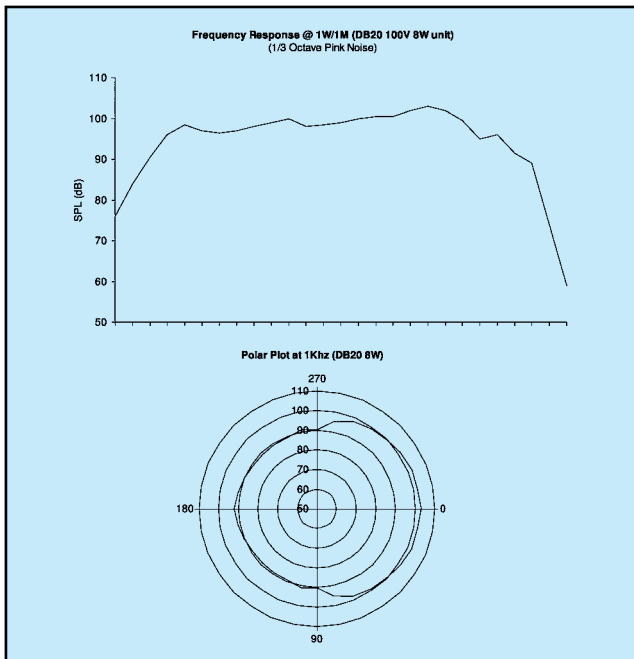
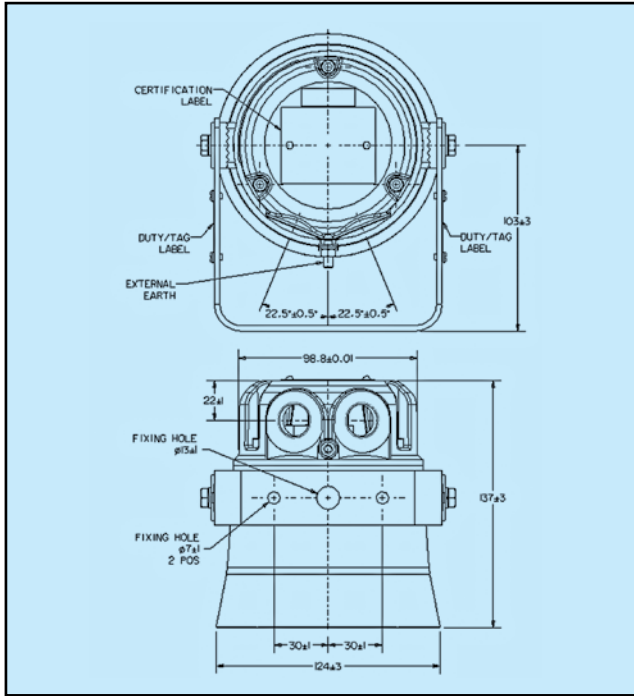
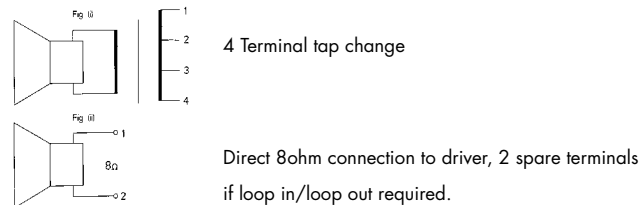
Earth Continuity: Available

Mounting: Via stirrup with ratchet facility.

Labels: Optional stainless steel tag and duty labels.

Cable Entries: ATEX & IEC 2 x M20 ISO + 1 x certified plug

Transformer Tapping Options:



Ordering Requirements

Certification	Max Rated Power	Transformer	Options	Finish																																														
DB20																																																		
<table border="1"> <thead> <tr> <th>Certification</th> <th>Code</th> </tr> </thead> <tbody> <tr><td>ATEX IIB</td><td>BB</td></tr> <tr><td>ATEX IIC</td><td>BC</td></tr> <tr><td>IEC Ex IIB</td><td>JB</td></tr> <tr><td>IEC Ex IIC</td><td>JC</td></tr> <tr><td>Inmetro IIB</td><td>MB</td></tr> <tr><td>Inmetro IIC</td><td>MC</td></tr> <tr><td>Weatherproof</td><td>W</td></tr> </tbody> </table>	Certification	Code	ATEX IIB	BB	ATEX IIC	BC	IEC Ex IIB	JB	IEC Ex IIC	JC	Inmetro IIB	MB	Inmetro IIC	MC	Weatherproof	W	<table border="1"> <thead> <tr> <th>Power</th> <th>Code</th> </tr> </thead> <tbody> <tr><td>8 Watts</td><td>8</td></tr> <tr><td>4 Watts</td><td>4</td></tr> </tbody> </table>	Power	Code	8 Watts	8	4 Watts	4	<table border="1"> <thead> <tr> <th>Transformer</th> <th>Code</th> </tr> </thead> <tbody> <tr><td>Transformer</td><td>X*</td></tr> <tr><td>8ohm version</td><td>N</td></tr> </tbody> </table> <p>*ATEX = 100V Line 70V Line available please specify</p>	Transformer	Code	Transformer	X*	8ohm version	N	<table border="1"> <thead> <tr> <th>Option</th> <th>Code</th> </tr> </thead> <tbody> <tr><td>None</td><td>N</td></tr> <tr><td>Duty label</td><td>D</td></tr> <tr><td>Tag label</td><td>T</td></tr> <tr><td>Earth continuity</td><td>E</td></tr> </tbody> </table>	Option	Code	None	N	Duty label	D	Tag label	T	Earth continuity	E	<table border="1"> <thead> <tr> <th>Option</th> <th>Code</th> </tr> </thead> <tbody> <tr><td>Natural Black</td><td>N</td></tr> <tr><td>Red</td><td>R</td></tr> <tr><td>Special</td><td>S</td></tr> </tbody> </table>	Option	Code	Natural Black	N	Red	R	Special	S
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DB20C Range | Ceiling Speakers

Standard 4 Watts. Exd, Weatherproof

This range of Ceiling-Mounted loudspeakers, intended for use in potentially explosive atmospheres, has a power rating of up to 8 Watts (upon request) and is suitable for use in the harsh environmental conditions found offshore and onshore in the oil, gas and petrochemical industries.

Certification Standards



ATEX

IECEX



GOST

ATEX Approved  II 2GD

Zone 1 & 2 and Zone 21 & 22 use

IIC Gas Group and Dust approved

BASEEFA certified

GOST 'R' & 'K' certified

Brazilian (Inmetro) certified

IECEX Approved

IP66 & IP67

Certified temperature -50°C to $+70^{\circ}\text{C}$ *

GRP and Flame-Retardant ABS corrosion-free construction

100dB (A) at 1 watt at 1 metre

Power tapplings via integral transformer

Tool-free mounting method

100V or 70V line versions available

Earth continuity available

*Temperature class relates to ambient temperature (see over)

The lightweight, patented design provides self-supporting and self-locking mounting onto a ceiling tile from 0.5 to 55mm thick. The speaker is held in the mount via a twist-fit support and locking grille, giving access from above or below and allowing first fit of either ceiling or speakers. The DB20C's compact design will fit a ceiling cavity of limited space and its aesthetically pleasing appearance will enhance the surroundings.



www.medc.com

Ref: 6DS129/A

 **COOPER** Notification

Specification

Rated Power: 4 Watts RMS continuous (at 25°C).
 Certification: EN60079-0, 1, 7
 IEC60079-0, 1, 7 and IEC 61241-0, 1
 BASEEFA Cert. No. BASEEFA 05 ATEX0199X

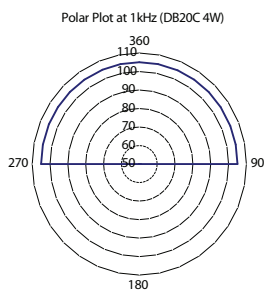
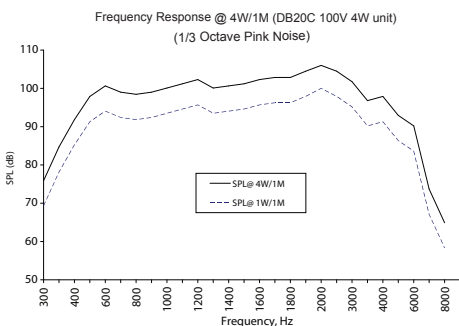
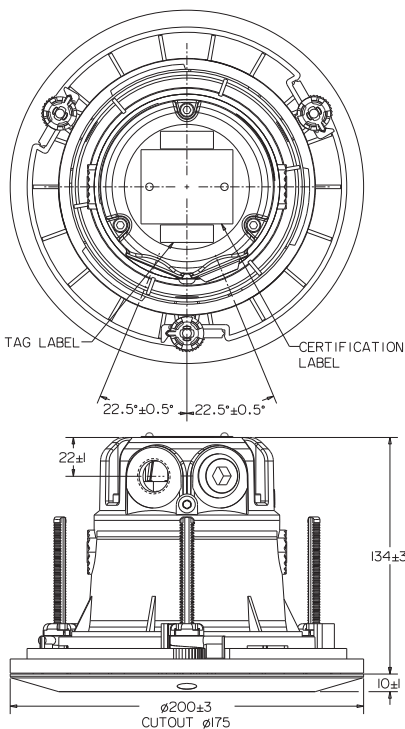
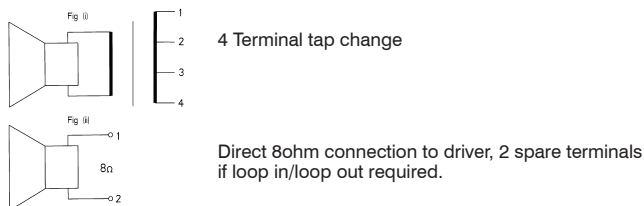
Ex II 2GD Ex de IIC T4/T5*
 Ex tD A21 IP66/67 T130°C
 Zone 1 & 2 and Zone 21 & 22
 *See Certified temperature below
 GOST 'R' Certification: 2Exde IIC T4
 GOST 'K' Certification: Exde IIC T4
 Brazilian (Inmetro) Certified: BR-Ex de IIC T5/115°C

Material: Body & Cover - Natural black, UV stable, glass reinforced polyester.
 Outer flare - UV stable ABS.
 Finish: Natural ABS finish equivalent to RAL9010.
 Output: Maximum output at 1W/1M is 100 dB(A)
 Maximum output at 4W/1M is 106 dB(A)
 *Other wattages available contact MEDC sales for details.
 Weight: 1.5kg approx.
 Certified Temperature: T_{amb} -50°C to +70°C (T4) and T_{amb} -50°C to +40°C (T5)
 Ingress Protection: IP66 & IP67
 Frequency Range: 400Hz to 7kHz.
 Voice Coil Impedence: 8 ohms.
 Transformer: Used by combining the rated power tapings below.

Transformer Tappings	Power (Watts)
1:2	4.00
2:3	2.00
3:4	1.00
1:3	0.75
2:4	0.38
1:4	0.20

Terminals: 4 x 2.5mm².
 Earth Continuity: Available via optional earthing stud.
 Mounting: Via integral ceiling-mount bezel.
 Cable Entries: ATEX & IEC 2 x M20 ISO + 1 x certified plug.
 Ceiling Cutout: Ø175mm.

Transformer Tapping Options:



Ordering Requirements

Certification		Transformer		Options	
DB20C					
Certification	Code	Transformer	Code	Option	Code
ATEX IIC	BC	Transformer	X*	None	N
IEC Ex IIC	JC	8ohm version	N	Tag label	T
Inmetro IIC	MC			Earth continuity	E
GOST R IIC	GC				
GOST K IIC	KC				
		*100V Line Std 70V Line available please specify			

Cooper MEDC Limited. Tel: + 44 (0) 1773 864100 Colliery Road, Pinxton, Nottingham, NG16 6JF United Kingdom

Cooper MEDC (USA) Tel: + 1 (713) 937 9772 www.medc.com

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

COOPER Notification



SL15 Range | Status Lights

Exd, Weatherproof

These Status Lights have been designed for use in potentially explosive atmospheres and harsh environmental conditions. The indicators are suitable for use offshore or onshore, where a high degree of corrosion resistance is required.

Certification Standards



IECEX

ATEX Approved

II 2GD

IEC Ex Approved

UL Listed (see US data sheet)

IP66 and 67, NEMA 4X & 6

Certified temperature

-55° C to +70° C *

-67° F to +158° F

Corrosion free GRP

Filament 60W or 100W*

Various flash rates available for xenon units. Various lens colours.
Optional cast or wire lens guard

*Model dependent

The housings are manufactured from a U.V. stable, glass reinforced polyester (GRP) fitted to a stainless steel mounting plate for ease of installation. Stainless steel fixings are also used, ensuring a corrosion free product.

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

Units can be supplied as 2, 3 or 4 way in any combination of xenon beacon or filament lamp.



3-way Status Light
(shown without optional guards)

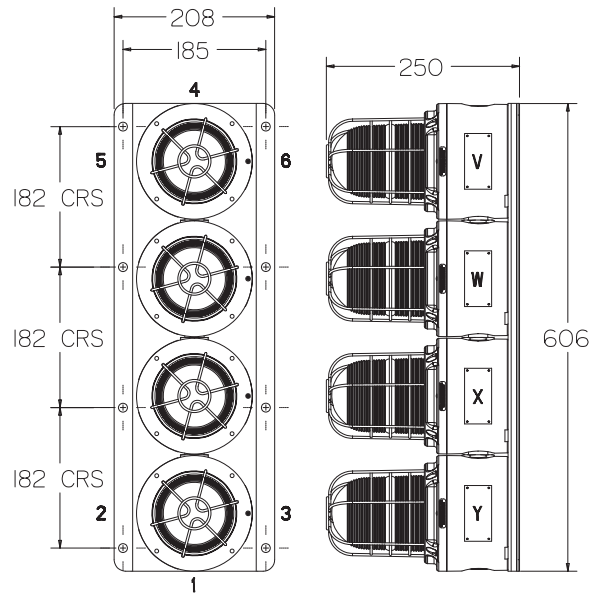
Specification

Models:	SL15 Status Lights
Certification:	CENELEC EN50014 & EN50018
	ATEX cert. no. Baseefa 04ATE0009X
	Ⓔ II 2 GD EEx d IIC T3 / T4 / T5 / T6*
	IEC Ex Approved
	Ex d IIC T200°, T135°C, T100°, T85°C* DIP A21 IP6X
	UL listed versions, see separate data sheet
	*Model dependent
Material:	Body: Glass reinforced polyester Lens: Glass Back plate & fixings: stainless steel 316 Wire Guard (optional): stainless steel wire Cast Guard (optional): aluminum LM25M
Finish:	Natural black or painted to customer choice
Voltage:	24, 48 V d.c. 110, 120, 230, 240, 254 V a.c.

Xenon	Tube energy: 15 Joules Tube life: >1x10 ⁶ flashes Flash rate: 60, 80 or 120 fpm Certified: -55°C to +40°C (T6) Temperature: -55°C to +55°C (T5) -55°C to +70°C (T4)	Filament	Lamp Type: 60W or 100W GLS filament Lamp Holder: E27 as standard Certified: 60W -55°C to +55°C (T4) Temperature: -55°C to +70°C (T3) 100W -55°C to +40°C (T3)
Ingress	IP66 & 67	Protection:	NEMA 4X & 6
Weight:	2-Way: 6.5Kg, 3-Way: 9.8Kg, 4-Way: 13.1Kg		
Entries:	Available with up to 2 x M20 or 2 x M25 entries in either bottom or top of unit. Entries in both bottom and top of unit by special order only.		
Terminals:	Suitable for up to 2.5mm ² cable max.		
Labels:	Tag/Duty label option		

Entry positions 1 to 6

Lamp positions V to Y



Xenon electrical ratings (per way)

Voltage	dc		ac				
	24	48	110	120	230	240	254
Current (A)	0.78	0.67	0.40	0.40	0.20	0.20	0.17

Effective Candlepower (Cd) - 330 at 60 fpm

Filament electrical ratings (per way)

Voltage	dc		ac				
	24	48	110	120	230	240	254
Current (A) 60W	2.5	1.25	0.55	0.50	0.26	0.25	0.24
Current (A) 100W	4.2	2.10	0.91	0.83	0.43	0.42	0.39

Multiplying factor for coloured lenses

Red	Blue	Amber	Green	Yellow
0.15	0.12	0.51	0.49	0.86

eg. an amber lens gives 0.51 (approx half) of the intensity from a clear lens

Ordering Requirements

Lamp Type / Positions (see diagram)

Model Certification V W X Y Voltage Cable Entries Lens Guard Duty/Tag label Finish

Certification	Code	Indicate light module type		Voltage	Code	Entry size	Code	Guard	Code	Label	Code	Finish	Code
ATEX	B	Filament	Xenon	24V d.c.	024	M20	*C	None	N	Duty label	D*	Natural Black	N
IEC Ex	J	60W - 1	60fpm - 3	48V d.c.	048	M25	*D	Cast	C	Tag label	T*	Red	R
		100W - 2	80fpm - 4	110V a.c.	110	* Prefix with cable entry position (see diagram) Note: maximum 2 entries bottom OR top. Bottom AND top entry(s) by special order only.		Wire	W	None	N	Blue	B
		Suffixed by colour required		120V a.c.	120					*specify wording		Yellow	Y
		Lens colour	Code	230V a.c.	230							Green	G
		Red	R	240V a.c.	240							White	W
		Blue	B	254V a.c.	254							Special finish	S*
		Green	G									*please specify	
		Amber	A										
		Yellow	Y										
		Clear	C										

Example: A two way ATEX approved unit with one 100W filament lamp with green lens for the top unit and one 60fpm xenon lamp with red lens for the bottom unit, rated 24V with 2 x M20 bottom entries, no guard, no labels, finished in red would be: SL15BV2GW3R0242C3CNNR

To order UL listed versions, see separate US datasheet

STATUS LAMPS

Explosion-proof, Weatherproof SM87 SL & XB11 SL Range



XB11 SL
close coupled for UL only

Note: Units shown are for illustration only. Other variations are available.

Introduction

SM87 SL

These ranges of versatile status lights have been designed to suit various offshore and onshore applications.

Available as LED, xenon, filament and fluorescent beacons.

The SM87 SL range is manufactured in marine grade alloy and the XB11 SL in corrosion-free GRP to provide a wide range of status lights to suit clients' requirements.

All units can be supplied as 1, 2, 3, 4 or 5 way.

- ★ Zone 1 and Zone 2 use.
- ★ EExd.
- ★ *ATEX approved, Ex II 2GD.
- ★ *BASEEFA certified.
- ★ *UL listed for USA and Canada
 - Class I, Div. 1 & 2, Groups C & D.
 - Class I, Zone 1, AExd IIB T6.
- ★ *CSA certified.
- ★ *GOST 'R' & 'K' certified.
- ★ *Chinese (CQST) certified.
- ★ Brazilian (Inmetro) certified.
- ★ IP66 & 67.
- ★ *Certified temperature -55°C to +70°C.
- ★ *LED, xenon, fluorescent, filament.
- ★ Marine grade alloy or GRP.
- ★ Close-coupled and pre-wired to customer's requirements.
- *Model dependant.

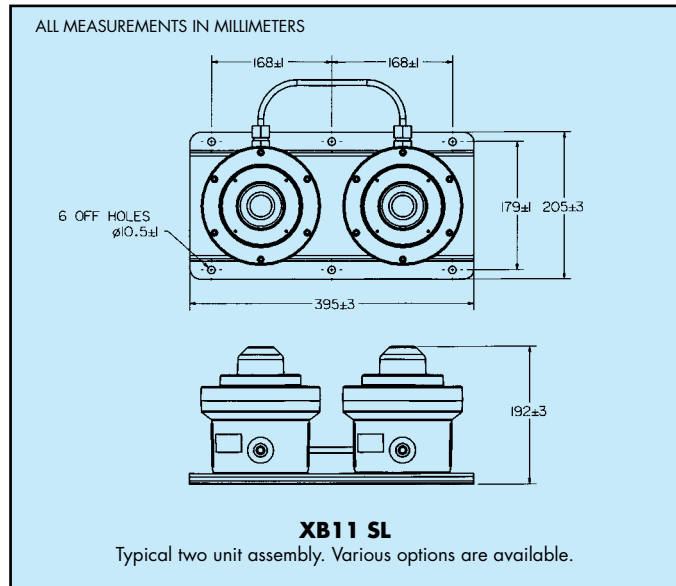
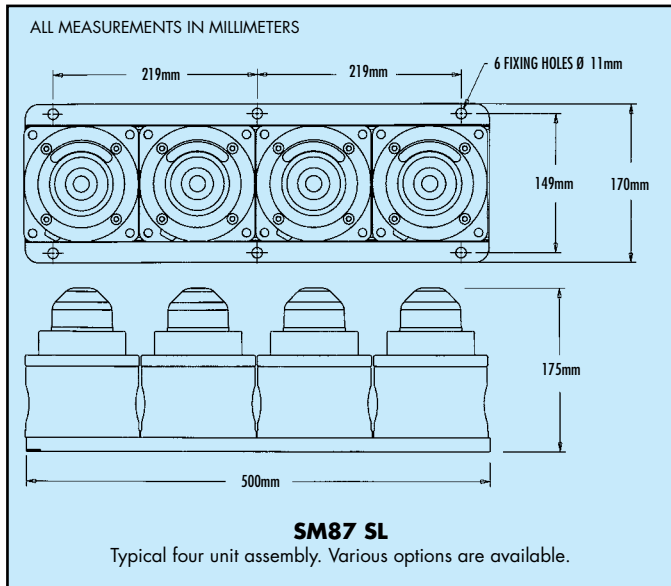
MEDC Ltd, Colliery Road,
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Fax: +44 (0)1773 582800

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Fax: +1 (713) 937 9773

MEDC Norway, Auglaendsmyråa 6,
4016, Stavanger, Norge.
Tel: +47 913 92 289
Fax: +47 914 46 030

Sales Enq. Fax: +44 (0)1773 582830 Sales Orders Fax: +44 (0)1773 582832
E-Mail: sales@medc.com Web: www.medc.com





Specification

	SM87 SL	XB11 SL
Lamp Types	LED 192 Candela Xenon 6 joules maximum. Fluorescent 10W or 5W. Filament 40W maximum.	Xenon 5 joules. Fluorescent 10W or 5W. Filament 10W.
Voltage Frequency	50 Hz as standard. 60 Hz available if required.	
Xenon Voltages	24, 48V d.c. 110, 120, 240, 254V a.c. (see SM87 HXB data sheet for further information)	24V d.c., 110V, 240V a.c. (see XB11 data sheet for further details)
Filament Voltages	12, 24, 48V d.c., 110, 220, 240, 254V a.c. (see SM87 LU3 data sheet for further information)	24, 48V d.c., 110, 220, 240, 254V a.c. (see FL11* data sheet for further details)
Fluorescent Voltages	12, 24, 48V, 220, 240, 254V a.c. (see SM87 LU1 data sheet for further information)	24V d.c., 240V a.c. (see FL11* data sheet for further details)
Lamp Colours	Red, Amber, Yellow, Green, Blue or Clear.	
Certification	ATEX Approved: EExd IIC T4 (filament), EExd IIC T6 (Fluorescent & Xenon). Cert. No. Baseefa 03ATEX0222X CENELEC EN50014, EN50018 UL Listed for USA and Canada: Class I, Div 1, Groups C & D, Class I, Zone 1, AExd IIB T6, Listing No. E187894. CSA Certified: Class I, Div 1 & 2, Group D. Cert. No. 96406. GOST 'R' & 'K' Certified: 1Exd IIC T4. Chinese Certified: Exd IIC T4 (Filament), Exd IIC T6 (Fluorescent & Xenon) Brazilian (Inmetro) Certified: BR-Ex d IIC T3/T4/T5/T6	ATEX Approved: BASEEFA EExd IIB T5/T6. Cert. No. 99 ATEX 2195x CENELEC EN50014 and EN50018. UL Listed for USA and Canada: Class I, Div 2, Groups C & D, Class I, Zones 1 & 2, AExd IIB T5/T6. Listing No. E187894 (XB11 only). Chinese Certified: Exd IIB T5/T6. Brazilian (Inmetro) Certified: BR-Ex d IIB T4/T5/T6
Terminals	2.5mm ² max.	2.5mm ² max.
Wiring	Standard configuration of internal wiring is to common the negative/neutral connections. If individually wired lamps are required, please state requirements.	
Entries	Up to 3 x 20mm or 25mm ISO.	1 x 20mm.
Enclosure	LM 25TF Marine Grade Alloy.	GRP.
Lens	Glass	
Finish	Epoxy paint as standard or to customer's specification.	Natural Black or Epoxy paint to customer's specification.
Ingress Protection	IP66 & 67.	
Ambient Temp.	-25°C to +55°C (LED & Fluorescent). -55°C to +70°C (Xenon) -55°C to +55°C (Filament).	-55°C to +70°C.
Gland Type	Exd	Exd

*NOTE: FL11 currently not available UL listed.

Ordering Requirements

Please contact MEDC to discuss your requirements.



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STATUS LAMP EExe(m), Weatherproof SL5 Range



Now also with Blue and Clear LEDs



Introduction

Manufactured in GRP, with a high ingress protection and high light output, these status lamps have been designed for use in potentially explosive atmospheres and harsh environmental conditions such as those found offshore and onshore in the petrochemical industries.

A long life, high intensity, LED version is now available.

- ★ Zone 1 and Zone 2 use.
- ★ EExe(m) II T3/T4.
- ★ ATEX approved, Ex II 2G.
- ★ BASEEFA certified.
- ★ Chinese (CQST) certified.
- ★ IP66 and IP67.
- ★ Certified temperature -40°C to $+55^{\circ}\text{C}^*$.
- ★ Corrosion resistant GRP.
- ★ Filament lamps (up to 5 pairs).
- ★ Xenon & LED versions available.
- ★ Various lamp colours.
- ★ Lightweight.
- ★ Retained stainless steel cover screws.

*Depending on version.

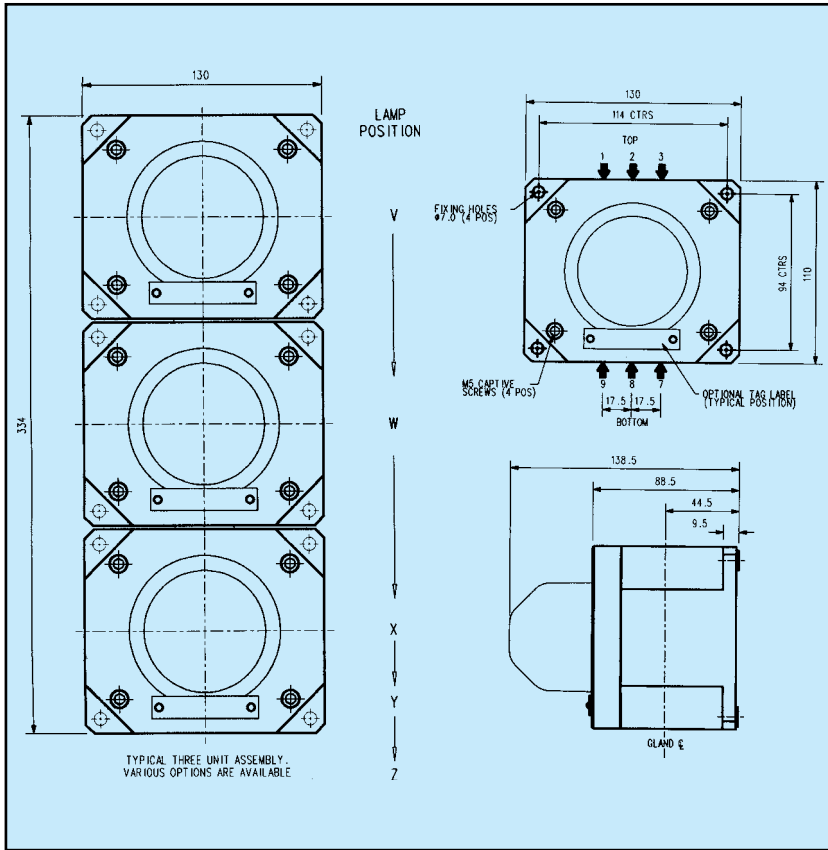
MEDC Ltd, Colliery Road,
Pinxton, Nottingham NG16 6JF, UK.
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E-Mail: sales@medc.com Web: www.medc.com





Specification

Certification: CENELEC EN50014, 19 & 28.

Cert. No. BAS02ATEX2108X.

EExem II T3/T4, Zones 1 & 2.

Chinese (CQST) – Exem II T4, LED

– Exe II T3, Filament

– Exem II T4, Xenon

Material: UV stable, glass reinforced polyester with polycarbonate wellglass. Captive stainless steel cover screws.

Finish: Body natural black or painted to client specifications.

Weight: 1.2kg 1 way.

Certified –40°C to +55°C (Filament & Xenon).

Temperature: –40°C to +45°C (LED).

Ingress

Protection: IP66 and IP67.

Voltages: d.c. – 12V, 24V, 48V.

a.c. – 110V, 220V, 240V, 254V, 260V.

Note: Xenon & LED versions only available in 24V and 48V.

Current Consumption:

	Voltage:	24V	48V
Xenon	Current:	120mA	95mA
LED	Current:	130-180mA	70-90mA

Light Module: Up to 5 ways – Filament: 2 x 5W.

Xenon: 1J (nominal).

LED: Up to 400Cd.

Light Module Colours: Red, Amber, Yellow, Green, Blue or Clear.

Terminals: Filament: Max 12 x 4mm².

Xenon: Max 16 x 2.5mm².

LED: Max 16 x 2.5mm² or 4mm².

Wiring: Standard configuration of internal wiring is to common the negative/neutral connections. If individually wired lamps are required, please state.

Labels: Optional stainless steel tag/duty label.

Entries:

Size	Maximum Number	Entry Positions	
		Top	Bottom
M16	2	Any	Any
M20	2	Any	Any
M25/M32	1	2	8

Ordering Requirements

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

Unit	Type	Lamp Type Positions					Voltage	Cable Entries	Duty/Tag Label	Finish			
SL5	<input type="text"/>	V	W	X	Y	Z	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>			
Type	Code	Indicate light module type					*Voltage	Code	Entries	Code	Label	Code	
Uncertified	W	Filament 1	LED Steady 3				12V d.c.	012	M16	*A	Duty Label	D*	
EExe(m)	E	Xenon 2	LED Flashing 4				24V d.c.	024	M20	*B	Tag	T*	
Chinese (CQST)	Q	Suffixed by colour required:					48V d.c.	048	M25	*C	None	N	
		Lamp Colours	Code				110V a.c.	110	M32	*D	*Specify wording.		
		Red	R				220V a.c.	220	*Prefix with cable entry position. (See diagram above) E.g. 7A, 9A.			Finish	Code
		Amber	A				240V a.c.	240				Natural Black	N
		Yellow*	Y				254V a.c.	254				Red	R
		Green	G				260V a.c.	260				Special	S*
		Blue	B									*Please specify	
		Clear	C										

*LED not available

*Note:
Xenon and LED versions are only available in 24V and 48V d.c.

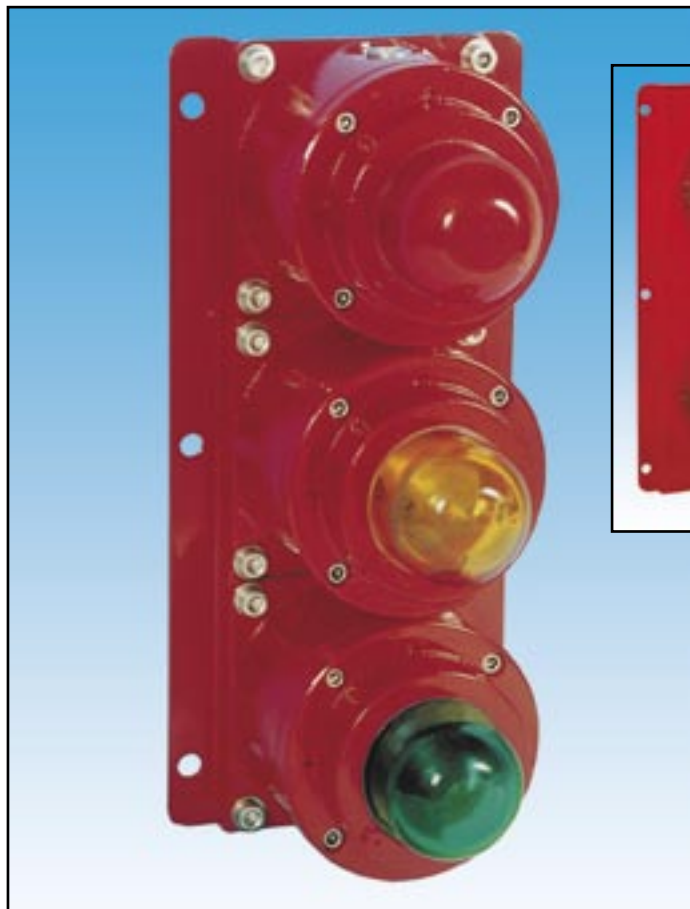
EXAMPLE: A two way EExe certified unit, with filament lamps coloured red top, blue bottom, rated 240V, with 2 x M20 bottom entries, finished in red would be our ref: SL5EV1RW1B2407B9BNR.



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STATUS LIGHTS

Explosion-proof, Weatherproof SM87 SL & XB12 SL Range



SM87 SL



XB12 SL

Note: Units shown are for illustration only. Other variations are available.

Introduction

These ranges of versatile status lights have been designed to suit various offshore and onshore applications.

Available as Xenon, filament and fluorescent beacons/strobes.

The SM87 SL range is manufactured in marine grade alloy and the XB12 SL in corrosion-free GRP to provide a wide range of status lights to suit clients' requirements.

All units can be supplied as 1, 2, 3, 4 or 5 way.

European, Russian and other worldwide approvals are available, refer to main section of catalog.

- ★ *UL listed for USA and Canada
 - Class I, Div. 1 & 2, Groups C & D.
 - Class I, Zone 1, AExd IIB T6.
 - ★ *CSA certified.
 - ★ ATEX approved.
 - ★ *Xenon, fluorescent, filament.
 - ★ NEMA 4x & 6, IP66 & 67.
 - ★ Certified temperature –67°F to +131°F.
–55°C to +55°C.
 - ★ *4 wire monitored connexion.
 - ★ Marine grade alloy or GRP.
 - ★ Close-coupled and pre-wired to customer's requirements.
- *Model dependant.

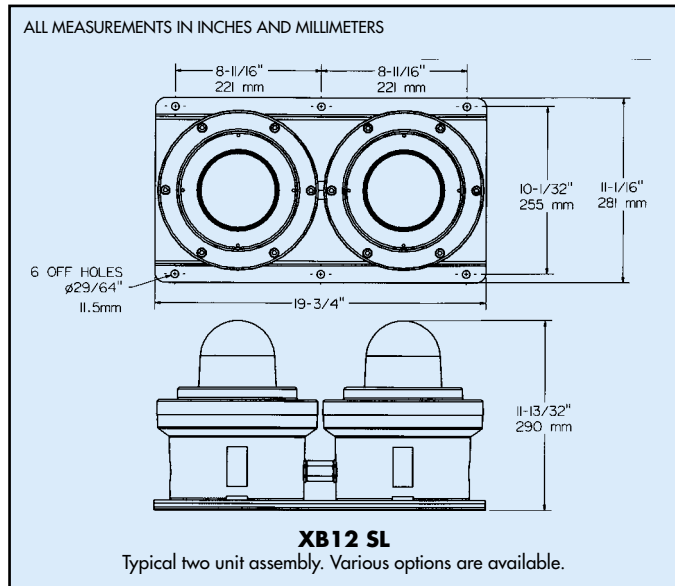
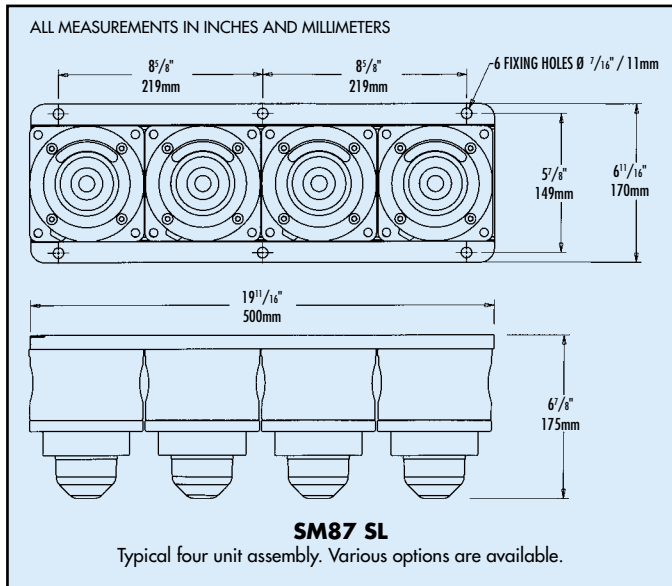
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Specification

	SM87 SL	XB12 SL
Lamp Types	Xenon 6 joules maximum. Fluorescent 10W or 5W. Filament 40W maximum.	Xenon 21 joules. Filament 60W.
Voltage Frequency	50 Hz as standard. 60 Hz available if required.	
Xenon Voltages	24, 48V d.c. 110, 120, 240, 254V a.c. (see SM87 HXB data sheet for further information)	24V d.c., 110V, 240V a.c. (see XB12 data sheet for further information)
Filament Voltages	12, 24, 48V d.c., 110, 220, 240, 254V a.c. (see SM87 LU3 data sheet for further information)	120V a.c. (see FB12 data sheet for further information)
Fluorescent Voltages	12, 24, 48V, 220, 240, 254V a.c. (see SM87 LU1 data sheet for further information)	-
Lamp Colours	Red, Amber, Yellow, Green, Blue or Clear.	
Certification	UL Listed for USA and Canada Class I, Div 1, Groups C & D, Class I, Zone 1, AExd IIB T6. Listing No. E187894. CSA Certified: Class 1, Div 1 & 2, Group D. Cert. No. 96406. ATEX Approved: EExd IIC T4 (filament), EExd IIC T6 (Fluorescent & Xenon). Cert. No. Baseefa 03ATEX0222X, CENELEC EN50014, EN50018.	UL Listed for USA and Canada Class I, Div 2, Groups C & D, Class I, Zones 1 & 2, AExd IIB T4/T5. Listing No. E187894. ATEX Approved: EExd IIB T4/T5. Cert. No. 99 ATEX 2196 CENELEC EN50014 and EN50018.
Terminals	Will accept up to 14AWG cable.	Will accept up to 6 off 10AWG cable.
Wiring	Standard configuration of internal wiring is to common the negative/neutral connexions. If individually wired lamps are required, please state requirements.	
Entries	Up to 3 x 1/2" or 3/4" NPT.	1 x 1/2" NPT.
Enclosure	LM 25TF Marine Grade Alloy.	GRP.
Lens	Glass	
Finish	Epoxy paint as standard or to customer's specification.	Natural Black or Epoxy paint to customer's specification.
Ingress Protection	NEMA 4x and 6, IP66 & 67.	
Ambient Temp.	-13°F to 131°F (-25°C to +55°C) – Class I, Div 1. -67°F to +131°F (-55°C to +55°C) – Class I, Zone 1.	-67°F to +158°F (-55°C to +70°C).

Note: XB11 SLUL also available.

Ordering Requirements

Please contact MEDC to discuss your requirements.



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

5 JOULE XENON & HIGH INTENSITY LED BEACONS EExd, Weatherproof SM87 & LED Ranges



Now VNIPO
Approved

Introduction

These certified beacons have been designed for use in harsh environmental conditions. The stainless steel or marine grade alloy enclosures are suitable for use offshore or onshore, where light weight combined with corrosion resistance and strength is required. Units can be painted to customer specification and fitted with identification labels.

LED version available, offering extended lifetimes.

A high temperature version is available – contact MEDC for details.

- ★ Zone 1 and Zone 2 use.
 - ★ EExd IICT4/T6.
 - ★ ATEX approved Ex II 2GD.
 - ★ BASEEFA Certified.
 - ★ UL Listed for USA and Canada:
 - Class I, Div. 1, Groups C & D.
 - Class I, Zone 1 AExd IIB.
 - ★ CSA Certified.
 - ★ GOST 'R' & 'K' Certified*.
 - ★ Chinese (CQST) Certified.
 - ★ Brazilian (Inmetro) Certified.
 - ★ IP66 and IP67.
 - ★ Certified temperature* –55°C to +70°C.
 - ★ High temperature version (up to 85°C) available.
 - ★ Stainless steel or marine grade alloy.
 - ★ Xenon or LED versions.
 - ★ Various lens colours.
 - ★ Optional lens guard.
 - ★ Telephone or relay initiated.
- *Depending on version.

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Specification

Certification: ATEX EExdIIC T6.

Cert. No. Baseefa 03ATEX0222.

CENELEC EN50014 and EN50018 and EN50019.

CSA Certification to C22.2 Nos. 0, 0.4, 0.5, 9, 30-M1986, 94-M91, 137-M1981. Class I. Div 1. Group D. Enclosure 3/4. Cert. No. 96406. (HXB only).

UL Listed for USA & Canada: Class I, Div 1, Groups C & D and Class 1, Zone 1. (HXB & XBT only). Listing No. E187894.

Refer to UL data sheet, at rear of catalogue, for complete information.

GOST 'R' Certification: 1Exd IIC T4, (HXB only) Russian Fire Approved (VNIPO).

GOST 'K' Certification: Exd IIC T4.

Chinese (CQST) Certification: Exd IIC T4/T6, (HXB only).

Brazilian (Inmetro) Certification: BR-Ex d IIC T3/T4/T5/T6

Material: HXBS, XBTS and LEDS – Grade 316 ANC4B Stainless Steel.

HXBA, XBTA & LEDA – LM25 TF Marine Grade Alloy.

Lens – Glass.

Note: Terminal Chamber available only in Stainless Steel.

UL version available only in marine grade alloy.

CSA version available only in stainless steel.

Finish: Epoxy paint finish as standard or to customer's specification.

Voltage	DC		AC 50/60 Hz				
	24	48	110	120	220	240	254
SM87 HXB XBT							
Tube Energy (Joules)	5	5	6	7	6	7	8
Peak Current							
Consumption (mA)	320	170	250	275	120	135	150
Effective Intensity (Cd)	29	29	32	39	32	39	44
Peak Intensity	22213	22213	25061	30187	25061	30187	34174
Power Consumption (Watts)	7.2	7.6	25	27	25	27	35
SM87 LED							
Current Consumption	165mA	85mA	N/A	N/A	N/A	N/A	N/A

FOR COLOURED LENSES

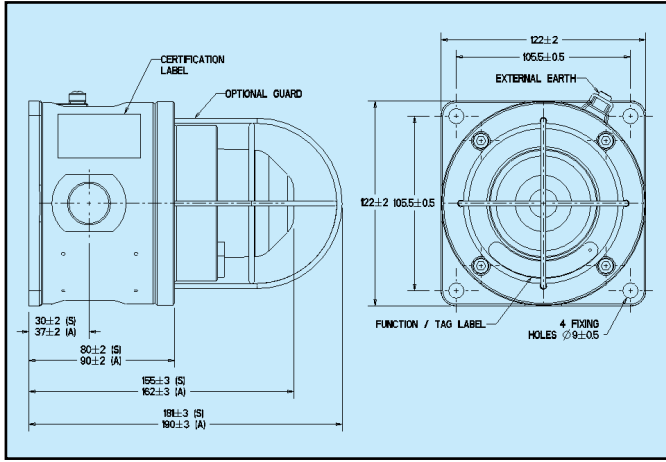
Colour	Red	Blue	Amber	Green	Yellow
Multiplying Factor	0.15	0.12	0.51	0.49	0.86

The photometric data has been verified by BSI. A report is available if required.

LED Light Output	Colour	Total LED Output (Candela)
Steady or Flashing (customer selectable)	Red	192
	Amber	64
	Green	17
	Blue	64

LED/Lens Colour: Red, Blue, Green, Amber, Yellow (not LED) or Clear (not LED).

Flash Rate: 60fpm as standard, other flash rates available on request.



Weight: HXBS & LEDS – 3.8kg each (approx).
HXBA & LEDA – 2kg. each (approx.).

BASEEFA HXB = -55°C to +70°C.

Certified LED = -20°C to +40°C.

Temperature: Versions are available certified up to +55°C maximum with a T4 rating.
XBT (High temp) = -40°C to +85°C.

CSA Certified

Temperature: -50°C to +40°C.

UL Certified

Temperature: HXB = -55°C to +70°C. XBT (High Temp.) = -40°C to +85°C.

GOST 'R' Certified

Temperature: HXB = -55°C to +55°C.

Ingress

Protection: IP66 & IP67.

Terminals: HXB & XBT – 6 off suitable for up to 2.5mm² cable.

LED – 6 off suitable for up to 2.5mm² cable.

Telephone initiation or relay interface:

Initiation by telephone ringing tone or low voltage control signals.

Labels: Duty & Tag Labels optional.

Entries: Up to 4 x 20mm/25mm ISO or 1/2"/3/4" NPT.

Ordering Requirements

The following code is designed to help in the selection of the correct unit. Build up the reference number by inserting the code for each component into the appropriate box. **For standard products, available ex-stock, contact sales office for details.**

Model	Certification	Voltage	Lens/LEDcolour	Lens Guard	Entries	Tag/Duty Label	Initiate Option	Finish	
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
Type	Code	Certification	Code	Colour	Code	Entries	Code	Initiate Option	Code
Xenon (stainless steel)	SM87HXBS	ATEX	B	Red	R	20mm	1	Telephone	*T
Xenon (alloy)	SM87HXBA	UL	UL	Blue	B	25mm	2	Relay	*R
Xenon High Temp. (alloy)	SM87XBTA*	CSA	C	Green	G	1/2" NPT	3	EOL Resistor	*E
Xenon High Temp. (stainless steel)	SM87XBTS*	GOST 'R'	G	Amber	A	3/4" NPT	4	None	N
LED EExd (stainless steel)	SM87LEDS	GOST 'K'	K	Yellow	Y	Top	*T	*Not available on UL versions.	
LED EExd (alloy)	SM87LEDA	GOST 'K'	K	(not LED)		Bottom	*B		
		Chinese (CQST)	Q	Clear	C	RHS	*R		
		Inmetro	DM	(not LED)		LHS	*L		
		Only HXBS is available CSA certified.		Voltage	Code	*prefix position with entry size code.		Finish	Code
		Only HXBA & XBTA is available UL certified.		24V d.c.	024	e.g. 1R1B=20mm Right and Bottom entries.		Red	R
		*VNIPO Approved as standard.		48V d.c. not XBT	048	Guard	Code	Blue	B
				110V a.c. not LED, XBT110	110	None	N	Yellow	Y
				120V a.c.	120	Yes	Y	Yellow/Black Stripe	X
				220V a.c.	220	Yes	Y	Grey	G
				240V a.c.	240	Yes	Y	White	W
				254V a.c.	254	Yes	Y	Special Finish	S



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

21 JOULE XENON BEACONS

Exd(e), Weatherproof XB4 Range



Introduction

These **high output (21 Joule)** beacons have been designed for use in potentially explosive atmospheres and harsh environmental conditions. The marine grade alloy or stainless steel enclosures are suitable for use offshore or onshore, where light weight combined with corrosion resistance and strength is required. Units can be painted to customer specification and fitted with identification labels.

Available with optional Exe terminal chamber.

- ★ Zone 1 and Zone 2 use.
- ★ Exde IICT5.
- ★ ATEX approved Ex II 2GD.
- ★ BASEEFA certified.
- ★ UL Listed for USA and Canada
 - Hazardous locations:
 - Class I, Div 1, Groups C & D.
 - Class I, Zone 1, AExd IIB T4.
 - Ordinary locations: Visual-Signal Device.
- ★ GOST 'R' Certified.
- ★ Brazilian (Inmetro) Certified.
- ★ Australian (SAA) certified.
- ★ *Certified temperature -55°C to $+70^{\circ}\text{C}$.
- ★ IP67 and IP66.
- ★ Stainless steel or marine grade alloy.
- ★ Various lens colours.
- ★ Twin replaceable tubes.
- ★ Exde version has gland earth continuity in the GRP terminal chamber.
- ★ Tapered spigot flamepath.
- ★ Telephone or relay initiated option.
- ★ Optional lens guard.

*Depending on version.

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Specification

Voltage	DC			AC 50/60 Hz				
	24	48	110	110	120	220	240	254
Tube Energy (Joules)	21	21	21	21	21	21	21	21
Peak Current Consumption (mA)	1400	540	240	350	450	240	185	210
Effective Intensity (Cd)	355	355	355	355	355	355	355	355
Peak Intensity (Cd)	123691	123691	123691	123691	123691	123691	123691	123691

NOTE: The above figures (Cd) are for a clear lens @ 1Hz flash rate.

The photometric data has been verified by BSI. A report is available if required.

FOR COLOURED LENSES

Colour	Red	Blue	Amber	Green	Yellow
Multiplying Factor (Approximate)	0.15	0.12	0.51	0.49	0.86

Telephone initiation or relay interface:

Initiation by telephone ringing tone or low voltage control signals, plus initiation of a second beacon or sounder.

Certification: CENELEC EN60079-0:2006, EN60079-1:2004
EN60079-7:2007, EN61241-0:2006, EN61241-1:2004
Certification Baseefa02ATEX0224X.
ATEX Exd IIC T5 or Exde IIC T5.

UL Listed for USA and Canada

– Hazardous locations:

Class I, Div 1 Groups C-D
Class I, Zone 1.

Listing No. E187894.

– Ordinary locations: Visual-Signal Device.

Listing No. S8128.

Refer to UL data sheet at rear of catalogue for complete information.

GOST 'R' Certification: 1 Exd IIC T4, Russian Fire Approved (VNIPO).

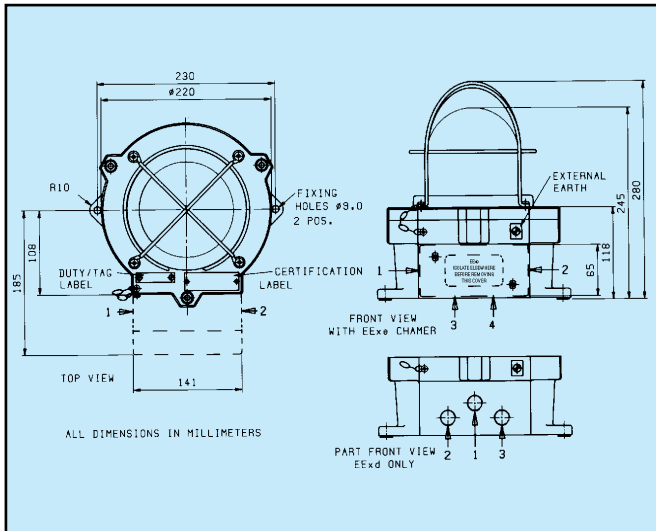
Australian Certification: Contact MEDC for specification.

Brazilian (Inmetro) Certification: BR-Ex d IIC T3/T4/T5/T6.

BR-Ex de IIC T3/T4/T5/T6.

Certified Temperature:

UL -25°C to +70°C BASEEFA & GOST-50°C to +55°C (Exde).
-55°C to +55°C (Exd).



Terminals: Exe: 6 off suitable for up to 6mm² cable. (With telephone initiate 10 x 2.5mm²).
Exd: 8 off suitable for up to 6mm² cable.

Entries: Up to 3 x 20mm or 2 x 25mm ISO in Exd unit.
Up to 4 x 20mm or 4 x 25mm ISO in Exe unit.

Materials: LM25TF Marine Grade Alloy body.
Grade 316 ANC4B Stainless Steel body.
Glass reinforced polyester (GRP) terminal chamber.
Toughened Wellglass.

Weights: Exd: 6.6kg. xde: 7.6kg. Add 8.4kg for stainless steel version.

Finish: Red epoxy paint finish as standard or to customer's specification.

Ordering Requirements

The following code is designed to help in the selection of the correct unit. Build up the reference number by inserting the code for each component into the appropriate box. **For standard products, available ex-stock, contact sales office for details.**

Type	Certification	Voltage	Terminals	Cable Entries	Flash Rate	Initiate Options	Lens Guard	Lens Colour	Tag/Duty Label	Material	Finish																																																																												
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Alloy	1																																																																																						
<table border="1"> <thead> <tr> <th>Duty Label</th> <th>Code</th> </tr> </thead> <tbody> <tr><td>None</td><td>N</td></tr> <tr><td>Yes</td><td>Y</td></tr> </tbody> </table> <p>(Please specify)</p>		Duty Label	Code	None	N	Yes	Y																																																																																
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ROTATING BEACONS EExd(e), Weatherproof XB5 & TH5 Ranges



Introduction

These certified rotating beacons have been designed for use in flammable atmospheres and harsh environmental conditions. The marine grade alloy enclosures are suitable for use offshore or onshore, where light weight combined with corrosion resistance and strength is required. Units can be painted to customer specification and fitted with identification labels.

There are two models available,

- (1) standard rotating mirror with tungsten halogen bulb.
- (2) sequenced flashing xenon tubes.

Both models are available with optional EExe terminal chamber.

- ★ Zone 1 use.
- ★ EExde IIBT4/T6.
- ★ ATEX approved Ex II 2G.
- ★ BASEEFA certified.
- ★ Certified temperature -20°C to $+55^{\circ}\text{C}^*$.
- ★ IP66, IP67 and IP68.
- ★ Corrosion Resistant.
- ★ EExde version has gland earth continuity in the GRP terminal chamber.
- ★ Optional guard.
- ★ Retained cover screws.
- ★ Various lens colours.

*Model dependent.

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E-Mail: sales@medc.com Web: www.medc.com



Specification

Model: XB5 Sequenced flashing xenon tubes.

Voltage	DC			AC 50/60 Hz				
	24	48	110	110	120	220	240	254
Tube Energy (Joules)	5	5	5	5	5	5	5	5
Peak Current Consumption (mA)	1300	650	300	500	450	240	230	210
Effective Intensity (Cd)	86	86	86	86	86	86	86	86
Peak Intensity (Cd)	45683	45683	45683	45683	45683	45683	45683	45683

NOTE: The above figures (Cd) are for a clear lens @ 1Hz flash rate.*

Model: TH5 Rotating Mirror.

Wattage	55W	70W	70W	70W	70W
Voltage	12d.c	24d.c.	110a.c.	220a.c.	240a.c.
Peak Current Consumption (A)	4.58	2.92	0.64	0.31	0.34

Rotational Speed (rpm)	60	120	180
Effective Intensity (Cd)	3354	1957	895
Peak Intensity (Cd)	11164	11164	11164

Note: The above figures (Cd) are for a 70W lamp with clear lens.

The photometric data given above has been verified by BSI. Reports are available if required.

Terminals: EExe: 6 off suitable for up to 6mm² cable.
EExd: 6 off suitable for up to 6mm² cable.

Entries: Up to 3 x 20mm ISO or 2 x 25mm ISO in EExd unit.
Up to 4 x 20mm ISO or 4 x 25mm ISO in EExe unit.

Materials: LM25 TF marine grade alloy body.
Glass reinforced polyester (GRP) terminal chamber.
Toughened Wellglass.

Ingress Protection: IP66, IP67 and IP68.

Weight: XB5 14.6Kg; TH5 14.9Kg. Add 1Kg for EExde versions.

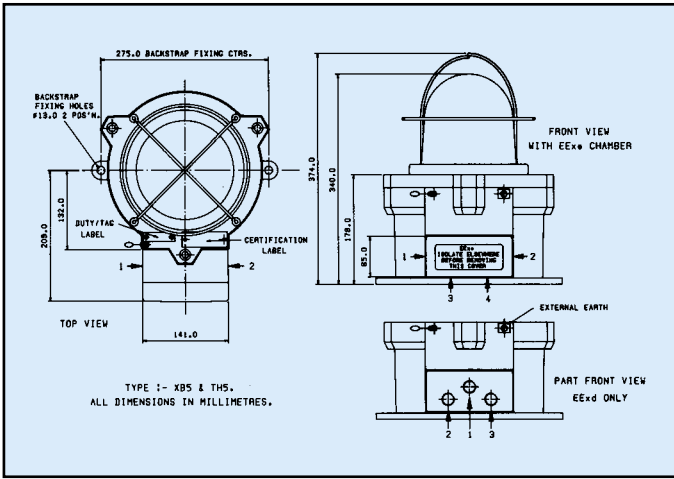
Finish: Epoxy paint finish as standard or to customer's specification.

Certification: CENELEC – EN50014, EN50018, EN50019.
Certificate No. Baseefa02ATEX0225X.
BASEEFA – EExd IIB T4/T6 or EExde IIB T4/T6.

Certified Temperature: -20°C to +55°C (TH5) -20°C to +40°C (XB5).

Life: We do not recommend the continuous use of the TH5 for over 3 hours as this could adversely affect its life.

Rotational speed (TH5) may vary by ±20% of stated R.P.M.



TEMPERATURE RATINGS			
TYPE	voltage/wattage	T CLASS	AMB.
XB5	DC Units	T6	40°C
	AC Units	T6	40°C
TH5	DC Units	T4	55°C
	AC Units	T4	55°C

* FOR COLOURED LENSES

Colour	Red	Blue	Amber	Green	Yellow
Multiplying Factor (Approximate)	0.15	0.12	0.51	0.49	0.86

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	Rotational Speed (TH5 only)	Terminal Chamber	Voltage	Entries	Lens Colour	Tag Label	Guard	Finish
Model XB5 TH5	Rotational Speed 60 r.p.m. 1 120 r.p.m. 2 *180 r.p.m. 3 *Not available 110V	Terminal Chamber EExd D EExde E	Voltage 12VDC A 24VDC B 48VDC (not TH5) C 110VDC (not TH5) D 110VAC E 120VAC (not TH5) F 220VAC G 240VAC H 254VAC (not TH5) J	Entries 20mm *B 25mm *C *Prefix entry size (see diagram above) with entry position code. e.g. 1B, 2B.	Colour Red R Blue B Green G Yellow Y Amber A Clear C	Label None N Yes Y (Please specify wording)	Guard None 0 Guard 1	Colour Red R Grey G Blue B Yellow Y White W Other S (Please specify)



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

0.5 JOULE XENON BEACONS

Intrinsically Safe (EExia), Weatherproof
XB8 Range



Introduction

This range of ruggedised, intrinsically safe and weatherproof beacons, intended for use in potentially explosive atmospheres, has been designed with high ingress protection to cope with the harsh environmental conditions found offshore and onshore in the oil, gas and petrochemical industries.

The unit is available in 12V and 24V versions and for gas groups IIB or IIC.

A lower cost, uncertified version is available for use in non-explosive atmospheres.

- ★ Zones 0, 1, 2 & safe area use.
- ★ EExia IIB/IIC T4.
- ★ ATEX approved, Ex II 1G.
- ★ BASEEFA certified.
- ★ GOST 'R' certified.
- ★ IP66 & IP67.
- ★ Certified temperature -55°C to $+60^{\circ}\text{C}$.
- ★ Corrosion resistant GRP body.
- ★ High intensity flash.
- ★ Clear polycarbonate lens.
- ★ Retained stainless steel cover screws.
- ★ Encapsulated electronics.

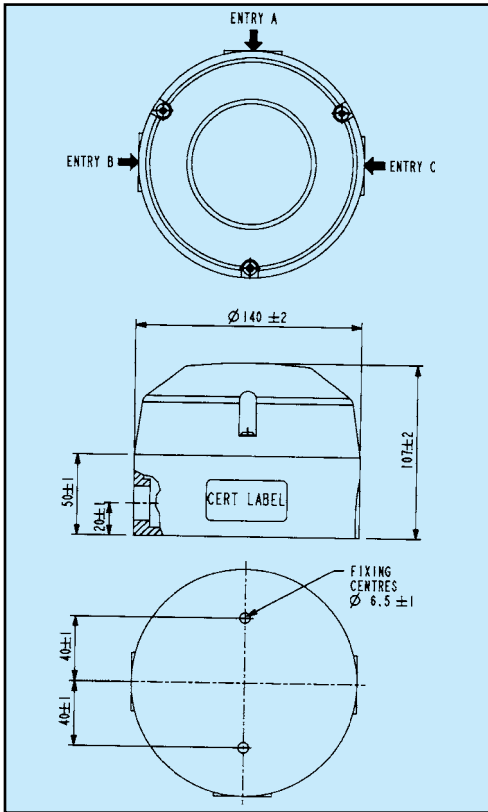
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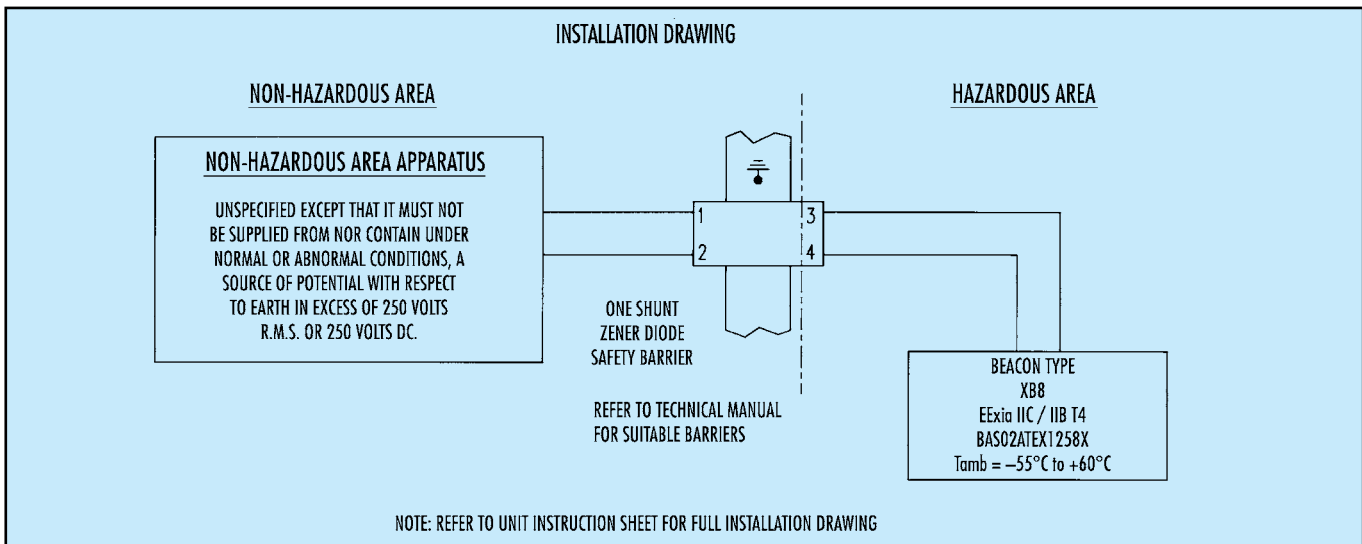
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E-Mail: sales@medc.com Web: www.medc.com

The MEDC logo consists of the letters 'MEDC' in a bold, white, sans-serif font, set against a red background that is part of a larger red graphic element.



Specification

Certification:	CENELEC EN50014, 20 & 39. Certificate No. BAS02ATEX1258X. EExia IIC T4 or EExia IIB T4. Zones 0, 1 & 2. GOST 'R' Certification: 0Exia IIB T4 & 0Exia IIC T4, Cert. No. A-0757.
Material:	UV stable glass reinforced polyester body. Clear polycarbonate cover/lens. Retained stainless steel cover screws.
Finish:	Painted red as standard or to Customer's specification.
Tube Energy:	IIB version 0.5 Joules. IIC version 0.4 Joules.
Weight:	1.4 kg.
Certified Temperature:	-55°C to +60°C.
Ingress Protection:	IP66 & IP67.
Tube Life:	>1 x 10 ⁶ flashes.
Voltage:	12V or 24V via suitable barrier.
Current Consumption:	24V IIB model - 71mA max. nominal. 24V IIC model - 55mA max. nominal. 12V IIB & IIC models - 52mA max. nominal.
Tube Type:	Xenon discharge.
Lens Colour:	Clear as standard. Coloured options available.
Terminals:	8 x 2.5mm ² .
Flash Rate:	1 flash per second.
Labels:	Duty and tag labels available.
Cable Entries:	Up to 3 x M20 via knockouts.



Ordering Requirements

The following code is designed to help in the selection of the correct unit. Build up the reference number by inserting the code for each component into the appropriate box. **For standard products, available ex-stock, contact sales office for details.**

Unit Type	Certification	Voltage	Lens Colour	Labels	Body Colour																																										
XB8	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>																																										
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5 JOULE XENON BEACONS EExd, Weatherproof XB9 Range



- ★ All GRP
- ↓
- ★ Low Initial Cost
- ↓
- ★ Greater Reliability
- ↓
- ★ Minimal Maintenance Cost
- ↓
- ★ Reduced Cost of Ownership

Introduction

These compact and lightweight beacons have been designed for use in potentially explosive atmospheres and harsh environmental conditions. The beacon housing, including the flamepaths, is manufactured completely from a UV stable glass reinforced polyester which is ideally suited for use offshore and onshore.

Stainless Steel screws and mounting bracket are incorporated ensuring a totally corrosion free unit.

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

- ★ Zone 1 and Zone 2 use.
- ★ EExd IIC T6.
- ★ ATEX Approved, Ex II 2G.
- ★ BASEEFA Certified.
- ★ GOST 'R' Certified.
- ★ Brazilian (Inmetro) Certified.
- ★ IP66 and IP67.
- ★ Certified Temperature -55°C to +55°C.
- ★ Corrosion Free GRP.
- ★ Various lens colours.
- ★ Lens guard fitted as standard.
- ★ Optional gland plus cable tail.
- ★ Stainless steel mounting bracket & screws.

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Specification

Certification: CENELEC EN50014 and EN50018.
 BASEEFA EExd II CT6 (T5).
 Cert. No. BAS00ATEX2031 Zone 1 and Zone 2.
 GOST 'R' Certification: 1 Exd IIC T5/T6
 Brazilian (Inmetro) Certified: BR-Ex d IIC T5/T6

Materials: Body & Cover - Glass Reinforced Polyester (GRP).
 Lens - Toughened Glass.
 Cover Screws & Bracket - Stainless Steel 316

Finish: Natural or painted to customer requirements.

Voltage	DC			AC 50/60 Hz	
	12	24	48	110	240/254
Tube Energy (J)	5	5	5	5	5
Peak Current Consumption (A)	0.74	0.32	0.18	0.1	0.06
Effective Intensity (Cd)	29	29	29	29	29
Peak Intensity (Cd)	22213	22213	22213	22213	22213
Power Consumption (W)	9	8	9	11	15

NOTE: The above figures (Cd) are for a clear lens @ 1Hz flash rate.
 A report is available if required.

For Coloured Lenses:

Colour	Red	Blue	Amber	Green	Yellow
Multiplying Factors (Approximate)	0.15	0.12	0.51	0.49	0.86

Weight: 1.6kg.

Certified Temperature: -55°C to +40°C(T6). -55°C to +55°C (T5).

Ingress Protection: IP66 & IP67.

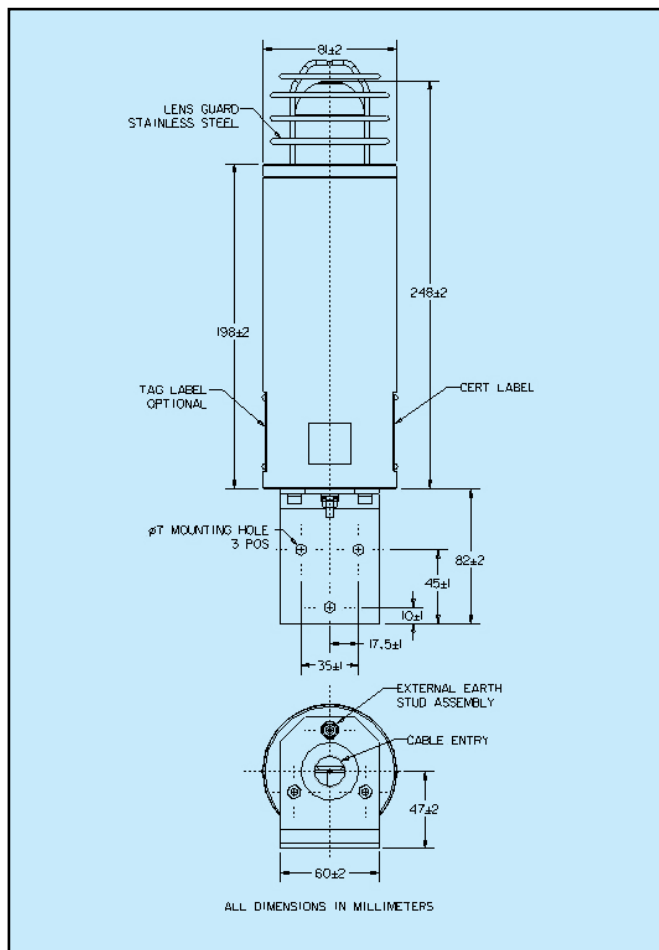
Fire Retardancy: GRP is fire retardant to ISO 1210.

Terminals: 3 x 2.5mm².

Mounting: Wall mounted via bracket.

Entries: 1 x M20 or PG 13.5.

Optional: 1 x 3m cable tail and gland.



Ordering Requirements

The following code is designed to help in the selection of the correct unit. Build up the reference number by inserting the code for each component into the appropriate box. **Standard products available ex-stock as follows:**

Product	Description
XB9D02406RYNCBN	ATEX approved Ex II 2G, certified EExd IIC T6, 24v d.c., 60 flashes/min, red lens, lens guard, M20 entry + gland + 3m cable, natural black finish.
XB9D02406AYNCBN	ATEX approved Ex II 2G, certified EExd IIC T6, 24v d.c., 60 flashes/min, amber lens, lens guard, M20 entry + gland + 3m cable, natural black finish.
XB9D24006RYNCBN	ATEX approved Ex II 2G, certified EExd IIC T6, 240v a.c., 60 flashes/min, red lens, lens guard, M20 entry + gland + 3m cable, natural black finish.

Model	Certi- fication	Voltage	Flash Rate	Lens Colour	Lens Guard	Tag Label	Entries/Cable Tail	Body Colour				
XB9					Y							
Voltage	Code	Flash Rate	Code	Colour	Code	Tag/Duty Label	Code	Entries	Code	Finish	Code	
12V d.c.	012	60/min.	06	Red	R	None	N	1 x 20mm	1B	Natural Black	N	
24V d.c.	024	Other flash rates available on request, please specify.		Blue	B	*Yes	Y	1 x PG 13.5	1P	Red	R	
48V d.c.	048			Green	G	*(Please specify)		Cable & Tail		Blue	B	
110V a.c.	110			Yellow	Y					Grey	G	
240V a.c.	240			Amber	A					White	W	
254V a.c.	254			Clear	C	Special Finish	S					
Certification	Code			Lens Guard	Code							
Uncertified	W			Yes	Y							
EExd	D											
GOST 'R'	G											
Inmetro	DM											



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

10 & 15 JOULE XENON BEACONS EExd(e), Weatherproof XB10 Range



Introduction

These compact and lightweight 10 & 15 Joule beacons have been designed for use in potentially explosive atmospheres and harsh environmental conditions. The beacon housing, including the flamepaths, is manufactured completely from a UV stable glass reinforced polyester which is ideally suited for use offshore and onshore.

Stainless Steel screws and mounting bracket are incorporated ensuring a totally corrosion free unit. An additional body clamp is available for high-vibration environments.

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

- ★ Zone 1 and Zone 2 use.
- ★ EExd(e) IIB T4.
- ★ ATEX Approved, Ex II 2G.
- ★ BASEEFA Certified.
- ★ GOST 'R' Certified.
- ★ Brazilian (Inmetro) Certified.
- ★ IP66 and IP67.
- ★ Certified Temperature* -55°C to +55°C.
- ★ Low current 10 Joule version available.
- ★ Corrosion Free GRP.
- ★ Various lens colours.
- ★ Lens guard fitted as standard.
- ★ Stainless steel mounting bracket & screws.
- ★ Replaceable twin tubes.
- ★ Optional telephone initiate.
- ★ Optional earth continuity.

* Model dependent.

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Specification

Certification: CENELEC EN50014, EN50018, EN50019.
 Cert. No. BAS00ATEX2226X EExde IIB T4.
 Cert. No. BAS00ATEX2204X EExd IIB T4.
 Zone 1 and Zone 2.
GOST 'R' Certification – 1Exd IIB T4 / 2Exde IIB T4, Russian Fire Alarm Approved (VNIPO)
 Brazilian (Inmetro) Certified: BR-Ex d IIB T4
 BR-Ex de IIB T4

Materials: Body & Cover - Glass Reinforced Polyester (GRP).
 Lens - Glass.
 Screws & Bracket - Stainless Steel 316

Finish: Natural or painted to customer requirements.

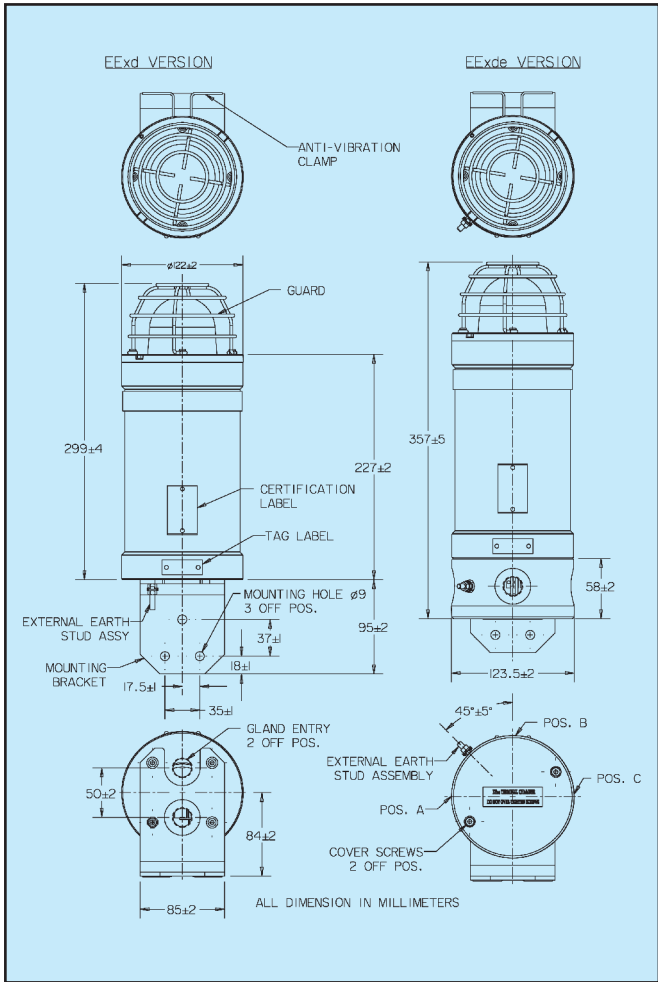
Voltage	DC				AC			
	24	48	110	220/240/254	24	48	110	220/240/254
Tube Energy (J)	10	15	10	15	10	15	10	15
Peak Current Consumption (mA)	700	1200	300	560	190	300	100	145
Effective Intensity (Cd)	285	330	285	330	285	330	285	330
Peak Intensity (Cd)	74179	111269	74179	111269	74179	111269	74179	111269
Power Consumption (W)	16.8	28.8	14.4	26.8	20.9	33	24	34.8
Flash Rate	1Hz (other flash rates available on request, please specify)							

Note: The above figures (Cd) are for a clear lens @ 1Hz flash rate.

For Coloured Lenses:

Colour	Red	Blue	Amber	Green	Yellow
Multiplying Factors (Approximate)	0.15	0.12	0.51	0.49	0.86

Weight: EExd 2.8kg. EExde 3.6kg.
Certified Temperature: 15J unit: EExd -55°C to +40°C.
 EExde -50°C to +40°C.
 10J unit: EExd -55°C to +55°C.
 EExde -50°C to +45°C.
Ingress Protection: IP66 & IP67.
Fire Retardancy: GRP is fire retardant to ISO 1210.
Terminals: 4 x 2.5mm² (d.c.), 6 x 2.5mm² (a.c.).
Mounting: Wall mounted via bracket.
Entries: Up to 2 x M20 (EExd). Up to 3 x M20 (EExde).
 Optional: 1 x 3m cable tail (both EExd & EExde).



Ordering Requirements

The following code is designed to help in the selection of the correct unit. Build up the reference number by inserting the code for each component into the appropriate box. **Standard products available ex-stock as follows:**

PRODUCT	DESCRIPTION
XB10D024FRNN2BN	ATEX approved Ex II 2G, certified EExdIIB T4, 15 Joule Xenon, 24V d.c., 60 flashes/min., red lens, lens guard, 2 x M20 entries, natural black finish.
XB10D024FANN2BN	ATEX approved Ex II 2G, certified EExdIIB T4, 15 Joule Xenon, 24V d.c., 60 flashes/min., amber lens, lens guard, 2 x M20 entries, natural black finish.
XB10D240FRNN2BN	ATEX approved Ex II 2G, certified EExdIIB T4, 15 Joule Xenon, 240V a.c., 60 flashes/min., red lens, lens guard, 2 x M20 entries, natural black finish.
XB10D240FANN2BN	ATEX approved Ex II 2G, certified EExdIIB T4, 15 Joule Xenon, 240V a.c., 60 flashes/min., amber lens, lens guard, 2 x M20 entries, natural black finish.

Model	Certification	Voltage	Power	Lens Colour	Labels	Options	Entries	Body Colour
XB10								

Certification	Code	Voltage	Code	Colour	Code	Tag/Duty Label	Code	Entries	Code	Finish	Code
Uncertified	W	24V d.c.	024	Red	R	None	N	EExd		Natural Black	N
EExd	D	48V d.c.	048	Blue	B	*Yes	Y	1 x M20	1B	Red	R
EExde	E	110V a.c.	110	Green	G	*(Please specify)		1 x PG13.5	1P	Blue	B
GOST 'R' Exd	DG*	220V a.c.	220	Yellow	Y			2 x M20	2B	Yellow	Y
GOST 'R' Exe	EG*	240V a.c.	240	Amber	A			2 x PG13.5	2P	Grey	G
Inmetro EExd	DM	254V a.c.	254	Clear	C			EExd(e)		White	W
Inmetro EExde	EM							3 x M20	3B	Special Finish	S

Power	Code	Option	Code
10J	T	Telephone Initiate	T
15J	F	Earth Continuity	E
		3m cable tail	G
		None	N

*VNIPO Approved as standard.



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5 JOULE XENON BEACONS EExd, Weatherproof XB11 Range



Beacon/Sounder
Combination Unit



**Now GOST
'R' & 'K'
Certified**

Introduction

These certified beacons have been designed for use in potentially explosive gas and dust atmospheres and harsh environmental conditions. The glass reinforced polyester 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 incorporated ensuring a totally corrosion free product.

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

- ★ Zone 1 and Zone 2 use.
- ★ EExd IIB T4, T5 & T6.
- ★ ATEX approved, Ex II 2GD.
- ★ BASEEFA certified.
- ★ UL Listed for USA and Canada
 - Hazardous locations:
 - Class I, Div 2, Groups C & D.
 - Class I, Zones 1 & 2, AExd IIB T4/T5.
 - Ordinary locations: Visual-Signal Device.
- ★ GOST 'R' & 'K' Certified.
- ★ Australian (SAA) certified.
- ★ Chinese (CQST) certified.
- ★ Brazilian (Inmetro) certified.
- ★ 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.
- ★ Optional telephone initiation.
- ★ 2 x M20 cable entries or 2 x $1/2$ " NPT*.
- ★ Earth continuity option (model dependent).
- ★ Filament version (20W) available†.
- ★ Fluorescent version (10W) available†.
- ★ Beacon/Sounder Combination Unit available.

*Model dependent.

†See FL11, FB11, FL12, FB12 data sheet.

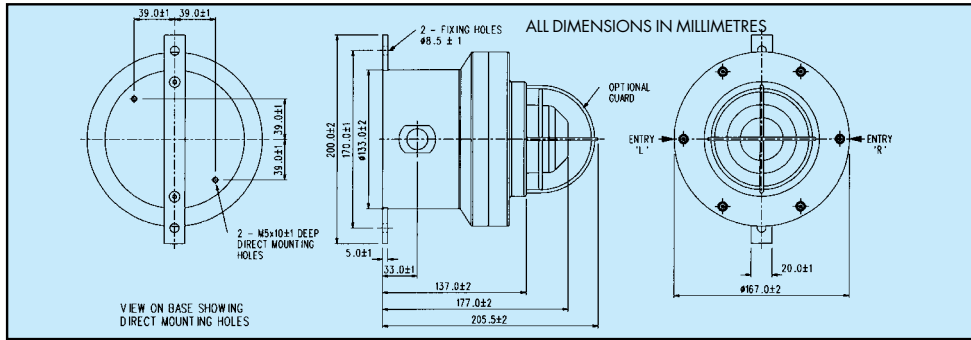
MEDC Ltd, Colliery Road,
Pinxton, Nottingham NG16 6JF, UK.
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Fax: +44 (0)1773 582800

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Sales Enq. Fax: +44 (0)1773 582830 Sales Orders Fax: +44 (0)1773 582832
E-Mail: sales@medc.com Web: www.medc.com





Specification

Certification: CENELEC EN50014 and EN50018.
 Cert. No. BAS99 ATEX 2195X.
 EExd IIB 135°C (-55 t.amb +70°C) T4.
 100°C (-55 t.amb +55°C) T5.
 85°C (-55 t.amb +40°C) T6.

UL Listed for USA and Canada to:
 - Hazardous locations:
 Class I, Div 2 Groups C & D.
 Class I, Zones 1 & 2 AExd IIB T4/T5.
 UL Listing No: E187894.
 - Ordinary locations: Visual-Signal Device.
 UL listing No. S8128.
 Refer to UL Datasheet at rear of catalogue for complete information.

GOST 'R' Certification: 1Exd IIB T4/T5/T6.
GOST 'K' Certification: Exd IIB T4/T5/T6.
Chinese (CSQT) Certification: Exd IIB T5/T6.
Brazilian (Inmetro) Certification: 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.

	DC	AC50/60 Hz	
Voltage	24	110	240
XB11 Tube Energy (Joules)	5	5	5
Peak Current Consumption (mA)	320	100	60
Effective Intensity (Cd)	29	29	29
Peak Intensity (Cd)	22213	22213	22213
Power Consumption (Watts)	8	11	14.4

NOTE: The Cd figures are for a clear lens @ 1Hz flash rate.

FOR COLOURED LENSES

Colour	Red	Blue	Amber	Green	Yellow
Multiplying Factor	0.15	0.12	0.51	0.49	0.86

The photometric data has been verified by BSI.
 A report is available if required.

Weight: 2.5Kg.

Certified Temperature: EExd -55°C to +70°C (T4).
 -55°C to +55°C (T5).
 -55°C to +40°C (T6).
 UL -55°C to +70°C (hazardous locations).
 -55°C to +55°C (ordinary locations).

Ingress Protection: IP66 & IP67.

Fire Retardancy: GRP is fire retardant to ISO 1210.

Earth Continuity: Optional for metal glands provided via a brass plate. (Not available for UL version).

Terminals: 6 x 2.5mm².

Telephone initiation: Initiation by telephone ringing tone.

Labels: Duty/Tag Label optional.

Entries: 2 x 20mm ISO EExd.
 2 x 1/2" NPT UL.
 Note: ATEX/UL Dual Listed unit has up to 2 x 1/2" NPT entries only.

Beacon/Sounder Unit: The beacon may be combined with a MEDC sounder to create a visual/audible alarm.
 Contact MEDC for price and specification.

Ordering Requirements

The following code is designed to help in the selection of the correct unit. Build up the reference number by inserting the code for each component into the appropriate box. **For standard products, available ex-stock, contact sales office for details.**

Certification	Voltage	Flash Rate	Lens Colour	Lens Guard	Unit Fixing	Earth Continuity	Tag/Duty Label	Options	Unit Finish
XB11									
Certification Code		Colour Code	Guard Code	Unit Fixing Code	Label Code	Option Code	Finish Code		
Uncertified W		Red R	None N	Direct Mounting D	None N	*Telephone initiate T	Natural Black N		
BASEEFA B		Blue B	Yes Y	Backstrap B	Yes Y	Blanking Plug P	Red R		
UL UL		Green G			(Please specify)	None N	Blue B		
UL (Ordinary location) UW		Amber A				None N	Yellow Y		
ATEX/UL Dual Listed AU		Yellow Y				Yes Y	Grey G		
GOST 'R' G		Clear C				None N	White W		
GOST 'K' K						Yes Y	Special Finish S		
Chinese (CQST) Q						None N			
Inmetro DM						Yes Y			
Voltage Code		Flash Rate Code							
24V d.c. 024		60/min 06							
48V d.c. 048		Other flash rates available, please specify.							
110V a.c. 110									
230V a.c. 230									
240V a.c. 240									
Other voltages available, please specify.									

*Earth continuity not available in UL or Dual Listed versions.

*Telephone option not available in UL version.



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

21 JOULE XENON BEACONS

EExd, Weatherproof

XB12 Range



Introduction

These high output 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 beacon housing is manufactured completely from a U.V. stable, glass reinforced polyester. Stainless steel screws and mounting bracket are incorporated ensuring a totally corrosion free product.

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

- ★ Zone 1 and Zone 2 use.
- ★ EExd, IIB T4 & T5.
- ★ ATEX approved, Ex II 2G.
- ★ BASEEFA Certified.
- ★ UL Listed for USA and Canada
 - Hazardous locations:
 - Class I, Div 2, Groups C & D.
 - Class I, Zones 1 & 2, AExd IIB T4 & T5.
 - Ordinary locations: Visual-Signal Device.
 - Marine Listed
- ★ GOST 'R' & 'K' Certified.
- ★ Chinese (CQST) Certified.
- ★ Inmetro Certified.
- ★ High Output (21 Joules).
- ★ 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.
- ★ Optional telephone initiation.
- ★ Twin replaceable tubes.

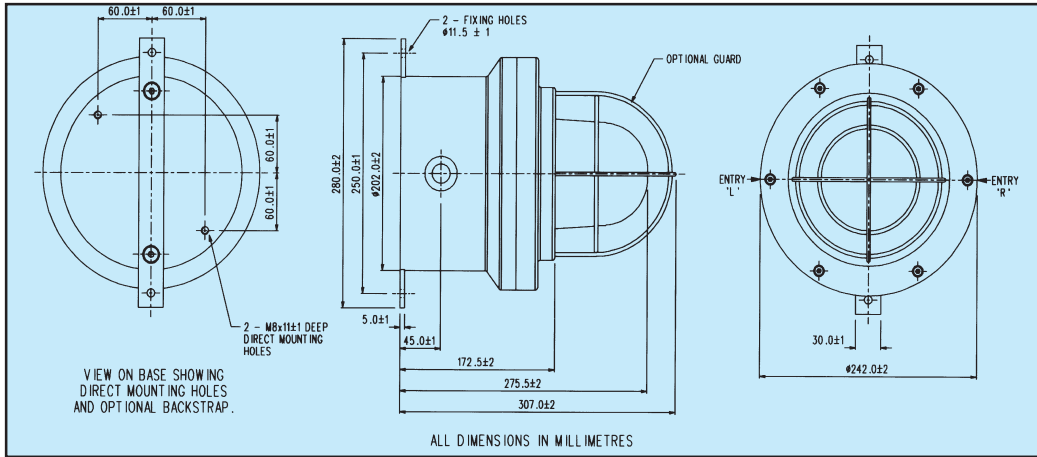
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Specification

Certification: CENELEC EN50014 and EN50018.
 Cert. No. BAS 99 ATEX 2196. EExd IIB T4 & T5.
UL Listed for USA and Canada:
 - Hazardous locations:
 Class I, Div 2, Groups C & D and
 Class I, Zones 1 & 2, AExd IIB T4 & T5.
 UL Listing No: E187894.
 - Ordinary locations: Visual-Signal Device.
 - Marine Listed
 UL Listing No. S8128.
GOST 'R' Certification: 1Exd IIB T4/T5.
GOST 'K' Certification: Exd IIB T4/T5.
Chinese (CQST) Certification: Exd IIB T4/T5.
Inmetro Certification: BR-Ex d IIB T3/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.
 Weight: 7.0Kg.
 Certified Temperature: EExd -55°C to +70°C (T4). -55°C to +40°C (T5).
 UL -55°C to +70°C (Hazardous Locations).
 -55°C to +55°C (Ordinary Locations).

Ingress Protection: IP66 & IP67.
 Fire Retardancy: GRP is fire retardant to ISO 1210.
 Earth Continuity: Optional for metal glands provided via a brass plate (not available in UL version).
 Terminals: 6 x 6.0mm².

Telephone initiation: Initiation by telephone ringing tone.
 Labels: Duty/Tag Label optional.
 Entries: 2 x 20mm ISO EExd.
 2 x 1/2" NPT UL.

	DC	AC50/60 Hz	
Voltage	24	110	240
XB12 Tube Energy (Joules)	21	21	21
Peak Current Consumption (mA)	1400	350	185
Effective Intensity (Cd)	355	355	355
Peak Intensity (Cd)	123691	123691	123691
Power Consumption (Watts)	33.6	38.5	44.4

NOTE: The Cd figures are for a clear lens @ 1Hz flash rate.

For Coloured Lenses

Colour	Red	Blue	Amber	Green	Yellow
Multiplying Factor	0.15	0.12	0.51	0.49	0.86

The photometric data has been verified by BSI. A report is available if required.

Ordering Requirements

The following code is designed to help in the selection of the correct unit. Build up the reference number by inserting the code for each component into the appropriate box. **For standard products, available ex-stock, contact sales office for details.**

Certification Voltage Flash Rate Lens Colour Lens Guard Unit Fixing Earth Continuity Tag/Duty Label Options Unit Finish

XB12

Certification	Code
Uncertified	W
ATEX	B
UL	UL
UL (ordinary locations)	UW
UL Marine	UM
GOST 'R'	G
GOST 'K'	K
Chinese (CQST)	Q
Inmetro	DM

Guard	Code
None	N
Yes	Y

Label	Code
None	N
Yes	Y
(Please specify)	

Options	Code
*Telephone	T
Blanking Plug	P
None	N

*Telephone option not available in UL version.

Colour	Code
Red	R
Blue	B
Green	G
Amber	A
Yellow	Y
Clear	C

Unit Fixing	Code
Direct Mounting	D
Backstrap	B

Continuity*	Code
None	N
Yes	Y

*Earth continuity not available in UL version.

Finish	Code
Natural Black	N
Red	R
Blue	B
Yellow	Y
Grey	G
White	W
Special Finish	S

Voltage	Code
24V d.c.	024
110V a.c.	110
240V a.c.	240
Other voltages available, please specify.	

Flash Rate	Code
60/min	06
Other flash rates available, please specify.	



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

ROTATING BEACON EExd, Weatherproof TH12 Range



Introduction

These certified rotating 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 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.

- ★ Zone 1 and Zone 2 use.
- ★ EExd, IIB T4 and T5.
- ★ ATEX approved, Ex II 2G.
- ★ BASEEFA Certified.
- ★ GOST 'R' Certified.
- ★ Inmetro Certified.
- ★ IP66 and IP67.
- ★ Certified temperature -55°C to $+70^{\circ}\text{C}$.
- ★ 55W and 70W tungsten halogen bulb*.
- ★ Various rotating speeds available.
- ★ Corrosion resistant GRP.
- ★ Optional stainless steel backstrap.
- ★ Various lens colours.
- ★ Optional lens guard.

* Voltage dependent.

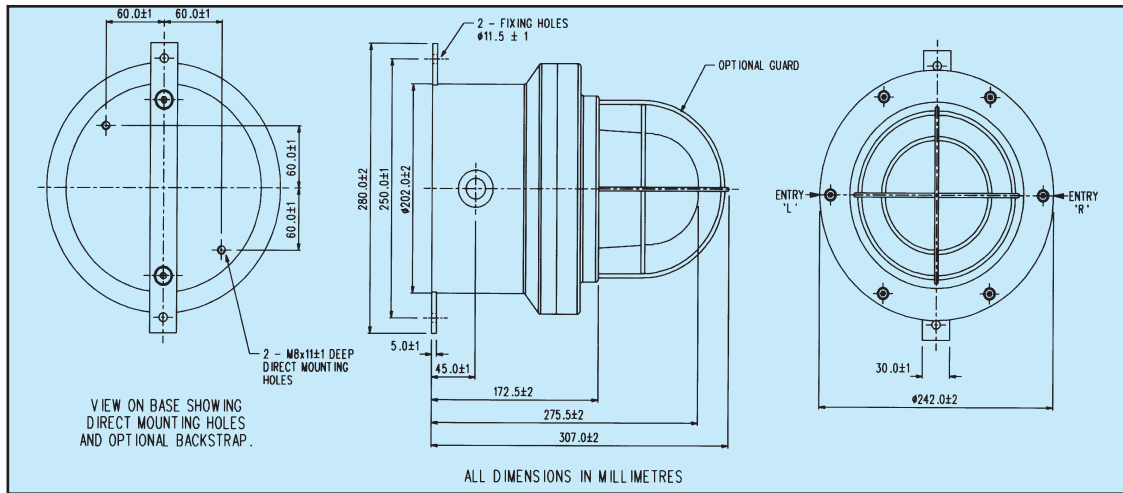
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E-Mail: sales@medc.com Web: www.medc.com





Specification

Certification:	CENELEC 50015, 50018, 50019. Certification No. BAS99ATEX2196. EExd IIB T4 & T5. GOST 'R' Certified: 1Exd IIB T4/T5. Inmetro Certified: B R-Ex d IIB T3/T4/T5/T6.
Material:	Body: - Glass reinforced polyester (GRP). Lens: - Glass Cover screws and backstrap: - stainless steel 316.
Finish:	Natural black or painted to customer specification.
Weight:	7.6kg.
Certified Temperature:	-55°C to +70°C (T4), -55°C to +40°C (T5).
Ingress Protection:	IP66 & IP67.
Fire Retardancy:	GRP is fire retardant to ISO 1210.
Earth Continuity:	Optional for metal glands provided via a brass plate.
Terminals:	6 x 6.0mm ² .
Labels:	Tag/duty label option.
Entries:	2 x M20 ISO.
Life:	We do not recommend the continuous use of the TH12 for over 3 hours as this could adversely affect its life.
Bulb Type:	70 Watt H1 tungsten halogen bulb (24V). 55 Watt H1 tungsten halogen bulb (12V).

Wattage	55W	70W	70W	70W
Voltage	12 d.c	24 d.c.	110 a.c.	240 a.c
Peak Current	4.85A	2.92A	0.64A	0.34A

Rotational Speed (r.p.m.)	60	120	180
Effective Intensity (Cd)	3354	1957	895
Peak Intensity (Cd)	11164	11164	11164

Note: The above figures (Cd) are for a 70W lamp with clear lens. Rotational speed may vary by ±20% of the stated r.p.m.

For coloured lenses

Colour	Red	Blue	Amber	Green	Yellow
Multiplying Factor	0.15	0.12	0.51	0.49	0.86

The photometric data has been verified by BSI, a report of which is available if required.

Ordering Requirements

The following code is designed to help in the selection of the correct unit. Build up the reference number by inserting the code for each component into the appropriate box. **For standard products, available ex-stock, contact sales office for details.**

Model	Certification	Speed	Voltage	Lens Colour	Lens Guard	Unit Fixing	Options	Unit Finish																																																																															
TH12	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>																																																																															
	<table border="1"> <tr><th>Certification</th><th>Code</th></tr> <tr><td>ATEX</td><td>B</td></tr> <tr><td>GOST 'R'</td><td>G</td></tr> <tr><td>Inmetro</td><td>DM</td></tr> </table>	Certification	Code	ATEX	B	GOST 'R'	G	Inmetro	DM	<table border="1"> <tr><th>Speed</th><th>Code</th></tr> <tr><td>60 r.p.m.</td><td>A</td></tr> <tr><td>120 r.p.m.</td><td>B</td></tr> <tr><td>180 r.p.m.*</td><td>C</td></tr> <tr><td colspan="2">*Not available 110V a.c.</td></tr> </table>	Speed	Code	60 r.p.m.	A	120 r.p.m.	B	180 r.p.m.*	C	*Not available 110V a.c.		<table border="1"> <tr><th>Voltage</th><th>Code</th></tr> <tr><td>12V d.c.*</td><td>012</td></tr> <tr><td>24V d.c.†</td><td>024</td></tr> <tr><td>110V a.c.†</td><td>110</td></tr> <tr><td>240V a.c.†</td><td>240</td></tr> <tr><td colspan="2">*55W only available 12V d.c.</td></tr> <tr><td colspan="2">†70W only available 24V d.c., 110V a.c. & 240V a.c.</td></tr> </table>	Voltage	Code	12V d.c.*	012	24V d.c.†	024	110V a.c.†	110	240V a.c.†	240	*55W only available 12V d.c.		†70W only available 24V d.c., 110V a.c. & 240V a.c.		<table border="1"> <tr><th>Colour</th><th>Code</th></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>Amber</td><td>A</td></tr> <tr><td>Yellow</td><td>Y</td></tr> <tr><td>Clear</td><td>C</td></tr> </table>	Colour	Code	Red	R	Blue	B	Green	G	Amber	A	Yellow	Y	Clear	C	<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>Label</th><th>Code</th></tr> <tr><td>Tag Label</td><td>T*</td></tr> <tr><td>Duty Label</td><td>D*</td></tr> <tr><td>Earth Continuity</td><td>E</td></tr> <tr><td>None</td><td>N</td></tr> <tr><td colspan="2">*Please specify wording</td></tr> </table>	Label	Code	Tag Label	T*	Duty Label	D*	Earth Continuity	E	None	N	*Please specify wording		<table border="1"> <tr><th>Finish</th><th>Code</th></tr> <tr><td>Natural Black</td><td>N</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>Grey</td><td>G</td></tr> <tr><td>White</td><td>W</td></tr> <tr><td>Special Finish</td><td>S</td></tr> </table>	Finish	Code	Natural Black	N	Red	R	Blue	B	Yellow	Y	Grey	G	White	W	Special Finish	S
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10 JOULE XENON BEACONS for Harsh Industrial & Marine Environments XB13 Range

**IP66/67
Weatherproof**
**Corrosion Free
GRP/Polycarbonate**



Introduction

This range of ruggedised, weatherproof beacons, has been designed with high ingress protection to cope with harsh environmental conditions.

MEDC can also provide a range of beacons suitable for use in potentially explosive atmospheres.

For more information, refer to the catalogue or contact MEDC.

- ★ Weatherproof.
- ★ IP66 & IP67.
- ★ Operating temperature -55°C to $+70^{\circ}\text{C}$.
- ★ Corrosion resistant red painted GRP body.
- ★ High intensity flash.
- ★ Polycarbonate lens, various colours available.
- ★ Retained stainless steel cover screws.
- ★ Optional lens guard.
- ★ Optional telephone or relay initiate.
- ★ 3 x M20 cable entries.
- ★ Replaceable tube.
- ★ Switchable dual flash.

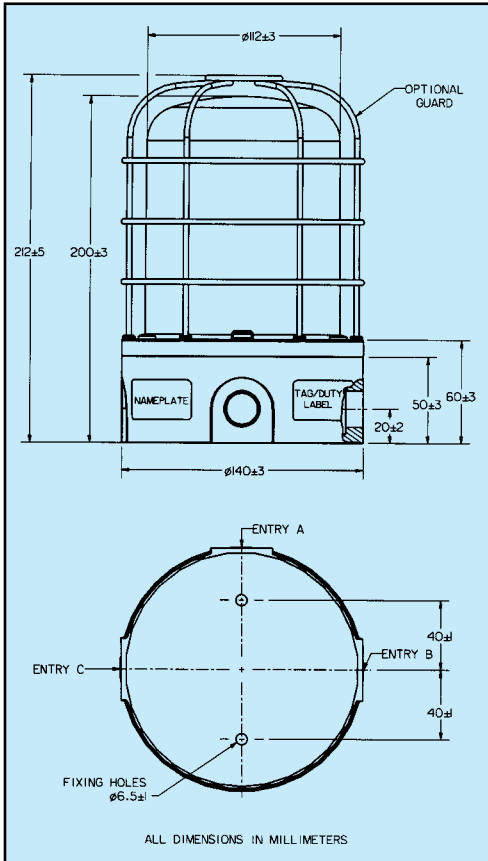
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Specification

Material:	UV stable glass reinforced polyester body. UV stable polycarbonate cover/lens. Retained stainless steel cover screws.
Finish:	Painted red as standard or to Customer's specification.
Tube Energy:	10 Joules (second flash 7.5 Joules).
Weight:	1.1kg,
Operating Temperature:	-55°C to +70°C.
Ingress Protection:	IP66 & IP67.
Tube Life:	> 1 x 10 ⁶ flashes.
Voltage:	12V d.c., 24V d.c., 115V a.c., 230V a.c.

Current Consumption:	Voltage	Current Consumption
	12V d.c.	1.4A
	24V d.c.	650mA
	115V a.c.	180mA
	230V a.v.	100mA

Tube Type:	Xenon discharge.
Lens Colour:	Various colours available.
Terminals:	8 x 2.5mm ² .
Flash Rate:	1 flash per second.
Dual Flash Rate:	Time between dual flashes = 0.5 seconds. Charging time = 1 second. Cycle repeats every 1.5 seconds.
Labels:	Duty and tag labels available.
Cable Entries:	Up to 3 x M20 via knockouts.
Intensity:	Effective intensity 220 Cd. Peak intensity 75,000 Cd. (Figures are for clear lens at 1Hz flash rate).

FOR COLOURED LENSES

Colour	Red	Blue	Amber	Green	Yellow
Multiplying Factor	0.15	0.12	0.51	0.49	0.86

Ordering Requirements

The following code is designed to help in the selection of the correct unit. Build up the reference number by inserting the code for each component into the appropriate box. **Standard products available ex-stock as follows:**

Product	Description
XB13024RNNR	Weatherproof, 10J, 24V d.c., red lens, painted red body.
XB13024ANNR	Weatherproof, 10J, 24V d.c., amber lens, painted red body.
XB13230RNNR	Weatherproof, 10J, 230V a.c., red lens, painted red body.
XB13230ANNR	Weatherproof, 10J, 230V a.c., amber lens, painted red body.

Unit Type	Voltage	Lens Colour	Lens Guard	Options	Unit Finish																																																
XB13																																																					
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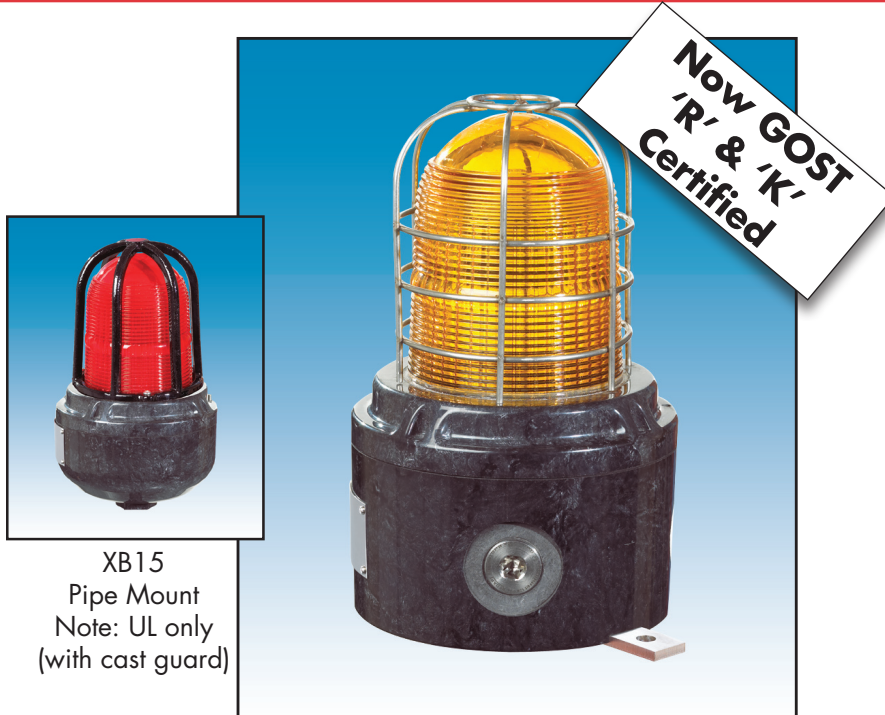


All the above specifications, dimensions, weights and tolerances are nominal (typical) and MEDC reserve the right to vary all data without prior notice. No liability is accepted for any consequence of use.

15 JOULE XENON BEACONS

EExd, Weatherproof

XB15 Range



XB15
Pipe Mount
Note: UL only
(with cast guard)

XB15 Direct Mount (with backstrap and wire guard)

Introduction

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 housings are manufactured completely from a U.V. stable, glass reinforced polyester. Stainless steel screws and mounting bracket are available ensuring a totally corrosion-free product.

The model XB15 contains a supervisory diode and four wire lead connections for alarm applications.

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

- ★ Zone 1 and Zone 2 use.
- ★ EExd IIC, T4/T5/T6.
- ★ ATEX approved, Ex II 2GD.
- ★ UL listed 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.
- ★ GOST 'R' & 'K' Certified.
- ★ Brazilian (Inmetro) Certified.
- ★ IEC-Ex Approved.
- ★ IP66 & 67.
- ★ Certified temperature -55°C to +70°C.
- ★ Pipe mount or direct mount enclosure.
- ★ Corrosion-free GRP.
- ★ Four wires and supervisory diode.
- ★ Optional stainless steel backstrap.
- ★ Various lens colours.
- ★ Optional relay or telephone initiate.
- ★ Optional cast or wire lens guard.
- ★ Up to 3 x M20 or 3 x M25 entries.
- ★ Filament version available (100W max).
See data sheet for FB15.

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Sales Enq. Fax: +44 (0)1773 582830 Sales Orders Fax: +44 (0)1773 582832
E-Mail: medc.sales@cooperindustries.com Web: www.medc.com



Specification

Certification: CENELEC EN50014 & EN50018.

ATEX Cert. No. Baseefa 04ATEX0009X. BASEEFA EExd IIC T4/T5.

UL Listed for USA and Canada:

– Hazardous locations

Class I, Div 2, Groups A, B, C & D.

Class II, Div 2 Groups F & G

Class 1, Zone 1, AExd IIC T4/T5/T6.

UL listing No. E187894.

– Ordinary locations: Visual Signal Device.

– Marine Listed

UL listing No. S8128

GOST 'R' Certification: 1 Exd IIC T4/T5

Russian Fire alarm (VNIIPPO) approved

GOST 'K' Certification: Exd IIC T4/T5

Brazilian (Inmetro) Certified: BR-Ex d IIC T3/T4/T5/T6

IEC-ex Approved

Material: Body: Glass reinforced polyester.
Lens: Glass.
Backstrap: stainless steel 316.
Wire Guard (optional): Stainless steel wire.
Cast Guard (optional): Aluminium LM25M.

Finish: Natural black or epoxy painted to customer specification.

Models: XB15 ATEX – Available in direct mount version only.
XB15 UL – Available in pipe and direct mount versions.

Voltage: 24, 48V d.c.
110, 120, 230, 240, 254V a.c.

Tube Energy: 15 Joules.

Tube Life: >1 x 10⁶ flashes.

Flash Rate: 60, 80, 120 fpm.

Certified Temperature: -55°C to +40°C (T6).

-55°C to +55°C (T5).

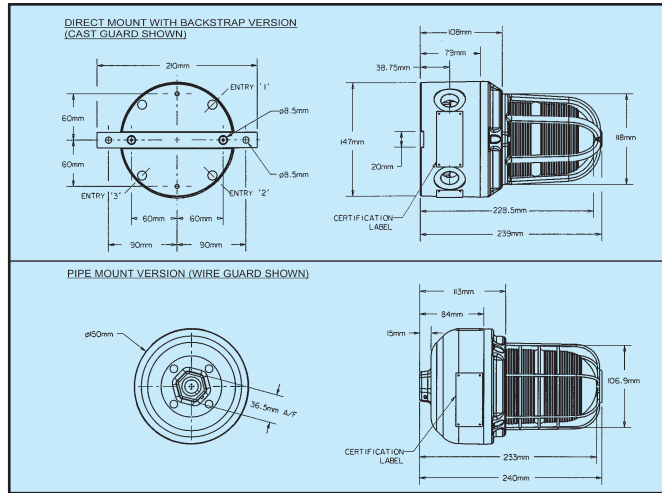
-55°C to +70°C (T4).

Weight: Pipe mount: 2.6kg; Direct mount: 3.0kg.

Ingress Protection: IP66 & IP67.

Entries: **ATEX version:** Supplied as 2 x M20 entries as standard
– Up to 3 x M20 or 3 x M25 entries. Contact sales office to order.
UL version: Supplied as 2 x 3/4" NPT (direct mount) or 3/4" (pipe mount) as standard.
Other options available:
Up to 3 x 1/2" NPT or 3 x 3/4" NPT (direct mount);
1/2" NPT (pipe mount) – contact sales office to order.

Terminals: Direct mount: 12 x 2.5mm².
Pipe mount: 8 x 2.5mm².



Relay Initiate: Available on all versions - operates with 24V d.c. initiate supplies only.

Labels: Tag/Duty label option.

Electrical Ratings:

Voltage	d.c.		a.c.				
	24	48	110	120	230	240	254
Current (A)	0.99	0.73	0.4	0.4	0.2	0.2	0.17
Effective Candlepower (Cd) – 330 at 60 flashes per min.							
Peak Candlepower	– 520,000 (Peak candlepower is the maximum light intensity generated by a flashing light during its light pulse)						

Multiplying Factor for Coloured Lenses:

Red	Blue	Amber	Green	Yellow
0.15	0.12	0.51	0.49	0.86

Ordering Requirements

The following code is designed to help in the selection of the correct unit. Build up the reference number by inserting the code for each component into the appropriate box. **Standard products available for immediate shipping – contact sales office for details.**

Model Certification Voltage Flashrate Lens Color Unit Guard Fixing Options Finish

Certification	Code
ATEX	B
UL	UL
UL (ordinary location)	UW
UL Marine	U
GOST 'R'*	G
GOST 'K'	K
Inmetro	DM
IEC Ex	J

*VNIIPPO approved as standard.

Voltage	Code
24V d.c.	024
48V d.c.	048
110V a.c.	110
120V a.c.	120
230V a.c.	230
240V a.c.	240
254Va.c.	254

Fpm	Code
60	06
80	08
120	12

Guard	Code
None	N
Cast	C
Wire	W

Option	Code
None	N
Tag label	T
Duty label	D
Relay initiate*	R
Telephone initiate†	I
Blanking Plug	P

*Suitable for 24V d.c. supplies only.
†Not available on UL/ UW versions.

Color	Code
Red	R
Blue	B
Green	G
Amber	A
Yellow	Y
Clear	C

Unit Fixing	Code
Pipe mount	P*†
Direct mount	D†
Direct w/backstrap	B†

*Only available on UL Listings.
†Contact MEDC if 1/2" NPT is required.

Finish	Code
Natural Black	N
Red	R
Blue	B
Yellow	Y
Green	G
White	W
Special Finish	S

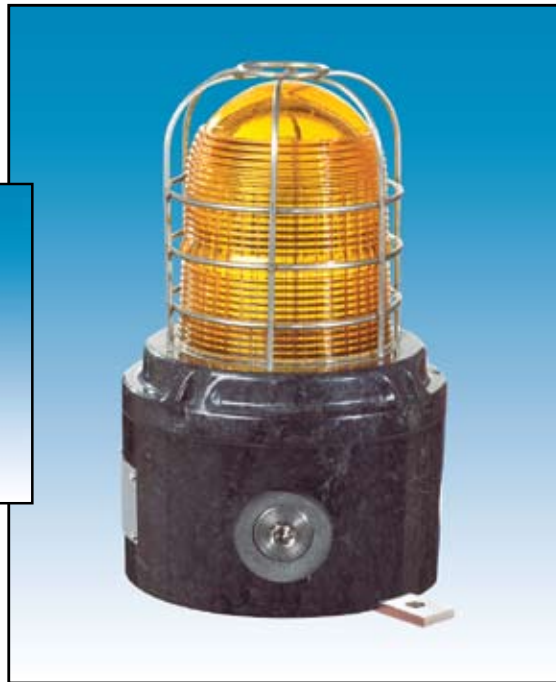


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STEADY BEACONS EExd, Weatherproof FB15 Range



FB15
Pipe Mount
Note: UL only
(with cast guard)



FB15 Direct Mount (with backstrap & wire guard)

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 housings are 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.

- ★ Zone 1 and Zone 2 use.
- ★ EExd IIC T3/T4.
- ★ ATEX approved, Ex II 2GD.
- ★ UL listed for USA and Canada
 - Hazardous locations:
 - Class I, Div. 2, Groups A, B, C & D.
 - Class I, Zone 1, AExd IIC T3/T4.
 - Ordinary locations: Visual-Signal Device.
- ★ GOST 'R' Certified.
- ★ Brazilian (Inmetro) certified.
- ★ IEC-Ex Approved.
- ★ Certified temperature -55°C to $+70^{\circ}\text{C}$.
- ★ Pipe mount or direct mount enclosure.
- ★ Corrosion-free GRP.
- ★ 60W or 100W filament bulb.
- ★ Optional stainless steel backstrap.
- ★ Various lens colours.
- ★ Optional cast or wire lens guard.
- ★ Up to 3 x M20 or 3 x M25 entries.

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4016, Stavanger, Norge.
Tel: +47 913 92 289
Fax: +47 914 46 030

Sales Enq. Fax: +44 (0)1773 582830 Sales Orders Fax: +44 (0)1773 582832
E-Mail: sales@medc.com Web: www.medc.com



Specification

Certification: UL Listed for USA and Canada:

- Hazardous locations
 - Class I, Div 2, groups A, B, C & D.
 - Class 1, Zone 1, AExd IIC T3/T4.
- UL listing No. E187894.
- Ordinary locations: Visual Signal Device.
- UL listing No. S8128
- CENELEC EN50014 & EN50018
- Cert. No. Baseefa04ATEX0009X. BASEEFA EExd IIC T3/T4.
- Brazilian (Inmetro) Certified: BR-Ex d IIC T3/T4/T5/T6
- GOST 'R' Certification: 1 Exd IIC T3/T4/T5/T6
- IEC-Ex Approved.

Material: Body: Glass reinforced polyester.
 Lens: Glass.
 Backstrap: stainless steel 316.
 Wire Guard (optional): Stainless steel wire.
 Cast Guard (optional): Aluminium LM25M.

Finish: Natural black or epoxy painted to customer specification.

Models: FB15 ATEX – Available in direct mount version only.
 FB15 UL – Available in pipe and direct mount versions.

Voltage: 24, 48V d.c.
 110, 120, 230, 240, 254V a.c.

Lamp Type: 60W or 100W GLS filament.

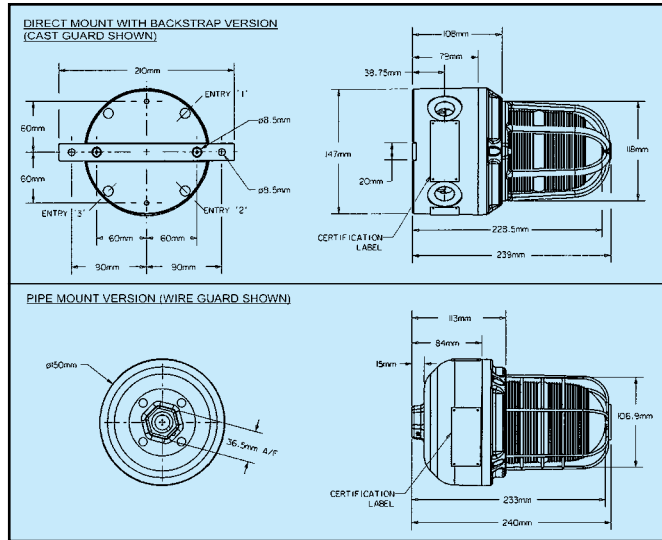
Lamp Holder: E27 as standard..

Certified Temperature: 60W: -55°C to +55°C (T4).
 -55°C to +70°C (T3).
 100W: -55°C to +40°C (T3).

Weight: Pipe mount: 2.6kg; Direct mount: 3.0kg.

Ingress Protection: IP66 & IP67.

Entries: ATEX version: Supplied as 2 x M20 entries as standard
 – Up to 3 x M20 or 3 x M25 entries. Contact sales office to order.
 UL version: Supplied as 2 x ¾" NPT (direct mount) or ¾" (pipe mount) as standard.
 Other options available:
 Up to 3 x ½" NPT or 3 x ¾" NPT (direct mount);
 ½" NPT (pipe mount) – contact sales office to order.



Terminals: Direct mount: 12 x 2.5mm².
 Pipe mount: 8 x 2.5mm².

Labels: Tag/Duty label option.

Electrical Ratings:

	d.c		a.c				
Voltage	24	48	110	120	230	240	254
Current (A) – 60W lamp	2.5	1.25	0.55	0.50	0.26	0.25	0.24
Current (A) - 100W lamp	4.2	2.1	0.91	0.83	0.43	0.42	0.39

Ordering Requirements

The following code is designed to help in the selection of the correct unit. Build up the reference number by inserting the code for each component into the appropriate box. **Standard products available for immediate shipping – contact sales office for details.**

Model	Certification	Voltage	Lamp Wattage	Lens Color	Unit Guard	Fixing	Unit Options	Finish																																																							
FB15	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>																																																							
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10 JOULE XENON BEACONS

UL Listed Only, Weatherproof XB16 Range



Introduction

These listed 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 housing is manufactured from a U.V. stable, glass reinforced polyester, with the lens manufactured from a U.V. stable polycarbonate. Stainless steel screws are used ensuring a totally corrosion-free product.

The model XB16 contains supervisory diode and four wire leads for fire alarm applications. This beacon is also available UL 1971 (ADA) listed for hearing impaired applications.

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

- ★ UL listed for USA and Canada
 - Hazardous locations for USA and Canada Class I, Div. 2, Groups A, B, C & D*.
 - Class II, Div. 2, Groups F & G.
 - UL 1971 compliant version available†.
 - Ordinary locations: Visual Signal Device
 - 'T' Rating model dependent. Contact sales office for information.
 - ★ IP66 & 67.
 - ★ Certified temperature -55°C to $+70^{\circ}\text{C}$.
 - ★ Pipe mount with $\frac{3}{4}$ " NPT entry.
 - ★ Corrosion-free GRP enclosure.
 - ★ 580,000 peak candlepower.
 - ★ Polycarbonate lens, various colors available†
 - ★ 4 wire diode monitored board.
 - ★ Optional relay initiate.
 - ★ Optional lens guard.
- *Conforms to UL standard or regulated voltage.
†UL 1971 version available with clear lens only.

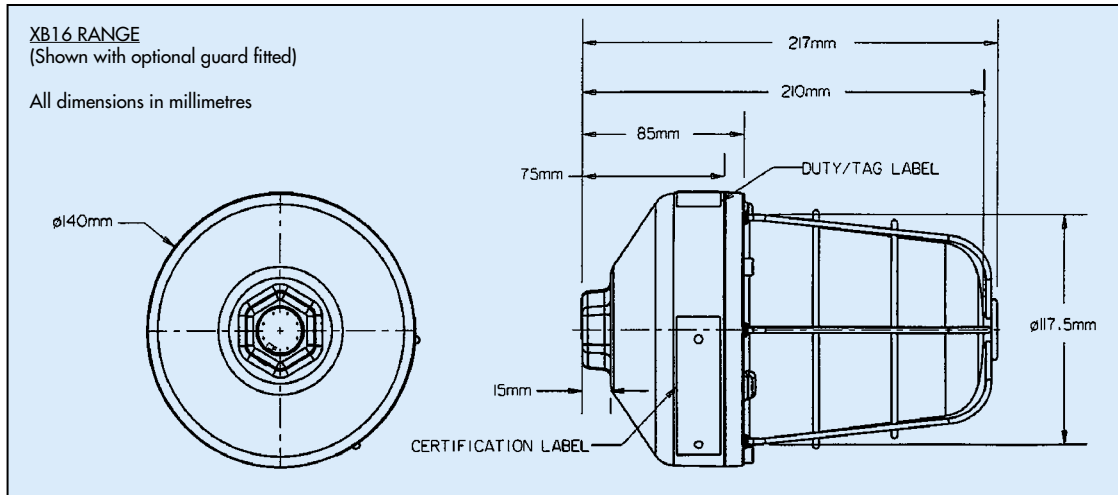
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Fax: +47 914 46 030

Sales Enq. Fax: +44 (0)1773 582830 Sales Orders Fax: +44 (0)1773 582832
E-Mail: sales@medc.com Web: www.medc.com





Specification

Certification:	UL Listed for USA and Canada: – Hazardous locations for USA and Canada: UL1604. Class I, Div. 2, Groups A, B, C & D. Class II, Div. 2, Groups F & G. UL listing No. E251185. – Ordinary locations: Visual Signal Device: UL1638. UL listing No. E251185. – Hazardous locations for hearing impaired: UL1971. UL listing No. E251185.
Material:	Body: Glass reinforced polyester. Lens: U.V. stable polycarbonate. Lens screws: stainless steel 316.
Finish:	Natural black or painted to customer specification.
Voltage:	24, 48V d.c. 110, 120, 230, 240, 254V a.c. Conforms to UL regulated voltage output (24Vdc, 120Vac, 240Vac).
Certified Temperature:	-55°C to +70°C
Tube Energy:	10 Joules.
Tube life:	>1 x 10 ⁶ flashes.

Weight:	1.0 Kg																								
Ingress Protection:	IP66 & IP67.																								
Entries:	Standard 1 x 3/4" NPT pipe mount. (Contact MEDC if 1/2" NPT is required).																								
Terminals:	8 x 2.5mm ² .																								
Labels:	Tag/Duty label option.																								
Electrical ratings:																									
	<table border="1"> <thead> <tr> <th></th> <th colspan="4">DC</th> <th colspan="3">AC</th> </tr> </thead> <tbody> <tr> <td>Voltage</td> <td>24</td> <td>48</td> <td>110</td> <td>120</td> <td>230</td> <td>240</td> <td>254</td> </tr> <tr> <td>Current</td> <td>0.89</td> <td>0.30</td> <td>0.38</td> <td>0.38</td> <td>0.22</td> <td>0.22</td> <td>0.18</td> </tr> </tbody> </table>		DC				AC			Voltage	24	48	110	120	230	240	254	Current	0.89	0.30	0.38	0.38	0.22	0.22	0.18
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	Effective candlepower (Cd): 285 at 60 f.p.m.																								
	Peak candlepower: 580,000 (Peak candlepower is the maximum light intensity generated by a flashing light during its light pulse)																								
	UL 1971 On-axis output: 15 Cd.																								
	Multiplying factor for colored lenses:																								
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	Relay Initiate: 24V dc relay initiate only.																								

Ordering Requirements

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

Model	Certification	Voltage	Flashrate	Lens Color	Guard	Options	Unit Finish																																																																														
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STEADY BEACONS EExd(e), Weatherproof SM87 LU1/3 Ranges



SM87 LU1 – Fluorescent



SM87 LU3 – Filament

Introduction

These certified steady beacons have been designed for use in harsh environmental conditions. The marine grade **stainless steel** or **alloy** enclosures are suitable for use offshore or onshore, where light weight combined with corrosion resistance and strength is required. Units can be painted to customer specification and fitted with identification labels.

- ★ Zone 1 and Zone 2 use.
- ★ EExd IIC T4/T6.
- ★ *ATEX approved Ex II 2GD.
- ★ BASEEFA certified.
- ★ *UL listed for USA and Canada
 - Class I, Div. 1, Groups C & D.
 - Class I, Zone 1, AExd IIB.
- ★ *CSA certified.
- ★ *GOST 'R' & 'K' certified.
- ★ Chinese (CQST) certified.
- ★ Brazilian (Inmetro) certified.
- ★ Fluorescent.
- ★ Filament.
- ★ IP66 and IP67.
- ★ Corrosion Resistant.
- ★ Fluorescent version suitable for obstruction or warning lighting.
- ★ Optional EExe terminal chamber.
- ★ Optional guard.

*Model dependent.

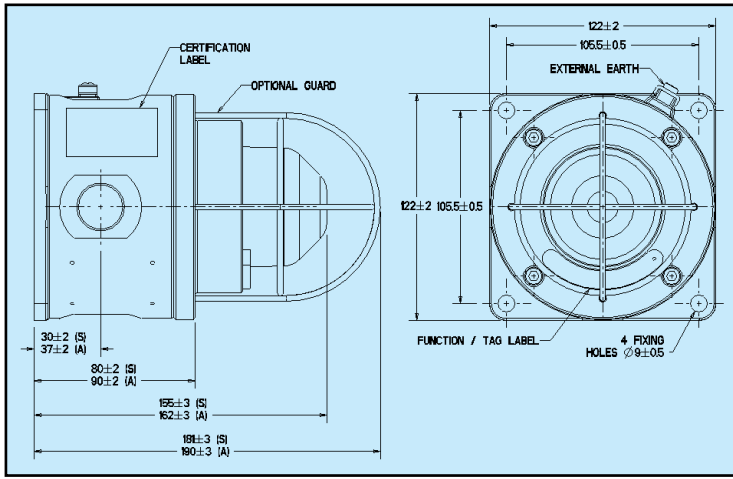
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Certification: SM87LU3 – EExd IIC T4 (Filament) –55°C to +40°C.
 SM87LU1 – EExd IIC T3 (Filament) –55°C to +55°C.
 – EExd IIC T6 (Fluorescent) -20°C to +55°C.
 – EExd IIC T5 (240V).
 – EExd IIC T4 (254V).
 – Cert. No. Baseefa 03ATEX0222X.
UL Listed for USA & Canada:
 – Class I, Div. 1, Groups C & D and
 – Class I, Zone 1, Listing No. E187894.
 SM87LU1 & LU3 – CSA Certified for Class 1, Div. 1 & 2, Group D.
 Certification No. 96406.
 CENELEC – EN50014, 50018, 50019.
CSA Certification to C22.2 Nos. 0, 0.4, 0.5, 9, 30–M1986, 94–M91, 137–M1981.
 Class 1 Group D. Enclosure 3/4.
 Cert. No. 96406.
GOST 'R' Certification: 1 Exd IIC T4, Certification No. A-0756
GOST 'K' Certification: Exd ICC T4,
Chinese (CQST) Certification: Exd IIC T4/T5/T6 (LU1 & LU3 only).
Brazilian (Inmetro) Certification: BR-Ex d IIC T3/T4/T5/T6

Specification

Models: SM87 LU1 – Fluorescent, EExd & UL Listed, CSA & GOST Certified.
 SM87 LU3 – Filament, EExd & UL Listed, CSA & GOST Certified.

Voltage: 24, 48V d.c., 110V 220V 240V 254V a.c.
 50Hz as standard. 60Hz available if required.

Fluorescent: 10 Watt tube light output 600 Lumens (240V + 254V a.c. versions).
 5 Watt tube max. light output 250 Lumens (d.c. versions & 110V a.c.).

Filament: Single filament fitted as standard 10 watts.
 Others may be available, please contact MEDC with your requirements.

Terminals: 4 off for up to 2.5mm² cable.

Entries: SM87 LU1 – Up to 3 x 20mm or 25mm (not on RHS).
 SM87 LU3 – Up to 4 x 20mm or 25mm.

Material: Grade 316 ANC4B Stainless Steel or Aluminium Alloy LM25TF with glass lens.

Weight: Stainless Steel – 3.8kg each.
 Alloy – 2.5kg.

Finish: Epoxy paint finish as standard or to customer's specification.

Power 7 Watts for 24V d.c., 48V d.c., 110V a.c., 220V a.c.
Consumption: 14 Watts for 240V a.c. (LU1)
 15 Watts for 254V a.c.

Ordering Requirements

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

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Example

An EExd fluorescent in alloy with a clear lens suitable for 24V d.c., 2 x 20mm through entry, finished in grey would be our ref: SM87LU3A024CN1R1LNG.



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

STEADY BEACONS

Exd(e), Weatherproof FL4 & FB4 Ranges



Introduction

These certified steady beacons have been designed for use in flammable atmospheres and harsh environmental conditions. The marine grade alloy or stainless steel enclosures are suitable for use offshore or onshore, where light weight combined with corrosion resistance and strength is required. Units can be painted to customer specification and fitted with identification labels.

Available with optional Exe terminal chamber.

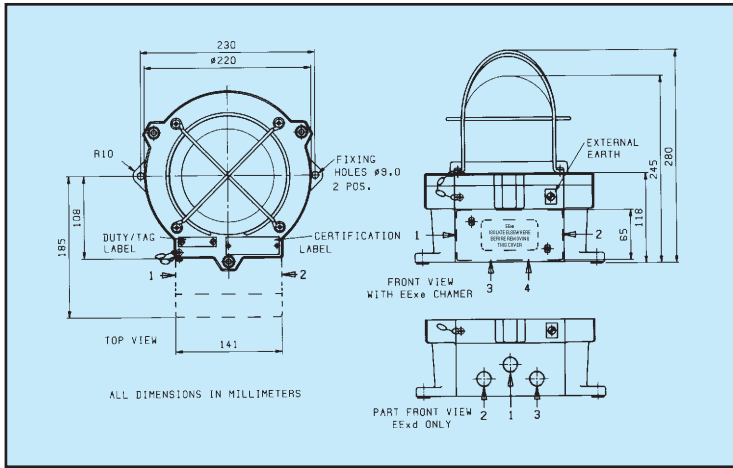
- ★ Zone 1 and Zone 2 use.
- ★ Exde IICT3/T6.
- ★ ATEX approved Ex II 2GD.
- ★ BASEEFA certified.
- ★ UL listed for USA and Canada
 - Hazardous locations:
 - Class I, Div. 1, Groups C & D.
 - Class I, Zone 1, AExd IIB T4/T5.
 - Ordinary locations: Visual-Signal Device.
- ★ GOST 'R' certified.
- ★ Brazilian (Inmetro) certified.
- ★ Certified temperature -55°C to $+55^{\circ}\text{C}$.
- ★ IP66 and IP67.
- ★ Fluorescent.
- ★ Filament Lamps supplied.
- ★ Corrosion Resistant.
- ★ Exde version has gland earth continuity in the GRP terminal chamber.
- ★ Optional lens guard.
- ★ Tapered spigot flamepath.
- ★ Retained cover screws.

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Fax: +44 (0)1773 582800

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Sales Enq. Fax: +44 (0)1773 582830 Sales Orders Fax: +44 (0)1773 582832
E-Mail: medc.sales@cooperindustries.com Web: www.medc.com





Entries: Up to 3 x 1/2" NPT or 2 x 3/4" NPT in UL unit.
Up to 3 x 20mm or 2 x 25mm ISO in Exd unit.
Up to 4 x 20mm or 4 x 25mm ISO in Exe unit.

FL4 LAMP DETAILS			
Unit Type	Lamp Type	Lamp Ref.	Holder Type
FL4 DC	Osram Dulux D/E 13W	DD/E 13/XX	G24q-1
	Philips PLC 13W	PLC 13 P4	G24q-1
FL4 AC	Osram Dulux D/E 13W	DD/E 13/XX	G24q-1
	Philips PLC 13W	PLC 13	G24d-1
Osram Colour XX = (21 = Cool white) (31 = Warm white) (41 = Interna)			

Temperature Ratings			
Type	Voltage/Wattage	T Class	Max. Amb.
FL4	DC units	T5	55°C
	AC units	T4	55°C
FB4	60W	T4 (UL T3)	55°C
	100W	T3	55°C

Ordering Requirements

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

Unit Type	Voltage	Certification	Terminals	Entries	Lamp Wattage	Lens Colour	Guard	Options	Material	Finish	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
FL4											
FB4											
Voltage Code 24Vd.c. B 48Vd.c. C 110Vd.c. D 110Va.c. E 120Va.c. F 220Va.c. G 240Va.c. H 254Va.c. J		Certification Code ATEX B *UL UL †UL (ordinary UW locations) G GOST 'R' M Inmetro M *UL (FB4) – only available 24Vd.c., 110Va.c., NPT entries. *UL (FL4) – only available 24Vd.c., 110Va.c., 240Va.c., NPT entries. †UW only available for FL4.		Entries Code 20mm *B 25mm *C 1/2" NPT† *M 3/4" NPT† *N *Prefix entry size (see diagram above) with entry position code e.g. 2B3B †UL Listed version only.		Colour Code Clear C Red R Blue B Green G Yellow Y Amber A		Label Code Duty D* Tag T* Relay Initiate R (UL only) None N *Please specify wording		Finish Code Grey G Red R Blue B Yellow Y White W Other – specify S	
		Terminals & Type Code 6 x 6mm ² (Exe)* 6E 8 x 6mm ² (Exd) 8D 8 x 10 AWG (UL only) 8U		Lamp Wattage Code FL4 13W (1 x 13W tube) 13 26W (2 x 13W tubes) 26* 39W (3 x 13W tubes) 39* FB4 60W 60 100W 100 *Only available in the following voltages: 26W – AC only. 39W – G, H, J.		Guard Code None 0 Guard 1		Material Code Stainless Steel 0 Alloy 1			

*Not available GOST 'R' certified.

Specification

Certification: CENELEC – EN60079-0:2006, EN60079-1:2004, EN60079-7:2007, EN61241-0:2006, EN61241-1:2004

Cert. No. Baseefa02ATEX0224X.

BASEEFA – Exd IIC T5 or Exde IIC T5.

UL listed for USA and Canada

– Hazardous locations:

Class I, Div 1, Groups C & D.

Class I, Zone 1, AExd IIB T4/T5.

Listing No. E187894.

Ordinary locations: Visual-Signal Device (FL4 only).

Listing No. S8128.

GOST 'R' Certified: 1Exd IIC T3/T4/T5.

Brazilian (Inmetro) Certified: BR-Ex d IIC T3/T4/T5/T6.

BR-Ex de IIC T3/T4/T5/T6.

Material: LM25TF Marine Grade Alloy body.
Grade 316 ANC4B Stainless Steel body.
Glass reinforced polyester (GRP) terminal chamber.
Toughened Wellglass.

Models: FL4 – up to 3 x 13 watt PL compact fluorescent lamps.
FB4 – up to 100 watt GLS filament lamps. E27 holder as standard.

Finish: Grey epoxy paint finish as standard or to customer's specification.

Voltage: 24V 48V 110V d.c., 110V 120V 220V 240V 254V a.c. ± 10% 50/60hz.

Weight: FL4 (Exd) 6.5 – 7.9 Kg.
FL4 (Exde) 7.5 – 8.9 Kg.
FB4 (Exd) 6.4 Kg.
FB4 (Exde) 7.4 Kg.
The above are for alloy versions. Add 8.4 Kg for stainless steel.

Certified FL4 = -20°C to +55°C.

Temperature: FB4 = -50°C to +55°C (Exde).

FB4 = -55°C to + 55°C (Exd & UL listed).
(For temperature ratings see table below).

Ingress

Protection: IP66 and IP67.

Lamps: FB4 units are supplied with lamps.

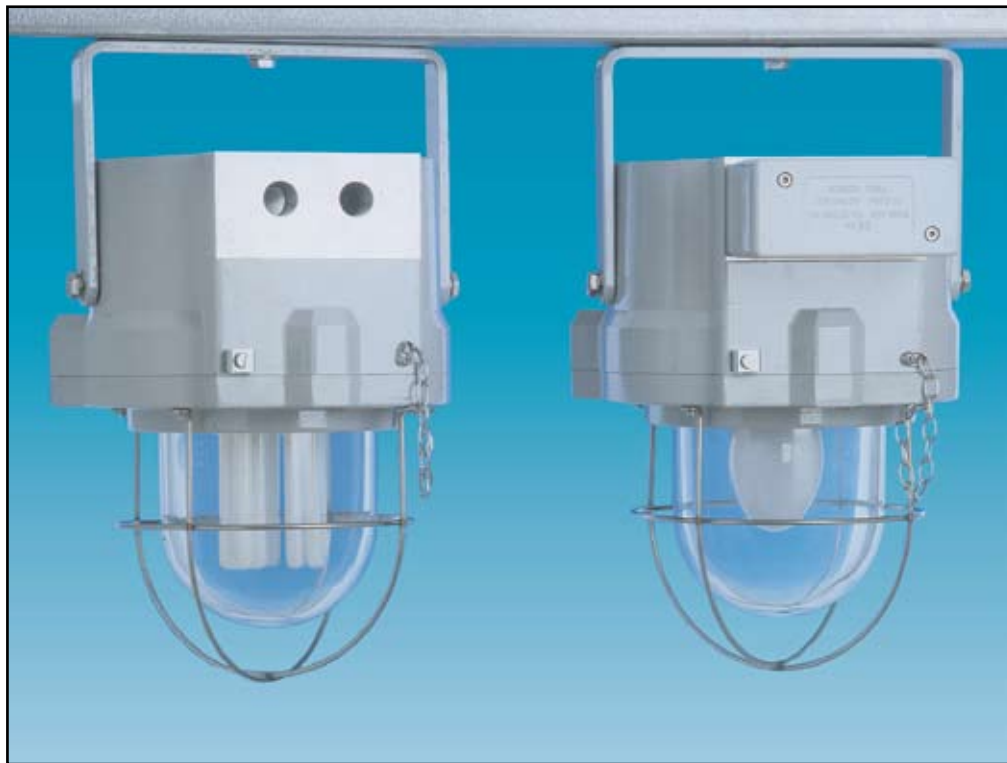
Terminals: Exe 6 off suitable for up to 6mm² cable or 10 off suitable for up to 2.5mm² cable.
Exd 8 off suitable for up to 6mm² cable.
UL 8 off suitable for up to 10 AWG.



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

STEADY BEACONS

EExd(e), Weatherproof FL5, FB5, MF5, HS5 Range



Introduction

These certified steady beacons have been designed for use in flammable atmospheres and harsh environmental conditions. The marine grade alloy enclosures are suitable for use offshore or onshore, where light weight combined with corrosion resistance and strength is required. Units can be painted to customer specification and fitted with identification labels.

All models available with optional EExe terminal chamber.

- ★ Zone 1 and Zone 2 use.
 - ★ EExde IIBT3/T4.
 - ★ ATEX approved Ex II 2G.
 - ★ BASEEFA certified.
 - ★ CSA certified (HS5 only).
 - ★ Certified temperature -20°C to $+50^{\circ}\text{C}$ *.
 - ★ IP66, IP67 & IP68.
 - ★ Fluorescent/sodium/mercury/filament.
 - ★ EExde version has gland earth continuity in the GRP terminal chamber.
 - ★ Corrosion Resistant.
 - ★ Optional guard.
 - ★ Retained cover screws.
- *Model dependent.

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Fax: +47 914 46 030

Sales Enq. Fax: +44 (0)1773 582830 Sales Orders Fax: +44 (0)1773 582832
E-Mail: sales@medc.com Web: www.medc.com

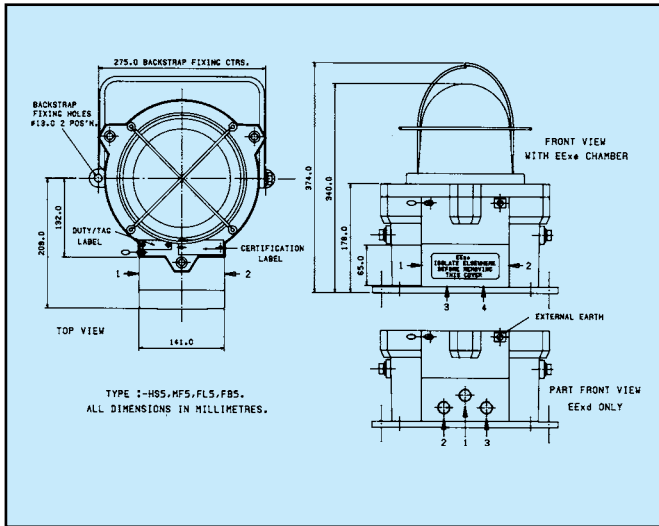


Specification

Model	Type	Voltage 50/60 Hz.	Lamp Wattage	T Rating	Operating Temperature	Weight EExd units*
FL5	Fluorescent	220/240/254Va.c.	52W (4x13)	T4	-20 to +50°C	13.25kg
FB5	Filament	240Va.c. (max)	200W (max)	T3	-20 to +30°C	11.6kg
MF5	Mercury Fluorescent	220/240/254Va.c.	80W	T3	-20 to +40°C	12.9kg
HS5	High Pressure Sodium	220/240/254Va.c.	70W	T4	-20 to +40°C	13.0kg

*Add 1kg for EExe version.

Certification:	CENELEC EN50014 & 50018 & 50019. Certificate No. Baseefa02ATEX0225X. BASEEFA – EExd IIB or EExde IIB. CSA certified: Class I, Zone 1, Exd IIB T4. CSA certification to E79-0-95, E-79-1-95, C22.2 Nos. 9.0-96. Cert. No. LR96406 (HS5 only). To order, contact MEDC.
Material:	LM25 TF marine grade alloy body. Glass reinforced polyester (GRP) terminal chamber. Toughened Wellglass.
Finish:	Grey epoxy paint finish as standard or to customer's specification.
Ingress Protection:	IP66, IP67 & IP68.
Lens:	Can be coloured if required.
Lamps:	Units are supplied without lamps. Please specify and order separately
Lampholder:	FB5, HS5, MF5 Type ES27. FL5 Type G24-d1.
Photometric Data:	These units have been tested by BSI and test reports are available on request.
Terminals:	EExe 6 off suitable for up to 6mm ² cable or EExd 8 off suitable for up to 6mm ² cable.
Entries:	Up to 3 x 20mm ² ISO or 2 x 25mm ² ISO in EExd unit. Up to 4 x 20mm ² ISO or 4 x 25mm ² ISO in EExe unit.



Ordering Requirements

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

Model	Terminal Chamber	Voltage	Fixing	Entries	Guard	Tag Label	Finish																																																															
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<table border="1"> <tr><th>Model</th></tr> <tr><td>FL5</td></tr> <tr><td>FB5</td></tr> <tr><td>MF5</td></tr> <tr><td>HS5</td></tr> </table>	Model	FL5	FB5	MF5	HS5	<table border="1"> <tr><th>Terminal Chamber</th><th>Code</th></tr> <tr><td>EExd</td><td>D</td></tr> <tr><td>EExde</td><td>E</td></tr> </table>	Terminal Chamber	Code	EExd	D	EExde	E	<table border="1"> <tr><th>Voltage</th><th>Code</th></tr> <tr><td>(refer to table above for details)</td><td></td></tr> <tr><td>220Va.c.</td><td>G</td></tr> <tr><td>240Va.c.</td><td>H</td></tr> <tr><td>254Va.c.</td><td>J</td></tr> </table>	Voltage	Code	(refer to table above for details)		220Va.c.	G	240Va.c.	H	254Va.c.	J	<table border="1"> <tr><th>Fixing</th><th>Code</th></tr> <tr><td>Backstrap</td><td>B</td></tr> <tr><td>Stirrup</td><td>S</td></tr> </table>	Fixing	Code	Backstrap	B	Stirrup	S	<table border="1"> <tr><th>Entry</th><th>Code</th></tr> <tr><td>20mm</td><td>*B</td></tr> <tr><td>25mm</td><td>*C</td></tr> <tr><td colspan="2">*Prefix entry size (see diagram above) with entry position code e.g. 1B2B.</td></tr> </table>	Entry	Code	20mm	*B	25mm	*C	*Prefix entry size (see diagram above) with entry position code e.g. 1B2B.		<table border="1"> <tr><th>Guard</th><th>Code</th></tr> <tr><td>None</td><td>0</td></tr> <tr><td>Guard</td><td>1</td></tr> </table>	Guard	Code	None	0	Guard	1	<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> <tr><td colspan="2">(Please specify)</td></tr> </table>	Label	Code	None	N	Yes	Y	(Please specify)		<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>Other (please specify)</td><td>S</td></tr> </table>	Finish	Code	Grey	G	Red	R	Blue	B	Yellow	Y	White	W	Other (please specify)	S
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All the above specifications, dimensions, weights and tolerances are nominal (typical) and MEDC reserve the right to vary all data without prior notice. No liability is accepted for any consequence of use.

STEADY BEACONS

EExd, Weatherproof

FL11, FB11, FL12 & FB12 Range



FL11/FB11 Range



FL12/FB12 Range

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.

- ★ Zone 1 and Zone 2 use.
- ★ EExd, IIB T4/T5.
- ★ 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.
- ★ GOST 'R' Certified.
- ★ Brazilian (Inmetro) Certified.
- ★ Fluorescent.
- ★ Filament.
- ★ IP66 and IP67.
- ★ Certified temperature -55°C to $+55^{\circ}\text{C}$ *.
- ★ 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

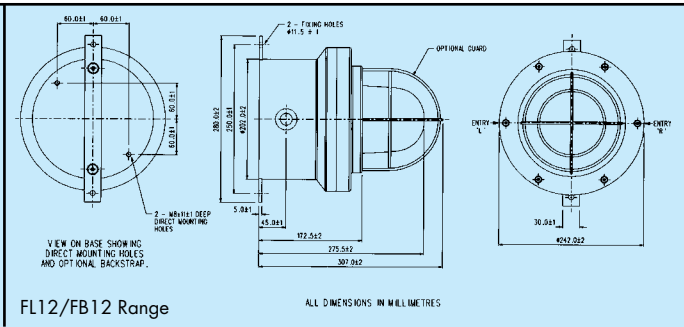
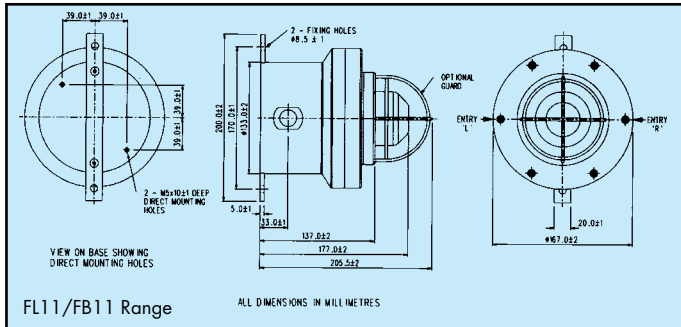
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Specification

Models:	FL11 & FL12 – Fluorescent, EExd. FB11 & FB12 – Filament, EExd. FB12 – Filament, EExd & UL Listed.
Certification:	CENELEC EN50014 and EN50018. FB11/FL11 Cert. No. BAS99 ATEX 2195X. FB12/FL12 Cert. No. BAS99 ATEX 2196. BASEEFA EExd IIB – for T rating see table. 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
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.
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.
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).
Material:	Body: – Glass reinforced polyester (GRP). Lens: – Glass. Cover Screws + Backstrap: – Stainless steel 316.
Finish:	Natural black or painted to customer specification.
Ingress Protection:	IP66 & IP67.
Fire Retardancy:	GRP is fire retardant to ISO 1210.
Earth Continuity:	Optional for metal glands provided via a brass plate.

Terminals:	FL11 (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.
Labels:	Duty/Tag Label optional.
Entries:	2 x 20mm ISO EExd. 2 x 1/2" NPT UL Listed.
Certified Temperature:	FB11 & FB12, EExd = –55°C to + 55°C*. FL11 & FL12, EExd = –20°C to + 55°C*. *Model dependent – see table for details.

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

Weight:	FL11, FB11 – 2.8 kg*. FL12 – 7.2 kg*. FB12 – 7.6 kg*. *dependant on model.
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Ordering Requirements

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

Unit Type	Certification	Voltage	Lamp Wattage	Lens Colour	Guard	Unit Fixing	Earth Continuity	Tag/Duty Label	Finish																																																																									
<table border="1"> <tr><td>FL11</td><td>Cert.</td><td>Code</td></tr> <tr><td>FB11</td><td>Uncertified</td><td>W</td></tr> <tr><td>FL12</td><td>ATEX</td><td>B</td></tr> <tr><td>FB12</td><td>UL Listed*</td><td>UL</td></tr> <tr><td></td><td>GOST 'R'</td><td>G</td></tr> <tr><td></td><td>Inmetro</td><td>DM</td></tr> </table> <p>*UL listed only available FB11 & FB12.</p>	FL11	Cert.	Code	FB11	Uncertified	W	FL12	ATEX	B	FB12	UL Listed*	UL		GOST 'R'	G		Inmetro	DM	<table border="1"> <tr><td>Guard</td><td>Code</td></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><td>Label</td><td>Code</td></tr> <tr><td>None</td><td>N</td></tr> <tr><td>Yes</td><td>Y</td></tr> <tr><td colspan="2">(Please specify)</td></tr> </table>	Label	Code	None	N	Yes	Y	(Please specify)		<table border="1"> <tr><td>Unit Fixing</td><td>Code</td></tr> <tr><td>Direct Mounting</td><td>D</td></tr> <tr><td>Backstrap</td><td>B</td></tr> </table>	Unit Fixing	Code	Direct Mounting	D	Backstrap	B	<table border="1"> <tr><td>Colour</td><td>Code</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>Amber</td><td>A</td></tr> <tr><td>Yellow</td><td>Y</td></tr> <tr><td>Clear</td><td>C</td></tr> </table>	Colour	Code	Red	R	Blue	B	Green	G	Amber	A	Yellow	Y	Clear	C	<table border="1"> <tr><td>Continuity</td><td>Code</td></tr> <tr><td>None</td><td>N</td></tr> <tr><td>Yes*</td><td>Y</td></tr> <tr><td colspan="2">*Not available in UL versions.</td></tr> </table>	Continuity	Code	None	N	Yes*	Y	*Not available in UL versions.		<table border="1"> <tr><td>Finish</td><td>Code</td></tr> <tr><td>Natural Black</td><td>N</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>Grey</td><td>G</td></tr> <tr><td>White</td><td>W</td></tr> <tr><td>Special Finish</td><td>S</td></tr> </table>	Finish	Code	Natural Black	N	Red	R	Blue	B	Yellow	Y	Grey	G	White	W	Special Finish	S
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<table border="1"> <tr><td>Voltage</td><td>Code</td></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> <tr><td colspan="2">Other voltages available, please specify.</td></tr> <tr><td colspan="2">*FB11 & FB12 only</td></tr> <tr><td colspan="2">†FB12 UL Listed only</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	Other voltages available, please specify.		*FB11 & FB12 only		†FB12 UL Listed only		<table border="1"> <tr><td>Lamp Wattage</td><td>Code</td></tr> <tr><td>FL11† 5W d.c. (1 x 5W tube)*</td><td>5</td></tr> <tr><td>10W a.c. (1 x 10W tube)*</td><td>10</td></tr> <tr><td>FB11† 10W a.c. & d.c. (1 x 10W bulb)</td><td>10</td></tr> <tr><td>FL12 13W a.c. & d.c. (1 x 13W tube)*</td><td>13</td></tr> <tr><td>26W a.c. (2 x 13W tubes)*</td><td>26</td></tr> <tr><td>39W a.c. (3 x 13W tubes)*</td><td>39</td></tr> <tr><td>FB12 60W a.c. & d.c. (1 x 60W bulb)</td><td>60</td></tr> <tr><td>100W a.c. & d.c. (1 x 100W bulb)</td><td>100</td></tr> </table> <p>*Not available in UL versions. †Inmetro Only available on FL11 & FB11</p>	Lamp Wattage	Code	FL11† 5W d.c. (1 x 5W tube)*	5	10W a.c. (1 x 10W tube)*	10	FB11† 10W a.c. & d.c. (1 x 10W bulb)	10	FL12 13W a.c. & d.c. (1 x 13W tube)*	13	26W a.c. (2 x 13W tubes)*	26	39W a.c. (3 x 13W tubes)*	39	FB12 60W a.c. & d.c. (1 x 60W bulb)	60	100W a.c. & d.c. (1 x 100W bulb)	100																																									
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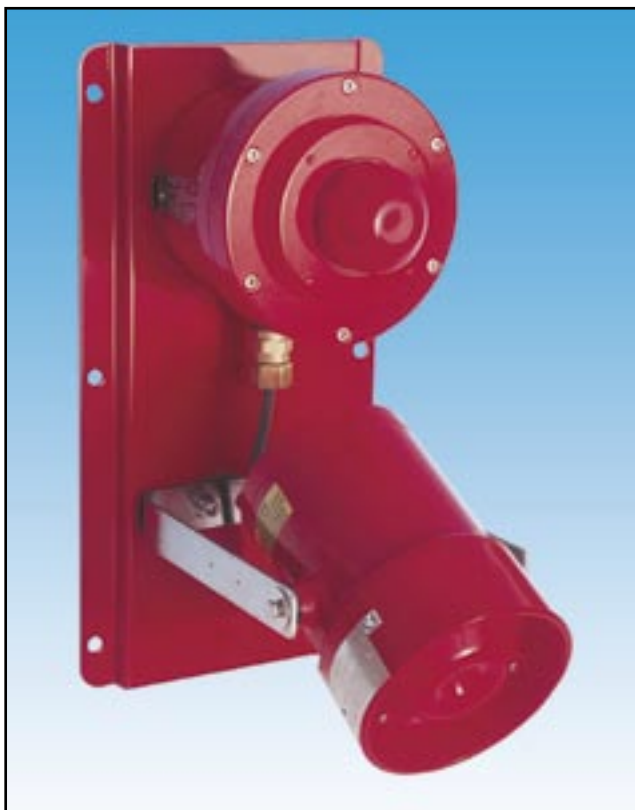
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BEACON/SOUNDER COMBINATION UNITS

EExd(e), Heavy Duty Industrial & Marine, Weatherproof



Example of installed
combination unit



XB11/DB3

Example shown is for illustration only.
Other combinations are available.

Introduction

This range of audio/visual combination units may be assembled from MEDC's range of beacons and sounders. Mounted on a sturdy, drilled, painted, stainless steel plate, the units are pre-wired as standard such that a single input operates both the sounder and beacon simultaneously.

Units are available for use in potentially explosive atmospheres and dedicated units are now available for use in industrial and marine environments.

- ★ *Zones 1, 2 and safe area use.
- ★ *ATEX approved Ex II 2GD.
- ★ *UL listed Class I, Div. 1 & 2, Groups C & D.
- ★ IP66 and 67.
- ★ *Certified temperature -55°C to $+70^{\circ}\text{C}$.
- ★ Corrosion free GRP beacon/sounder.
- ★ Beacon available as xenon, filament, fluorescent or LED.
- ★ Xenon: up to 21J.
- ★ Filament: up to 100W.
- ★ Fluorescent: up to 39W.
- ★ LED: up to 192cd.
- ★ Sounder: up to 115dBA output at 1 metre.
- ★ All stainless steel (316), epoxy painted back plate.

*Model dependent.

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Sales Enq. Fax: +44 (0)1773 582830 Sales Orders Fax: +44 (0)1773 582832
E-Mail: sales@medc.com Web: www.medc.com



Standard Products

1. XB11/DB3 – Explosionproof Xenon 5J; Sounder up to 115dB(A), all GRP corrosion free products.



- ★ Certification: ATEX: Ex II 2GD, EExdIIBT5.
UL: Class I, Div. 2, Groups C & D.
- ★ Voltage: 24V d.c., 110V a.c., 240V a.c.
- ★ Beacon: Standard: XB11 (Xenon 5J).
Option: Filament (10W). Fluorescent ($\leq 10W$).
- ★ Sounder: Standard: DB3 (long flare) $\leq 115dB(A)$ at 1 metre.
Option: DB3 (short flare) $\leq 108dB(A)$ at 1 metre.
- ★ Dimensions (mm): 420 (height) x 220 (width) x 337 (depth).
- ★ Options: Refer to data sheet. Specify when ordering.

Ordering information – Standard product. Specify options 1 to 4

Product	1. Certification	2. Voltage	3. Lens colour	4. Finish
XB11+DB3	ATEX UL	see above	Red Amber	Natural Black Red

2. SM87HXB/DB1 – Explosionproof Xenon 5J; Sounder up to 110dB(A), LM25 or stainless steel construction, red finish.



- ★ Certification: ATEX: Ex II 2G, EExdIIBT4(T3).
UL: Class I, Div. 1, Groups C & D.
- ★ Voltage: 24V d.c., 110V a.c., 240V a.c.
- ★ Beacon: Standard: SM87 (Xenon 5J).
Option: Filament (10W). Fluorescent ($\leq 10W$). LED ($\leq 192cd$).
- ★ Sounder: Standard: DB1 HP $\leq 110dB(A)$ at 1 metre.
Option: DB1 P $\leq 106dB(A)$ at 1 metre.
- ★ Dimensions (mm): 351 (height) x 228 (width) x 205 (depth).
- ★ Options: Refer to data sheet. Specify when ordering.

Note: Example only – actual arrangement may vary (contact sales office)

Ordering information – Standard product. Specify options 1 to 5

Product	1. Body Material	2. Certification	3. Voltage	4. Lens colour	5. Finish
SM87HXB+DB1HP	LM25 stainless steel	ATEX UL	see above	Red Amber	specify

3. SM87HXB/DB3 – Explosionproof Xenon 5J; LM25 or stainless steel, Sounder up to 115dB(A), GRP construction, red finish.



- ★ Certification: ATEX: Ex II 2G, EExdIICT5.
UL: Class I, Div. 2, Groups C & D.
- ★ Voltage: 24V d.c., 48V d.c., 110V a.c. to 240V a.c.
- ★ Beacon: LM25 or stainless steel.
- ★ Sounder: Corrosion-free GRP.
- ★ Beacon: Standard: SM87 HXB (Xenon 5J).
Option: Filament (10W). Fluorescent ($\leq 10W$). LED ($\leq 192cd$).
- ★ Sounder: Standard: DB3 (long flare) $\leq 115dB(A)$ at 1 metre.
Option: DB3 (short flare) $\leq 108dB(A)$ at 1 metre (also available close coupled).
- ★ Dimensions (mm): 420 (height) x 220 (width) x 337 (depth).
- ★ Options: Refer to data sheet. Specify when ordering.

Note: Close coupled unit only available ATEX certified.

Ordering information – Standard product. Specify options 1 to 5

Product	1. Body Material	2. Certification	3. Voltage	4. Lens colour	5. Finish
SM87HXB+DB3	LM25 stainless steel	ATEX UL	see above	Red Amber	specify

4. XB13/DB12 or XB13/DB15 – Heavy Duty Industrial & Marine Xenon 10J; Sounder DB12 (DB15) up to 110dB(A) (117 dB(A))



- ★ Applications: Harsh Industrial & Marine Environments.
- ★ Voltage: 12V, 24V d.c., 110V, 240V a.c.
- ★ Beacon: Standard: XB13 (Xenon 10J).
- ★ Sounder: Standard: DB12 $\leq 110dB(A)$ at 1 metre.
Standard: DB15 $\leq 115dB(A)$ at 1 metre.
- ★ Dimensions (mm): 300 (height) x 195 (width) x 220 (depth).

Ordering information – Standard product. Specify options 1 to 3

Product	1. Voltage	2. Lens colour	3. Finish
XB13/DB12	see above	Red Amber	Natural Red

Other combinations of beacons and sounders are available – please contact sales office for detailed specifications.

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MEDC

COMBINATION – BEACON SOUNDER

EExde, Weatherproof CU1 Range



Introduction

This range of beacon/sounder units, intended for use in potentially explosive gas and dust atmospheres, has a power rating of up to 10 watts (sounder) and 10 joules (beacon) and is suitable for use in the harsh environmental conditions found offshore and onshore in the oil, gas and petrochemical industries.

The flamepaths, flare and body are manufactured from a UV stable glass reinforced polyester. Stainless steel screws and mounting stirrup are incorporated to ensure a corrosion-free product. A tapered flamepath is used to overcome the problems of assembly of parallel spigot flamepaths.

- ★ Zone 1, Zone 2 & non-Ex use.
- ★ EExde IIB T3.
- ★ ATEX approved, Ex II 2 G.
- ★ CENELEC approved.
- ★ GOST 'R' & 'K' Certified.
- ★ BASEEFA certified.
- ★ Brazilian (Inmetro) certified.
- ★ IP66 and 67.
- ★ Certified temperature -50°C to $+70^{\circ}\text{C}^*$.
- ★ Up to 116 dB(A)*.
- ★ Version with independent beacon/sounder operation now available.
- ★ 27 Tones, user selectable (dual tone option)
- ★ Tones comply with UK00A/PFEER guidelines
- ★ Integral volume control
- ★ GRP corrosion-free flamepath.
- ★ Ratcheted swivel mounting stirrup.
- ★ Stainless steel fixtures.
- ★ Tapered flamepath.

*Model dependent.

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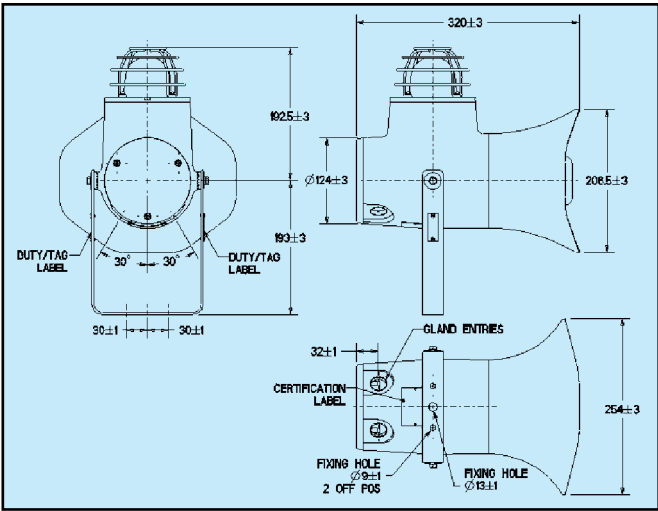
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Specification

Certification:	CENELEC EN50014, 18 & 19. Baseefa Cert. No. Baseefa04ATEX0273X EExde IIB T3 Zones 1 & 2. Brazilian (Inmetro) Certified: BR-Ex de IIB T3 GOST R Certification: 2 EXde IIB T3 Russian Fire Alarm (VNIPO) approved. GOST K Certification: Exde IIB T3
Material:	Body, flares & covers: Glass Reinforced Polyester (GRP). Lens: Glass Guard fitted as standard Cover screws & mounting strap: Stainless steel.
Finish:	Natural black or epoxy painted to customer's requirements.
Weight:	6.5kg approx.
Certified Temperature:	Standard unit: -50°C to +50°C (CU1-S & CU1-SP). High temperature unit: -50°C to +70°C (CU1-H & CU1-HP).
IP Rating:	IP66 & 67.
Earth Cont:	Available as an option.
Terminals:	8 x 4.0mm ² .
Initiation:	Remote relay or telephone initiate options available.
Labels:	Duty/tag label option to customer's requirements.
Entries:	Up to 2 x M25, 2 x M25 ISO, 2 x M20 with 1/2" NPT adaptor or 2 x M25 with 3/4" NPT adaptors into termination (EExe) chamber.
Mounting:	Stainless steel bracket with ratchet facility.
Maximum Output:	Standard unit: sounder 10 watts, beacon 5 or 10 joules. High temp. unit: sounder 5 watts, beacon 5 or 10 joules.
Sound Output:	Standard unit: 116dB(A) ± 3 dB(A) (tone dependent). High temp. unit: 110 dB(A) ± 3 dB(A) (tone dependent).
Tone Selection:	27 user selectable tones.
Two Stage Unit:	Switchable between any two tones by either: (i) reversing the polarity* of the supply, or (ii) by a 3 wire common +ve system, switching between the two -ve lines. If a two stage unit is ordered with either Independent Sounder/Beacon operation or Telephone or Relay Initiate, it will be wired for reverse polarity tone switching only, to allow loop in, loop out installation. Note: Two stage unit available in d.c. versions only. *will not affect beacon operation



Integral Volume Control:

Nominal Output (dB(A))	Input Current (mA)
90	460
95	520
100	670
102	720
105	1000
107	1220
116	1387

*Output measured with 24V input voltage. Tone set to 970Hz continuous, with 10 joule beacon set to 60 fpm.

Current Consumption at full power:

Input Voltage	10 Joule Beacon Sounder @ 60 fpm	5 Joule Beacon Sounder @ 60 fpm
24Vd.c.	1387mA	700mA†
48Vd.c.	864mA	
110Va.c.	365mA	
120Va.c.	417mA	
230Va.c.	172mA	
240Va.c.	182mA	
250Va.c.	241mA	

In addition to the 10 Joule CUI, MEDC offers a 5 Joule/110dB(A), 24Vd.c. version. Details are available on request.

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. For standard products, available ex-stock, contact sales office for details.

Unit Type		Certification		Voltage		Power		FPM		Lens		Labels		Options		Entries		Finish	
<input type="text"/>		<input type="text"/>		<input type="text"/>		<input type="text"/>		<input type="text"/>		<input type="text"/>		<input type="text"/>		<input type="text"/>		<input type="text"/>		<input type="text"/>	
Type	Code	Certification	Code	Power	Code	FPM	Code	Lens	Code	Option	Code	Option	Code	Entries	Code	Option	Code	Option	Code
Standard unit	CU1S	ATEX	B	5 Joule	F*	60	06	Red	R	Tel. Initiate	T†	Natural Black	N	1 x M20	1B				
Two stage	CU1SP*	GOST 'R'	G	10 Joule	T	80	08	Blue	B	Relay Initiate	R†	Red	R	2 x M20	2B				
High temp.		GOST 'K'	K			120	12	Green	G	Independent		Special	S*	1 x M25	1C				
Standard unit	CU1H	Inmetro	EM					Amber	A	Beacon/Sounder	I†	*Please specify		2 x M25	2C				
Two stage	CU1HP*	Weatherproof	W					Yellow	Y	Operation		†T, R or I not available on same unit		1 x 1/2" NPT	1M				
*dc versions only		*VNIPO approved as standard						Clear	C	Earth cont.	C			2 x 1/2" NPT	2M				
										Special Tone	S*			1 x 3/4" NPT	1N				
										EOL Res.	E*			2 x 3/4" NPT	2N				
										None	N			To specify certified plug, suffix appropriate code with 'P', e.g. 2BP is 2 x M20 entries with one certified plug.					
										Option	Code								
										None	N								
										Duty Label	D								
										Tag label	T								



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HEAT DETECTOR

EExd, EExem & Intrinsically Safe (EExia) HD1 Range



EExd version (optional guard)

**Now VNIPO
Approved**



**Now UL
Listed**

EExia/EExem/UL versions (optional guard)

Introduction

The MEDC-Hawco heat detector has been designed for use in hazardous environments. These units are suitable for fire alarm and/or suppression systems in offshore and onshore applications including paint spray booths, flammable material stores, turbine rooms, extract ductwork and other hazardous areas throughout the oil & gas, petrochemical and process industries.

Comprising a Fenwal rate-compensated detector with all-stainless steel external construction, mounted to either a type SM87 marine grade alloy enclosure (EExd version) or JB10 corrosion-free GRP enclosure (EExia, EExem/UL versions). The contact in the detector CLOSES at alarm temperature.

To select appropriate temperature setting see specification on reverse.

- ★ Zone 0, Zone 1 and Zone 2 use.
 - ★ EExia IIC T4/T6, EExd IIB T3/T6 or EExem II T6.
 - ★ ATEX approved – Ex II 1G (EExia)
– Ex II 2G (EExd/EExem).
 - ★ BASEEFA certified.
 - ★ UL listed for USA and Canada
– Class I, Div 2, Groups A-D.
 - ★ GOST 'R' & 'K' certified.
 - ★ Chinese (CQST) certified.
 - ★ Brazilian (Inmetro) certified.
 - ★ IP66 & IP67.
 - ★ Certified temperature:
–20°C to +125°C (EExd)*.
–20°C to +55°C (EExem/UL).
–55°C to +55°C (EExia).
 - ★ Stainless steel probe.
 - ★ Detector temperature settings:
60°C to 385°C, (140°F to 725°F).
 - ★ Marine grade alloy or GRP enclosure.
 - ★ Optional guard.
- *Model dependent.

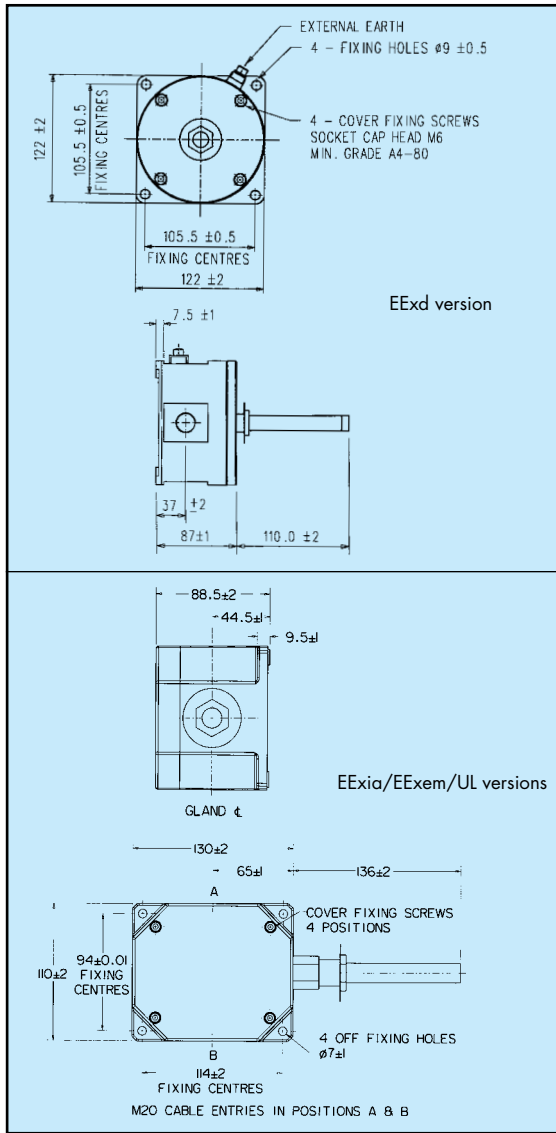
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Specification

Certification: CENELEC EN50014, 19 & 28.
 EExd IIB T6 (T3 at +125°C), Cert.No. Baseefa 03ATEX0447.
 EExia IIC T6 (T4 with diodes/resistors), Cert. No. Baseefa 03ATEX0427.
 EEExm II T6, Cert. No. Baseefa 03ATEX0428.

UL listed for USA and Canada

- Class I, Div 2, Groups A, B, C & D.
 UL Listing no. E252920 - versions up to 450°F
 UL Listing no. E254077- versions 600°F to +725°F

GOST 'R' & 'K' Certification: Exd, Exi & Exem versions.
 Russian Fire Alarm (VNIIPO) approved.
 CQST - Exd, Exi & Exem versions.

Chinese Certification:

Brazilian (Inmetro) Certification: BR-Ex d IIB T6 or T3
 BR-Ex d IIB T6 or T3
 BR-Ex ia IIC T6

Material: Detector: 316 stainless steel
 Enclosures: EExd - LM25 marine grade alloy.
 EExia/EEExm/UL - GRP (anti-static).
 Stainless steel cover screws.
 Optional Guard: 316 stainless steel.

Finish: Detector: Sand blasted.
 Enclosures: EExd - Epoxy painted grey as standard or to customer's specification.
 EExia/EEExm/UL - Self coloured black or epoxy painted to customer's specification.

Weight: EExd, 2kg.
 EExia/EEExm/UL, 1.1kg.

Certified: -20°C to +125°C EExd (T3) ATEX & GOST 'R' only.
Temperature: -20°C to +55°C EExd (T6)/EEExm/UL, -55°C to +55°C EExia.

Ingress Protection: IP66 & IP67.

Operation: The detector contact is normally open and CLOSES at alarm temperature.
Listed Temperature Settings: To select appropriate temperature settings, choose detector at 38°C (100°F) above maximum ambient temperature.

Temperature Setting (°F)	Temperature Setting (°C)	Tolerance		Colour Code Detector Tip
		(°F)	(°C)	
140	60	+7/-8	±4	Black
160	71	+7/-8	±4	Black
190	88	+7/-8	±4	White
225	107	+7/-8	±4	White
275	135	±10	±6	Blue
325	163	±10	±6	Red
360	182	±10	±6	Red
450	232	±15	±8	Green
600	316	±20	±11	Orange
725	385	±25	±14	Orange

Contact Rating: EExd/EEExm/UL: 125Va.c.-5A, 125Vd.c.-0.5A, 48Vd.c.-1A. EExia: 30V-300mA.

Terminals: 6 x 4mm² (BK6).

Labels: Optional stainless steel tag and duty labels.

Cable Entries: 2 x M20 ISO (ATEX/Exd/Exe/Exi versions) 2 x 1/2" NPT via adaptors (UL version).

Resistor: Series & EOL resistor (maximum total 2) minimum value (each) 470Ω - only available Exd, Exi & UL versions.

Diodes: Up to 2 off available in Exd & Exi versions - contact sales office.

Ordering Requirements

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

Product	Description
HD1BDXXXNG	ATEX approved Ex II 2G, certified EExd IIB T6, specify temperature setting, 2 x M20 entries, marine grade alloy enclosure, painted grey.
HD1BIXXXNN	ATEX approved Ex II 1G, certified EExia IIC T6, specify temperature setting, 2 x M20 entries, GRP enclosure, natural black.
HD1BEXXXNN	ATEX approved Ex II 2G, certified EEExm II T6, specify temperature setting, 2 x M20 entries, GRP enclosure, natural black.

Model	Certification	Type	Temp. Settings	Options	Enclosure Finish
HD1	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Certification	Code	Type	Code	Option	Code
ATEX	B	Exd	D*	Duty Label	D
UL listed	UL	Exe	E†	Tag Label	T
ATEX/UL dual listed	AU	Exi	I	Guard	G
GOST 'R' *	G	UL	U‡	Resistor EOL	E
GOST 'K'	K	*Not available UL or ATEX/UL dual listed.		Resistor series	S
Chinese (CQST)	Q	†ATEX/UL dual listed		Diode(s)*	I
Inmetro	M	‡E version available only		Blanking Plug	P
Note: ATEX Exd version dual marked for T3 at +125°C and T6 at +55C.		Select this option for UL listed.		None	N
*VNIIPO approved as standard.				*Only available in ATEX/Exd/Exia versions (specify No.)	
Temp °F	Code	Temp °F	Code	Finish	Code
140	140	140	140	Natural Black (EExe/EEExi/UL only)	N
160	160	160	160	Grey	G
190	190	190	190	Red	R
225	225	225	225	Blue	B
275	275	275	275	Yellow	Y
325	325	325	325	Special Finish	S
360	360	360	360		
450	450	450	450		
600	600	600	600		
725	725	725	725		



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JUNCTION BOXES

EEExe – Increased Safety & Weatherproof

JB10 & JB11 Ranges



Introduction

These GRP terminal boxes have been designed for use in hazardous and hostile environments.

The robust design, coupled with corrosion-free GRP and high ingress protection, ensure a long life, low maintenance product.

- ★ Zone 1 & 2 use.
- ★ EExe II T3, 4, 5 & 6.
- ★ ATEX approved Ex II 2G.
- ★ BASEEFA certified.
- ★ UL listed for USA and Canada
 - Class I, Div 2, Groups A-D
 - Class I, Zone 1, AExe IIC T4 & T5
- ★ IP66 & IP67.
- ★ *Certified temperature -55°C to $+55^{\circ}\text{C}$.
- ★ GRP.
- ★ Lightweight.
- ★ Robust.
- ★ Corrosion free.
- ★ Retained cover screws.
- ★ Optional gland continuity plate.
- ★ Optional internal conductive coating.
- ★ Variety of colours available.
- ★ Optional L.E.D.
- ★ Mixed rail mounted terminals.
- *Depending on version.

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Sales Enq. Fax: +44 (0)1773 582830 Sales Orders Fax: +44 (0)1773 582832
E-Mail: medc.sales@cooperindustries.com Web: www.medc.com



Specification

Certification: Cenelec EN50014, EN50019 & EN50028.
 EExe II T4, 5 & 6.
 EExem II T4, 5 & 6 (LED version).
 Certificate No. Basefa 03ATEX0171X.
UL Listed for USA and Canada:
 Class I, Div 2, Groups A-D and
 Class I, Zone 1, AExe IIC T4 & T5.
 UL Listing No. E237592.

Material: Glass reinforced polyester (anti-static) stainless steel cover screws.

Finish: Self coloured black or epoxy painted to customer's specification.

Weight: JB10, 1.1 Kg. average.
 JB 11, 1.8 Kg. average.

Certified Temperature: Standard -20°C to +55°C.
 Optional -55°C to +55°C (MK6/6 only).

Ingress Protection: IP66 & IP67.

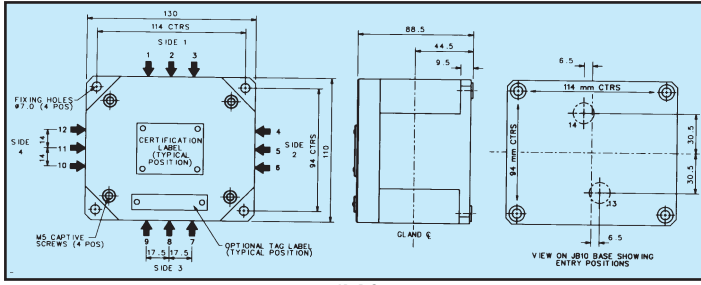
Gland Continuity: Via an internal plate.

Terminal Type/Size	Max No. of Terminals		Max Voltage	Max Current	T Rating
	JB10	JB11			
SAK 2.5	12	15	550	15	T4
SAK 4	10	14	550	21	T4
SAK 6N	8	12	550	26	T4
SAK 10	5	8	550	37	T4
SAK 16	-	7	550	47	T4
HTB4/HTB6	1	1	550	37	T6
BTB4/BTB6	1	1	JB10=500 JB11=600	37	T6
MK6/6	1	1	418	26	T5
BK6	1	-	275	21	T5
UK 2.5 B-Ex	11	14	418	15	T4
UK 5-Ex	9	13	418	21	T4
UK 10-Ex	7	11	418	37	T4
UK 16-Ex	5	7	418	47	T4
AKZ 2.5	12	18	60	15	T4

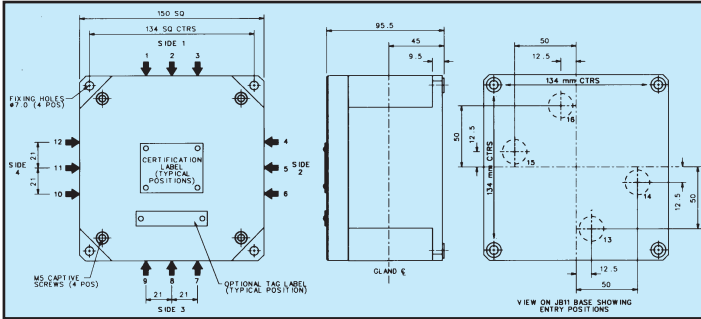
All Junction Boxes will be supplied with an internal earth terminal appropriate to the terminals fitted.

If more than one internal earth terminal is required the maximum number of feed-through terminals must be reduced.

Increased quantities of terminals are available, depending upon the number of cable entries. Please contact MEDC with your requirements.



JB10



JB11

JB10 GLAND DETAILS

GLAND ENTRIES	Maximum No. of Gland Entries Sides 1 & 3	Maximum No. of Gland Entries Sides 2 & 4		Maximum No. of Gland Entries (Base)
	With or Without Earth Continuity	With Earth Continuity	Without Earth Continuity	With or Without Earth Continuity
M16	2	2	2	2
M20 'O'	2	1	2	2
M20 'A'	2	1	1	2
M25	1	1	1	N/A
M32	1	1	1	N/A

JB11 GLAND DETAILS

GLAND ENTRIES	Maximum No. of Gland Entries per Side With or Without Earth Continuity	Maximum No. of Gland Entries (Base) With or Without Earth Continuity
M16	2	4
M20 'O'	2	4
M20 'A'	2	4
M25	2	N/A
M32	1	N/A

Ordering Requirements

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

For standard products, available ex-stock, contact sales office for details.

Terminal Box	Certification	Terminals	External Earth	Gland Continuity	Side Cable Entries	Tag Label	Options	Finish		
JB10 JB11										
Certification Code	Type	Code	Type	Code	Size	Code	Label	Code	Option	Code
ATEX B UL UL	SAK 2.5 SAK 4 SAK 6N SAK 10 SAK 16 HTB 4† HTB 6† BTB 4† BTB 6† MK6/6 BK6 UK 2.5 B-Ex UK 4-Ex UK 10-Ex UK 16-EX AKZ 2.5† SAKK 4†	A* B* C* D* E* F* G* H* I* J* K* L* M* N* O* P* Q*	None ES0001 (6mm ² cable max) ES0003 (16mm ² cable max) *Suffix with side, e.g: R1 ES0001 x side 1	N R* S*	None M16 M20 M25 M32 1/2" NPT 3/4" NPT	N A B C D M** O**	None Yes Please specify	N T N	None Extra Internal Earth *W Cover Entry *X Base Entry *Y Counterbored Side Entries *Z LED Stainless Steel internal fittings S Internal conductive coating C	N W X Y Z L S C
			Continuity	Code						
			None Yes	N E*						
			*Gland Continuity 'E' must be selected when Ext Earth 'R' or 'S' is required.							
					*Prefix with cable entry position (see diagram above) e.g. 1A, 2A. **Only supplied for UL version via adaptor. For ATEX order separately.					
									*Please discuss your requirements with MEDC Application Engineers prior to ordering.	
									Finish	Code
									Natural (Black)	N
									Red	R
									Blue	B
									Other (specify)	S

*Suffix with number of terminals, e.g: B6 = 6 x SAK4
 Please note: Mixed combinations of SAK or UK terminals can be supplied, e.g: 3 x SAK 2.5 & 4 x SAK 4.
 †Not available UL.



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

JUNCTION BOXES

EExd, EExe

Weatherproof



Introduction

A range of small junction boxes for Zone 1 or Zone 2 use.

Available in stainless steel, marine grade alloy, galvanised cast iron, or epoxy paint coated.

Various terminals and entries can be accommodated.

- ★ Zone 1 and Zone 2 use.
- ★ EExd, EExe.
- ★ ATEX approved Ex II 2G.
- ★ BASEEFA certified.
- ★ IP66 & 67.

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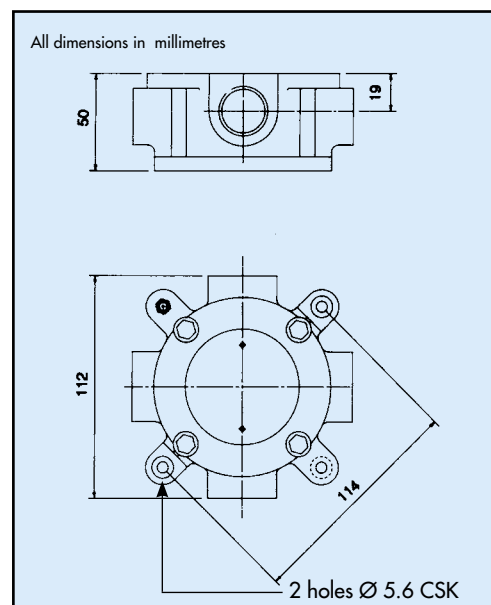
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'e' Protection	DUST-TIGHT AND WEATHERPROOF																																			
MODEL 82e	MODEL 8DTWP																																			
<p>ATEX approved Ex II 2G. EExe IIT6. Certificate No. – Baseefa03ATEX0107X CENELEC EN 50 014 EN 50 019 Zone 1 & Zone 2.</p> <table border="1"> <thead> <tr> <th>Terminal Type</th> <th>No. off</th> <th>Max Volts</th> <th>Max Amps</th> <th>Max Conductor size mm²</th> </tr> </thead> <tbody> <tr> <td>BK6</td> <td>6</td> <td>275</td> <td>21</td> <td>0.5– 4.0</td> </tr> <tr> <td>MK6/4</td> <td>4</td> <td>418</td> <td>26</td> <td>0.5–10.0</td> </tr> </tbody> </table> <p>Weight 1.3 kg</p>	Terminal Type	No. off	Max Volts	Max Amps	Max Conductor size mm ²	BK6	6	275	21	0.5– 4.0	MK6/4	4	418	26	0.5–10.0	<p>A dust-tight and waterproof version where BASEEFA Certification is not required.</p> <table border="1"> <thead> <tr> <th>Terminal Type</th> <th>No. off</th> <th>Max Volts</th> <th>Max Amps</th> <th>Max Conductor size mm²</th> </tr> </thead> <tbody> <tr> <td>BK6</td> <td>6</td> <td>440</td> <td>25</td> <td>0.5– 4.0</td> </tr> <tr> <td>MK3/6</td> <td>6</td> <td>440</td> <td>18</td> <td>0.22– 2.5</td> </tr> <tr> <td>MK6/4</td> <td>4</td> <td>440</td> <td>31</td> <td>0.5–10.0</td> </tr> </tbody> </table> <p>Weight 1.3 kg</p>	Terminal Type	No. off	Max Volts	Max Amps	Max Conductor size mm ²	BK6	6	440	25	0.5– 4.0	MK3/6	6	440	18	0.22– 2.5	MK6/4	4	440	31	0.5–10.0
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MK6/4	4	440	31	0.5–10.0																																

Ambient Temperature:	-20°C to +40°C.
Entry Sizes:	Max. one per face in 20mm or 25mm ISO.
Material:	Cast iron body, stainless steel cover screws, neoprene gasket.
Finish:	Either hot dipped galvanised or epoxy painted.
Ordering Details:	See reverse side.
Ingress Protection:	IP66 & 67.

Model 82e



'd' Protection

MODEL SM87JB

ATEX approved Ex II 2GD.
EExd IIC T5/T6.
Certificate No. Bas03ATEX 0463.
CENELEC EN 50 014 & EN 50 018.
Zone 1 & Zone 2.

Terminals KLIPPON	No. off	Max. Volts	Max. Amps	Max. Conductor size (mm ²)
BK6	6	440V	25A	4
MK3/10	10			2.5
AKZ4	12			4
SAKD2.5N	12			2.5
SAK2.5	8			2.5
SAK4	6			4
PHOENIX				
MBK	12			1.5
MBK5	12			4
MBK6	10			6
BK4	10			4
AK16	3			16

Certified -55°C to +70°C (T5).

Ambient Temperature: -55°C to +55°C (T6).

Weight: 3.1 kg.

Entry Sizes: Max. one per face in 20mm or 25mm ISO.

Material: Stainless steel grade ANC4B, marine grade alloy.

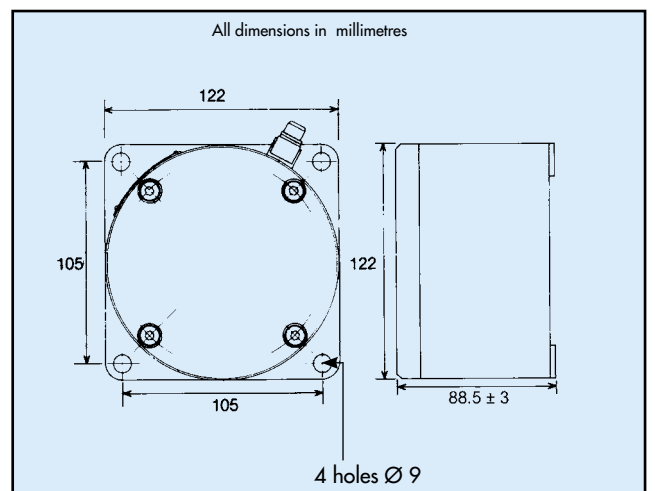
Finish: Epoxy painted.

Ingress Protection: IP66 & 67.

Ordering Details: See reverse side.

Resistor or Diode: Can be fitted – contact sales office for information.

Model SM87JB



Ordering Requirements

The following code is designed to help in the selection of the correct unit. Build up the reference number by inserting the code for each component into the appropriate box. **Standard products, available ex-stock, as follows:**

Product	Description
SM87JBA1T1B1R1L11NG	SM87 Junction Box, EExd IIC T6, Zones 1 & 2, BK6 terminals, 4 x 20mm entries, 1 per face, marine grade alloy, painted grey.
82E1T1B1R1L11NG	82E Junction Box, EExe II T6, Zones 1 & 2, BK6 terminals, 4 x 20mm entries, 1 per face, cast iron, painted grey.

Junction Box	Entries	Terminals	Tag/Duty Label	Finish																																																																									
<div style="border: 1px solid black; width: 50px; height: 20px; margin: 0 auto;"></div>	<div style="border: 1px solid black; width: 50px; height: 20px; margin: 0 auto;"></div>	<div style="border: 1px solid black; width: 50px; height: 20px; margin: 0 auto;"></div>	<div style="border: 1px solid black; width: 50px; height: 20px; margin: 0 auto;"></div>	<div style="border: 1px solid black; width: 50px; height: 20px; margin: 0 auto;"></div>																																																																									
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MOTOR STARTERS EExd and Weatherproof GP, JL & G2 Ranges



GP2S



GPS



JL4S



G2S

Introduction

This range of motor starters includes:

DOL up to 132kW, Reversing and Star Delta up to 110kW with optional isolators up to 315 Amps (AC1).

They can be fitted with stop/start pushbuttons, overloads, meters, running lamps, fuses and transformers. All are produced to client's requirements.

- ★ Zone 1 & Zone 2 use.
 - ★ EExd IIB T4/T6.
 - ★ ATEX approved Ex II 2G.
 - ★ BASEEFA certified.
 - ★ IP65 & IP66*.
 - ★ Cast iron, marine grade alloy and stainless steel.
 - ★ Variety of enclosures.
 - ★ Variety of combinations.
 - ★ Component certified.
- *Model dependent.

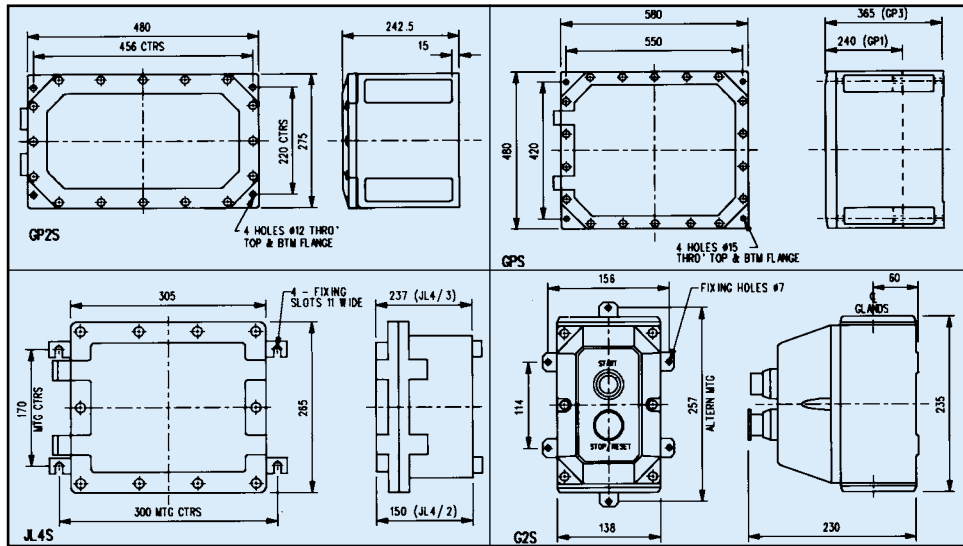
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E-Mail: sales@medc.com Web: www.medc.com





Specification

Certification: CENELEC EN 50014 & 18.
ATEX approved.
EExd IIB T4/T5/T6.
Zones 1 & 2.

Material: Cast Iron or LM25TF Alloy (GP2 only).
Finish: Corrosion resistant epoxy paint.

Operating Temperature:
GPS = -40°C to +40°C/55°C.
GP2S = -40°C to +40°C/55°C.
JL4S = -55°C to +40°C/55°C.
G2S = -55°C to +55°C.

IP Rating: IP65 (Note: GP2S IP66).

Duty & Tag Labels: Can be fitted to clients' requirements.

Earthing: Internal & external earths fitted.

Cable Entries: 20, 25, 32, 40, 50 or 63mm.
(Plugs can be fitted if required).

Remote stop-start facility: Fitted as standard.

Control Circuit Fuses: Fitted as standard.

Model	kW	Type	Isolator	Indicators	Meters	Main Fuses	Control Circuit Transformer
G2S	Up to 15kW	DOL only	N/A	N/A	N/A	N/A	N/A
JL4/2S	Up to 15kW	DOL/Star Delta/Reversing	Yes	Yes	Yes	Yes	Yes
JL4/3S	Up to 33kW	DOL/Reversing	Yes	Yes	Yes	Yes	Yes
GP2S	Up to 45kW	DOL/Star Delta/Reversing	Yes	Yes	Yes	Yes	Yes
GP1S	Up to 55kW	DOL/Star Delta/Reversing	Yes	Yes	Yes	Yes	Yes
GP3S	Up to 75kW	DOL/Star Delta/Reversing	Yes	Yes	Yes	Yes	Yes
	Up to 110kW	DOL/Star Delta/Reversing	N/A	Yes	Yes	N/A	Yes
	Up to 132kW	DOL	N/A	Yes	Yes	N/A	Yes

Ordering Requirements

Model	kW Rating	Type	Overload Rating	Coil Voltage	Aux. Contacts	Pushbutton Arrangement	Top Entries	Bottom Entries	Option																																																																																																																																																																																											
Refer to above table for enclosure model No.	<table border="1"> <thead> <tr> <th>kW</th> <th>Code</th> </tr> </thead> <tbody> <tr><td>2.2</td><td>02</td></tr> <tr><td>4.0</td><td>04</td></tr> <tr><td>5.5</td><td>05</td></tr> <tr><td>7.5</td><td>07</td></tr> <tr><td>11.0</td><td>11</td></tr> <tr><td>15.0</td><td>15</td></tr> <tr><td>18.5</td><td>18</td></tr> <tr><td>22.0</td><td>22</td></tr> <tr><td>30.0</td><td>30</td></tr> <tr><td>45.0</td><td>45</td></tr> <tr><td>55.0</td><td>55</td></tr> <tr><td>75.0</td><td>75</td></tr> <tr><td>90.0</td><td>90</td></tr> <tr><td>110.0</td><td>110</td></tr> <tr><td>132.0</td><td>132</td></tr> </tbody> </table>	kW	Code	2.2	02	4.0	04	5.5	05	7.5	07	11.0	11	15.0	15	18.5	18	22.0	22	30.0	30	45.0	45	55.0	55	75.0	75	90.0	90	110.0	110	132.0	132	<table border="1"> <thead> <tr> <th>Rating (Amps)</th> <th>Code</th> </tr> </thead> <tbody> <tr><td>1.3-1.8</td><td>A</td></tr> <tr><td>1.7-2.4</td><td>B</td></tr> <tr><td>2.2-3.1</td><td>C</td></tr> <tr><td>2.8-4.0</td><td>K</td></tr> <tr><td>3.5-5.0</td><td>D</td></tr> <tr><td>4.5-6.5</td><td>L</td></tr> <tr><td>6.0-8.5</td><td>E</td></tr> <tr><td>7.5-11.0</td><td>F</td></tr> <tr><td>10.0-14.0</td><td>M</td></tr> <tr><td>13.0-19.0</td><td>G</td></tr> <tr><td>18.0-25.0</td><td>H</td></tr> <tr><td>24.0-32.0</td><td>J</td></tr> <tr><td>29.0-42.0</td><td>N</td></tr> <tr><td>36.0-52.0</td><td>P</td></tr> <tr><td>45.0-63.0</td><td>Q</td></tr> <tr><td>60.0-80.0</td><td>R</td></tr> <tr><td>80.0-100.0</td><td>S</td></tr> <tr><td>100.0-135.0</td><td>T</td></tr> <tr><td>130.0-185.0</td><td>U</td></tr> <tr><td>165.0-235.0</td><td>V</td></tr> </tbody> </table>	Rating (Amps)	Code	1.3-1.8	A	1.7-2.4	B	2.2-3.1	C	2.8-4.0	K	3.5-5.0	D	4.5-6.5	L	6.0-8.5	E	7.5-11.0	F	10.0-14.0	M	13.0-19.0	G	18.0-25.0	H	24.0-32.0	J	29.0-42.0	N	36.0-52.0	P	45.0-63.0	Q	60.0-80.0	R	80.0-100.0	S	100.0-135.0	T	130.0-185.0	U	165.0-235.0	V	<table border="1"> <thead> <tr> <th>Coil Voltage 50 Hz/60Hz</th> <th>Code</th> </tr> </thead> <tbody> <tr><td>24 a.c.</td><td>A</td></tr> <tr><td>48 a.c.</td><td>B</td></tr> <tr><td>110 a.c.</td><td>C</td></tr> <tr><td>220 a.c.</td><td>F</td></tr> <tr><td>240 a.c.</td><td>D</td></tr> <tr><td>254 a.c.</td><td>G</td></tr> <tr><td>380 a.c.</td><td>H</td></tr> <tr><td>415 a.c.</td><td>E</td></tr> <tr><td>440 a.c.</td><td>J</td></tr> <tr><td>460 a.c.</td><td>K</td></tr> <tr><td>480 a.c.</td><td>L</td></tr> <tr><td>24 d.c.</td><td>M</td></tr> <tr><td>48 d.c.</td><td>N</td></tr> <tr><td>Special voltages & frequencies (please specify)</td><td>S</td></tr> </tbody> </table>	Coil Voltage 50 Hz/60Hz	Code	24 a.c.	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