# **Heavy Duty, Industrial & Marine**

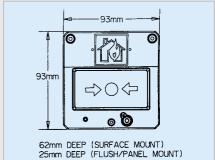
### BG3W

### Break Glass Call Point - Weatherproof & Heavy Duty



Operating Temperature	-55°C to +55°C
Ingress Protection	IP66 & 67
Material	Corrosion-free GRP
Entries	2 x 20mm
Weight	0.5kg
Options: Body colour, LED, lift flap, series & EOL resistors, flush mounting,	

Options: Body colour, LED, lift flap, series & EOL resistors, flush mounting, tag & duty labels.



### Standard model. Available ex-stock.

Ordering Code

Standard Product Configuration

800006

Standard models are surface mount version, have 2 x 20mm bottom entries, natural red GRP, single switch glass label 'Fire Break Glass Press Here', duty label 'Burning House'

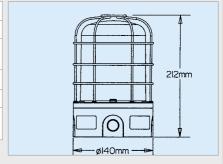
### **XB13**

# 10 Joule Flashing Xenon - Weatherproof & Heavy Duty



Operating Temperature	-55°C to +70°C
Ingress Protection	IP66 & 67
Material Polycarbonate lens	Corrosion-free GRP body
Entries	Up to 3 x 20mm via knockouts
Weight	1.1kg
Options: Rock & long colour ton & duty labels long guard tolophone & role	

Options: Body & lens colour, tag & duty labels, lens guard, telephone & relay initiate, single & dual flash mode, voltages 12-24V d.c., 115-230V a.c.



### Standard models. Available ex-stock.

Voltage	Lens Colour	Ordering Code
24V d.c.	Red	813101
24V d.c.	Amber	813102
230V a.c.	Red	813103

Standard models are in natural red body colour, no tag or duty labels, no lens guard,  $3 \times 20$ mm entries via knockouts, 60 flashes per minute (single flash mode), dual & single flash modes.

### **DB12**

# 110dB(A) Sounder - Weatherproof & Heavy Duty



Operating Temperature	-55°C to +70°C
Ingress Protection	IP66 & 67
Material	Corrosion-free GRP
Entries	Up to 3 x 20mm via knockouts
Weight	1kg
No. of Tones	27 + 5 programmable
Options: Body colour, tag & duty labels, voltages 12V & 24V d.c.	

### Standard models. Available ex-stock.

Voltage	Alarm lype	Ordering Code	Standard Product Configuration
24V d.c.	Two Stage	808001	Standard model has 27 tones, natural red body colour, no
115/230V a.c.	Single Stage	808003	tag or duty labels, 3 x 20mm entries via knockouts.

# Heavy Duty, Industrial & Marine

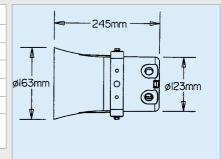
### **DB15**

### 117dB(A) Sounder - Weatherproof & Heavy Duty



Operating Temperature	-55°C to +70°C
Ingress Protection	IP66 & 67
Material	Corrosion-free GRP
Entries	2 x 20mm
Weight	2.6kg
No. of Tones	27 + 5 programmable

Options: Body colour, tag & duty labels, two stage alarm (DB15P) version, earth continuity, EOL resistor, voltages 12-48V d.c., 110-254V a.c.



### Standard models. Available ex-stock.

Voltage	Body Colour	Alarm Type	Ordering Code	Standard Product Configuration
24-48V d.c.	Natural Grey to RAL 7035	Two stage	808110	
24-48V d.c.	Red	Two stage	808115	Standard model has 27 tones, 2 x 20mm
240V a.c.	Natural Grey to RAL 7035	Single stage	808120	entries.
240V a.c.	Red	Single stage	808125	

### **DB14**

## 15 Watt Speaker - Weatherproof & Heavy Duty



Ambient Operating Temperature	-55°C to +70°C
Ingress Protection	IP66 & 67
Material	Corrosion-free GRP
Output	107 dBA at 1W at 1 metre 117 dBA at 15W at 1 metre
Entries	2 x 20mm
Weight	2.6kg
Tappings	15, 7.5, 5, 4, 2, 0.8
Options: Body colour, tag & duty labels, transformer voltage, BS 5839 part 8 compliance, earth continuity	

245mm al63mm

### Standard models. Available ex-stock.

Ordering Code	Standard Product Configuration
808010	Standard model has 100V line transformer, natural grey GRP body to RAL 7035, $2 \times 20$ mm entries, no labels.

# Beacon/Sounder Combination Units Weatherproof & Heavy Duty



A range of combination units that can be constructed from MEDC sounders, beacons and other equipment.

For more information, download from www.medc.com, request data sheet 6D\$104 or contact the sales office.



### 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°C.
- ★ Corrosion resistant red painted GRP.
- ★ Up to 110 dB(A) output.
- ★ 27 tones, user selectable.
- ★ Tones comply with UKOOA/PFEER auidelines.
- ★ Any two tones may be switched by the external voltage supply (d.c. version).
- Retained stainless steel cover screws.
- Available compliant to AFNOR NFS 32001.

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

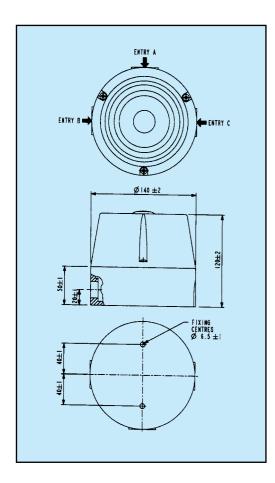
North, Suite 1005, Houston, Texas 77041, USA. Tel: +1 (713) 937 9772

Fax: +1 (713) 937 9773

MEDC International, 5829 West Sam Houston Parkway, MEDC Norway, Auglaendsmyraa 6, 4016, Stavanger, Norge

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





## **Specification**

Material:	UV stable glass reinforced	UV stable glass reinforced polyester. Retained stainless steel cover screws.		
Finish:	Painted red as standard	Painted red as standard or to customer's specification.		
Sound Output:	107± 3dB(A) at 1 metro Typical value only – var	107± 3dB(A) at 1 metre. Typical value only – variable with tone.		
Volume Control:	Integral volume control.	Integral volume control.		
	*Nominal Output (dBa)	Input Current (mA)		
	92 100 104 109	60 70 80 90		
	*0	1) to 1. T	005011	

<sup>\*</sup>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.

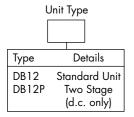
	. total the stage of a tanable in	and 10.0.0.0.0
Weight:	1.0 kg. d.c., 1.2kg a.c.	
Operating Temperature:	–55°C to +70°C.	
Ingress Protection:	IP66 & IP67.	
Voltage:	DC: 12V, 24V. AC: 115/230V.	
Current Consumption:	24V operation 55mA - 100mA. 12V operation 55mA - 90mA.	115V operation 8.5mA - 14mA. 230V operation 4.5mA - 7mA.
Terminals:	6 x 2.5mm <sup>2</sup> .	
Labels:	Duty and tag labels available.	
Cable Entries:	Up to 3 x M20 via knockouts.	
AFNOR NE S 32 00	1 compliant version available con	stact sales office for details

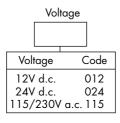
AFNOR NF S 32 001 compliant version available – contact sales office for details.

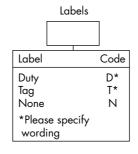
### **Ordering Requirements**

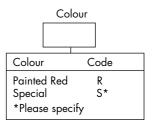
The following code is designed to help in selection of the correct unit. Build up the reference number by inserting the code for each component into the appropriate box. **Standard product, available ex-stock, as follows:** 

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.











# 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.

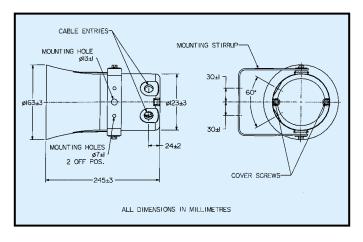
MEDC can also provide a range of sounders suitable for use in potentially explosive atmospheres.

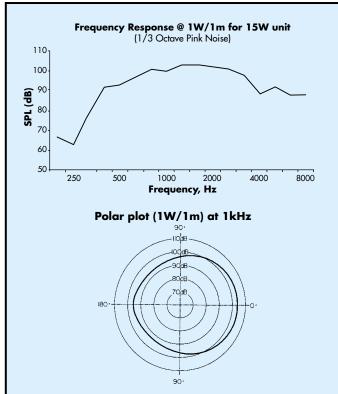
For more information, refer to the catalogue or contact MEDC.

- ★ IP66 and IP67.
- ★ Temperature range -55°C to +70°C.
- ★ GRP corrosion-free construction.
- ★ 117dBA at 15 watts at 1 metre.
- ★ 100V line transformer.
- ★ Power tappings, via integral transformer.
- \* Addressable capability.
- ★ Stainless steel ratcheted mounting bracket.
- ★ Earth continuity available.
- ★ Natural grey finish to RAL 7035.
- ★ BS5839 part 8 compliant version available.

MEDC Ltd, Colliery Road, Pinxton, Nottingham NG16 6JF, UK. Tel: +44 (0)1773 864100 Fax: +44 (0)1773 582800 MEDC International, 5829 West Sam Houston Parkway, North, Suite 1005, Houston, Texas 77041, USA. Tel: +1 (713) 937 9772 Fax: +1 (713) 937 9773 MEDC Norway, Auglaendsmyraa 6, 4016, Stavanger, Norge. Tel: +47 51 82 98 98 Fax: +47 51 82 98 91

MEDG





### **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:	Body and horn, natural grey to RAL 7035 or 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 Impedenc	e: 8 ohms.
Addressable:	Consult MEDC for specification.
Terminals:	8 x 2.5mm <sup>2</sup> . 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 tappings (see table below).

	Transformer	Power
0 5	Tappings	1 <i>5</i> W
	1:2	15.0
	2:3	7.5
	3:4	5.0
	1:3	4.0
<b>L</b> . ∠	2:4	2.0
Transformer Tappings	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 tappings & driver impedances available on request.

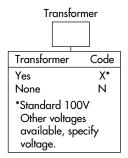
### **Ordering Requirements**

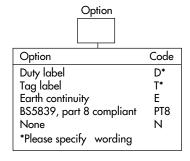
The following code is designed to help in the selection of the correct unit. Build up the reference number by inserting the code for each component into the appropriate box. **Standard products**, **evailable ex-stock**, **as follows:** 

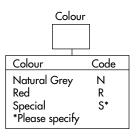
Product Description

DB14XNN 15 Watt Industrial & Marine Loudspeaker, up to 117dB(A), 2 x 20mm entries, natural grey GRP.











### 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°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 NFS 32001.

MEDC Ltd, Colliery Road, Tel: +44 (0)1773 864100 Fax: +44 (0)1773 582800

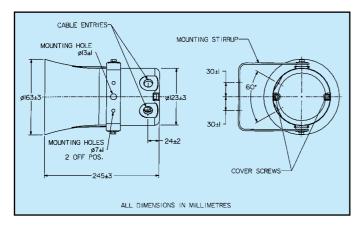
MEDC International, 5829 West Sam Houston Parkway, MEDC Norway, Auglaendsmyraa 6, Pinxton, Nottingham NG16 6JF, UK. North, Suite 1005, Houston, Texas 77041, USA. Tel: +1 (713) 937 9772

Fax: +1 (713) 937 9773

4016, Stavanger, Norge. Tel: +47 913 92 289

Fax: +47 914 46 030

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



#### 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  $\underline{d.c.}$  versions (DB 1 5P) only.

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

### **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	Integral volume control		
	*Nominal Output	Input Current		
	(dBa)	(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.	1 <i>75</i> mA
220V a.c.	93mA
240V a.c.	86mA
254V a.c.	80mA

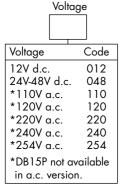
Terminals:	4 x 2.5mm² (a.c.), 6 x 2.5mm² (d.c.).
Earth Continuity:	Available.
Mounting:	Stainless steel bracket with ratchet facility.
Labels:	Duty and tag labels optional.
Cable Entries:	2 x 20mm ISO.

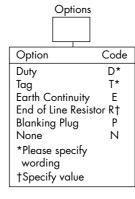
### **Ordering Requirements**

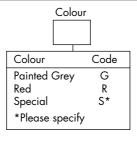
The following code is designed to help in the selection of the correct unit. Build up the reference number by inserting the code for each component in the appropriate box. Standard products, available ex-stock, as follows:

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.











### **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°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

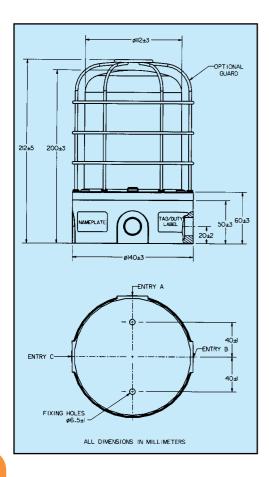
MEDC Ltd, Colliery Road, Tel: +44 (0)1773 864100 Fax: +44 (0)1773 582800

MEDC International, 5829 West Sam Houston Parkway, MEDC Norway, Auglaendsmyraa 6, Pinxton, Nottingham NG16 6JF, UK. North, Suite 1005, Houston, Texas 77041, USA. Tel: +1 (713) 937 9772

Fax: +1 (713) 937 9773

4016, Stavanger, Norge.

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



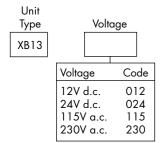
# **Specification**

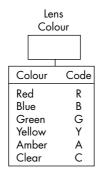
<u>-p</u>						
Material:	UV stable glass reinforced polyester body. UV stable polycarbonate cover/lens. Retained stainless steel cover screws.					
Finish:	Painted red as star	ndard or to	Custome	r's specif	ication.	
Tube Energy:	10 Joules (second	flash 7.5 Jo	oules).			
Weight:	1.1kg,					
Operating Temperature	: -55°C to +70°C.					
Ingress Protection:	IP66 & IP67.					
Tube Life:	>1 x 10 <sup>6</sup> flashes.					
Voltage:	12V d.c., 24V d.c	., 115V a.d	c., 230V	a.c.		
Current Consumption:	Voltage	Current Co	onsumptio	on		
	12V d.c. 24V d.c. 115V a.c. 230V a.v.	650 180	4A OmA OmA OmA			
Tube Type:	Xenon discharge.					
Lens Colour:	Various colours av	ailable.				
Terminals:	$8 \times 2.5 \text{mm}^2$ .					
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				Green	Yellow	
	Multiplying Factor   0.15   0.12   0.51   0.49   0.8				0.86	

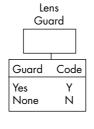
### **Ordering Requirements**

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:** 

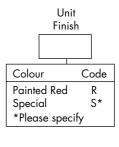
Product	Description
XB13024RNNR	Weatherproof, 10J, 24V d.c., red lens, painted red body.
XB13024ANNR	Weatherproof, 10J, 24V d.c., amber lens, painted red body.
XB13230RNNR	Weatherproof, 10J, 230V a.c., red lens, painted red body.
XB13230ANNR	Weatherproof, 101, 230V a.c., amber lens, painted red body







Options	
Option	Code
Duty	D*
Tag	T*
Telephone Initiate	I
Relay Initiate	R
None	Ν
*Please specify wo	ording





### MANUAL CALL POINT

### Intrinsically Safe (EExia), Weatherproof **BG3 Range**





### 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' aduty 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.

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

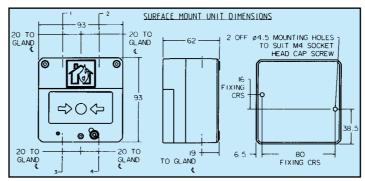
MEDC International, 5829 West Sam Houston Parkway, North, Suite 1005, Houston, Texas 77041, USA. Tel: +1 (713) 937 9772

Fax: +1 (713) 937 9773

MEDC Norway, Auglaendsmyraa 6, 4016, Stavanger, Norge Tel: +47 913 92 289

Fax: +47 914 46 030





## **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 <sup>2</sup>	6 x 4.0mm <sup>2</sup>	
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:** 

code for each	reature ii	nto the appropriate box. 3	orana	ara producis ave	aliabie	e ex-stoci	c as re	oliows:	
PRODUCT	DESCRIP	TION							
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		proof, uncertified, Glass Label 2 x 20mm bottom entry, natur		reak Glass Press Here',	Duty La	bel 'Burning	House',	single switch, i	10
Model Ce	ertification	Labels		Features		Entrie	es	Body Col	our ]
Certification	Code	Label Type	Code	Feature	Code	Entries	Code	Colour	Code
Weatherproof EExia Chinese (CQST)	W I Q	Glass Label Fire Break Glass 'Press Here' Break Glass 'Press Here' Special European Standard (draft)  Duty Label (special)	1 2 3 - 4 - 5	None Resistor Series Resistor EOL Diode Polycarbonate Lift flap Stainless steel Lift flap LED Double changeover	*S *E D F C L T	2x20mm (bottom) 2 x 20mm (top) For blankin add "P' to	code.	Natural Red Blue Green White Yellow Special	R B G V S
		(Burning House as standard)  Tag Label  Specify wording on '3','5' &		Plastic Element (replaces break glass)	P Se specify	e.g. BP, 2 p bottom entr one blankin	ries with		

