# Signaling Devices - Visual and Audible

## *Section S*

A comprehensive range of signaling products specifically designed for use in areas where harsh environmental conditions prevail and where there is a risk of explosion due to the presence of flammable atmospheres.

## Table of Contents

Section S of the Cooper Crouse-Hinds catalog contains the following product groupings:



## For Hazardous and Non-hazardous Locations

## Visual and Audible Signaling Devices as tough as your environment

- The broadest line of harsh and hazardous signaling, alarm and communication products available in both IEC and NEC designs and certifications.
- Hazardous area call points (fire alarm or emergency notification devices) provides you a unique product offering unequalled by any other manufacturer of hazardous location signaling products.
- Worldwide listings with UL, cUL, ATEX, GOST, CSA and CQST (Chinese) approvals provide customer solutions that the competition can't match.
- Superior enclosure materials providing unmatched ingress protection and corrosion resistance from the harshest conditions.
- A unique signaling product offering integral visual and audible signaling capability pre-wired for simultaneous output activation.
- Heat detectors for early indication of potential processing problems.

## Applications:

- For use in hazardous and non-hazardous areas.
- As visual signals or warning lights.
- To identify the location of safety equipment such as emergency shower, eye wash stations, and emergency telephones, fire extinguishers and emergency stop switches.
- For status indication of machinery or processes.
- To indicate dangerous areas or areas requiring caution.
- To signal dangerous or hazardous conditions.
- Where a high-decibel sound is required for alert or evacuation.

## Considerations for Selection:

**Environmental:**

- What is the hazardous area classification (NEC/CEC) of the location in which the luminaire will be installed?

**Signaling Requirements:**

- What will the visual signal be used for (communicating, alerting, warning)?

**Physical Arrangements:**

- Type of luminaire mounting needed.


**Manual Call Points**

**Strobes and Beacons**

**Horns and Speakers**

**Combination Units**

### What Types of Visual Signals are Available?

1. Strobe Lights — Used for signaling or warning of various conditions. Emits a powerful blast of bright light.
2. Rotating Beacons — Used to signal over a large area when the light must be seen from a long distance.
3. Steady-on Beacons — Typically used as a continuous source to warn, communicate or draw attention to an area, machine or process.
4. Stack Lights — Used for multiple indication in one signaling device. Compact and versatile, the three-color (red, amber and green) is most popular.

### Lens Color and Their Applications

Most Cooper Crouse-Hinds strobes, steady, and flashing beacons come in six lens colors: amber, blue, clear, green, magenta and red. Cooper Crouse-Hinds LED signals come in amber, blue, green, red and, in some cases, white. The following are examples of how various lens colors are used in industrial and commercial signaling environments:
**Amber** - Demotes caution
**Blue** - Used for safety and security
**Clear (or White) and Green** - Used to indicate normal run operation
**Magenta** - Used for radiation alarms
**Red** - Denotes emergency or warning



## Hazardous





# Fire Alarm or Emergency Call Points



## MEDC Series


**Class I, Div. 2, Zone 2 Touch-safe coated glass for finger activation.**


**Class I, Div. 2, Zone 2 Push to activate.**


**Class I, Div. 1 Push to activate. Key switch to reset.**

These manual fire alarm call points have been designed for use in hazardous locations and harsh environmental conditions. They offer:

- The broadest range of hazardous location manual fire alarm activation devices in the industry.
- The compact design, activation choices such as pushbutton or break glass, housing color choices and comprehensive worldwide certifications make this product family a project closer.
- Flexibility as all units accept metric cable or NPT conduit entries, and each unit can be custom designed for a specific fire alarm or emergency activation requirements.

## Applications:

- Fire alarm activation
- Emergency evacuation
- Process shut-down

## Industries:

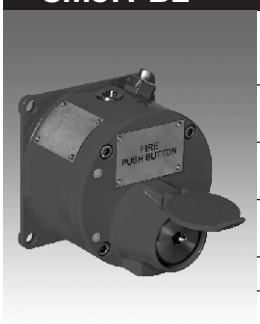
- Liquid natural gas terminals
- Energy exploration
- Chemical
- Refinery
- Power generation

## Features and Benefits:

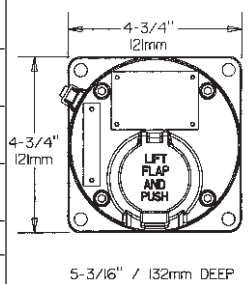
- In-line and end-of-line resistors fitted for use in fire activation circuits
- Optional LED to indicate operation
- Plastic break glass element available—easy activation yet safe to touch
- Corrosion resistant GRP—ideal for marine applications
- Retained stainless steel cover screws—won't corrode and never lose screws
- Optional lift flap for protection

## MEDC Series

### SM87PBL — Push Button Fire Alarm Call Point—Explosionproof



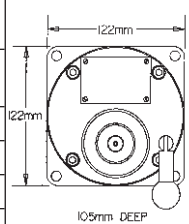

| | |
|---|---|
| **Certification**<br>**UL Listed for:** | UL, CSA, ATEX<br>Class I, Div. 1, Groups C, D<br>Class I, Zone 1 |
| **Certified Ambient Temperature** | –67°F to +158°F<br>–55°C to +70°C |
| **Ingress Protection** | NEMA 4X & 6<br>IP66 & 67 |
| **Material** | Marine Grade Alloy<br>Stainless Steel (ATEX only) |
| **Entries** | Up to 4 × ½" or ¾" NPT |
| **Weight** | 5.5lb/2.5kg |
| **Options** | Body color, certification |




| Certification | Ordering Code | Cat. # | Standard Product Configuration |
|---|---|---|---|
| UL, CSA, Class I, Div. 1, Groups C, D, Zone 1 | 36200102 | **SM87PBLAUL3T3B3NNR** | Explosion protected, 2 × ½" NPT entries, duty label "Fire—Press Here," single pushbutton switch—latching, marine grade alloy, red finish |

### SM87BG — Break Glass Call Point—Explosionproof

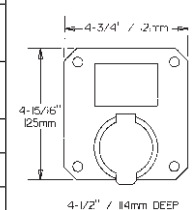

| | |
|---|---|
| **Certification**<br>**Intrinsically Safe**<br>**Flameproof** | ATEX, CSA, GOST-R, GOST-K, GB<br>ATEX Ex II 1G, Exia IIC T4<br>ATEX Ex II 2G, Exd IIC T6 |
| **Certified Ambient Temperature** | –55°C to +70°C<br>–20°C to +55°C (LED) |
| **Ingress Protection** | IP66 & 67 |
| **Material** | Stainless Steel or Alloy |
| **Entries** | Up to 4 x 20mm or 25mm |
| **Weight** | 3.8kg (Steel) 2.5kg (Alloy) |
| **Options** | Body color, 3 & 4 pole changeover switch, certification |




| Certification | Ordering Code | Cat. # | Standard Product Configuration |
|---|---|---|---|
| ATEX Ex II 2GD | 16200174 | **SM87BGLAD1B1NNR** | Break glass call point, Ex II 2GD, Exd IIC T6, IP 66 & 67, 1 × M20 bottom entries, duty label, "Fire Breakglass," alloy material, red finish |

### PB — Push Button Fire Alarm Call Point—Hazardous Locations


| | |
|---|---|
| **Certification**<br>**UL Listed for:** | UL, ATEX<br>Class I, Div. 2, Groups A, B, C, D<br>Class I, Zones 1 & 2 |
| **Certified Ambient Temperature** | –13°F to +158°F<br>–25°C to +70°C |
| **Ingress Protection** | NEMA 4X & 6<br>IP66 & 67 |
| **Material** | Corrosion-free GRP |
| **Entries** | Up to 4 × ½" NPT, M20 |
| **Weight** | 2.6lb/1.2kg |
| **Options:** | Body color, certification |

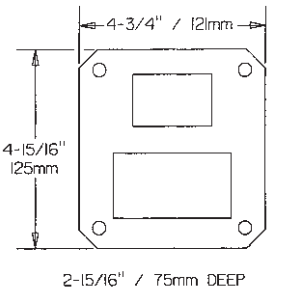



| Certification | Ordering Code | Cat. # | Standard Product Configuration |
|---|---|---|---|
| UL, Class I, Div. 2, Groups A, B, C, D, Zone 1 & 2 | 869105 | **PBUL4C6C0DSN7R** | Explosion protected, 2 × ½" NPT bottom entries, no duty label, DC, single pushbutton switch latching, painted red GRP |
| ATEX Ex II 2GD | 800010 | **PBEB4B6B0DSN6R** | Explosion protected, Ex II 2GD, Exe, IIC, T6, Zone 1 & 2, 2 × M20 entries, DC, single switch, red finish |

## MEDC Series

### BG — Break Glass Fire Alarm Call Point—Hazardous Locations

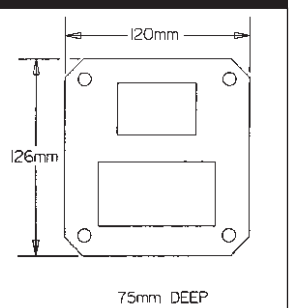

| | |
|---|---|
| **Certification**<br>**UL Listed for:** | UL, ATEX<br>Class I, Div. 2, Groups A, B, C, D<br>Class I, Zone 2 |
| **Certified Ambient Temperature** | –13°F to +131°F<br>–25°C to +55°C |
| **Ingress Protection** | NEMA 4X & 6<br>IP66 & 67 |
| **Material** | Corrosion-free GRP |
| **Entries** | Up to 4 × ½" NPT, M20 |
| **Weight** | 2.6lb/1.2kg |
| **Options:** | Body color, certification, lift flap, LED, tag & duty label, series and EOL resistor |




| Certification | Type | Ordering Code | Cat. # | Standard Product Configuration |
|---|---|---|---|---|
| UL Listed, Class I, Div. 2, Groups A, B, C, D, Zone 2 | Haz. Loc. | 869101 | **BGUL4C6C1DSN7R** | Explosion protected, 2 × ½" NPT bottom entries, single break glass switch latching, painted red GRP finish |
| ATEX Ex II 1GD | Intrinsically Safe | 800002 | **BGIB4B6B1DSN6R** | Explosion protected, Zone 0, 1 & 2, DC, 2 × M20 bottom entries, single break glass switch latching, single switch, red finish |
| ATEX Ex II 2GD | Increased Safety | 800003 | **BGEB4B6B1DSN6R** | Explosion protected Ex II 2GD, Exed, IIC, T6, Zone 1 & 2, DC, 2 × M20 bottom entries, single break glass switch latching, red finish |
| IP66 & 67 | Waterproof | 800001 | **BGWN4B6B1ASN6R** | Dust-tight and weatherproof, uncertified AC, 2 × M20 bottom entries, single break glass switch latching, red finish |

### BG2 — Break Glass Call Point—Hazardous Locations

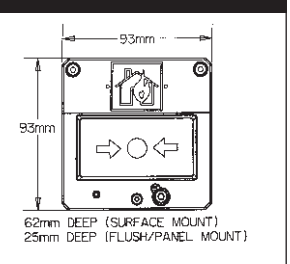

| | |
|---|---|
| **Certification**<br>**Intrinsically Safe**<br>**Increased Safety** | ATEX<br>ATEX Ex II 1GD, Exia IIC T4<br>ATEX Ex II 2GD, Exed(m) IIC T4 (T6) |
| **Certified Ambient Temperature** | –40°C to +55°C (Exia)<br>–20°C to +50°C (Exed) |
| **Ingress Protection** | IP66 & 67 |
| **Material** | Corrosion-free GRP |
| **Entries** | 2 × M20 |
| **Weight** | 1.2kg |
| **Options** | Lift flap |




| Certification | Type | Ordering Code | Cat. # | Standard Product Configuration |
|---|---|---|---|---|
| ATEX Ex II 1GD | Intrinsically Safe | 800005 | **BG2INN1N** | Explosion protected, Zone 0, 1 & 2, DC, 2 × M20 bottom entries, single break glass switch latching, red finish |
| Increased Safety | Increased Safety | 800004 | **BG2EDC1N** | Explosion protected, Zone 1 & 2, DC, 2 × M20 bottom entries, single break glass switch latching, red finish |

### BG3 — Break Glass Call Point—Explosionproof & Weatherproof

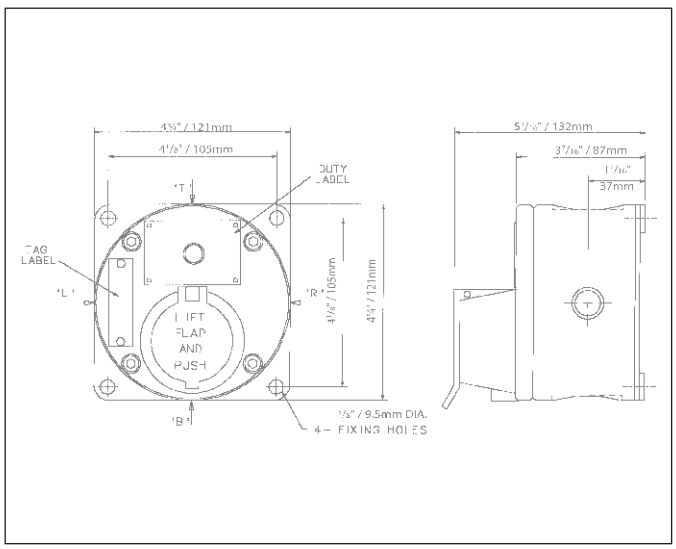

| | |
|---|---|
| **Certification**<br>**UL Listed for:** | ATEX, GB<br>ATEX Ex II 1G, Exia IIC T4 |
| **Certified Ambient Temperature** | –55°C to +55°C (Exia) |
| **Ingress Protection** | IP66 & 67 |
| **Material** | Corrosion-free GRP |
| **Entries** | 2 × M20 |
| **Weight** | 0.5kg |
| **Options** | Body color, lift flap |




| Certification | Type | Ordering Code | Cat. # | Standard Product Configuration |
|---|---|---|---|---|
| ATEX Ex II 1G | Intrinsically Safe | 800007 | **BG3I1NBN** | Explosion protected, Zone 0 / 1 & 2 DC, standard models are surface mount version, have 2 × M20 bottom entries, single break glass switch latching, duty label "Burning House," red GRP finish |
| ATEX Ex II 1G | Weatherproof | 800006 | **BG3W1NBN** | Uncertified, dust-tight & weatherproof, 24V DC, single break glass switch latching, duty label "Burning House," red finish |

## MEDC Series




## Field Installed Duty Labels

| Use with SM87 Call Points: | Duty Label | Ordering Code |
|---|---|---|
| SM87PBL/SM87BGL | Blank | 869530 |
| SM87PBL/SM87BGL | Fire | 869526 |
| SM87PBL/SM87BGL | Emergency Shut Down | 869532 |
| SM87PBL/SM87BGL | Suppression Release | 869534 |

## Specification—SM87PBL Unit

| | |
|---|---|
| **Certification:** | UL Listed: Class I, Div. 1, Groups C, D and Class I, Zone 1. Listing No: E186629.<br>**CSA Certification:**<br>I.S. Version<br>Class I, Groups A, B, C, D<br>Exd Class I, Div. 2 ½ Group D<br>Enclosure type 4, Cert. No. 79120<br>**ATEX approved:**<br>EN50014, EN50018<br>Cert. No. Baseefa 03ATEX0075 |
| **Voltage:** | 24V AC/DC |
| **Rating:** | 2 amp |
| **Switches:** | 2 pole c/o, wired to terminals |
| **Terminals:** | Will accept up to 14AWG cable |
| **Entries:** | Up to 4 × ½" or ¾" NPT, 20mm, 25mm |
| **Optional Indicator:** | A red high intensity LED can be fitted for alarm indication |
| **Material:** | LM 25 TF Marine Grade Alloy or Grade 316 ANCHB stainless steel |
| **Weight:** | 5.5 lb/2.5kg (approx.) |
| **Finish:** | Epoxy paint finish as standard or to customer's specification |
| **Certified Temperature:** | Exd/Exi:<br>–55°C to 70°C<br>–20°C to +55°C (LED version only)<br>UL:<br>–67°F to +158°F (–55°C to +70°C)<br>–4°F to +131°F (–20°C to +55°C) LED version only<br>CSA:<br>–58°F to +131°F (–50°C to +55°C) (Exd)<br>–58°F to +104°F (–50°C to +40°C) (Exi) |
| **Ingress Protection:** | NEMA 4X and 6, IP66 & 67<br>SM87 PB IP68 (40m for 8 hours) |
| **Addressable:** | Consult MEDC for specification |
| **Resistor Values:** | 470R minimum (DC & I.S. units 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.

| Unit Type | Model | Material | Certification | Entries | Duty Label | Tag Label | Features | Finish |
|---|---|---|---|---|---|---|---|---|
| **SM87** | **PBL** | | | | **N** | **N** | **N** | |

| *Material | Code |
|---|---|
| Stainless Steel | S |
| Alloy | A |

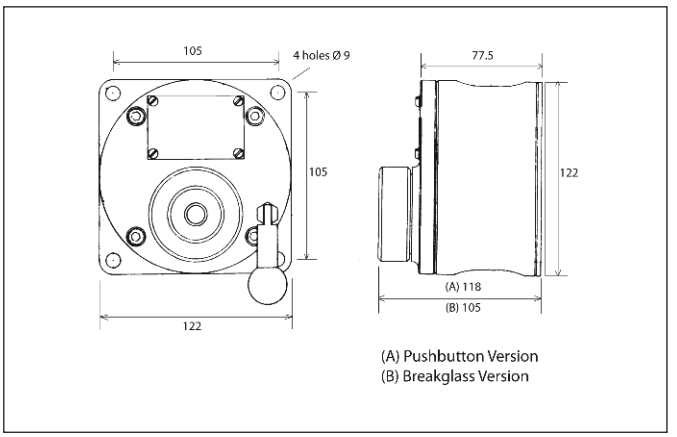
*UL version only available in Alloy.

| Certification | Code |
|---|---|
| EExdIICT6 | D |
| UL Listed | UL |
| CSA Certified | C |

| Entries | Code |
|---|---|
| 20mm Left/Right | 1L1R |
| 20mm Top/Bottom | 1T1B |
| 20mm Bottom | 1B |
| 25mm Left/Right | 2L2R |
| 25mm Top/Bottom | 2T2B |
| 25mm Bottom | 2B |
| ½" NPT Left/Right | 3L3R |
| ½" NPT Top/Bottom | 3T3B |
| ½" NPT Bottom | 3B |
| ¾" NPT Left/Right | 4L4R |
| ¾" NPT Top/Bottom | 4T4B |
| ¾" NPT Bottom | 4B |

| Finish | Code |
|---|---|
| Red | R |
| Blue | B |
| Yellow | Y |
| Yellow/ Black Stripes | X |

## MEDC Series




Both the ExiaIICT4 units and the ExdIICT6 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.

## Field Installed Duty Labels

| Use with SM87 Call Points: | Duty Label | Ordering Code |
|---|---|---|
| SM87PBL/SM87BGL | Blank | 869530 |
| SM87PBL/SM87BGL | Fire | 869526 |
| SM87PBL/SM87BGL | Emergency Shut Down | 869532 |
| SM87PBL/SM87BGL | Suppression Release | 869534 |

## Specification—SM87BGL Unit

| | |
|---|---|
| **Break glass unit, latching** | Type SM87BGL |
| **Lift flap, break glass, latching** | Type SM87LBGL |

| | |
|---|---|
| **Voltage:** | Exd 24V AC/DC Exia 28V |
| **Rating:** | 2 amp |
| **Switches:** | 2 pole c/o, wired to terminals<br>Optional up to 4 pole |
| **Terminals:** | Will accept up to 2.5mm² cable |
| **Entries:** | Up to 4 x 20mm or 25mm ISO EExd/EExia |
| **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)<br>ExiaIIC T4 Cert No. Baseefa 02 ATEX 0152X<br>ExdIIC T5/T6 Cert No. Baseefa 03 ATEX 0075<br>**CSA Certification:**<br>Class I Groups A-D I.S. version (SM87 PBI only)<br>Class I, Div. 1 & 2, Group D<br>(Exd – SM87 PB & SM87 BG)<br>**GOST 'R' Certification:**<br>1Exib IIC T4, 1Exd IIC T4*<br>**GOST 'K' Certification:**<br>Exib IIC T4*<br>**Chinese Certification:**<br>CQST – Exia IIC T4, Exd IIC T5/T6*<br>*Available upon request |
| **Certified Temperature:** | Exd/Exi*<br>–55°C to +70°C<br>–20°C to +55°C (LED version only)<br>CSA<br>–50°C to +55°C (Exd)<br>–50°C to +40°C (Exi)<br>*Note: includes ATEX, GOST & Chinese versions. |
| **Ingress Protection:** | IP66 and IP67<br>SM87 PB IP68 (40m for 8 hours) |
| **Resistor Values:** | 470R minimum (DC & I.S. units 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.

| Unit Type | Model | Material | Certification | Entries | Duty Label | Tag Label | Features | Finish |
|---|---|---|---|---|---|---|---|---|
| SM87 | BGL | | | | N | N | N | |

| Material | Code |
|---|---|
| Stainless Steel | S |
| Alloy | A |

| Certification | Code |
|---|---|
| EExdIICT6 | D |
| CSA | C |

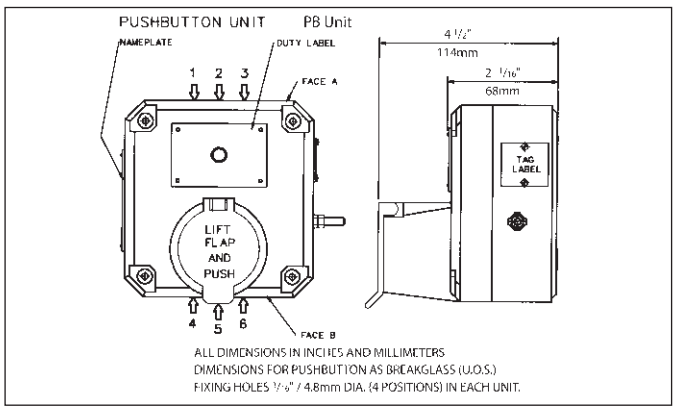
| Entries | Code |
|---|---|
| 20mm Left/Right | 1L1R |
| 20mm Top/Bottom | 1T1B |
| 20mm Bottom | 1B |
| 25mm Left/Right | 2L2R |
| 25mm Top/Bottom | 2T2B |
| 25mm Bottom | 2B |
| ½" NPT Left/Right | 3L3R |
| ½" NPT Top/Bottom | 3T3B |
| ½" NPT Bottom | 3B |
| ¾" NPT Left/Right | 4L4R |
| ¾" NPT Top/Bottom | 4T4B |
| ¾" NPT Bottom | 4B |

| Finish | Code |
|---|---|
| Red | R |
| Blue | B |
| Yellow | Y |
| Yellow/ Black Stripes | X |

**Note:** the units can be internally wired to suit customers' specifications. Please discuss your requirements with us.

## MEDC Series

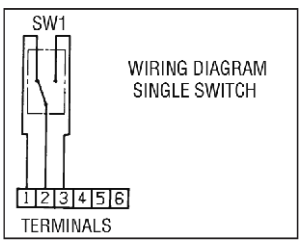



## Field Installed Duty Labels

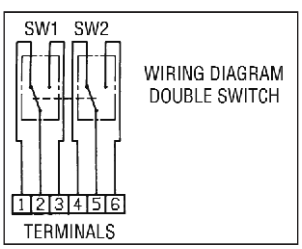
| Use with PB Call Points: | Duty Label | Ordering Code |
|---|---|---|
| PB | Blank | 869530 |
| PB | Fire | 869526 |
| PB | Emergency Shut Down | 869532 |
| PB | Suppression Release | 869534 |

## Specification—PB Unit

| | |
|---|---|
| **Certification:** | UL Listed — Hazardous locations: Class I, Div. 2, Groups A, B, C, D and Class I, Zone 2<br>UL Listing No. E186629<br>Ordinary locations: Fire Alarm Boxes. UL Listing No. S8117<br>**CSA Certified** to C22.2 (PB only), Nos. 0-M, 0.4M, 14-M, 25,30-M, 94, 142-M 1987, 157M 1987, 157–92, Enclosure Type 4, 4A, Class I, Groups A, B, C, D, Cert. No. 79120<br>**ATEX Approved:**<br>EN50014, EN50018, EN50019, EN50028<br>Cert. No. BAS02ATEX2105X (BG & PB), Exed II C T6 (switch only), Exedm IIC T4 (other versions) |
| **Voltage:** | Up to 240V |
| **Certified Temperature:** | BGUL/PBUL:<br>–13°F to +131°F (–25°C to + 55°C)<br>PB (CSA):<br>–58°F to +104°F (–50°C to +40°C) |
| **Ingress Protection:** | NEMA 4X & 6, IP66 & 67 |
| **Terminals:** | 7 x 14 AWG standard |
| **Switch Rating (1 or 2 changeover switches fitted):** | Max Rating 240VAC, 3A |
| **Cable Entries:** | Up to 4 entries ½" NPT or 20mm |
| **Weight:** | 2.6 lb/1.2kg (varies with model & entries) |
| **Material:** | Glass reinforced polyester |
| **Finish:** | Red epoxy painted finish as standard or to customer's specification |
| **Resistors:** | Various configurations available on versions up to 24V, 470R minimum |
| **LED Indication:** | A high intensity red LED can be fitted as an optional extra to indicate operation on versions up to 24V |
| **Labeling:** | PB & BG duty label — worded to client's requirements (riveted on)<br>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 in-line and end-of-line resistors, 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.

| Model | Certification | Entries | Labels | Switches | Features | Terminals | Finish |
|---|---|---|---|---|---|---|---|
| PB | | | N | DS | N | 7 | |

| Certification | Code |
|---|---|
| ATEX/CENELEC – EExe | EB |
| ATEX/CENELEC – EExi | IB |
| CSA – Exi (PBI only) | IC |
| UL – Class I, Div. 2 | UL |

| Entries | Code |
|---|---|
| 1 Bottom M20 | 5B |
| 2 Bottom M20 | 4B 6B |
| 1 Top, 1 Bottom M20 | 2B 5B |
| 1 Bottom ½" NPT | 5C |
| 2 Bottom ½" NPT | 4C 6C |
| 1 Top, 1 Bottom ½" NPT | 2C 5C |
| 16 mm | *A |
| 20 mm | *B |
| ½" NPT | *C |

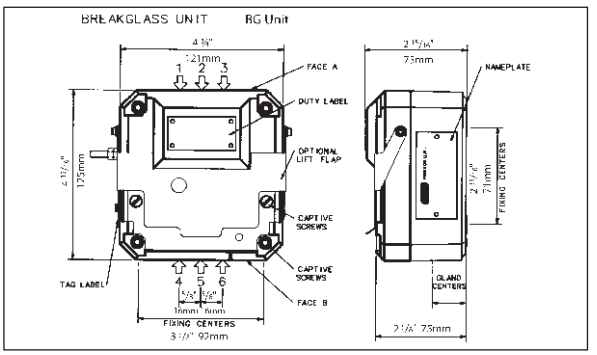
*Prefix entry size (see diagram above) with entry position code e.g. 1A, 2A.

UL & CSA Versions only available with ½" NPT entries

| Switches | Code |
|---|---|
| DC double change over | DD |
| AC single change over | AS |
| AC double change over | AD |

| Finish | Code |
|---|---|
| Red (Standard) | R |
| Natural Black | N |
| Blue | B |
| Yellow | Y |
| Gray | G |

## MEDC Series

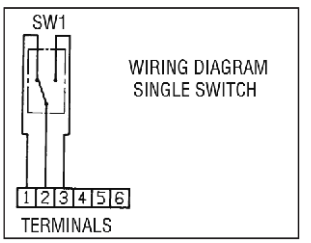



## Field Installed Duty Labels

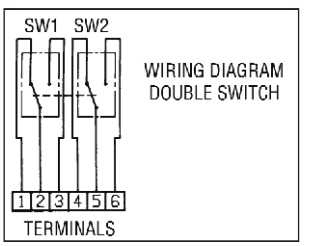
| Use with BG Call Points: | Duty Label | Ordering Code |
|---|---|---|
| BG | Blank | 869531 |
| BG | Fire | 869525 |
| BG | Emergency Shut Down | 869533 |
| BG | Suppression Release | 869535 |

## Specification—BG Unit

| | |
|---|---|
| **Certification:** | UL Listed — Hazardous locations: Class I, Div. 2, Groups A, B, C, D and Class I, Zone 2<br>UL Listing No. E186629<br>Ordinary locations: Fire Alarm Boxes. UL Listing No. S8117.<br>**CSA Certified** to C22.2 (PB only), Nos. 0-M, 0.4M, 14-M, 25,30-M, 94, 142-M 1987, 157M 1987, 157–92, Enclosure Type 4, 4A, Class I, Groups A, B, C, D, Cert. No. 79120<br>**ATEX Approved:**<br>–58°F to +104°F (–50°C to +40°C)<br>Cert. No. BAS02ATEX2105X (BG & PB), Exed II C T6 (switch only), Exedm IIC T4 (other versions) |
| **Voltage:** | Up to 240V |
| **Certified Temperature:** | BGUL/PBUL:<br>–13°F to +131°F (–25°C to + 55°C)<br>PB (CSA):<br>–58°F to +104°F (–50°C to +40°C) |
| **Ingress Protection:** | NEMA 4X & 6, IP66 & 67 |
| **Terminals:** | 7 x 14 AWG standard |
| **Switch Rating (1 or 2 changeover switches fitted):** | Max Rating 240VAC, 3A |
| **Cable Entries:** | Up to 4 entries ½" NPT or 20mm |
| **Weight:** | 2.6 lb/1.2kg (varies with model & entries) |
| **Material:** | Glass reinforced polyester |
| **Finish:** | Red epoxy painted finish as standard or to customer's specification |
| **Resistors:** | Various configurations available on versions up to 24V, 470R minimum |
| **LED Indication:** | A high intensity red LED can be fitted as an optional extra to indicate operation on versions up to 24V |
| **Labeling:** | BG glass label — reads either:<br>(1) Fire break glass — press here<br>(2) Break glass — press here<br>(3) Worded to client's requirements<br>PB & BG tag label — worded to client's requirements (screwed on)<br>PB & BG duty label — worded to client's requirements (riveted on) |




**Basic single changeover switch wiring diagram**




**Basic double changeover switch wiring diagram**

For versions containing in-line and end-of-line resistors, 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.

| Model | Certification | Entries | Labels | Switches | Features | Terminals | Finish |
|---|---|---|---|---|---|---|---|
| BG | | | | DS | N | 7 | |

| Certification | Code |
|---|---|
| ATEX/CENELEC EExe | EB |
| ATEX/CENELEC – EExi | IB |
| CSA – Exi (PBI only) | IC |
| UL Class I, Div. 2 | UL |

| Entries | Code |
|---|---|
| 1 Bottom M20 | 5B |
| 2 Bottom M20 | 4B 6B |
| 1 Top, 1 Bottom M20 | 2B 5B |
| 1 Bottom ½" NPT | 5C |
| 2 Bottom ½" NPT | 4C 6C |
| 1 Top, 1 Bottom ½" NPT | 2C 5C |
| 16 mm | *A |
| 20 mm | *B |
| ½" NPT | *C |

*Prefix entry size (see diagram above) with entry position code e.g. 1A, 2A.

UL & CSA Versions only available with ½" NPT entries

| Labels | Code |
|---|---|
| Glass Label (1) "Fire Break Glass—Press Here" | 1 |
| Glass Label (2) "Break Glass—Press Here" | 2 |

| Switches | Code |
|---|---|
| DC double change over | DD |
| AC single change over | AS |
| AC double change over | AD |

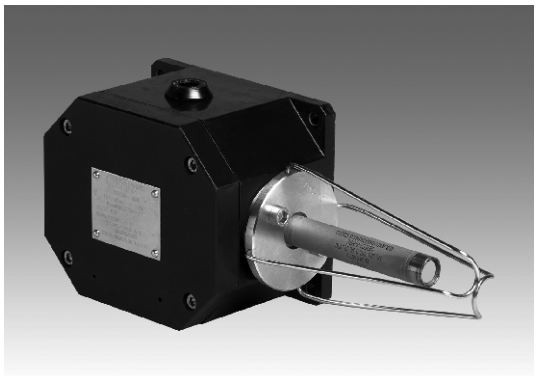
| Finish | Code |
|---|---|
| Red (Standard) | R |
| Natural Black | N |
| Blue | B |
| Yellow | Y |
| Gray | G |

COOPER Crouse-Hinds

## MEDC Series

Exd version (optional guard)



Exia/Exem/UL versions (optional guard)

The MEDC 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 (Exd version) or JB10 corrosion-free GRP enclosure (Exia, Exem/UL versions). The contact in the detector CLOSES at alarm temperature.

To select appropriate temperature setting, see specification on reverse.

### Applications:

- Compressor turbine/generator skids
- Switchgear or motor control status rooms
- Process tank areas or transmission lines

### Typical Industries:

- Power generation
- Nuclear plants
- Chemical processing
- Upstream/downstream oil and gas

### Certifications and Compliances:

- Zone 0, Zone 1 and Zone 2
- Exia IIC T4/T6, Exd IIB T3/T6 or Exem II T6
- ATEX approved
  - –Ex II 1G (Exia)
  - –Ex II 2G (Exd/Exem)
- BASEEFA certified
- UL listed for USA and Canada
  - –Class I, Div. 2, Groups A, B, C, D
- GOST 'R' & 'K' certified
- Chinese (CQST) certified
- IP66 & IP67
- Certified temperature:
  - –20°C to +125°C (Exd)*
  - –20°C to +55°C (Exem/UL)
  - –55°C to +55°C (Exia)
- 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.

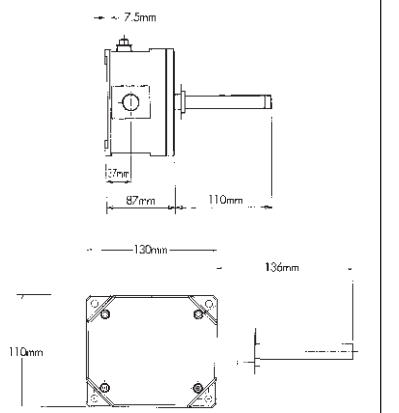


## MEDC Series

### HD1 Heat Detector — Explosionproof & Intrinsically Safe

| | |
|---|---|
| **Certification**<br>**Flameproof**<br>**Increased Safety**<br>**Intrinsically Safe** | cULus, ATEX, GOST-R, GOST-K, GB<br>ATEX Ex II 2G, Exd IIB T6<br>ATEX Ex II 2G, Exem II T6<br>ATEX Ex II 1G, Exia IIC T6 |
| **Certified Ambient Temperature** | –20°C to +125°C Exd (T3) ATEX/GOST 'R'<br>–20°C to +55°C Exd (T6)/Exem<br>–55°C to +55°C Exia |
| **Ingress Protection** | IP66 & 67 |
| **Material** | Marine Grade Alloy (Exd)<br>Corrosion-free GRP (Exia/Exem) |
| **Temperature Settings** | 140°F to 725°F (60°C to 385°C) |
| **Entries** | 2 × M20 |
| **Weight** | 1.1–2.0kg (model dependent) |
| **Options:** | Enclosures, color, tag and duty labels, temperature setting |




## Compensated Heat Detector with Guard Fitted Natural Black Finish

To select appropriate temperature settings, choose detector at 56°C (100°F) above maximum ambient temperature.

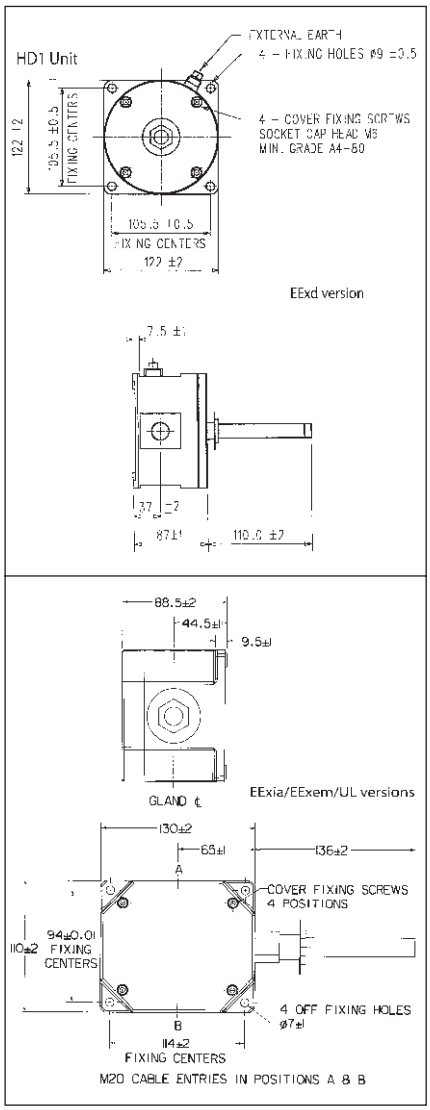
| Certification | Temperature Setting (°F) | Temperature Setting (°C) | Tolerance (°F) | Tolerance (°C) | Color Code Detector Tip | Ordering Code | Cat. # |
|---|---|---|---|---|---|---|---|
| UL, cUL, Class I, Div 2, Groups A, B, C, D Class I, Zone 2, IIC | 140 | 60 | +7/-8 | ±4 | Black | 46500152 | **HD1ULE140GN** |
| | 160 | 71 | +7/-8 | ±4 | Black | 46500153 | **HD1ULE160GN** |
| | 190 | 88 | +7/-8 | ±4 | White | 46500154 | **HD1ULE190GN** |
| | 225 | 107 | +7/-8 | ±4 | White | 46500155 | **HD1ULE225GN** |
| | 275 | 135 | ±10 | ±6 | Blue | 46500156 | **HD1ULE275GN** |
| | 325 | 163 | ±10 | ±6 | Red | 46500157 | **HD1ULE325GN** |
| | 360 | 182 | ±10 | ±6 | Red | 46500158 | **HD1ULE360GN** |
| | 450 | 232 | ±15 | ±8 | Green | 46500159 | **HD1ULE450GN** |

| Certification | Standard Product Configuration | Ordering Code | Cat. # |
|---|---|---|---|
| ATEX Exd | 140°F detector, marine grade alloy enclosure, painted gray | 465607 | **HD1BD140NG** |
| ATEX Exd | 160°F detector, marine grade alloy enclosure, painted gray | 465602 | **HD1BD160NG** |
| ATEX Exd | 190°F detector, marine grade alloy enclosure, painted gray | 465603 | **HD1BD190NG** |
| ATEX Exd | 225°F detector, marine grade alloy enclosure, painted gray | 465614 | **HD1BD225NG** |
| ATEX Exd | 275°F detector, marine grade alloy enclosure, painted gray | 465609 | **HD1BD275NG** |
| ATEX Exd | 325°F detector, marine grade alloy enclosure, painted gray | 465605 | **HD1BD325NG** |
| ATEX Exd | 360°F detector, marine grade alloy enclosure, painted gray | 46500043 | **HD1BD360NG** |
| ATEX Exd | 450°F detector, marine grade alloy enclosure, painted gray | 465601 | **HD1BD450NG** |
| ATEX Exd | 600°F detector, marine grade alloy enclosure, painted gray | 46500045 | **HD1BD600NG** |
| ATEX Exd | 725°F detector, marine grade alloy enclosure, painted gray | 46500104 | **HD1BD725NG** |
| ATEX Exem | 140°F detector, GRP enclosure, natural black | 46500026 | **HD1BE140NN** |
| ATEX Exem | 160°F detector, GRP enclosure, natural black | 465301 | **HD1BE160NN** |
| ATEX Exem | 190°F detector, GRP enclosure, natural black | 465305 | **HD1BE190NN** |
| ATEX Exem | 225°F detector, GRP enclosure, natural black | 465304 | **HD1BE225NN** |
| ATEX Exem | 275°F detector, GRP enclosure, natural black | 46500031 | **HD1BE275NN** |
| ATEX Exem | 325°F detector, GRP enclosure, natural black | 465306 | **HD1BE325NN** |
| ATEX Exem | 360°F detector, GRP enclosure, natural black | 46500072 | **HD1BE360NN** |
| ATEX Exem | 450°F detector, GRP enclosure, natural black | 465303 | **HD1BE450NN** |



## MEDC Series




## Specification—HD1 Unit

| | | |
|---|---|---|
| **Certification:** | CENELEC EN50014, 19 & 28<br>Exd IIB T6 (T3 at +125°C), Cert.No. Baseefa 03ATEX0447<br>Exia IIC T6 (T4 with diodes/resistors), Cert. No. Baseefa 03ATEX0427<br>Exem II T6, Cert. No. Baseefa 03ATEX0428<br>UL listed for USA and Canada<br>– Class I, Div 2, Groups A, B, C & D<br>– UL Listing No. E252920<br>GOST 'R' & 'K' Certification: Exd, Exi & Exem versions<br>Russian Fire Alarm (VNIIPO) approved<br>Chinese Certification: CQST – Exd, Exi & Exem versions | |
| **Material:** | Detector: | 316 stainless steel |
| | Enclosures: | Exd – LM25 marine grade alloy<br>Exia/Exem/UL – GRP (anti-static)<br>Stainless steel cover screws |
| | Optional Guard: | 316 stainless steel |
| **Finish:** | Detector: | Sand blasted |
| | Enclosures: | Exd – Epoxy painted gray as standard or to customer's specification Exia/Exem/UL – Self colored black or epoxy painted to customer's specification |
| **Weight:** | Exd, 2kg.<br>Exia/Exem/UL, 1.1kg. | |
| **Certified Temperature:** | –20°C to +125°C Exd (T3) ATEX & GOST 'R' only<br>–20°C to +55°C Exd (T6)/Exem/UL, –55°C to +55°C Exia | |
| **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 56°C (100°F) above maximum ambient temperature.

| Temperature Setting (°F) | Temperature Setting (°C) | Tolerance (°F) | Tolerance (°C) | Color Code Detector Tip |
|---|---|---|---|---|
| 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:** | Exd/Exem/UL: 125V AC – 5A, 125V DC – 0.5A, 48V DC – 1A. Exia: 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)<br>2 x ½" NPT via adaptors (UL version) |
| **Resistor:** | 2 x M20 ISO (ATEX/Exd/Exe/Exi versions)<br>2 x ½" NPT via adaptors (UL version) |
| **Diodes:** | Up to 2 off available in Exd, Exi & UL 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.

Model: **HD1**

Certification

| Certification | Code |
|---|---|
| ATEX | B |
| UL listed | UL |

Type

| Type | Code |
|---|---|
| Exd | D |
| Exe | E |
| Exi | I |
| UL | U* |

*Select this option for UL listed.

Temp. Settings

| Temp °F | Code |
|---|---|
| 140 | 140 |
| 160 | 160 |
| 190 | 190 |
| 225 | 225 |
| 275 | 275 |
| 325 | 325 |
| 360 | 360 |
| 450 | 450 |

Options

| Guard | Code |
|---|---|
| N | No Guard |
| G | Guard |

Enclosure Finish

| Finish | Code |
|---|---|
| Natural Black (EExe/EExi/UL only) | N |
| Gray | G |



## Hazardous and Non-hazardous





## MEDC Series

XB16

XB15 Pipe Mount (with cast guard)

These listed strobes have been designed for use in potentially explosive atmospheres and harsh environmental conditions. The enclosures are suitable for use offshore or onshore, where a lightweight product 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 strobes contain supervisory diode and four wire leads for fire alarm applications. This strobe is also available UL 1971 (ADA) Listed for hearing impaired applications.

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

## Applications:

- Condition signaling
- Security alert
- Equipment obstruction warning
- Emergency evacuation signaling

## Features and Benefits:

- Pipe mount with ½" NPT entry
- Corrosion resistant GRP enclosure
- XB16 580,000 peak candlepower
  XB15 520,000 peak candlepower
- Polycarbonate lens, various colors available†
- 4 wire diode monitored board
- Optional relay initiate
- Optional lens guard

†UL 1971 version available with clear lens only (XB16 only).
*Conforms to UL regulated voltage.

## Certifications and Compliances:

- UL Listed for USA and Canada
  - Hazardous locations for USA and Canada
    Class I, Div. 2, Groups A, B, C, D*
    UL 1971 compliant version available
  - Ordinary locations: Visual Signal Device
- NEMA 4X and 6, IP66 & 67
- Certified temperature
  –67°F to +158°F
  –55°C to +70°C

## Typical Industries:

- Utility gas plants
- Wastewater treatment plants
- Mining
- Petroleum refineries
- Chemical and petrochemical
- Pulp and paper



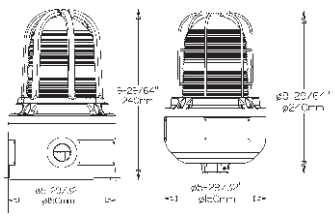
 

## MEDC Series

### XB15 — 15 Joule Flashing Xenon—Hazardous & Ordinary Locations

| | |
|---|---|
| **Certification UL Listed for:** | cULus, ATEX<br>Class I, Div. 2, Groups A, B, C, D<br>Class I, Zones 1 & 2, AExd IIC T5/T6 |
| **Certified Ambient Temperature** | -67°F to +158°F<br>-55°C to +70°C |
| **Ingress Protection** | NEMA 4X & 6<br>IP66 & 67 |
| **Material** | Corrosion-free GRP |
| **Entries** | Up to 3 x ½" NPT or 3 x ¾" NPT |
| **Weight** | 6–8lb/2.6-3.6kg |

**Options:** Body & lens color, voltages 12–48V DC, 110–254V AC

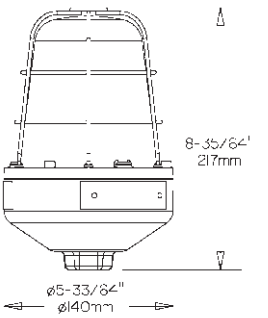


| Certification | Voltage | Lens Color | Ordering Code | Cat. # | Standard Product Configuration |
|---|---|---|---|---|---|
| UL, cUL Listed, Class I, Div. 2, Groups A, B, C, D | 120V AC | Red | 869400 | **XB15UL12006RWBNN** | 15 joules, direct mount **w/backstrap**, x ¾" NPT side entries, wire guard, 60 flashes per minute, natural black finish |
| UL, cUL Listed, Class I, Div. 2, Groups A, B, C, D | 120V AC | Amber | 869401 | **XB15UL12006AWBNN** | |
| UL, cUL Listed, Class I, Div. 2, Groups A, B, C, D | 120V AC | Red | 869402 | **XB15UL12006RWPNN** | 15 joules, **pipe mount**, 1 x ¾" NPT entry, wire guard, 60 flashes per minute, natural black finish |
| UL, cUL Listed, Class I, Div. 2, Groups A, B, C, D | 120V AC | Amber | 869403 | **XB15UL12006AWPNN** | |
| UL, cUL Listed, Class I, Div. 2, Groups A, B, C, D | 24V DC | Clear | 27600042 | **XB15UL02406CWBNN** | 15 joule beacon, 60 flashes per minute, wire guard, **backstrap**, 2 x ¾" NPT entries, natural black enclosure |
| UL, cUL Listed, Class I, Div. 2, Groups A, B, C, D | 24V DC | Green | 27600043 | **XB15UL02406GWBNN** | |
| UL, cUL Listed, Class I, Div. 2, Groups A, B, C, D | 24V DC | Blue | 869393 | **XB15UL02406BWBNN** | |
| UL, cUL Listed, Class I, Div. 2, Groups A, B, C, D | 24V DC | Red | 869398 | **XB15UL02406RWBNN** | |
| UL, cUL Listed, Class I, Div. 2, Groups A, B, C, D | 24V DC | Amber | 869399 | **XB15UL02406AWBNN** | |
| UL, cUL Listed, Class I, Div. 2, Groups A, B, C, D | 24V DC | Clear | 27600047 | **XB15UL02406CWPNN** | 15 joule beacon, 60 flashes per minute, wire guard, **pipe mounting**, 1 x ¾" NPT entry, natural black enclosure |
| UL, cUL Listed, Class I, Div. 2, Groups A, B, C, D | 24V DC | Green | 27600048 | **XB15UL02406GWPNN** | |
| UL, cUL Listed, Class I, Div. 2, Groups A, B, C, D | 24V DC | Blue | 869394 | **XB15UL02406BWPNN** | |
| UL, cUL Listed, Class I, Div. 2, Groups A, B, C, D | 24V DC | Red | 869396 | **XB15UL02406RWPNN** | |
| UL, cUL Listed, Class I, Div. 2, Groups A, B, C, D | 24V DC | Amber | 869397 | **XB15UL02406AWPNN** | |
| UL, cUL Listed, Class I, Div. 2, Groups A, B, C, D | 120V AC | Clear | 27600052 | **XB15UL12006CWBNN** | 15 joule beacon, 60 flashes per minute, wire guard, **backstrap**, 2 x ¾" NPT entries, natural black enclosure |
| UL, cUL Listed, Class I, Div. 2, Groups A, B, C, D | 120V AC | Green | 27600053 | **XB15UL12006GWBNN** | |
| UL, cUL Listed, Class I, Div. 2, Groups A, B, C, D | 120V AC | Blue | 869405 | **XB15UL12006BWBNN** | |
| UL, cUL Listed, Class I, Div. 2, Groups A, B, C, D | 120V AC | Clear | 27600057 | **XB15UL12006CWPNN** | 15 joule beacon, 60 flashes per minute, wire guard, pipe mounting, 1 x ¾" NPT entry, natural black enclosure |
| UL, cUL Listed, Class I, Div. 2, Groups A, B, C, D | 120V AC | Green | 27600058 | **XB15UL12006GWPNN** | |
| UL, cUL Listed, Class I, Div. 2, Groups A, B, C, D | 120V AC | Blue | 869404 | **XB15UL12006BWPNN** | |

## MEDC Series

### XB16 UL — 10 Joule Flashing Xenon—Hazardous & Ordinary Locations

| | |
|---|---|
| **Certification<br>UL Listed for:** | cULus, UL 1971 compliant<br>Class I, Div. 2, Groups A, B, C, D |
| **Certified Ambient Temperature** | -67°F to +158°F<br>-55°C to +70°C |
| **Ingress Protection** | NEMA 4X & 6<br>IP66 & 67 |
| **Material** | Corrosion-free GRP |
| **Entries** | Standard 1 x ½" NPT |
| **Weight** | 2.2lb/1kg |
| **Options** | Body & lens color, lens guard,<br>voltages 12–48V DC, 110–254V AC |

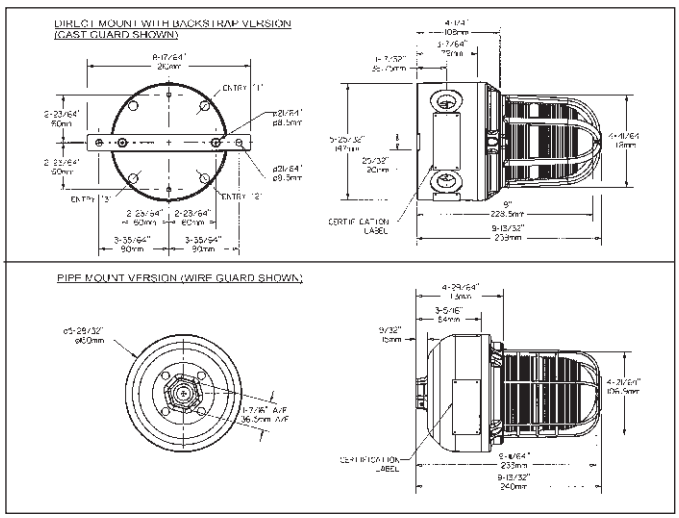



| Certification | Voltage | Lens Color | Ordering Code | Cat. # | Standard Product Configuration |
|---|---|---|---|---|---|
| UL 1971 compliant | 24V DC | Clear | 29600023 | **XB16US02460CYNN** | **UL 1971 Listed for signaling devices for the hearing impaired. Suitable for fire alarm indication.** 10 joule beacon, 60 flashes per minute, lens guard, pipe mounting, 1 x ¾" NPT entry, natural black enclosure |
| UL, cUL Listed, Class I, Div. 2, Groups A, B, C, D | 120V AC | Blue | 869406 | **XB16UL12060BYNN** | 10 joules, 60 flashes per minute, 1 x ¾" NPT entry, 240 Cd, lens guard, natural black finish |
| UL, cUL Listed, Class I, Div. 2, Groups A, B, C, D | 120V AC | Red | 869407 | **XB16UL12060RYNN** | |
| UL, cUL Listed, Class I, Div. 2, Groups A, B, C, D | 120V AC | Amber | 869408 | **XB16UL12060AYNN** | |
| UL, cUL Listed, Class I, Div. 2, Groups A, B, C, D | 120V AC | Clear | 29600013 | **XB16UL12060CYNN** | 10 joule beacon, 60 flashes per minute, lens guard, pipe mounting, 1 x ¾" NPT entry, natural black enclosure |
| UL, cUL Listed, Class I, Div. 2, Groups A, B, C, D | 120V AC | Green | 29600014 | **XB16UL12060GYNN** | |
| UL, cUL Listed, Class I, Div. 2, Groups A, B, C, D | 120V AC | Blue | 29600011 | **XB16UL12060BYNN** | |
| UL, cUL Listed, Class I, Div. 2, Groups A, B, C, D | 120V AC | Red | 29600003 | **XB16UL12060RYNN** | |
| UL, cUL Listed, Class I, Div. 2, Groups A, B, C, D | 120V AC | Amber | 29600004 | **XB16UL12060AYNN** | |
| UL, cUL Listed, Class I, Div. 2, Groups A, B, C, D | 24V DC | Green | 29600016 | **XB16UL02460GYNN** | 10 joule beacon, 60 flashes per minute, lens guard, pipe mounting, 1 x ¾" NPT entry, natural black enclosure |
| UL, cUL Listed, Class I, Div. 2, Groups A, B, C, D | 24V DC | Blue | 29600017 | **XB16UL02460BYNN** | |
| UL, cUL Listed, Class I, Div. 2, Groups A, B, C, D | 24V DC | Red | 869410 | **XB16UL02460RYNN** | |
| UL, cUL Listed, Class I, Div. 2, Groups A, B, C, D | 24V DC | Amber | 869411 | **XB16UL02460AYNN** | |



## MEDC Series




## Electrical Ratings:

| | DC | | AC | | | | |
|---|---|---|---|---|---|---|---|
| Voltage | 24 | 48 | 110 | 120 | 230 | 240 | 254 |
| Current (A) at 60 fpm | .78 | .67 | 0.4 | 0.4 | 0.2 | 0.2 | 0.17 |
| Current (A) at 80 fpm | .99 | .73 | 0.4 | 0.4 | 0.2 | 0.2 | 0.17 |
| Current (A) at 120 fpm | .99 | .73 | 0.4 | 0.4 | 0.2 | 0.2 | 0.17 |
| Effective Candlepower | 330 (Effective candlepower is the intensity that would appear to an observer if the light was burning steadily) | | | | | | |
| Peak Candlepower | 520,000 (Peak candlepower is the maximum light intensity generated by a flashing light during its light pulse) | | | | | | |

**Multiplying Factor for Colored Lenses:**

| Red | Blue | Amber | Green | Yellow |
|---|---|---|---|---|
| 0.15 | 0.12 | 0.51 | 0.49 | 0.86 |

## Specification—XB15 Unit

**Certification:** UL Listed for USA and Canada:
– Hazardous locations
Class I, Div. 2, Groups A, B, C, D
Class I, Zone 1, AExd IIC T5/T6
UL listing No. E187894
– Ordinary locations: Visual Signal Device
UL listing No. S8128
CENELEC/ATEX approved
CENELEC EN50014 & EN50018
ATEX Cert. No. Baseefa 04ATEX0009X

**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

**Voltage:** 24, 48V DC
110, 120, 230, 240, 254V AC

**Tube Energy:** 15 joules

**Tube Life:** >1 × $10^6$ flashes

**Flash Rate:** 60, 80, 120 fpm

**Certified Temperature:** –67°F to +131°F (–55°C to +55°C) T6
–67°F to +158°F (–55°C to +70°C) T5

**Weight:** Pipe mount: 5.75 lb/2.6kg; Direct mount: 6.5 lb/3.0kg

**Ingress Protection:** NEMA 4X & 6, IP66 & IP67

**Entries:** Supplied as 2 × ¾" NPT (direct mount) or ¾" (pipe mount) as standard
Other options available:
Up to 3 × ½" NPT or 3 × ¾" NPT (direct mount);
½" NPT (pipe mount) — contact sales office to order

**Terminals:** Direct mount: 12 x 14AWG
Pipe mount: 8 x 14AWG

**Relay Initiate:** Available on all units — suitable for 24V DC supplies only

**Labels:** Tag/Duty label option

## 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 | Lens Flashrate | Lens Color | Unit Guard | Fixing | Unit Options | Finish |
|---|---|---|---|---|---|---|---|---|
| XB15 | | | 06 | | | | N | N |

| Certification | Code |
|---|---|
| ATEX | B |
| UL | UL |

| Voltage | Code |
|---|---|
| 24V DC | 024 |
| 110V AC | 110 |
| 120V AC | 120 |
| 240V AC | 240 |

| Guard | Code |
|---|---|
| None | N |
| Cast | C |
| Wire | W |

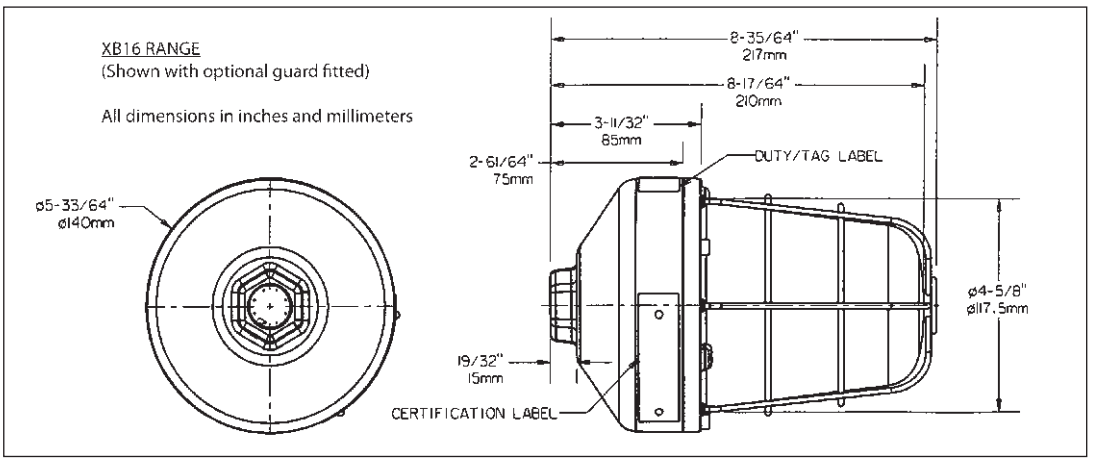
| Lens Flashrate | Code |
|---|---|
| 08 | 80 fpm |
| 12 | 120 fpm |

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

| Unit Fixing | Code |
|---|---|
| Pipe mount | P* |
| Direct w/backstrap | B |

*Not available on ATEX version.

## MEDC Series




## Specification—XB16UL Unit

| | |
|---|---|
| **Certification:** | UL Listed for USA and Canada:<br>– Hazardous locations for USA and Canada<br>Class I, Div. 2, Groups A, B, C, D<br>UL listing No. E251185<br>– Ordinary locations: Visual Signal Device: UL1638<br>UL listing No. E251185<br>– Hazardous locations for hearing impaired: UL1971<br>UL listing No. E251185 |
| **Material:** | Body: Glass reinforced polyester<br>Lens: U.V. stable polycarbonate<br>Lens screws: stainless steel 316 |
| **Finish:** | Natural black or painted to customer specification |
| **Voltage:** | 24, 48V DC<br>110, 120, 230, 240, 254V AC<br>Conforms to UL regulated voltage output (12V DC, 24V DC, 120V AC, 240V AC) |
| **Certified Temperature:** | –67°F to +158°F (–55°C to +70°C) |
| **Tube Energy:** | 10 joules |
| **Tube Life:** | > 1 × $10^6$ flashes |
| **Weight:** | 2.2lb/1.0kg |
| **Ingress Protection:** | NEMA 4X & 6, IP66 & IP67 |
| **Entries:** | Standard 1 × ½" NPT pipe mount |
| **Terminals:** | 8 × 14AWG |
| **Labels:** | Tag/Duty label option |

## Electrical Ratings:

### For Hazardous Locations and Ordinary Locations (UL1638) Units

| | DC | | AC | | | | |
|---|---|---|---|---|---|---|---|
| Voltage | 24 | 48 | 110 | 120 | 230 | 240 | 254 |
| Current (A) at 60 fpm | 0.89 | 0.30 | 0.38 | 0.38 | 0.22 | 0.22 | 0.18 |
| Current (A) at 80 fpm | 0.89 | 0.30 | 0.38 | 0.38 | 0.22 | 0.22 | 0.18 |
| Current (A) at 120 fpm | 0.89 | 0.30 | 0.38 | 0.38 | 0.22 | 0.22 | 0.18 |
| Effective intensity (Cd): 240 at 80 f.p.m. | | | | | | | |
| Peak candlepower: 580,000 (Peak candlepower is the maximum light intensity generated by a flashing light during its light pulse) | | | | | | | |

### For UL1971 Units Only

| | DC | | AC | | | | |
|---|---|---|---|---|---|---|---|
| Voltage | 24 | 48 | 110 | 120 | 230 | 240 | 254 |
| Current (A) at 60 fpm | 1.22 | 1.52 | 0.38 | 0.38 | 0.78 | 0.78 | 0.18 |
| Current (A) at 80 fpm | 1.22 | 1.52 | 0.38 | 0.38 | 0.78 | 0.78 | 0.18 |
| Current (A) at 120 fpm | 1.22 | 1.52 | 0.38 | 0.38 | 0.78 | 0.78 | 0.18 |
| Effective intensity (Cd): 240 at 80 fpm. | | | | | | | |
| Peak candlepower: 580,000 (Peak candlepower is the maximum light intensity generated by a flashing light during its light pulse) | | | | | | | |
| On UL1971 units, max. current rating is based on in-rush current. This is why the current ratings are not propotional as with other beacons/strobes.<br>UL 1971 On-axis output: 15 Cd. | | | | | | | |

**Note:** 24V DC units are cerified for use in regulated 24V DC supplies (16–33V AC).
110/120V DC units are certified for use on regulated 120V AC supplies (96–132V AC).
230/240V DC units are certified for use on regulated 240V AC supplies (192–264V AC).

**Multiplying factor for colored 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.

| Model | Certification | Voltage | Flashrate | Lens Color | Guard | Options | Unit Finish |
|---|---|---|---|---|---|---|---|
| XB16 | UL | | 60 | | | N | N |

| Certification | Code |
|---|---|
| UL | UL |

| Voltage | Code |
|---|---|
| 12V DC | 012 |
| 24V DC | 024 |
| 110V AC | 110 |
| 120V AC | 120 |
| 240V AC | 240 |

| Lens Flashrate | Code |
|---|---|
| 80 | 80 fpm |
| 120 | 120 fpm |

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

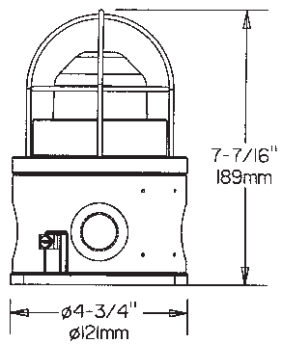
| Guard | Code |
|---|---|
| Yes | Y |
| None | N |

## MEDC Series

### SM87 HXB — 5 Joule Xenon Strobe—Explosionproof

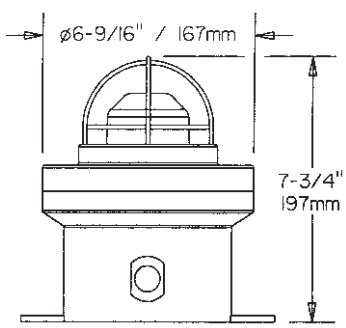
| | |
|---|---|
| **Certification UL Listed for:** | cULus, CSA, ATEX<br>Class I, Div. 1, Groups C, D<br>Class I, Zone 1 |
| **Certified Ambient Temperature** | –67°F to +158°F<br>–55°C to +70°C |
| **Ingress Protection** | NEMA 4X & 6<br>IP66 & 67 |
| **Material** | Alloy |
| **Entries** | Up to 2 × ½" or ¾" NPT, M20, M25 |
| **Weight** | 4.4lb/2.0kg approx. |
| **Options** | Body & lens color, certification, lens guard, voltages 24–48V DC,110–254V AC |




| Certification | Voltage | Lens Color | Ordering Code | Cat. # | Standard Product Configuration |
|---|---|---|---|---|---|
| ATEX EX II 2GD | 24V DC | Red | 813005 | **SM87HXBAB024RN1R1LNNR** | 5 joules, 2 × M20 Entries, 29Cd, Exd IIc |
| ATEX EX II 2GD | 24V DC | Amber | 813006 | **SM87HXBAB024AN1R1LNNR** | |
| ATEX EX II 2GD | 240V AC | Red | 813007 | **SM87HXBAB240RN1R1LNNR** | 7 joules, 2 × M20 Entries, 39Cd, Exd IIc |
| ATEX EX II 2GD | 240V AC | Amber | 813008 | **SM87HXBAB240AN1R1LNNR** | |
| ATEX EX II 2GD | 24V DC | Red LED | 813009 | **SM87LEDAB024RN1R1LNNR** | 192Cd, 2 × M20 Entries, Exd IIc |
| UL, cUL Listed, Class I, Div. 1, Groups C, D | 24V DC | Red | 869161 | **SM87HXBAUL024RN3R3LNNR** | Standard models are in alloy, red body color, no tag or duty labels, 2 × ½" NPT entries, 29Cd, 60 flashes per minute |
| UL, cUL Listed, Class I, Div. 1, Groups C, D | 24V DC | Amber | 869162 | **SM87HXBAUL024AN3R3LNNR** | |
| UL, cUL Listed, Class I, Div. 1, Groups C, D | 110V AC | Red | 869165 | **SM87HXBAUL110RN3R3LNNR** | Standard models are in alloy, red body color, no tag or duty labels, 2 × ½" NPT entries, 32Cd, AExd IIB, 60 flashes per minute |
| UL, cUL Listed, Class I, Div. 1, Groups C, D | 110V AC | Amber | 869166 | **SM87HXBAUL110AN3R3LNNR** | |

### XB11 — 5 Joule Xenon Strobe—Hazardous Locations

| | |
|---|---|
| **Certification UL Listed for:** | cULus, ATEX<br>Class I, Div. 2, Groups C, D<br>Class I, Zones 1 & 2, AExd IIB T5 |
| **Certified Ambient Temperature** | –67°F to +158°F<br>–55°C to +70°C |
| **Ingress Protection** | NEMA 4X & 6<br>IP66 & 67 |
| **Material** | Corrosion-free GRP |
| **Entries** | 2 × ½" NPT, 20mm |
| **Weight** | 2.6lb/1.2kg |
| **Options** | Body & lens color, voltages 24V DC, 110–254V AC |

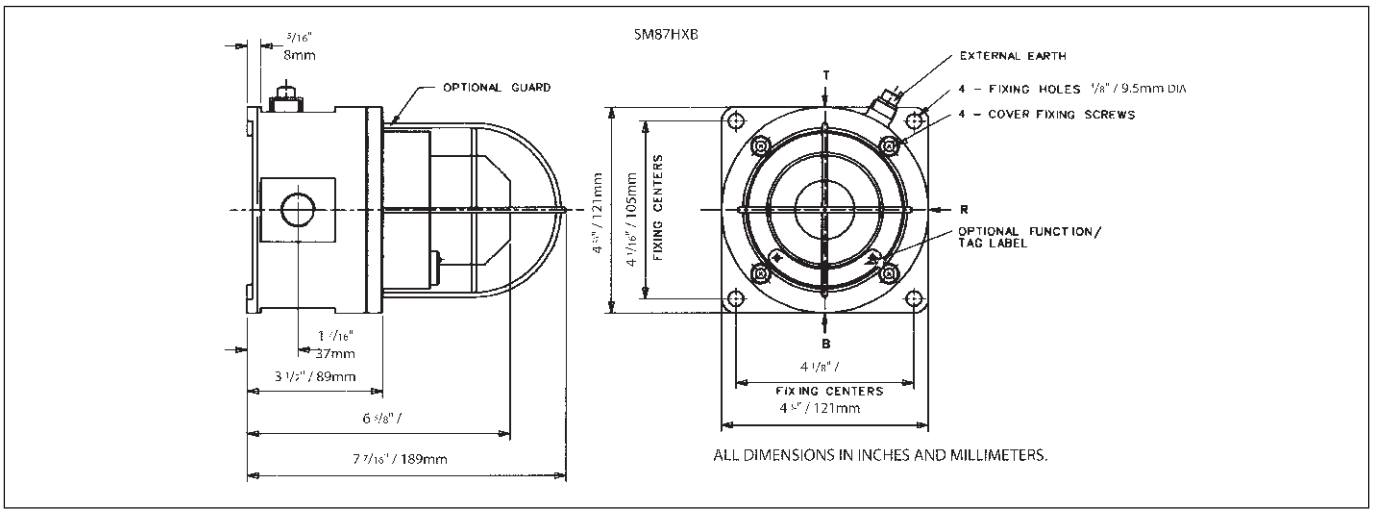



| Certification | Voltage | Body Color | Lens Color | Ordering Code | Cat. # | Standard Product Configuration |
|---|---|---|---|---|---|---|
| UL, cUL Listed, Class I, Div. 2, Groups C, D | 24V DC | Red | Red | 869171 | **XB11UL02406RNBNNNR** | No tag or duty labels, 2 × ½" NPT entries, 60 flashes per minute |
| UL, cUL Listed, Class I, Div. 2, Groups C, D | 24V DC | Red | Amber | 869172 | **XB11UL02406ANBNNNR** | |
| UL, cUL Listed, Class I, Div. 2, Groups C, D | 24V DC | Natural Black | Clear | 869173 | **XB11UL02406CNBNNNN** | |
| UL, cUL Listed, Class I, Div. 2, Groups C, D | 24V DC | Red | Clear | 869174 | **XB11UL02406CNBNNNR** | |
| UL, cUL Listed, Class I, Div. 2, Groups C, D | 110V AC | Red | Red | 869175 | **XB11UL11006RNBNNNR** | |
| ATEX EX II 2GD | 24V DC | Natural Black | Red | 811101 | **XB11B02406RNBNNNN** | GRP, natural black body, no tag or duty labels, backstrap mounting, 2 × M20 entries, 60 flashes per minute |
| ATEX EX II 2GD | 24V DC | Natural Black | Amber | 811102 | **XB11B02406ANBNNNN** | |
| ATEX EX II 2GD | 24V DC | Natural Black | Red | 811103 | **XB11B24006RNBNNNN** | |
| ATEX EX II 2GD | 24V DC | Natural Black | Amber | 811104 | **XB11B24006ANBNNNN** | |



## MEDC Series




## Specification—SM87HXB Unit

| | |
|---|---|
| **Certification:** | UL Listed for USA and Canada for Class I, Div. 1, Groups C, D and Class I, Zone 1. Listing No. E187894.<br>**CSA Certification:**<br>to C22.2, Nos. 0, 0.4, 0.5, 9, 30-M 1986, 94-M91, 137-M 1981, Class I, Div. 1, Group 0, Enclosure 3/4, Cert. No. 96406.<br>**ATEX approved:**<br>EN50014, EN50018, EN50019<br>Cert. No. Baseefa 03ATEX0222, Exd IIC T6 |
| **Material:** | LM25 TF Marine Grade Alloy<br>Lens: Toughened Glass |
| **Finish:** | Epoxy paint finish as standard or to customer's specification |
| **Weight:** | 5.5lb/2.5kg. approx. |
| **Certified Temperature:** | Standard unit SM87 HXB:<br>–67°F to +158°F, –55°C to +70°C<br>High temperature unit:<br>–67°F to +185°F, –55°C to +85°C |
| **Ingress Protection:** | NEMA 4X & 6, IP66 & 67 |
| **Terminals:** | 4 off suitable for up to 14AWG conductor size |
| **Labels:** | Duty & tag labels optional |
| **Entries:** | Up to 4 off ½" or ¾" NPT |

| Voltage | DC | | AC 50/60Hz | | | |
|---|---|---|---|---|---|---|
| | 24 | 48 | 110 | 120 | 240 | 254 |
| Tube Energy (joules) | 5 | 5 | 6 | 7 | 7 | 8 |
| Peak Current Consumption (mA) | 320 | 170 | 250 | 275 | 135 | 150 |
| Power Consumption (Watts) | 7.2 | 7.6 | 25 | 27 | 27 | 35 |
| Effective Intensity (Cd) | 29 | 29 | 32 | 39 | 39 | 44 |
| Peak Candle Power | 22213 | 22213 | 25061 | 30187 | 30187 | 34174 |

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

### For Colored Lenses

| Color | Red | Blue | Amber | Green | Yellow |
|---|---|---|---|---|---|
| Multiplying Factor | 0.15 | 0.12 | 0.51 | 0.49 | 0.86 |

The photometric data has been independently verified.
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.

| Model | Material | Certification | Voltage | Lens/LED color | Lens Guard | Entries | Tag/Duty Label | Initiate Option | Finish |
|---|---|---|---|---|---|---|---|---|---|
| **SM87HXB** | | | | | | | **N** | **N** | **R** |

| Type | Code |
|---|---|
| Alloy | A |
| Stainless Steel | S* |

*Not UL Listed

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

| Guard | Code |
|---|---|
| Yes | Y |
| No | N |

| Entries | Code |
|---|---|
| 20mm Left/Right | 1L1R |
| 20mm Top/Bottom | 1T1B |
| 20mm Bottom | 1B |
| 25mm Left/Right | 2L2R |
| 25mm Top/Bottom | 2T2B |
| 25mm Bottom | 2B |
| ½" NPT Left/Right | 3L3R |
| ½" NPT Top/Bottom | 3T3B |
| ½" NPT Bottom | 3B |
| ¾" NPT Left/Right | 4L4R |
| ¾" NPT Top/Bottom | 4T4B |
| ¾" NPT Bottom | 4B |

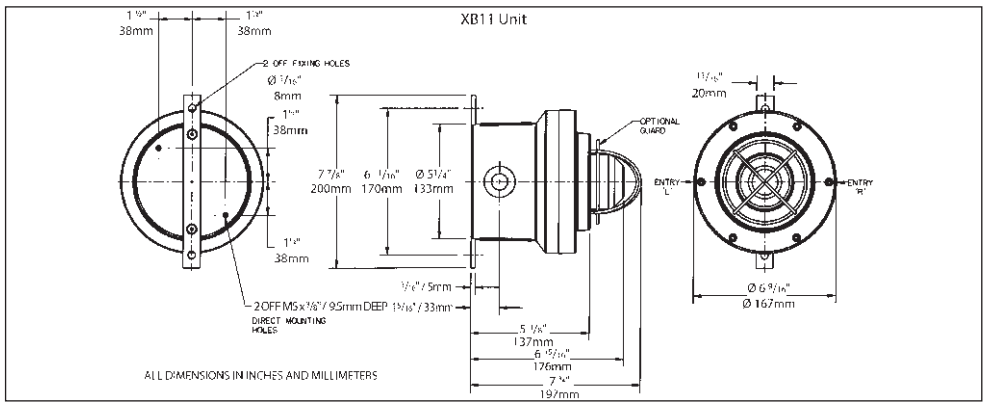
| Certification | Code |
|---|---|
| ATEX | B |
| UL | UL |
| CSA | C |
| Only HXBS is available CSA certified. | |

| Voltage | Code |
|---|---|
| 24V DC | 024 |
| 110V AC | 110 |
| 120V AC | 120 |
| 220V AC | 220 |
| 240V AC | 240 |



## MEDC Series




## Specification—XB11 Unit

| | |
|---|---|
| **Certification:** | UL Listed for USA and Canada<br>– Hazardous locations:<br>Class I, Div. 2, Groups C, D<br>Class I, Zones 1 & 2, AExd IIB T5<br>UL Listing No. E187894<br>– Ordinary locations: Visual Signal Device<br>UL Listing No. S8128<br>**ATEX approved:**<br>Exd IIB T5/T6<br>Cert. No. 99 ATEX 2195X<br>CENELEC EN50014 and EN50018 |
| **Material:** | Body: Glass reinforced polyester<br>Lens: Glass<br>Cover Screws + Backstrap: Stainless steel 316 |
| **Finish:** | Natural black or painted to customer specification |
| **Weight:** | 5.5lb/2.5kg |
| **Certified Temperature:** | Standard unit SM87 HXB: –67°F to +158°F, –55°C to +70°C<br>–67°F to +158°F, –55°C to +70°C<br>High temperature unit:<br>–67°F to +185°F, –55°C to +85°C |
| **Ingress Protection:** | NEMA 4X & 6, IP66 & 67 |
| **Terminals:** | 6 off suitable for up to 14 AWG conductor size |
| **Labels:** | Duty/tag label optional |
| **Entries:** | 2 × ½" NPT, 20mm |
| **Strobe/Sounder Unit:** | The beacon may be combined with an MEDC Sounder to create a visual/audible alarm. Contact MEDC for price and specification. |

| Voltage | DC | AC 50/60Hz | |
|---|---|---|---|
| | 24 | 110 | 240 |
| XB11 Tube Energy (joules) | 5 | 5 | 5 |
| Peak Current Consumption (mA) | 320 | 100 | 60 |
| Effective Intensity (Cd) | 29 | 29 | 29 |
| Peak Candle Power | 22213 | 22213 | 22213 |
| Power Consumption (Watts) | 8 | 11 | 18 |
| The Cd figures are for a clear lens @ 1Hz flash rate. | | | |

### For Colored Lenses

| Color | 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.

| Model Type | Certification | Voltage | Flash Rate | Lens Color | Lens Guard | Unit Fixing | Earth Continuity | Tag/Duty Label | Options | Unit Finish |
|---|---|---|---|---|---|---|---|---|---|---|
| XB11 | | | 06 | | | B | N | N | N | |

| Certification | Code |
|---|---|
| ATEX | B |
| UL | UL |

| Voltage | Code |
|---|---|
| 24V DC | 024 |
| 110V AC | 110 |
| 240V AC | 240 |
| Other voltages available, please specify. | |

| Guard | Code |
|---|---|
| Yes | Y |
| No | N |

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

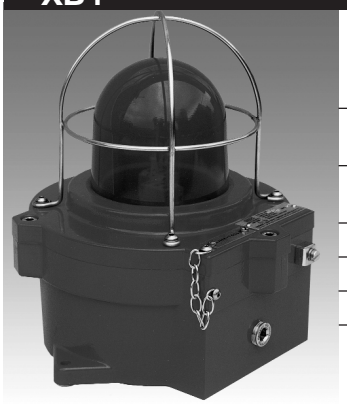
| Finish | Code |
|---|---|
| Natural Black | N |
| Red | R |



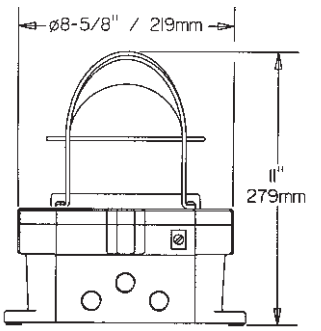
  

## MEDC Series

### XB4 — 21 Joule Xenon Strobe—Explosionproof

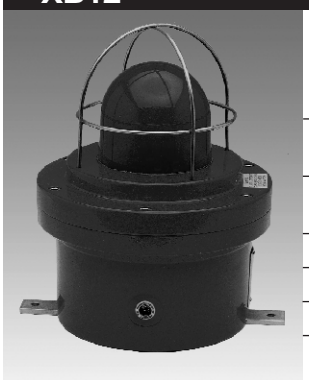


| | |
|---|---|
| **Certification UL Listed for:** | cULus, ATEX<br>Class I, Div. 1, Groups C, D<br>Class I, Zone 1, AExd IIB T4, T5 |
| **Certified Ambient Temperature** | –67°F to +158°F<br>–55°C to +70°C |
| **Ingress Protection** | NEMA 4X & 6<br>IP66 & 67 |
| **Material** | Alloy |
| **Entries** | Up to 3 × ½" or ¾" NPT, 20mm, 25mm |
| **Weight** | 14.5lb/6.6kg |
| **Options** | Body & lens color, lens guard, certification, voltages 24V DC, 110V AC & 240V AC |

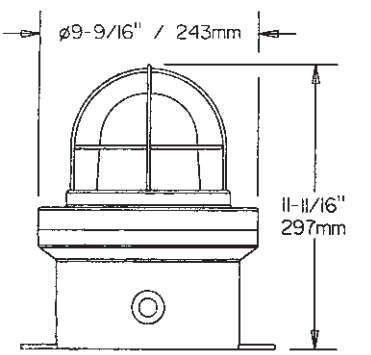



| Certification | Voltage | Lens Color | Ordering Code | Cat. # | Standard Product Configuration |
|---|---|---|---|---|---|
| ATEX Approved Ex II 2G | 24V DC | Red | 814001 | **XB4BB8D2B3B06AN0RN1R** | 21 joules, 2 × M20 entries, 355Cd, 60 flashes per minute, no labels, red finish |
| ATEX Approved Ex II 2G | 240V AC | Red | 814002 | **XB4BH8D2B3B06AN0RN1R** | |
| UL, cUL Listed, Class I, Div. 1, Groups C, D | 24V DC | Red | 869121 | **XB4ULB8D2E3E06ANRN1R** | Marine grade alloy, 2 × ¾" NPT entries, no lens guard, 60 flashes per minute, red finish |
| UL, cUL Listed, Class I, Div. 1, Groups C, D | 24V DC | Amber | 869122 | **XB4ULB8D2E3E06ANAN1R** | |
| UL, cUL Listed, Class I, Div. 1, Groups C, D | 110V AC | Red | 869125 | **XB4ULE8D2E3E06ANRN1R** | |
| UL, cUL Listed, Class I, Div. 1, Groups C, D | 110V AC | Amber | 869126 | **XB4ULE8D2E3E06ANAN1R** | |

### XB12 — 21 Joule Xenon Strobe—Hazardous Locations



| | |
|---|---|
| **Certification UL Listed for:** | cULus, ATEX<br><br>Class I, Div. 2, Groups C, D<br>Class I, Zones 1 & 2, AExd IIB T4 |
| **Certified Ambient Temperature** | –67°F to +158°F<br>–55°C to +70°C |
| **Ingress Protection** | NEMA 4X & 6<br>IP66 & 67 |
| **Material** | Corrosion-free GRP |
| **Entries** | Up to 2 × ½" NPT, 20mm |
| **Weight** | 15.5lb/7.0kg |
| **Options** | Body & lens color, lens guard, certification, voltages 24V DC, 110–254V AC |




| Certification | Voltage | Lens Color | Ordering Code | Cat. # | Standard Product Configuration |
|---|---|---|---|---|---|
| ATEX Approved Ex II 2G | 24V DC | Red | 812101 | **XB12B02406RNBNNNN** | 21 joules, 2 × M20 entries, 355Cd, 60 flashes per minute, no labels, black body |
| ATEX Approved Ex II 2G | 24V DC | Amber | 812102 | **XB12B02406ANBNNNN** | |
| ATEX Approved Ex II 2G | 240V AC | Red | 812103 | **XB12B24006RNBNNNN** | |
| ATEX Approved Ex II 2G | 240V AC | Amber | 812104 | **XB12B24006ANBNNNN** | |
| UL, cUL Listed, Class I, Div. 2, Groups C, D | 24V DC | Red | 869181 | **XB12UL02406RNBNNNR** | Red painted GRP, no tag or duty labels, 2 × ½" NPT, 60 flashes per minute, 355 Cd |
| UL, cUL Listed, Class I, Div. 2, Groups C, D | 24V DC | Amber | 869182 | **XB12UL02406ANBNNNR** | |
| UL, cUL Listed, Class I, Div. 2, Groups C, D | 110V AC | Red | 869185 | **XB12UL11006RNBNNNR** | |
| UL, cUL Listed, Class I, Div. 2, Groups C, D | 110V AC | Amber | 869186 | **XB12UL11006ANBNNNR** | |

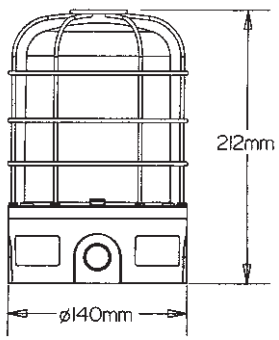


## MEDC Series

### XB13 — 10 Joule Flashing Xenon—Weatherproof and Heavy Duty

| | |
|---|---|
| **Certification UL Listed for:** | Weatherproof IP66 & 67 |
| **Certified Ambient Temperature** | –67°F to +158°F –55°C to +70°C |
| **Ingress Protection** | NEMA 4X & 6 IP66 & 67 |
| **Material** | Corrosion-free GRP |
| **Entries** | Up to 3 × 20mm via knockouts |
| **Weight** | 1.1kg |
| **Options** | Body & lens color, lens guard, voltages 12–24V DC, 115–230V AC |

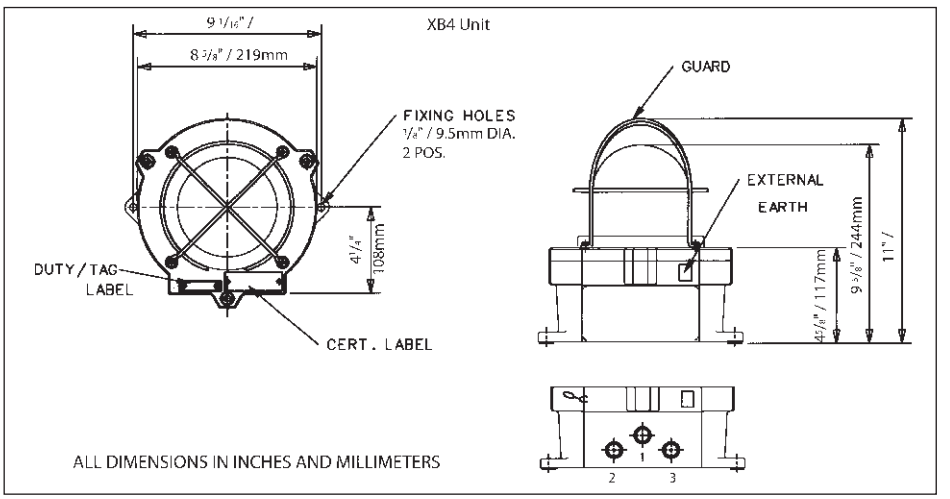



| Certification | Voltage | Lens Color | Ordering Code | Cat. # | Standard Product Configuration |
|---|---|---|---|---|---|
| Weatherproof, IP66 & 67 | 24V DC | Red | 813101 | **XB13024RNNN** | Dust-tight and weatherproof, uncertified, no tag or duty labels, 3 × 20mm entries via knockouts, 60 flashes per minute, dual and single flash modes, natural red GRP |
| Weatherproof, IP66 & 67 | 24V DC | Amber | 813102 | **XB13024ANNN** | |
| Weatherproof, IP66 & 67 | 230V AC | Red | 813103 | **XB13230RNNN** | |
| Weatherproof, IP66 & 67 | 230V AC | Amber | 813104 | **XB13230ANNN** | |



## MEDC Series




## Specification—XB4 Unit

| | |
|---|---|
| **Certification:** | UL Listed for USA and Canada<br>– Hazardous locations:<br>Class I, Div. 1, Groups C, D<br>Class I, Zone 1, AExd IIB T4<br>UL Listing No. E187894<br>– Ordinary locations: Visual Signal Device<br>UL Listing No. S8128<br>**ATEX approved:**<br>Exd IIC T5<br>Cert. No. Baseefa 02ATEX0224X |
| **Materials:** | LM25TF Marine Grade Alloy body<br>Grade 316 ANC4B Stainless Steel body<br>Toughened Wellglass |
| **Finish:** | Red epoxy paint finish as standard or to customer's specification |
| **Weight:** | LM25: 14.5lb/6.6kg.<br>Stainless Steel: Add 18.5lb/8.5kg. |
| **Certified Temperature:** | –67°F to +158°F<br>–55°C to +70°C |
| **Ingress Protection:** | NEMA 4X & 6, IP66 & 67 |
| **Terminals:** | 8 off suitable for up to 8 AWG conductor size |
| **Entries:** | Up to 3 × ½" or ¾" NPT, 20mm, 25mm |

| | DC | AC 50/60Hz | |
|---|---|---|---|
| **Voltage** | **24** | **110** | **240** |
| 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 |

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

### For Colored Lenses

| Color | Red | Blue | Amber | Green | Yellow |
|---|---|---|---|---|---|
| Multiplying Factor (Approximate) | 0.15 | 0.12 | 0.51 | 0.49 | 0.86 |

The photometric data has been independently verified. 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.

| Model Type | Certification | Voltage | Terminals | Cable Entries | Flash Rate | Initiate Options | Lens Guard | Lens Color | Tag/Duty Label | Material | Finish |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **XB4** | | | **8D** | | **06** | **A** | | | **N** | | **R** |

| Certification | Code |
|---|---|
| ATEX | B |
| UL | UL |

| Voltage | Code |
|---|---|
| 24V DC | B |
| 110V AC | E |
| 240V AC | H |

| Entries | Code |
|---|---|
| 1-M25 Entry | 1C |
| 2-M25 Entries | 2C3C |
| 1-¾" NPT Entry | 1E |
| 2-¾" NPT Entry | 2E3E |
| 1-20mm Entry | 1B |
| 2-20mm Entries | 2B3B |
| 1-½" NPT | 1D |
| 2-½" NPT | 2D3D |

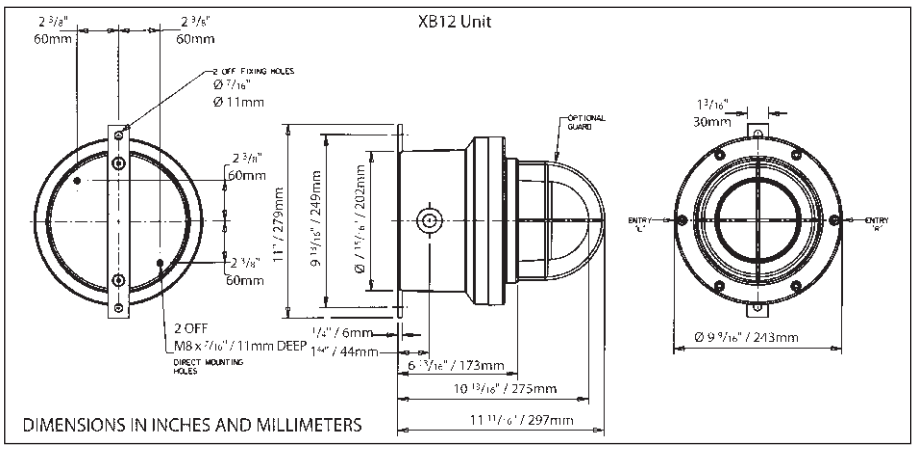
| Guard | Code |
|---|---|
| Yes | Y |
| No | N |

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

| Material | Code |
|---|---|
| Alloy | 1 |
| Stainless Steel | 0 |

## MEDC Series




## Specification—XB12

| | |
|---|---|
| **Certification:** | UL Listed for USA and Canada<br>– Hazardous locations:<br>Class I, Div. 2, Groups C, D<br>Class I, Zone 1 & 2, AExd IIB T4/T5<br>UL Listing No. E187894<br>– Ordinary locations: Visual Signal Device<br>UL Listing No. S8128<br>**ATEX approved:**<br>Exd IIB T4/T5<br>Cert. No. 99 ATEX 2196 |
| **Materials:** | Body: Glass reinforced polyester<br>Lens: Toughened Glass<br>Cover Screws + Backstrap:<br>Stainless steel 316 |
| **Finish:** | Natural black or painted to customer specification |
| **Weight:** | 15.5 lb/7.0kg |
| **Certified Temperature:** | –67°F to +158°F (–55°C to +70°C) hazardous locations<br>–67°F to +131°F (–55°C to +55°C) ordinary locations |
| **Ingress Protection:** | NEMA 4X and 6, IP66 & 67 |
| **Terminals:** | 6 off suitable for up to 10 AWG conductor size |
| **Labels:** | Duty/tag label optional |
| **Entries:** | 2 × ½" NPT, 20mm |

| | DC | AC 50/60Hz | |
|---|---|---|---|
| **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 |

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

### For Colored Lenses

| Color | 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.

| Model Type | Certification | Voltage | Flash Rate | Lens Color | Lens Guard | Unit Fixing | Earth Continuity | Tag/Duty Label | Options | Unit Finish |
|---|---|---|---|---|---|---|---|---|---|---|
| XB12 | | | 06 | | | B | N | N | N | |

| Certification | Code |
|---|---|
| ATEX | B |
| UL | UL |

| Voltage | Code |
|---|---|
| 24V DC | 024 |
| 110V AC | 110 |
| 240V AC | 240 |
| Other voltages available, please specify. | |

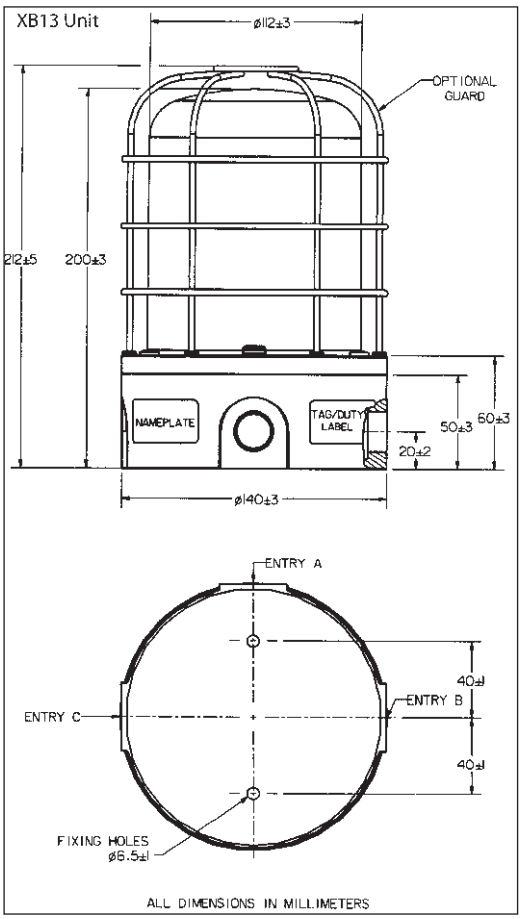
| Color | Code |
|---|---|
| Red | R |
| Blue | B |
| Green | G |
| Yellow | Y |
| Amber | A |
| Clear | C |

| Guard | Code |
|---|---|
| Yes | Y |
| No | N |

| Finish | Code |
|---|---|
| Natural Black | N |
| Red | R |

## MEDC Series




## Specification—XB13 Unit

| | |
|---|---|
| **Materials:** | UV stable glass reinforced polyester body<br>UV stable polycarbonate cover/lens<br>Retained stainless steel cover screws |
| **Finish:** | Self colored red as standard or epoxy coated 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 × $10^6$ flashes |
| **Voltage:** | 12V DC, 24V DC, 115V AC, 230V AC |
| **Current Consumption:** | Voltage: 12V DC, 24V DC, 115V AC, 230V AC<br>Current Consumption: 1.4A, 650mA, 180mA, 100mA |
| **Tube Type:** | Xenon discharge |
| **Lens Color:** | Various colors available |
| **Terminals:** | 8 x 2.5mm² |
| **Flash Rate:** | 1 flash per second |
| **Dual Flash Rate:** | Time between dual flashes = 0.5 seconds<br>Charging time = 1 second<br>Cycle repeats every 1.5 seconds |
| **Labels:** | Duty and tag labels available |
| **Tube Type:** | Up to 3 × M20 via knockouts |
| **Intensity:** | Effective intensity 220 Cd. Peak intensity 75,000 Cd.<br>(Figures are for clear lens at 1Hz flash rate). |

### For Colored Lenses

| Color | 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.

| Unit Type | Voltage | Lens Color | Lens Guard | Options | Unit Finish is Red |
|---|---|---|---|---|---|
| XB13 | | | | N | N |

| Voltage | Code |
|---|---|
| 24V DC | 024 |
| 115V AC | 115 |
| 230V AC | 230 |

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

| Guard | Code |
|---|---|
| Yes | Y |
| No | N |

# Fire Alarm Strobe Light
# HAZARD•GARD® Series

Cl. I, Div. 1, Groups C, D
Cl. I, Zone 1 and 2, Group IIB
Cl. II, Div. 1, Groups E, F, G
Class III

UL and cUL Listed
NEMA 4X; IP66



The Hazard•Gard® EXFASC Series is a visual fire alarm signaling device for hazardous areas. The EXFASC Series strobes are UL 1971 Listed for indoor signaling applications for the hearing impaired in non-sleeping areas. They are also UL Listed for Type 3R, 4X installations. The strobes are available for pendant, wall and ceiling mounts.

The EXFASC Series Fire Alarm Explosionproof Strobe contains a supervisory diode for use in fire alarm applications. Under normal operation the diode is reversed biased, meaning it blocks voltage from being applied to the strobe light and prevents it from lighting. When a fire-initiating device such as a smoke alarm is activated, the diode's polarity is reversed through a fire alarm panel. The diode becomes forward biased, allowing voltage to the device and activating the strobe.

## Applications:

- Visual fire alarm signaling device for hazardous areas

## Typical Industries:

- Energy exploration
- Utilities
- Wastewater treatment plants
- Pulp and paper plants
- Petrochemical plants
- Petroleum refineries
- Oil rigs

## Features and Benefits:

- Meets NFPA requirements for fire safety warning devices
- State of the art electronic design (full wave rectified design)
  - Low current draw is efficient
  - 24V DC regulated full wave rectified
  - Limited in-rush current favorable to other fire alarm system components
  - Proven, reliable circuitry designed specifically for use with fire alarm control panels
- Available in pendant, wall and ceiling mount
- Strobe light produces 65 flashes per minute
- Factory sealed—no external seals required
- Quick connect—strobe fixture threads onto mounting module for easy installation
- Small compact size—ceiling mount is 13¾-inch long

## Certifications and Compliances:

- Class I, Division 1, Groups C, D
- Class I, Zones 1 and 2, Group IIB
- Class II, Division 1, Groups E, F, G
- Class III
- UL 1638 and 1203 Listed
- UL 1971 Listed for indoor visual signaling for the hearing impaired in non-sleeping areas
- cUL Listed C22.2 No. 205
- NEMA 4X watertight, IP66

## Materials & Finishes:

- Body, mounting modules and guard—Copper-free aluminum
- Globe—Heat and impact-resistant glass
- Gaskets—Silicone
- External hardware—Stainless steel
- Internal components—Solid-state electronics in a moisture-resistant and heat-dissipating epoxy
- Epoxy powder coated for corrosion resistance

## Temperature Performance Data:

See page 1203

## Ratings:

- 16–33V DC
- Operating Current: 1.08–0.83 amps
- Peak Candlepower: 800,000

## Hub Size:

- ¾-inch NPT pendant, ceiling and wall mount

## Ordering Information:

### Step 1 - Order Strobe Type

| Catalog Number | Voltage | Lens Color | NEMA Rating |
|---|---|---|---|
| **FIRE ALARM RATED EXPLOSIONPROOF STROBE** | | | |
| **EXFASC301/16 33** | 24 VDC regulated full wave rectified | Clear | 3R, 4X |

### Step 2 - Order Mounting Module

| Catalog Number | Hub Size | Mounting Style |
|---|---|---|
| **EVMP2** | ¾" | Pendant |
| **EV22 & EV87** | ¾" | Wall |
| **EV22** | ¾" | Ceiling |
| **EVMJ4** | 1¼" | Stanchion |



# Explosionproof Strobe Lights HAZARD•GARD® Series

Cl. I, Div. 1, Groups C, D
Cl. I, Zone 1 and 2, Group IIB
Cl. II, Div. 1, Groups E, F, G
Class III

UL and cUL Listed
NEMA 4X; IP66

The **Hazard•Gard EXS and EXDS Series** Explosionproof Strobe Lights are designed for installation indoors and outdoors in locations which are hazardous due to the presence of flammable vapors or gases, ignitible dusts or ignitible fibers and flyings. The units are UL Listed for Type 3R and 4X installations. The 120V and 24V DC models are Marine Rated. The strobes are available for pendant, wall, stanchion and ceiling mounts, and come in six different globe colors.

The **EXDS Series** is diode polarized for use in electrically supervised circuits. Electrically supervised circuits are typically used in life-safety or security applications.

Under normal operation the diode is reversed biased, meaning it blocks voltage from being applied to the strobe and prevents it from lighting. When an initiating device such as a smoke detector is activated, the diode's polarity is reversed through a circuit panel. The diode becomes forward biased, allowing voltage to the device and activating the strobe.

## Applications:

- Condition signaling
- Equipment obstruction warning
- Security alert
- Emergency evacuation signaling
- In areas where audible signals cannot be heard

## Typical Industries:

- Utility gas plants
- Petroleum refineries
- Wastewater treatment plants
- Chemical and petrochemical
- Mining
- Pulp and paper

## Features and Benefits:

- Strong strobe signal that produces 65 flashes per minute
- Compact design will not obstruct in low ceiling or small areas, ceiling mount is only 13¾"–inch long
- Quick connect—strobe fixture threads onto mounting module for easy installation
- Factory sealed—no external seals required
- Available in pendant, wall, stanchion and ceiling mount
- Available in six different globe colors—clear, red, blue, amber, green and magenta
- Silicone gasket seals out dirt and moisture

## Certifications and Compliances:

- Class I, Division 1, Groups C, D
- Class I, Zones 1 and 2, Group IIB
- Class II, Division 1, Groups E, F, G
- Class III
- UL and cUL 1638, UL 1203 and UL 844 Listed
- 1598A Marine Listed (120V AC and 24V DC only)
- cUL Listed C22.2 No. 205
- NEMA 4X watertight, IP66

## Materials and Finishes:

- Body, mounting modules and guard—Copper-free aluminum
- Globe—Heat and impact-resistant glass
- Gaskets—Silicone
- External hardware—Stainless steel
- Internal components—Solid-state electronics in a moisture-resistant and heat-dissipating epoxy
- Epoxy powder coated for corrosion resistance

## Ratings:

- 120V AC (EXS), 12–48V DC (EXSNM) and 24V DC nominal, voltage operating range is 16–33V DC (EXDS)
- Operating Current: 0.10 amps at 120V AC
  1.2–3.8 amps at 12–48V DC
  0.8 amps at 24V DC
- Peak Candlepower: 800,000

## Hub Size:

- ¾-inch NPT pendant, ceiling and wall mount
- 1¼-inch NPT stanchion mount

## Ordering Information:

### Step 1 - Order Strobe Type

| Cat. # | Voltage | Lens Color | NEMA Rating |
|---|---|---|---|
| **Explosionproof Strobes** | | | |
| **EXS301A/120** | 120V AC | Amber | 3R 4X, Marine |
| **EXS301B/120** | 120V AC | Blue | 3R 4X, Marine |
| **EXS301C/120** | 120V AC | Clear | 3R 4X, Marine |
| **EXS301G/120** | 120V AC | Green | 3R 4X, Marine |
| **EXS301M/120** | 120V AC | Magenta | 3R 4X, Marine |
| **EXS301R/120** | 120V AC | Red | 3R 4X, Marine |
| **EXSNM301A/12 48** | 12–48V DC | Amber | 3R 4X |
| **EXSNM301B/12 48** | 12–48V DC | Blue | 3R 4X |
| **EXSNM301C/12 48** | 12–48V DC | Clear | 3R 4X |
| **EXSNM301G/12 48** | 12–48V DC | Green | 3R 4X |
| **EXSNM301M/12 48** | 12–48V DC | Magenta | 3R 4X |
| **EXSNM301R/12 48** | 12–48V DC | Red | 3R 4X |
| **Diode Polarized Explosionproof Strobes** | | | |
| **EXDS301A/24** | 24V DC | Amber | 3R 4X, Marine |
| **EXDS301B/24** | 24V DC | Blue | 3R 4X, Marine |
| **EXDS301C/24** | 24V DC | Clear | 3R 4X, Marine |
| **EXDS301G/24** | 24V DC | Green | 3R 4X, Marine |
| **EXDS301M/24** | 24V DC | Magenta | 3R 4X, Marine |
| **EXDS301R/24** | 24V DC | Red | 3R 4X, Marine |

### Step 2 - Order Mounting Module

| Cat. # | Hub Size | Mounting Style |
|---|---|---|
| **EVMP2** | ¾" | Pendant |
| **EV22 and EV87** | ¾" | Wall |
| **EV22** | ¾" | Ceiling |
| **EVMJ4** | 1¼" | Stanchion |

## Temperature Performance Data:

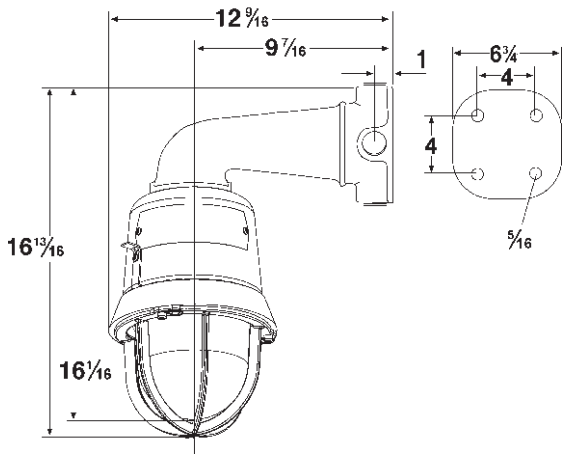
| | Ambient Max. Temp. | Supply Wire | Class I, Div. 1, 2, Groups C, D Class I, Zone 1, Group II B | Class II, Class III, Div. 1, Groups E, F, G | Class II, Class III, Div. 2, Groups F, G |
|---|---|---|---|---|---|
| EXFASC Series Fire Alarm Voltage 24V DC Regulated Full Wave Rectified (Operating Range 16–33V DC) (Marine Listed) | 40°C<br>55°C | 75°C<br>90°C | T6 (85°C)<br>T5 (100°C) | T4A (120°C)<br>T4 (135°C) | T4A (120°C)<br>T4 (135°C) |
| EXS Series Strobe Light Voltage 120V AC (Marine Listed) | 40°C<br>55°C<br>65°C | 75°C<br>90°C<br>105°C | T6 (85°C)<br>T6 (85°C)<br>T6 (85°C) | T4A (120°C)<br>T4 (135°C)<br>T4 (135°C) | T4A (120°C)<br>T4 (135°C)<br>T4 (135°C) |
| EXSNM Series Strobe Light Voltage 12–48V DC (Not Marine Listed) | 40°C<br>55°C<br>65°C | 75°C<br>90°C<br>105°C | T6 (85°C)<br>T6 (85°C)<br>T6 (85°C) | T4A (120°C)<br>T4 (135°C)<br>T4 (135°C) | T4A (120°C)<br>T4 (135°C)<br>T4 (135°C) |
| EXDS Series Strobe 40°C Light-Diode Polarized Voltage 24V DC (Marine Listed) | 40°C<br>55°C | 75°C<br>90°C | T6 (85°C)<br>T5 (100°C) | T4A (120°C)<br>T4 (135°C) | T4A (120°C)<br>T4 (135°C) |

# Explosionproof Strobe Lights
# HAZARD•GARD® Series

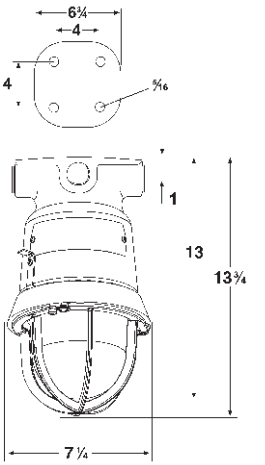
Cl. I, Div. 1, Groups C, D
Cl. I, Zone 1 and 2, Group IIB
Cl. II, Div. 1, Groups E, F, G
Class III

UL and cUL Listed
NEMA 4X; IP66

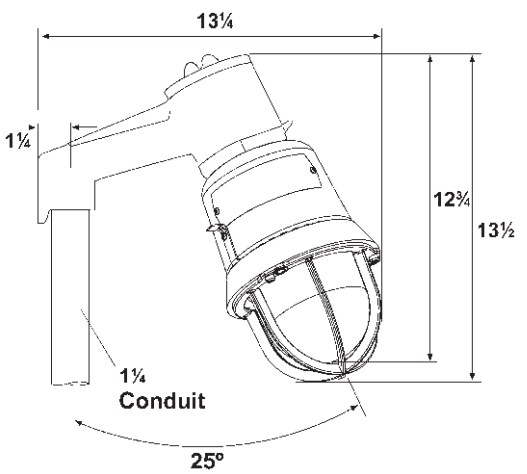
## Dimensions
**In Inches:**



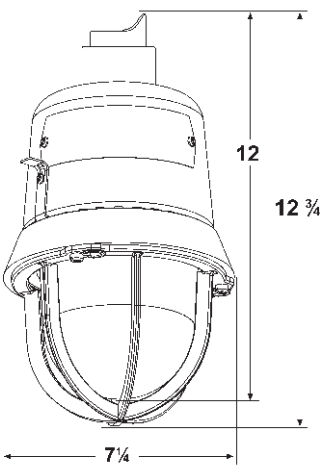

**Wall Mount**




**Ceiling Mount**




**Stanchion Mount**




**Pendant Mount**

## Net Luminaire Weights:

| Type | lbs. |
|---|---|
| Luminaire Housing with Guard | 11.0 |

| Type | lbs. |
|---|---|
| **Add mounting modules:** | |
| Pendant | 1.0 |
| Ceiling | 1.0 |
| Wall | 4.5 |
| Stanchion | 2.5 |

Cooper Crouse-Hinds **Hazard•Gard EXR Series Explosionproof Rotating Beacons** are designed for installation in hazardous locations, such as manufacturing plants, heavy industrial facilities, refineries, chemical, petrochemical, pharmaceutical and off-shore drilling platforms.

The units are UL Listed for Type 3R, 4X and marine installations. The rotating beacons are available for pendant, wall, stanchion and ceiling mounts, and come in six different globe colors.

The EXDR Series Explosionproof Rotating Beacon is diode polarized for use in standard 24–28V DC electrical circuits or in electrically supervised circuits. Electrically supervised circuits are typically used in life-safety or security applications.

Under normal operation in an electrically supervised circuit, the diode is reversed biased, meaning it blocks voltage from being applied to the rotating beacon and prevents it from lighting. When a warning detecting device is activated, the diode's polarity is reversed through a circuit panel. The diode becomes forward biased, allowing voltage to the device and activating the rotating beacon.


## Applications:

- Security alert
- Equipment obstruction warning
- Obstacle warning
- Status indication of a process
- Areas under construction
- Supplement audible signaling or off limits

## Typical Industries:

- Utility gas plants
- Pharmaceutical plants
- Wastewater treatment plants
- Refineries
- Chemical plants
- Mining

## Features and Benefits:

- Powerful halogen rotating beacon emits bright light to provide critical visual warning
- Available in pendant, wall, stanchion and ceiling mount
- Available in six different globe colors—amber, blue, clear, green, magenta and red
- Beacon produces 75 rotations per minute
- Factory sealed—no external seals required
- Quick connect—strobe fixture threads onto mounting module for easy installation

## Certifications and Compliances:

- Class I, Division 1, Groups C, D
- Class II, Division 1, Groups E, F, G
- Class I, Zones 1 & 2, Group IIB
- Class III
- UL and cUL 1638, UL 1203 and UL 844 Listed
- 1598A Marine Listed
- NEMA 4X watertight, IP66

## Materials and Finishes:

- Body, mounting modules and guard—Copper-free aluminum
- Globe—Heat and impact-resistant glass
- Gaskets—Silicone
- External hardware—Stainless steel
- Internal components—Solid-state electronics in a moisture-resistant and heat-dissipating epoxy
- Epoxy powder coated for corrosion resistance

## Ratings:

- 120V AC (EXR) and 24–28V DC (EXDR)
- Operating Current: 0.382 amps at 120V AC
  0.8 amps at 24–28V DC
- Peak Candlepower: 3328 (EXR)
  2838 (EXDR)

## Hub Size:

- ¾-inch NPT pendant, ceiling and wall mount
- 1¼-inch NPT stanchion mount

# Explosionproof Rotating Beacons
# HAZARD•GARD® Series

Cl. I, Div. 1, Groups C, D
Cl. I, Zone 1 and 2, Group IIB
Cl. II, Div. 1, Groups E, F, G
Class III

UL and cUL Listed
NEMA 4X; IP66

## Ordering Information:

### Step 1 - Order Rotating Beacon Type

| Cat. # | Voltage | Lens Color | NEMA Rating |
|---|---|---|---|
| **Explosionproof Rotating Beacons** | | | |
| **EXR301A/120** | 120V AC | Amber | 3R, 4X, Marine |
| **EXR301B/120** | 120V AC | Blue | 3R, 4X, Marine |
| **EXR301C/120** | 120V AC | Clear | 3R, 4X, Marine |
| **EXR301G/120** | 120V AC | Green | 3R, 4X, Marine |
| **EXR301M/120** | 120V AC | Magenta | 3R, 4X, Marine |
| **EXR301R/120** | 120V AC | Red | 3R, 4X, Marine |
| **Diode Polarized Explosionproof Rotating Beacons** | | | |
| **EXDR301A/24 28** | 24–28V DC | Amber | 3R, 4X, Marine |
| **EXDR301B/24 28** | 24–28V DC | Blue | 3R, 4X, Marine |
| **EXDR301C/24 28** | 24–28V DC | Clear | 3R, 4X, Marine |
| **EXDR301G/24 28** | 24–28V DC | Green | 3R, 4X, Marine |
| **EXDR301M/24 28** | 24–28V DC | Magenta | 3R, 4X, Marine |
| **EXDR301R/24 28** | 24–28V DC | Red | 3R, 4X, Marine |

### Step 2 - Order Mounting Module

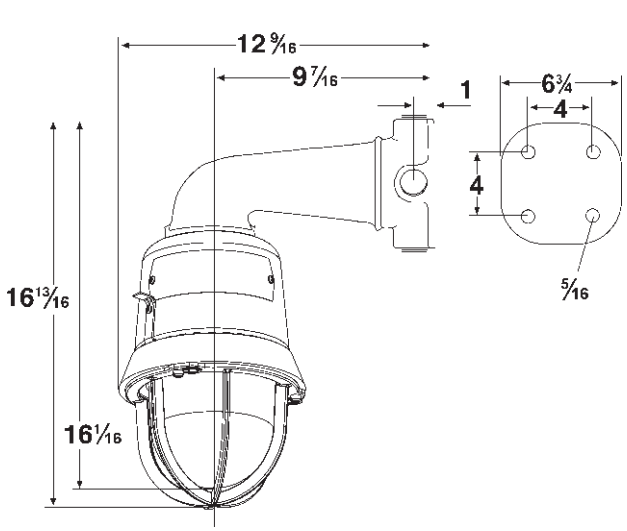
| Cat. # | Hub Size | Mounting Style |
|---|---|---|
| **EVMP2** | ¾" | Pendant |
| **EV22 & EV87** | ¾" | Wall |
| **EV22** | ¾" | Ceiling |
| **EVMJ4** | 1¼" | Stanchion |

## Temperature Performance Data:

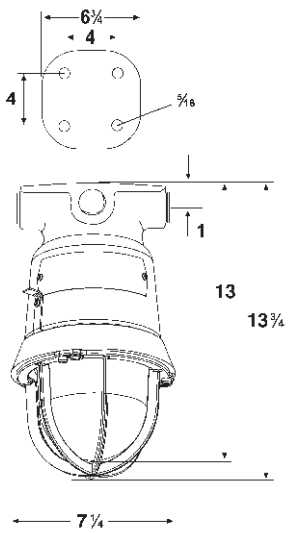
| Description | Ambient Max. Temp. | Supply Wire | Class I, Div. 1, 2, Groups C, D Class I, Zone 1, Group IIB | Class II, Class III, Div. 1, Groups E, F, G | Class II, Class III, Div. 2, Groups F, G |
|---|---|---|---|---|---|
| EXR Series Rotating Beacon Voltage 120V AC | 40°C | 75°C | T6 (85°C) | T4A (120°C) | T4A (120°C) |
| | 55°C | 90°C | T5 (100°C) | T4 (135°C) | T4 (135°C) |
| | 65°C | 105°C | T5 (100°C) | T4 (135°C) | T4 (135°C) |
| EXR Series Rotating Beacon—Diode Polarized Voltage 24–28V DC | 40°C | 75°C | T6 (85°C) | T4A (120°C) | T4A (120°C) |
| | 55°C | 90°C | T6 (85°C) | T4 (135°C) | T4 (135°C) |
| | 65°C | 105°C | T6 (85°C) | T4 (135°C) | T4 (135°C) |

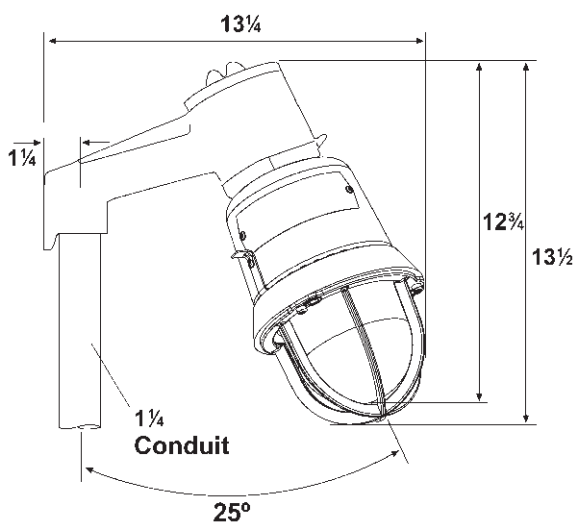
## Dimensions
**In Inches:**



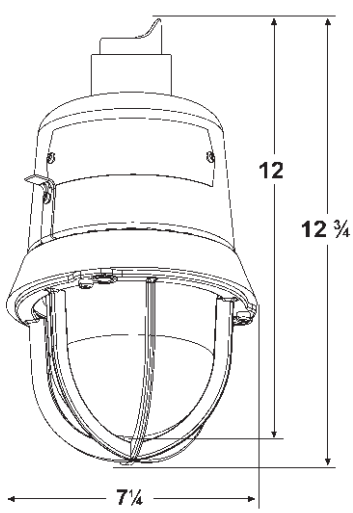

**Wall Mount**




**Ceiling Mount**




**Stanchion Mount**




**Pendant Mount**

## Net Luminaire Weights:

| Type | lbs. |
|---|---|
| Luminaire Housing with Guard | 11.0 |

| Type | lbs. |
|---|---|
| **Add mounting modules:** | |
| Pendant | 1.0 |
| Ceiling | 1.0 |
| Wall | 4.5 |
| Stanchion | 2.5 |

## Hazardous





# Steady-On Beacons

Cl. I, Div. 1 (FB4 & FL4)
Cl. I, Div. 2 (FB11, FB12 & FB15)
Cl. I, Zone 1

NEMA 4X
IP66 & IP67

## MEDC Series

**FB15 Direct Mount (with wire guard)**

**FB15 Pipe Mount (with cast guard)**

The units are UL Listed for Type 3R, 4X and marine installations. The steady-on beacons are available for pendant, wall, stanchion and ceiling mounts, and come in six different globe colors.

Typical industrial and commercial applications include food processing plants, refineries, mines, tankers, laboratories, sewage treatment plants, off-shore oil rigs, water and filtration plants and chemical plants. The diode polarized steady-on beacon is used in electrically supervised circuitry for life-safety or security applications.

## Applications:

- Safety lighting
- Continuous source to communicate
- Obstacle warning
- Exit or entrance lights
- For identifying the location of safety equipment such as showers or emergency telephones

## Typical Industries:

- Chemical plants
- Storage handling
- Dust conveyor systems
- Energy exploration
- Textile mills
- Flour and feed mills

## Certifications and Compliances:

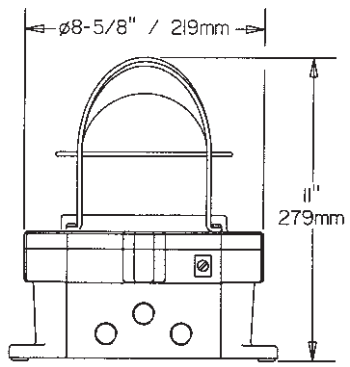
- Class I, Division 1, Groups C, D
- Class I, Zone 1 & 2, Group IIB
- Class II, Division 1, Groups E, F, G
- Class III
- UL and cUL 1638, UL 1203 and UL 844 Listed
- 1598A Marine Listed
- NEMA 4X watertight, IP66

## MEDC Series

### FB4 — 100 Watt Steady Incandescent Light - Explosionproof

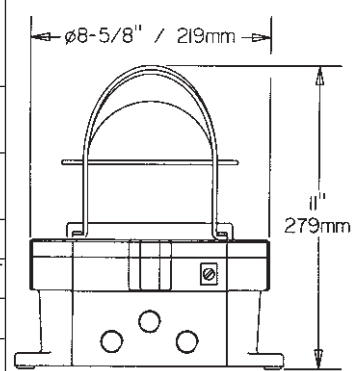
| | |
|---|---|
| **Certification<br>UL Listed for:** | cULus, ATEX<br>Class I, Div. 1, Groups C, D<br>Class I, Zone 1, AExd IIB T4 |
| **Certified Ambient Temperature** | –67°F to +131°F<br>–55°C to +55°C |
| **Ingress Protection** | NEMA 4X & 6<br>IP66 & 67 |
| **Material** | Alloy |
| **Entries** | Up to 3 × ½" or 2 × ¾" NPT |
| **Weight** | 13lb/6.4kg |
| **Options:** | Body & lens color, lens guard, certification,<br>voltage 120V AC only |




| Certification | Ordering Code | Cat. # | Standard Product Configuration |
|---|---|---|---|
| UL, cUL Listed, Class I, Div. 2, Groups C, D | 17800002 | **FB4EUL8U1N100B1N1G** | Marine grade alloy, 120V AC, 100W bulb (not included) blue lens, lens guard, no labels, gray finish |

### FL4 — 13–39 Watt Steady Fluorescent Light—Explosionproof

| | |
|---|---|
| **Certification<br>UL Listed for:** | UL, ATEX<br>Class I, Div. 1, Groups C, D<br>Class I, Zone 1, AExd IIC T5 |
| **Certified Ambient Temperature** | –67°F to +158°F<br>–55°C to +70°C |
| **Ingress Protection** | NEMA 4X & 6<br>IP66 & 67 |
| **Material** | Alloy |
| **Entries** | Up to 3 × ½" NPT or 2 × ¾" NPT |
| **Weight** | 14.5lb/6.6kg |
| **Options:** | Body & lens color, lens guard, certification, voltages 24V DC, 120V, 240V AC |



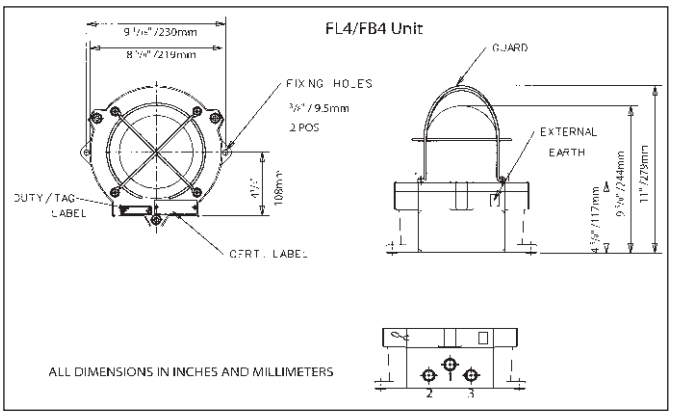

| Certification | Ordering Code | Cat. # | Standard Product Configuration |
|---|---|---|---|
| UL Listed, Class I, Div. 2, Groups C, D | 27800006 | **FL4BUL8U2M3M13R1N1RZ** | Marine grade alloy, 24V DC, 2 x ½" NPT entries, 13W tube (not included), red lens, lens guard, **red finish**, one certified plug |

# Steady-On Beacons

Cl. I, Div. 1 (FB4 & FL4)
Cl. I, Div. 2 (FB11, FB12 & FB15)
Cl. I, Zone 1

NEMA 4X
IP66 & IP67

## MEDC Series




### 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 13W | DD 13 | G24d-1 |
| | Philips PLC 13W | PLC 13 | G24d-1 |

Osram Color XX = (21 = Cool white) ( 31 = Warm white) (41 = Interna)

### Temperature Ratings

| Type | Voltage/Wattage | Lamp Ref. | Max. Amb. |
|---|---|---|---|
| FL4 | DC units | DD/E 13/XX | 55°C |
| | AC units | PLC 13 P4 | 55°C |
| FB4 | 60W | DD 13 | 55°C |
| | 100W | PLC 13 | 55°C |

## Specification—FL4 and FB4 Units

**Certification:** UL Listed for USA and Canada
– Hazardous locations:
Class I, Div. 1, Groups C, D
Class I, Zone 1, AExd IIB T4/T5
UL Listing No. E187894
– Ordinary locations: Visual-Signal Device (FL4 only).
UL Listing No. S8128.
**ATEX approved:**
Exd IIC
Certificate No. Baseefa 02ATEX0224X

**Material:** LM25TF Marine Grade Alloy body
Grade 316 ANC48 Stainless Steel body
Toughened Wellglass

**Models:** FL4: Up to 3 x 13 Watt PL compact fluorescent lamps
FB4: 100 watt GLS incandescent lamps. E27 holder as standard

**Finish:** Gray epoxy paint finish as standard or to customer's specification

**Voltage:** FL4: 24V DC, 120V AC, 240V AC ± 10% 50/60hz.
FB4: 120V AC ± 10% 50/60hz.

**Weight:** FL4: 14–17lb/6.5–7.9kg (add 19lb/8.4kg for stainless steel)
FB4: 13lb/6.4 kg

**Certified Temperature:** FL4: –4°F to +131°F (–20°C to + 55°C)
FB4: –67°F to +131°F (–55°C to + 55°C)

**Ingress Protection:** NEMA 4X & 6
IP66 & IP67

**Lamps:** Units are supplied without lamps

**Terminals:** 8 off suitable for up to 8 AWG conductor size

**Entries:** Up to 3 × ½" NPT or 2 × ¾" 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.

Unit Type [ ] Voltage [ ] Certification [ ] Entries [ ] Lamp Wattage [ ] Lens Color [ ] Guard [ ] Options [N] Material [ ] Finish [R]

**FL4**
**FB4**

| Voltage | Code |
|---|---|
| 24V DC | B |
| 120V AC | E |
| 240V AC | H |

| Certification | Code |
|---|---|
| ATEX | B8D |
| UL* | UL8U |

*UL (FB4) – only available 24V DC, 110V AC., NPT entries.

| Entries | Code |
|---|---|
| 1 x 20mm | 1B |
| 2 x M20 | 2B3B |
| 1 x M25 | 1C |
| 2 x M25 | 2C3C |
| 1 x ½" NPT | 1M |
| 2 x ½" NPT† | 2M3M |
| 1 x ¾" NPT† | 1N |
| 2 x ¾" NPT† | 2N3N |

†UL Listed version only.

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

| Guard | Code |
|---|---|
| None | 0 |
| Guard | 1 |

| Material | Code |
|---|---|
| Stainless Steel | 0 |
| Alloy | 1 |

| Lamp Wattage | | Code |
|---|---|---|
| FL4 | 13W(1 x 13W tube) | 13 |
| | 26W(2 x 13W tubes) | 26* |
| FB4 | 60W | 60 |
| | 100W | 100 |

*Only available in the following voltages: 26W—AC only.

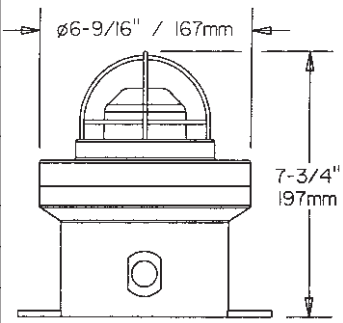
 

COOPER Crouse-Hinds

## MEDC Series

### FB11 UL — 10 Watt Steady Incandescent Light—Hazardous Locations

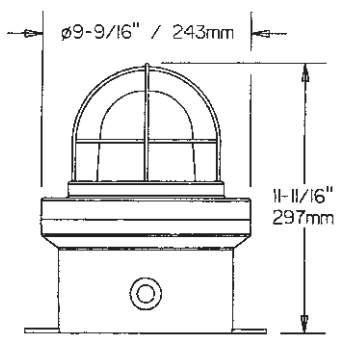
| | |
|---|---|
| **Certification UL Listed for:** | cULus, ATEX<br>Class I, Div. 2, Groups C, D<br>Class I, Zone 1, AExd IIB T4/T5 |
| **Certified Ambient Temperature** | –67°F to +131°F<br>–55°C to +55°C |
| **Ingress Protection** | NEMA 4X & 6<br>IP66 & 67 |
| **Material** | Corrosion-free GRP |
| **Entries** | Up to 2 × ½" NPT, M20 |
| **Weight** | 6.2lb/2.8kg |
| **Options** | Body & lens color, lens guard, certification, voltage 24, 48V DC, 110–120V AC |




| Certification | Ordering Code | Cat. # | Standard Product Configuration |
|---|---|---|---|
| ATEX | 32500004 | **FB11B02410RNBNNN** | 24V DC, 10W bulb, red lens, mounting bracket, natural black finish |
| UL, cUL Listed, Class I, Div. 2, Groups C, D | 32500028 | **FB11UL02410GNBNNR** | 10W incandescent beacon, 24V DC, green lens, no lens guard, 2 × ½ NPT entries, painted red enclosure |
| UL, cUL Listed, Class I, Div. 2, Groups C, D | 32500029 | **FB11UL11010GNBNNR** | 10W incandescent beacon, 110V AC, green lens, no lens guard, 2 × ½ NPT, painted red enclosure |

### FB12 UL — 60W/100W Steady Incandescent Light—Hazardous Locations

| | |
|---|---|
| **Certification UL Listed for:** | cULus, ATEX<br>Class I, Div. 2, Groups C, D<br>Class I, Zone 1, AExd IIB T4/T5 |
| **Certified Ambient Temperature** | –67°F to +131°F<br>–55°C to +55°C |
| **Ingress Protection** | NEMA 4X & 6<br>IP66 & 67 |
| **Material** | Corrosion-free GRP |
| **Entries** | Up to 2 × ½" NPT, M20 |
| **Weight** | 2.6lb/1.2kg |
| **Options** | Body & lens color, lens guard, certification, voltage 120V AC |

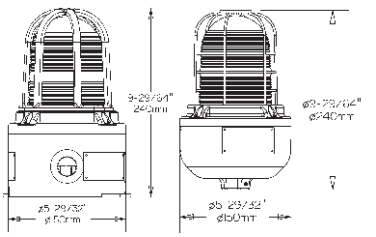



| Certification | Ordering Code | Cat. # | Standard Product Configuration |
|---|---|---|---|
| UL, cUL Listed, Class I, Div. 2, Groups C, D | 326023 | **FB12UL12060CNBNNN** | 120V AC, 60W bulb, clear lens, mounting bracket, no labels, natural black finish |
| UL, cUL Listed, Class I, Div. 2, Groups C, D | 32600035 | **FB12UL12060GNBNNR** | 60W incandescent beacon, 120V AC, green lens, no lens guard, 2 × ½ NPT entries in a painted red enclosure |
| UL, cUL Listed, Class I, Div. 2, Groups C, D | 32600036 | **FB12UL02460GNBNNR** | 60W incandescent beacon, 24V DC, green lens, no lens guard, 2 × ½ NPT entries, painted red enclosure |
| UL, cUL Listed, Class I, Div. 2, Groups C, D | 32600037 | **FB12UL120100GNBNNR** | 100W incandescent beacon, 24V DC, green lens, no lens guard, 2 × ½ NPT entries, painted red enclosure |

## MEDC Series

### FB15 — 100W Steady Incandescent Light—Hazardous & Ordinary Locations

| | |
|---|---|
| **Certification UL Listed for:** | cULus, ATEX<br>Class I, Div. 2, Groups A, B, C, D<br>Class I, Zone 1, AExd IIC T3/T4 |
| **Certified Ambient Temperature** | –67°F to +158°F<br>–55°C to +70°C |
| **Ingress Protection** | NEMA 4X & 6<br>IP66 & 67 |
| **Material** | Corrosion-free GRP |
| **Entries** | Up to 3 x ½" NPT or 3 x ¾" NPT |
| **Weight** | 6–8lb/2.6–3.6kg |
| **Options** | Body & lens color, lens guard, lamp wattage, unit fixing, mounting method, voltages 12–48V DC, 110–254V AC |

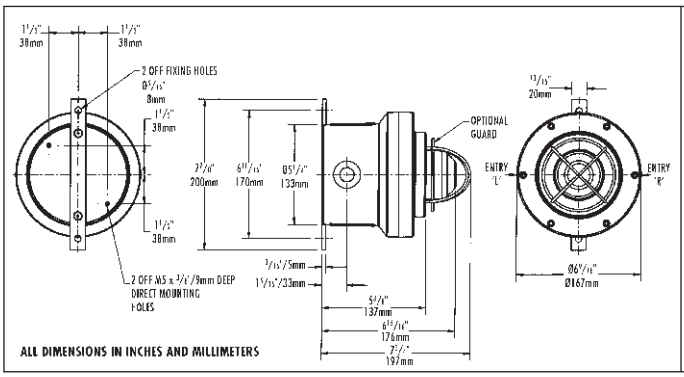


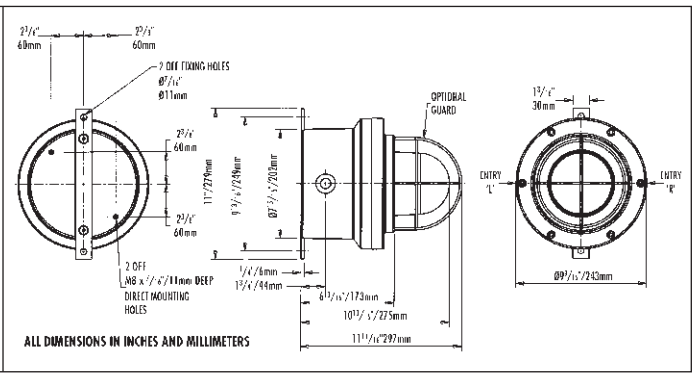
| Certification | Ordering Code | Cat. # | Standard Product Configuration |
|---|---|---|---|
| UL, cUL Listed, Class I, Div. 2, Groups A, B, C, D | 47600001 | **FB15UL120100GNANR** | 120V AC, 100W bulb, green lens, mounting bracket, no labels, red finish |
| UL, cUL Listed, Class I, Div. 2, Groups A, B, C, D | 47600020 | **FB15UL120100ANPNN** | 100W incandescent beacon, 120V AC, amber lens, no lens guard, pipe mounting, 1 x ¾ NPT entry, natural black enclosure |
| UL, cUL Listed, Class I, Div. 2, Groups A, B, C, D | 47600021 | **FB15UL120100RNPNN** | 100W incandescent beacon, 120V AC, red lens, no lens guard, pipe mounting, 1 x ¾ NPT entry, natural black enclosure |
| UL, cUL Listed, Class I, Div. 2, Groups A, B, C, D | 47600022 | **FB15UL120100GNPNN** | 100W incandescent beacon, 120V AC, green lens, no lens guard, pipe mounting, 1 x ¾ NPT entry, natural black enclosure |
| UL, cUL Listed, Class I, Div. 2, Groups A, B, C, D | 47600023 | **FB15UL120100CNPNN** | 100W incandescent beacon, 120V AC, clear lens, no lens guard, pipe mounting, 1 x ¾ NPT entry, natural black enclosure |
| UL, cUL Listed, Class I, Div. 2, Groups A, B, C, D | 47600024 | **FB15UL120100BNPNN** | 100W incandescent beacon, 120V AC, blue lens, no lens guard, pipe mounting, 1 x ¾ NPT entry, natural black enclosure |
| UL, cUL Listed, Class I, Div. 2, Groups A, B, C, D | 47600025 | **FB15UL024100ANPNN** | 100W incandescent beacon, 24V DC, amber lens, no lens guard, pipe mounting, 1 x ¾ NPT entry, natural black enclosure |
| UL, cUL Listed, Class I, Div. 2, Groups A, B, C, D | 47600026 | **FB15UL024100RNPNN** | 100W incandescent beacon, 24V DC, red lens, no lens guard, pipe mounting, 1 x ¾ NPT entry, natural black enclosure |
| UL, cUL Listed, Class I, Div. 2, Groups A, B, C, D | 47600027 | **FB15UL024100GNPNN** | 100W incandescent beacon, 24V DC, green lens, no lens guard, pipe mounting, 1 x ¾ NPT entry, natural black enclosure |
| UL, cUL Listed, Class I, Div. 2, Groups A, B, C, D | 47600028 | **FB15UL024100CNPNN** | 100W incandescent beacon, 24V DC, clear lens, no lens guard, pipe mounting, 1 x ¾ NPT entry, natural black enclosure |
| UL, cUL Listed, Class I, Div. 2, Groups A, B, C, D | 47600029 | **FB15UL024100BNPNN** | 100W incandescent beacon, 24V DC, blue lens, no lens guard, pipe mounting, 1 x ¾ NPT entry, natural black enclosure |



## MEDC Series




## Specification—FB11 and FB12 Units

| | |
|---|---|
| **Models:** | FB11 & FB12—Incandescent |
| **Certification:** | UL Listed for USA and Canada<br>– Class I, Div. 2, Groups C, D<br>– Class I, Zone 1, AExd IIB T4/T5<br>UL listing No. E187894<br>**ATEX approved:**<br>CENELEC EN50014 and EN50018<br>FB11: Cert. No. 99 ATEX 2195X<br>FB12: Cert. No. 99 ATEX 2196 |
| **Voltage:** | FB11: 24, 48V DC<br>110, 220, 240, 250V AC<br>FB12: 120V AC |
| **Incandescent:** | FB11: 10W incandescent fitted as standard<br>FB12: 60W or 100W incandescent fitted as standard |
| **Material:** | Body: Glass reinforced polyester<br>Lens: Glass<br>Cover screws + backstrap: stainless steel 316 |
| **Finish:** | Natural black or painted to customer specification |
| **Ingress Protection:** | NEMA 4X & 6, IP66 & IP67 |
| **Terminals:** | FB11: 6 x 14 AWG<br>FB12: 6 x 10 AWG |
| **Labels:** | Duty/Tag Label optional |
| **Entries:** | 2 x ½" NPT |
| **Certified Temperature:** | FB11: –67°F to +131°F (–55°C to +55°C) T4<br>–67°F to +104°F (–55°C to +40°C) T5.<br>FB12: –67°F to +131°F (–55°C to +55°C) T4<br>–67°F to +104°F (–55°C to +40°C) T5. |
| **Weight:** | FB11: 6.2lb / 2.8kg.<br>FB12: 16.7lb / 7.6kg. |

## 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 Color | Lens Guard | Unit Fixing | Earth Continuity | Tag/Duty Label | Finish |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | N | B | N | N | |

**FB11**
**FB12**

| Cert. | Code |
|---|---|
| ATEX | B |
| UL Listed | UL |

| Finish | Code |
|---|---|
| Natural Black | N |
| Red | R |

| Voltage | Code |
|---|---|
| 24V DC | 024 |
| 110V AC | 110 |
| 120V AC[1] | 120 |
| 240V AC | 240 |

Other voltages available, please specify.
[1]FB12 UL Listed only

| Lamp Wattage | Code |
|---|---|
| FB11 10W AC & DC (1 x 10W bulb) | 10 |
| FB12 60W AC & DC (1 x 60W bulb) | 60 |
| 100W AC & DC (1 x 100W bulb) | 100 |

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



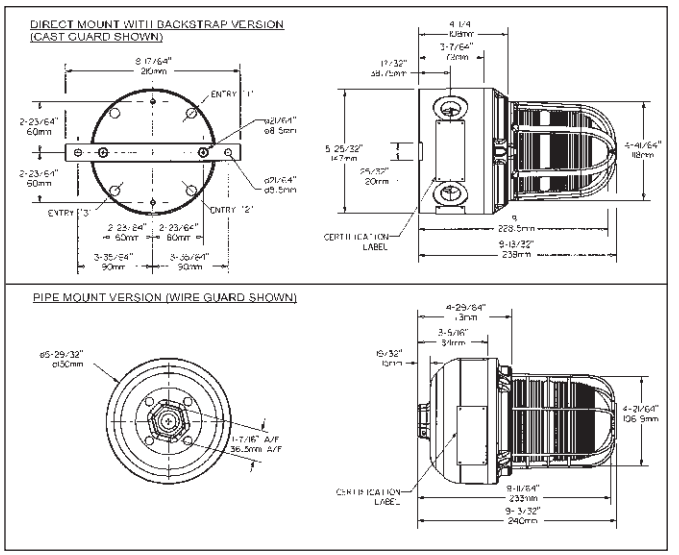
  

# Steady-On Beacons

Cl. I, Div. 1 (FB4 & FL4)
Cl. I, Div. 2 (FB11, FB12 & FB15)
Cl. I, Zone 1

NEMA 4X
IP66 & IP67

## MEDC Series




## Electrical Ratings:

| | DC | | AC | | | | |
|---|---|---|---|---|---|---|---|
| Voltage | 24 | 48 | 110 | 120 | 230 | 240 | 254 |
| Current (A) — 60W lamp | 2.5 | .67 | 0.55 | 0.50 | 0.26 | 0.25 | 0.24 |
| Current (A) —100W lamp | 4.2 | .73 | 0.91 | 0.83 | 0.43 | 0.42 | 0.39 |

## Specification—FB15 Unit

**Certification:** 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
UL listing No. E187894
– Ordinary locations: Visual Signal Device
UL listing No. S8128
CENELEC/ATEX approved
CENELEC EN50014 & EN50018
ATEX Cert. No.
Baseefa 04ATEX0009X

**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

**Voltage:** 24, 48V DC
110, 120, 230, 240, 254V AC

**Lamp Type:** 60W or 100W GLS incandescent

**Lamp Holder:** E27 as standard

**Certified Temperature:** 60W: –67°F to +131°F (–55°C to +55°C) T4
–67°F to +158°F (–55°C to +70°C) T3
100W: –67°F to +104°F (–55°C to +40°C) T4

**Weight:** Pipe mount: 5.75lb/2.6kg;
Direct mount: 6.5lb/3.0kg

**Ingress Protection:** NEMA 4X & 6, IP66 & IP67

**Entries:** Supplied as 2 x M20, up to 3 x M20 or 3 x M25
Supplied as 2 x ½" 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 14AWG
Pipe mount: 8 x 14AWG

**Labels:** Tag/duty label option

## 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 | | | | | | | N | N |

| Certification | Code |
|---|---|
| ATEX | B |
| UL | UL |

| Voltage | Code |
|---|---|
| 24V DC | 024 |
| 110V AC | 110 |
| 120V AC | 120 |
| 240V AC | 240 |

| Lamp Wattage | Code |
|---|---|
| 60 | 60 |
| 100 | 100 |

| Guard | Code |
|---|---|
| None | N |
| Cast | C |
| Wire | W |

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

| Unit Fixing | Code |
|---|---|
| Pipe mount | P* |
| Direct w/backstrap | B |

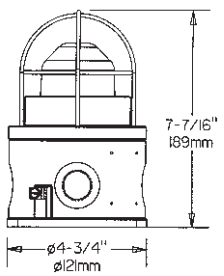
* Not Available on ATEX version.

## MEDC Series

### SM87 LU3 — 10 Watt Steady Incandescent Light—Explosionproof

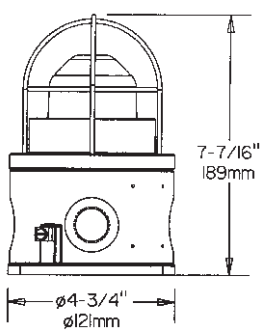
| | |
|---|---|
| **Certification UL Listed for:** | cULus, CSA, ATEX<br>Class I, Div. 1, Groups C, D<br>Class I, Zone 1, AExd IIB |
| **Certified Ambient Temperature** | –67°F to +131°F<br>–55°C to +55°C |
| **Ingress Protection** | NEMA 4X & 6<br>IP66 & 67 |
| **Material** | Alloy |
| **Entries** | 2 x ½" or ¾" NPT, 20mm, 25mm |
| **Weight** | 4.4lb/2.0kg |
| **Options** | Body & lens color, lens guard, certification, voltages 12–48V DC, 110V–254V AC |




| Certification | Ordering Code | Cat. # | Standard Product Configuration |
|---|---|---|---|
| UL, cUL Listed, Class I, Div. 2, Groups C, D | 762311 | **SM87LU3AUL024RN3R3LNR** | 24V DC, red lens, 2 x ½" NPT entries, no labels, red finish |
| ATEX | 46200122 | **SM87LU3AB024GN1T1BNR** | Exd, IIC, T4/T6 incandescent beacon, 24V DC, green lens, no lens guard, 2 x M20 cable entries, painted red enclosure |
| UL, cUL Listed, Class I, Div. 1, Groups C, D | 46200096 | **SM87LU3AUL024GN3T3BNR** | 24V DC, green lens, 10W incandescent bulb, marine grade alloy, red finish |

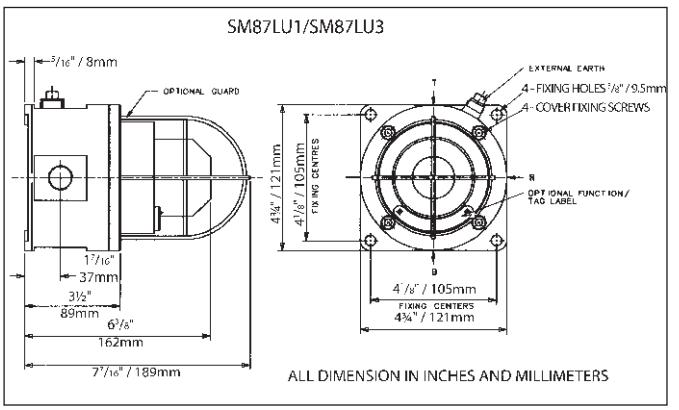
### SM87 LU1 — 10 Watt Steady Fluorescent Light—Explosionproof

| | |
|---|---|
| **Certification UL Listed for:** | cULus, ATEX<br>Class I, Div. 1, Groups C, D<br>Class I, Zone 1, AExd IIB |
| **Certified Ambient Temperature** | –67°F to +131°F<br>–55°C to +55°C |
| **Ingress Protection** | NEMA 4X & 6<br>IP66 & 67 |
| **Material** | Alloy |
| **Entries** | 2 x ½" or ¾" NPT, 20mm, 25mm |
| **Weight** | 4.4lb/2.0kg |
| **Options** | Body & lens color, lens guard, certification, voltages 12–48V DC, 120V–254V AC |




| Certification | Ordering Code | Cat. # | Standard Product Configuration |
|---|---|---|---|
| UL, cUL Listed, Class I, Div. 2, Groups C, D | 46200054 | **SM87LU1AUL024RN4T4BNR** | 24V DC, red lens, 2 x ¾" NPT entries, no labels, red finish |
| UL, cUL Listed, Class I, Div. 1, Groups C, D | 46200052 | **SM87LU1AUL024GN4T4BNR** | 24V DC, green lens, 10W fluorescent bulb, marine grade alloy, red finish |
| ATEX | 46200121 | **SM87LU1AB024GN1T1BNR** | Exd, IIC, T4/T6 fluorescent beacon, 24V DC, green lens, no lens guard, 2 x M20 cable entries, painted red enclosure |

## MEDC Series




## Specification—SM87LU1/SM87LU3 Units

| | |
|---|---|
| **Models:** | SM87 LU1: Fluorescent<br>SM87 LU3: Incandescent |
| **Certification:** | UL Listed for USA and Canada: Class I, Div. 1, Groups C, D and Class I, Zone 1. Listing No: E187894.<br>CSA Certified for Class I, Div. 1 & 2, Group D<br>Certificate No. 96406<br>**ATEX approved:**<br>Exd IIC T3-T6 (model dependent)<br>Certificate No. 03ATEX0222X |
| **Ingress Protection:** | NEMA 4X and 6<br>IP66 & IP67 |
| **Material:** | Marine Grade Aluminium Alloy LM25TF with glass lens |
| **Finish:** | Epoxy paint finish as standard or to customer's specification |
| **Fluorescent:** | 10 Watt tube light output 600 Lumens (240V & 254V AC versions)<br>5 Watt tube max. light output 250 Lumens (DC versions) |
| **Incandescent:** | Single incandescent fitted as standard 10 watts. Others may be available, please contact MEDC with your requirements |
| **Weight:** | 4.4lb/2.0kg approx. |
| **Certified Temperature:** | SM87LU1/3 –67°F to +131°F<br>–55°C to +55°C |
| **Voltage:** | 12, 24, 48V DC, 110V (LU3 only), 220V, 240V, 254V AC 50Hz as standard. 60Hz available if required |
| **Terminals:** | SM87: 4 off for up to 14 AWG cable |
| **Entries:** | SM87LU1& 3: 2 x ½" or ¾" NPT, 20mm, 25mm |
| **Power Consumption:** | LU1–<br>7 Watts for 12V DC, 24V DC, 48V DC, 220V AC<br>14 Watts for 240V AC, 15 Watts for 254V AC<br>LU3–<br>Single incandescent fitted as standard 10W. Other options are available—please contact MEDC with 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.

| Model | Certification | Voltage | Lens Color | Lens Guard | Entries | Tag/Duty Label | Unit Finish |
|---|---|---|---|---|---|---|---|
| | | | | N | | N | R |

| Type | Code |
|---|---|
| Fluorescent (Alloy)† | SM87LU1A |
| Fluorescent (Stainless Steel)* | SM87LU1S |
| Incandescent (Alloy)† | SM87LU3A |
| Incandescent (Stainless Steel)* | SM87LU3S |

*Not available UL Listed or GOST Certified.
† Not available CSA certified.

| Voltage | Code |
|---|---|
| 24V DC | 024 |
| 110V AC | 110 |
| 240V AC | 240 |

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

| Entries | Code |
|---|---|
| M20 left, M20 bottom | 1B1L |
| M20 bottom | 1B |
| ½" NPT left, ½" NPT bottom | 3B3L |
| ½" NPT Bottom | 3B |

| Certification | Code |
|---|---|
| ATEX/CENELEC | B |
| UL Listed | UL |
| CSA Certified | C |

# Steady-On Beacons

Cooper Crouse-Hinds Hazard•Gard **EXSO and EXDSO (Diode Polarized) Series Explosionproof Steady-On Beacons** are designed for installation in hazardous locations where a visual signal is required for tough environmental conditions involving corrosives, water, dust and extreme temperature.

The units are UL Listed for Type 3R, 4X and marine installations. The steady-on beacons are available for pendant, wall, stanchion and ceiling mounts, and come in six different globe colors.

Typical industrial and commercial applications include food processing plants, refineries, mines, tankers, laboratories, sewage treatment plants, off-shore oil rigs, water and filtration plants and chemical plants.

The diode polarized steady-on beacon is used in electrically supervised circuitry for life-safety or security applications.

## Applications:

- Safety lighting
- Exit or entrance lights
- Obstacle warning
- Continuous source to communicate
- For identifying the location of safety equipment such as showers or emergency telephones

## Typical Industries:

- Chemical plants
- Storage handling
- Dust conveyor systems
- Energy exploration
- Textile mills
- Flour and feed mills

## Features and Benefits:

- Powerful halogen light source for clear visual indication
- Available in six different globe colors—amber, blue, clear, green, magenta and red
- Factory sealed—no external seals required
- Quick connect—Steady-on beacon fixture threads onto mounting module for easy installation
- Small compact size—ceiling mount is 13¾-inch long
- Available in pendant, wall, stanchion and ceiling mount

## Certifications and Compliances:

- Class I, Division 1, Groups C, D
- Class I, Zones 1 & 2, Group IIB
- Class II, Division 1, Groups E, F, G
- Class III
- UL and cUL 1638, UL 1203 and UL 844 Listed
- 1598A Marine Listed (120V AC and 24V DC only)
- cUL Listed C22.2 No. 205
- NEMA 4X watertight, IP66

## Materials and Finishes:

- Body, mounting modules and guard—Copper-free aluminum
- Globe—Heat and impact-resistant glass
- Gaskets—Silicone
- External hardware—Stainless steel
- Internal components—Solid-state electronics in a moisture-resistant and heat-dissipating epoxy
- Epoxy powder coated for corrosion resistance

## Ratings:

- 120V AC (EXR) and 24–28V DC (EXDR)
- Operating Current: 0.35 amps at 120V AC (EXSO); 0.8 amps at 24–28V DC (EXDSO, diode polarized)
- Peak Candlepower: 3328

## Hub Size:

- ¾-inch NPT pendant, ceiling and wall mount
- 1¼-inch NPT stanchion mount

## Steady-On Beacons

## Ordering Information:

### Step 1 - Order Rotating Beacon Type

| Cat. # | Voltage | Lens Color | NEMA Rating |
|---|---|---|---|
| **Explosionproof Steady-On Beacons** | | | |
| **EXSO301A/120** | 120V AC | Amber | 3R, 4X, Marine |
| **EXSO301B/120** | 120V AC | Blue | 3R, 4X, Marine |
| **EXSO301C/120** | 120V AC | Clear | 3R, 4X, Marine |
| **EXSO301G/120** | 120V AC | Green | 3R, 4X, Marine |
| **EXSO301M/120** | 120V AC | Magenta | 3R, 4X, Marine |
| **EXSO301R/120** | 120V AC | Red | 3R, 4X, Marine |
| **Diode Polarized Explosionproof Steady-On Beacons** | | | |
| **EXDSO301A/24 28** | 24–28V DC | Amber | 3R, 4X, Marine |
| **EXDSO301B/24 28** | 24–28V DC | Blue | 3R, 4X, Marine |
| **EXDSO301C/24 28** | 24–28V DC | Clear | 3R, 4X, Marine |
| **EXDSO301G/24 28** | 24–28V DC | Green | 3R, 4X, Marine |
| **EXDSO301M/24 28** | 24–28V DC | Magenta | 3R, 4X, Marine |
| **EXDSO301R/24 28** | 24–28V DC | Red | 3R, 4X, Marine |

### Step 2 - Order Mounting Module

| Cat. # | Hub Size | Mounting Style |
|---|---|---|
| **EVMP2** | ¾" | Pendant |
| **EV22 & EV87** | ¾" | Wall |
| **EV22** | ¾" | Ceiling |
| **EVMJ4** | 1¼" | Stanchion |

## Temperature Performance Data:

| Description | Ambient Max. Temp. | Supply Wire | Class I, Div. 1, 2, Groups C, D, Class I, Zone 1, Group IIB | Class II, Class III, Div. 1, Groups E, F, G | Class II, Class III, Div. 2, Groups F, G |
|---|---|---|---|---|---|
| EXSO Series Steady-On Beacon Voltage 120V AC | 40°C | 75°C | T6 (85°C) | T4A (120°C) | T4A (120°C) |
| | 55°C | 90°C | T5 (100°C) | T4 (135°C) | T4 (135°C) |
| | 65°C | 105°C | T5 (100°C) | T4 (135°C) | T4 (135°C) |
| EXDSO Series Steady-On Beacon—Diode Polarized Voltage 24–28V DC | 40°C | 75°C | T6 (85°C) | T4A (120°C) | T4A (120°C) |
| | 55°C | 90°C | T6 (85°C) | T4 (135°C) | T4 (135°C) |
| | 65°C | 105°C | T6 (85°C) | T4 (135°C) | T4 (135°C) |

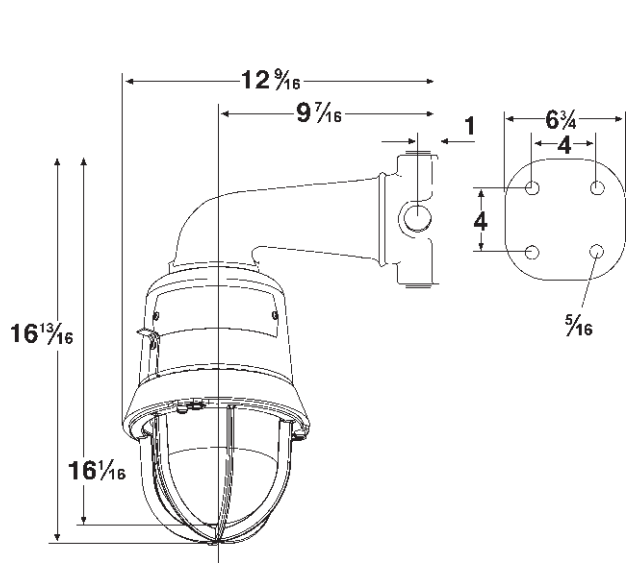


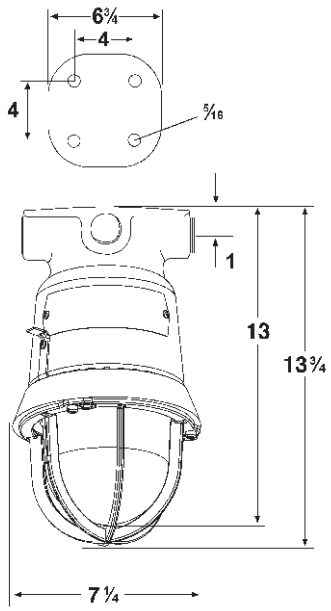
## Steady-On Beacons

### Dimensions

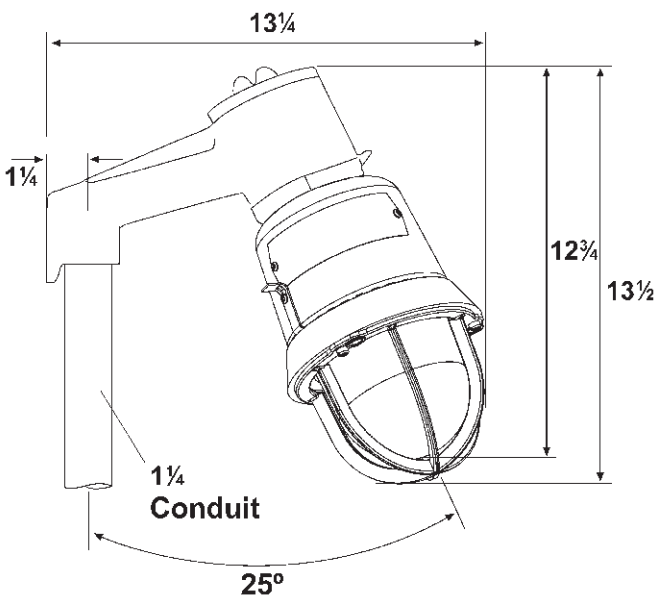
**In Inches:**



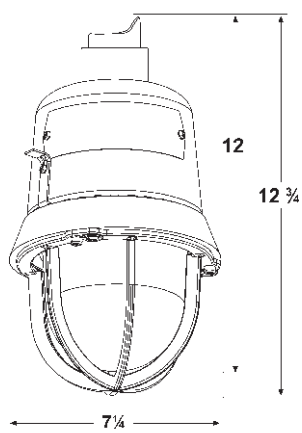

**Wall Mount**




**Ceiling Mount**




**Stanchion Mount**




**Pendant Mount**

### Net Luminaire Weights:

| Description | Weight |
|---|---|
| Luminaire Housing with Guard | 11.0 lbs. |
| **Add mounting modules:** | |
| Pendant | 1.0 lbs. |
| Ceiling | 1.0 lbs. |
| Wall | 4.5 lbs. |
| Stanchion | 2.5 lbs. |

# 3S VF "Steady On" Beacon

## Compact Fluorescent Warning and Visual Indication Light

Cl. I, Div. 2, Groups A, B, C, D
Cl. I, Zone 2, Group IIC
Wet Locations
3, 3R

Green – Safety Shower
Blue – Emergency Telephones
Red – Danger
Amber – Warning
Visual Signal

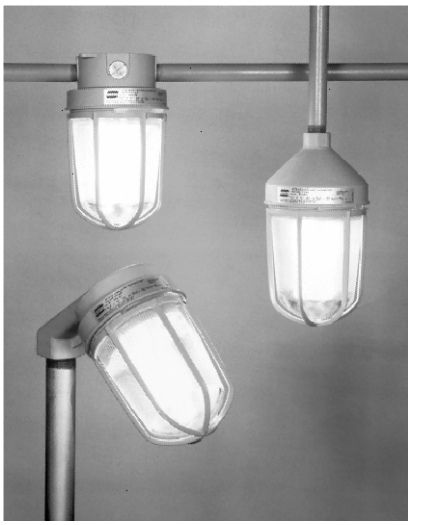
## Applications:

VF series "Steady On" fluorescent beacons are used indoors or outdoors:

- Where the energy efficiency and long life of compact fluorescent lamps are desired
- For continuous signaling requirements
- Where a continuous "Steady-On" fluorescent light signal is required
- Where ambient noise makes audible signals difficult to hear
- As visual signals or warning lights on loading docks; at obstructions, exits or entrances
- For identifying the location of safety equipment such as safety showers or emergency telephones
- For call signals
- For status indication or area lighting on offshore rigs, mines, refineries etc.
- In locations which are hazardous due to the presence of flammable vapors or gases and where dampness or corrosion are present
- To identify a potentially dangerous obstacle
- As a continuous source to warn or communicate

Typical Applications are:

- Green - Identify safety shower locations
- Blue - Identify emergency telephones
- Amber - Caution signal
- Red - Danger signal
- Red & Amber - Emergency situations
- Blue & Red - Security or malfunctioning equipment
- Green & Clear - Equipment end of cycle



## Certifications and Compliances:

- NEC and CEC:
  Class I, Division 2, Groups A, B, C, D
  Class I, Zone 2
- UL Standards:
  844
  1598 Luminaires
- CSA Standards:
  C22.2 No. 137

## Features:

- Extremely energy-efficient, only 18 watt (2-9 watt compact fluorescent lamps)
- Packs considerable punch for ample visibility even in harsh enviroments
- Compact size and light weight allow adaptation and easy installation in many industrial applications
- Cast copper-free aluminum (less than 0.4 of 1% copper) construction and epoxy powder finish provide excellent resistance to corrosion
- Variety of mounting arrangements to suit any lighting layout – pendant, ceiling, wall bracket, angle stanchion
- Glass globes are internally fluted and stippled to enhance visibility; exteriors are smooth to shed dust
- Grounding wire for safety

## Standard Materials:

- Bodies and guards – copper-free aluminum (less than 0.4 of 1%)
- Globes – glass

## Standard Finishes:

- Copper-free aluminum – powder epoxy finish

## Electrical Ratings:

- Input voltage – 120 VAC, 60 hertz
- Wattages: 18W (Two 9W lamps)



## Ordering Information:

| Style | Cat. # - by Globe Color | | | | |
|---|---|---|---|---|---|
| | **Red** | **Amber** | **Green** | **Blue** | **Clear** |
| Pendant | **VFA222GRP** | **VFA222GAP** | **VFA222GGP** | **VFA222GBP** | **VFA222GP** |
| Wall | **VFHBF222GRP** | **VFHBF222GAP** | **VFHBF222GGP** | **VFHBF222GBP** | **VFHBF222GP** |
| Ceiling | **VFHF222GRP** | **VFHF222GAP** | **VFHF222GGP** | **VFHF222GBP** | **VFHF222GP** |
| Stanchion | **VFHA422GRP** | **VFHA422GAP** | **VFHA422GGP** | **VFHA422GBP** | **VFHA422GP** |

## Weights:

| Luminaire Type | 2-Lamp Luminaire With Globe & Guard (lbs.) |
|---|---|
| VFA | 5 |
| VFHF | 5¼ |
| VFHBF | 7½ |

## Temperature Performance Data:

| Style 1 & 2 Lamp | Class I, Div. 2 | Max. Ambient | Supply Wire °C | Minimum Operating |
|---|---|---|---|---|
| 9W | T3B | 40°C | 75°C | –4°C (25°F) |

# VF "Steady On" Beacon

**Compact Fluorescent Warning and Visual Indication Light**

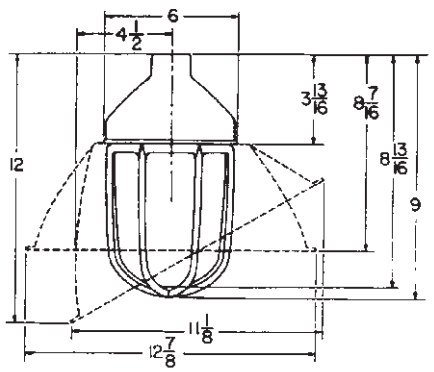
Cl. I, Div. 2, Groups A, B, C, D
Cl. I, Zone 2, Group IIC
Wet Locations
3, 3R

Green – Safety Shower
Blue – Emergency Telephones
Red – Danger
Amber – Warning
Visual Signal

## Dimensions

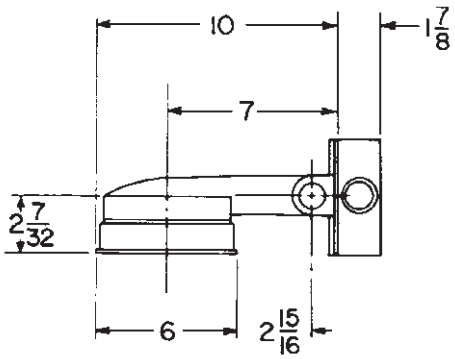
**In Inches:**

**Pendant**



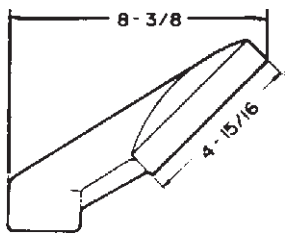

**VFA**

**Wall**



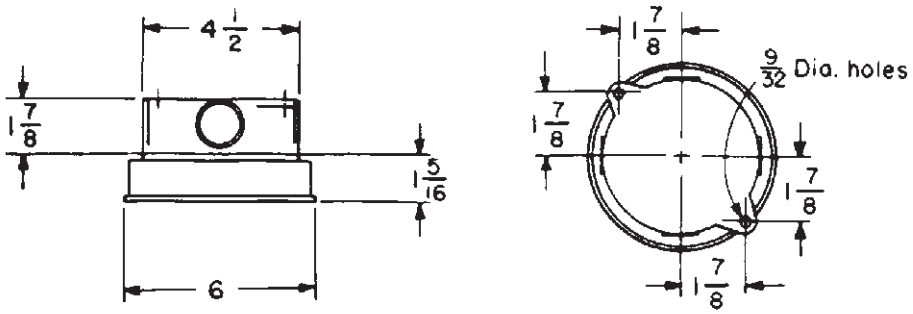

**VFHBF**

**Stanchion**




**VFHA**

**Ceiling**




**VFHF**

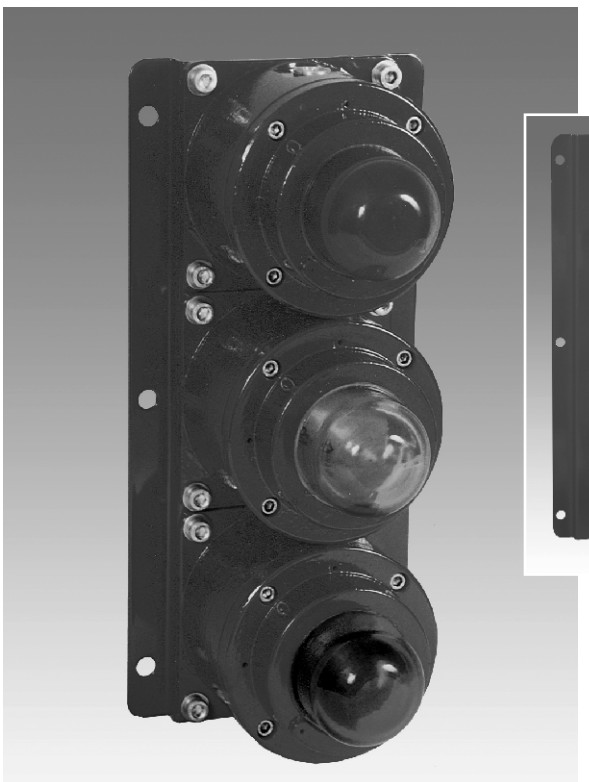
## Hazardous





## MEDC Series



SM87 SL

XB12 SL

*NOTE: Units shown are for representation only. Other variations are available.*

The most rugged and reliable status lights for harsh and hazardous applications.

Available as Xenon, incandescent 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 your requirements.

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

## Applications:

- Process status
- Messaging
- Alert or emergency condition indication

## Typical Industries:

- Offshore & onshore
- Energy exploration & transmission
- Refining
- Chemical & petrochemical
- Pharmaceutical

## Features and Benefits:

- 4–wire monitored connection for supervisory circuits*
- Marine grade alloy or GRP
- Pre-wired to customer's requirements

## Certifications and Compliances:

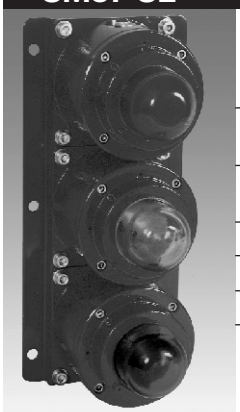
- UL Listed for USA and Canada*
  Class I, Div. 1 & 2, Groups C, D
  Class I, Zone 1, AExd IIB T6
- CSA certified*
- ATEX approved
- Xenon, fluorescent, incandescent*
- NEMA 4X & 6, IP66 & 67
- Certified temperature –67°F to +131°F*
  –55°C to +55°C

*Depending on model.

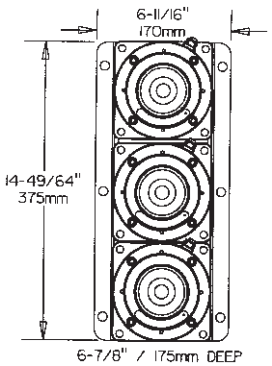
 

## MEDC Series

### SM87 SL — Xenon, Incandescent & Fluorescent Status Lights—Explosionproof



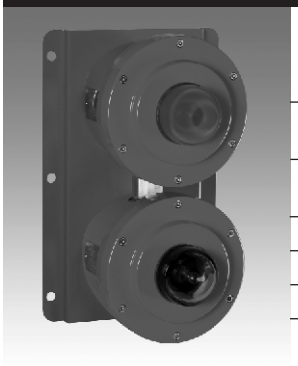
| | |
|---|---|
| **Certification**<br>**UL Listed for:** | cULus, CSA, ATEX<br>Class I, Div. 1, Groups C, D<br>Class I, Zone 1, AExd IIB T4 |
| **Certified Ambient Temperature** | –67°F to +158°F<br>–55°C to +70°C |
| **Ingress Protection** | NEMA 4X & 6<br>IP66 & 67 |
| **Material** | Alloy |
| **Entries** | Up to 1 x ½" NPT |
| **Max. No. of Ways** | 4 |
| **Options** | Body & lens color, certification, voltages 24–48V DC, 110–254V AC |



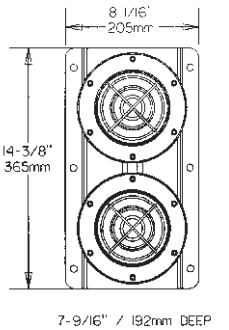

| Certification | Voltage | Ordering Code | Cat. # | Standard Product Configuration |
|---|---|---|---|---|
| UL, cUL Listed, Class I, Div. 1, Groups C, D | 24V DC | 26200043 | **SM87SL3** | Explosion protected, three stack, one ½" NPT entry on bottom, no lens guards, xenon strobe with red, green, and clear lens |
| UL, cUL Listed, Class I, Div. 1, Groups C, D | 24V DC | 26200055 | **SM87SL2** | Xenon status lamp, two stack 5 joule beacons interconnected on a painted red stainless steel baseplate, one red and one green lens color, ½" NPT entry in the bottom unit for customer connection |
| UL, cUL Listed, Class I, Div. 1, Groups C, D | 24V DC | 26200056 | **SM87SL2** | Incandescent status lamp, two stack 40 watt beacons interconnected on a painted red stainless steel baseplate, one red and one green lens color, ½" NPT entry in the bottom unit for customer connection |
| UL, cUL Listed, Class I, Div. 1, Groups C, D | 24V DC | 26200057 | **SM87SL2** | Fluorescent status lamp, two stack 5 watt beacons interconnected on a painted red stainless steel baseplate, one red and one green lens color, ½" NPT entry in the bottom unit for customer connection |
| UL, cUL Listed, Class I, Div. 1, Groups C, D | 110V AC | 26200058 | **SM87SL2** | Xenon status lamp, two stack 5 joule beacons interconnected on a painted red stainless steel baseplate, one red and one green lens color, ½" NPT entry in the bottom unit for customer connection |
| UL, cUL Listed, Class I, Div. 1, Groups C, D | 24V DC | 26200059 | **SM87SL3** | Xenon status lamp, three stack 5 joule beacons interconnected on a painted red stainless steel baseplate, one red, one amber and one green lens color, ½" NPT entry in the bottom unit for customer connection |
| UL, cUL Listed, Class I, Div. 1, Groups C, D | 24VDC | 26200060 | **SM87SL3** | Incandescent status lamp, three stack 40 watt beacons interconnected on a painted red stainless steel baseplate, one red, one amber and one green lens color, ½" NPT entry in the bottom unit for customer connection |
| UL, cUL Listed, Class I, Div. 1, Groups C, D | 24V DC | 26200061 | **SM87SL3** | Fluorescent status lamp, three stack 5 watt beacons interconnected on a painted red stainless steel baseplate, one red, one amber and one green lens color, ½" NPT entry in the bottom unit for customer connection |
| UL, cUL Listed, Class I, Div. 1, Groups C, D | 110V AC | 26200062 | **SM87SL3** | Xenon status lamp, three stack 5 joule beacons interconnected on a painted red stainless steel baseplate, one red, one amber and one green lens color, ½" NPT entry in the bottom unit for customer connection |
| UL, cUL Listed, Class I, Div. 1, Groups C, D | 110V AC | 26200066 | **SM87SL3** | Incandescent status lamp, three stack 40 watt beacons interconnected on a painted red stainless steel baseplate, one red, one amber and one green lens color, ½" NPT entry in the bottom unit for customer connection |
| UL, cUL Listed, Class I, Div. 1, Groups C, D | 220V AC | 26200063 | **SM87SL3** | Fluorescent status lamp, three stack 5 watt beacons interconnected on a painted red stainless steel baseplate, one red, one amber and one green lens color, ½" NPT entry in the bottom unit for customer connection |

## MEDC Series

### XB11 SLUL — Xenon Strobe & Incandescent Status Lights—Hazardous Locations



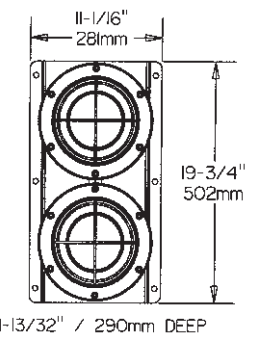
| | |
|---|---|
| **Certification<br>UL Listed for:** | UL, ATEX<br>Class I, Div. 2, Groups C, D<br>Class I, Zones 1 & 2, AExd IIB T4 |
| **Certified Ambient Temperature** | –67°F to +158°F<br>–55°C to +70°C |
| **Ingress Protection** | NEMA 4X & 6<br>IP66 & 67 |
| **Material** | Corrosion-free GRP |
| **Entries** | 1 x ½" NPT |
| **Max. No. of Ways** | 5 |
| **Options** | Body & lens color, tag & duty labels |




| Certification | Ordering Code | Cat. # | Standard Product Configuration |
|---|---|---|---|
| UL Listed, Class I, Div. 2, Groups C, D | 42500005 | **XB11ULSL3** | Explosion protected, 3 stack, one ½" NPT entry on bottom, 24V DC, green incandescent on top, yellow xenon flashing in middle, red xenon flashing on bottom, no lens guards, red finish |

### XB12 SL/FB12 SL — Xenon Strobe & Incandescent Status Lights—Hazardous Locations

| | |
|---|---|
| **Certification<br>UL Listed for:** | UL, ATEX<br>Class I, Div. 2, Groups C, D<br>Class I, Zones 1 & 2, AExd IIB T4 |
| **Certified Ambient Temperature** | –67°F to +158°F<br>–55°C to +70°C |
| **Ingress Protection** | NEMA 4X & 6<br>IP66 & 67 |
| **Material** | Corrosion-free GRP |
| **Entries** | 1 x ½" NPT |
| **Max. No. of Ways** | 5 |
| **Options** | Body & lens color, certification, voltages 24V DC, 110–254V AC |

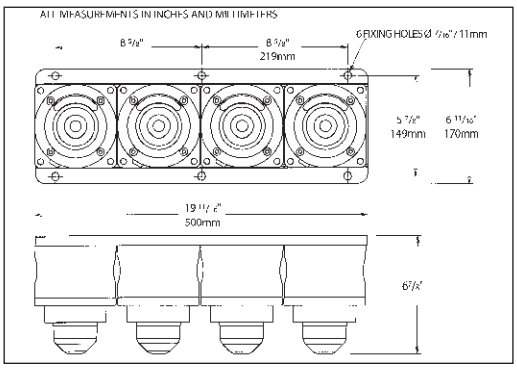



| Certification | Ordering Code | Cat. # | Standard Product Configuration |
|---|---|---|---|
| UL Listed, Class I, Div. 2, Groups C, D | 42600001 | **XB12ULSL3** | 110V AC, explosion protected, **three stack**, one ½" NPT entries, red xenon flashing on top, amber xenon flashing in middle, clear xenon flashing on bottom; no lens guards, red finish |
| UL Listed, Class I, Div. 2, Groups C, D | 42600007 | **XB12ULSL2** | 24V DC xenon status lamp, **two stack** 21 joule beacons interconnected on a painted red stainless steel baseplate, one red and one green lens color, ½" NPT entry in the bottom unit for customer connection |
| UL Listed, Class I, Div. 2, Groups C, D | 42600008 | **FB12ULSL2** | 24V DC incandescent status lamp, **two stack** 60W beacons interconnected on a painted red stainless steel baseplate, one red and one green lens color, ½" NPT entry in the bottom unit for customer connection |
| UL Listed, Class I, Div. 2, Groups C, D | 42600009 | **XB12ULSL3** | 24V DC xenon status lamp, **three stack** 21 joule beacons interconnected on a painted red stainless steel baseplate, one red, one amber and one green lens color, ½" NPT entry in the bottom unit for customer connection |
| UL Listed, Class I, Div. 2, Groups C, D | 42600010 | **FB12ULSL3** | 24V DC incandescent status lamp, **three stack** 60W beacons interconnected on a painted red stainless steel baseplate, one red, one amber and one green lens color, ½" NPT entry in the bottom unit for customer connection |

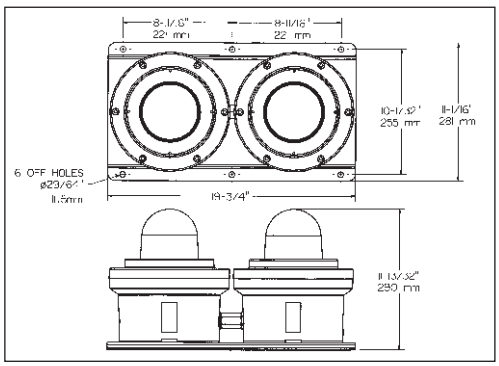


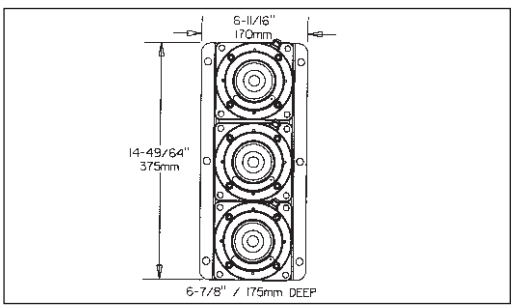
## MEDC Series



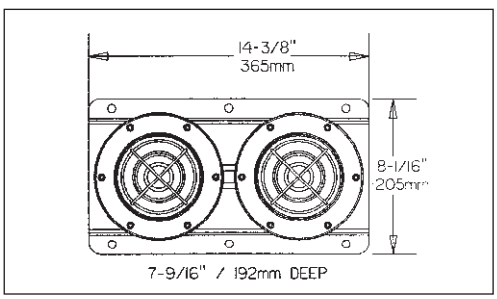

**SM87 SL**
**Typical four unit assembly. Various options are available.**




**XB12 SL**
**Typical two unit assembly. Various options are available.**




**SM87 SL typical three unit assembly**




**XB11 SL**

## Specification—SM87SL Unit and XB12SL Unit

| | SM87 SL | XB12 SL |
|---|---|---|
| **Lamp Types** | Xenon 5 joules maximum<br>Fluorescent 10W or 5W<br>Incandescent 40W maximum | Xenon 21 joules<br><br>Incandescent 60W |
| **Voltage Frequency** | 50 Hz as standard. 60 Hz available if required. | |
| **Xenon Voltages** | 24, 48V DC 110, 120, 240, 254V AC<br>(see SM87 HXB data sheet for further information) | 24V DC, 110V, 240V AC<br>(see XB12 data sheet for further information) |
| **Incandescent Voltages** | 12, 24, 48V DC, 110, 220, 240, 254V AC<br>(see SM87 LU3 data sheet for further information) | 120V AC<br>(see FB12 data sheet for further information) |
| **Fluorescent Voltages** | 12, 24, 48V, 220, 240, 254V AC<br>(see SM87 LU1 data sheet for further information) | – |
| **Lamp Colors** | 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.<br>CSA Certified: Class I, Div. 1 & 2, Group D.<br>Cert. No. 96406.<br>**ATEX Approved:**<br>Exd IIC T4 (incandesent), Exd IIC T6<br>(Fluorescent & Xenon)<br>Cert. No. Baseefa 03ATEX0222X<br>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<br>Listing No. E187894<br>**ATEX Approved:**<br>Exd IIB T4/T5<br>Cert. No. 99 ATEX 2196<br>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 connections<br>If individually wired lamps are required, please state requirements | |
| **Entries** | Up to 3 x ½" or ¾" NPT | 1 x ½" 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<br>–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.

## Hazardous





## Up to 30 Watts

Loudspeakers and tone generators provide high decibel communication for messaging, alert and evacuation in harsh and hazardous locations.

- Metallic and non-metallic housings
- Explosionproof and Class I, Division 2 horns and speakers
- Mounting brackets that allow a full 180° swivel
- Products designed for both conduit wiring and/or cable connection (NPT or metric entries available)
- Selectable tones

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.

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.

## Applications:

- Plant-wide alarm notificiaton
- Audible process alarms

## Typical Industries:

- Refineries
- Chemical plants
- Oil and gas exploration
- Marine terminals for transportation & storage


**DB16**

## Certifications and Compliances:

- UL Listed for USA and Canada
  - Hazardous locations:
    - Class I, Div. 2, Groups A, B, C, D*
    - Class I, Zone 1, AExde IIB/IIC T3/T4*
  - Ordinary locations: Signalling Speaker
- ATEX approved
- NEMA 4X & 6, IP66 and IP67
- Certified temperature:
  - -67°F to +104°F
  - -50°C to +40°C

## Features and Benefits:

- GRP corrosion-free flamepath
- Up to 112dBA at 30 Watts at 10 feet*
- Power tappings via integral transformer
- Ratcheted swivel mounting stirrup
- Stainless steel fixtures
- 100V line or 8 ohm versions available

*Model dependent.

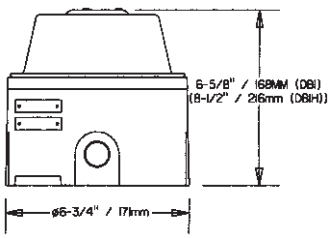


## Up to 30 Watts

### DB1 — 103dB(A) @ 10ft Horn—Explosionproof

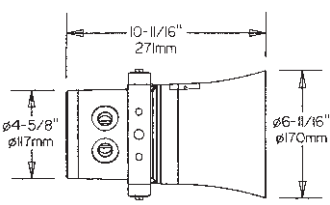
| | |
|---|---|
| **Certification UL Listed for:** | UL, ATEX<br>Class I, Div. 1, Groups C, D<br>Class I, Zone 1 |
| **Certified Ambient Temperature** | –13°F to +158°F<br>–25°C to +70°C |
| **Ingress Protection** | NEMA 4X & 6<br>IP66 & 67 |
| **Material** | Alloy |
| **Entries** | Up to 3 x ½ " or ¾" NPT, 20mm, 25mm |
| **Weight** | 7.7lb/3.5kg (model dependent) |
| **No. of Tones** | Multiple tones available |
| **Options:** | Body color, certification, voltages<br>12–48V DC, 110V ACC |




| Certification | Output | Ordering Code | Cat. # | Standard Product Configuration |
|---|---|---|---|---|
| ATEX approved Ex II 2GD | 103dB(A) | 801001 | **DB1BA024A1A3NNNR** | Choice of 6 tones, red finish |
| UL Listed, Class I, Div. 2, Groups C, D | Up to 96dB(A) @ 10ft | 869111 | **DB1PULA024D1D2NNNR** | Two-stage alarms, with 26 tones, 24V DC, alloy, red body color, no tag or duty labels, 2 x ¾" NPT entries |
| UL Listed, Class I, Div. 2, Groups C, D | Up to 103dB(A) @ 10ft | 869115 | **DB1HPULA024D1D2NNNR** | |
| UL Listed, Class I, Div. 2, Groups C, D | Up to 96dB(A) @ 10ft | 17300108 | **DB1PULA110C1C3NNNR** | Sounder, 110V AC, 2 x ½" NPT entries, red painted enclosure |

### DB3 — 108dB(A) @ 10ft Horn—Hazardous Locations

| | |
|---|---|
| **Certification UL Listed for:** | cULus, ATEX<br>Class I, Div. 2, Groups A, B, C, D<br>Class I, Zones 1 & 2, AExd IIC T4 |
| **Certified Ambient Temperature** | –67°F to +158°F<br>–55°C to +70°C |
| **Ingress Protection** | NEMA 4X & 6<br>IP66 & 67 |
| **Material** | Corrosion-free GRP |
| **Entries** | Up to 2 x ½" NPT, 20mm |
| **Weight** | 13.2lb/6.0kg |
| **No. of Tones** | 27 + 5 Programmable |
| **Options:** | Body color, certification, voltages<br>12–48V DC, 110V–254V AC |

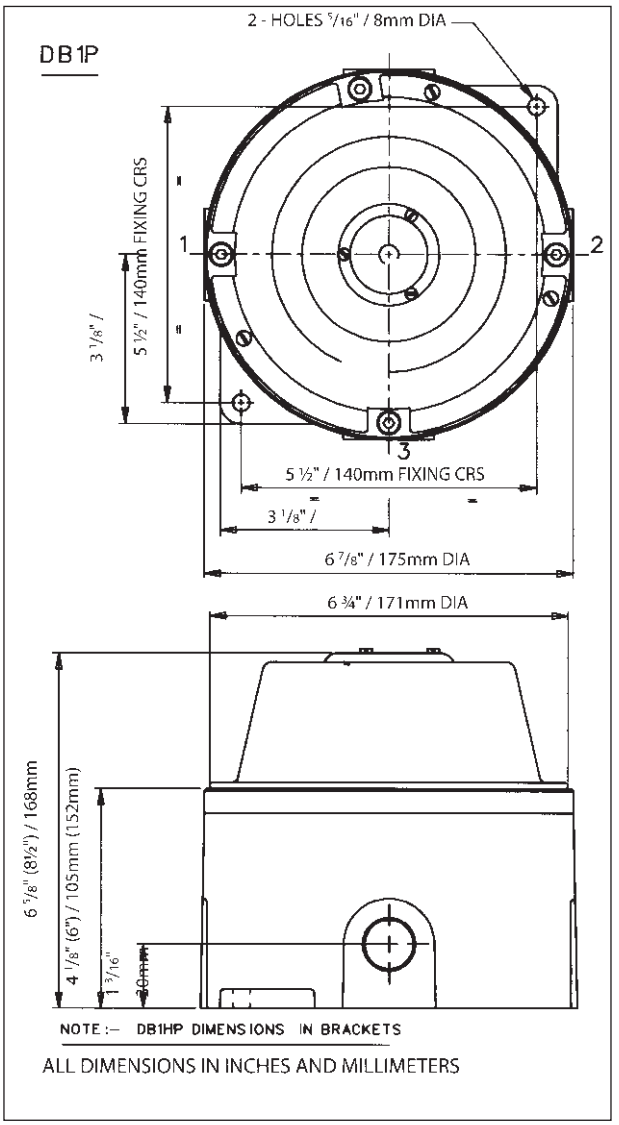



| Certification | Body Color | Voltage | Type* | Ordering Code | Cat. # | Standard Product Configuration |
|---|---|---|---|---|---|---|
| UL, cUL Listed, Class I, Div. 2, Groups A, B, C, D | Red | 12–48V DC | Single Stage | 869131 | **DB3UL048N2CNRZ** | 27 tones, no tag or duty labels, 108 dB(A) output, NEMA 4X & 6, 2 x ½" NPT entries with certified plug |
| UL, cUL Listed, Class I, Div. 2, Groups A, B, C, D | Red | 12–48V DC | Two Stage | 869132 | **DB3PUL048N2CNRZ** | |
| UL, cUL Listed, Class I, Div. 2, Groups A, B, C, D | Red | 110V AC | Single Stage | 869135 | **DB3UL110N2CNRZ** | |
| ATEX Ex II 2GD | Natural Black | 12–48V DC | Two Stage | 803121 | **DB3PD048N2BNNZ** | 27 tones, no tag or duty labels, 2 x M20 entries with one certified plug fitted |
| ATEX Ex II 2GD | Natural Black | 240V AC | Single Stage | 803122 | **DB3D240N2BNNZ** | |
| ATEX Ex II 2GD | Red | 12–48V DC | Two Stage | 803123 | **DB3PD048N2CNRZ** | |
| ATEX Ex II 2GD | Red | 240V AC | Single Stage | 803124 | **DB3D240N2BNRZ** | |
| ATEX Ex II 2GD | Red | 12–48V DC | Single Stage | 803125 | **DB3D048N2CNRZ** | |

*Single Stage
4 wired diode monitored connection—on board diode allows unit to be operated in supervisory mode when monitoring line in reverse polarity.

*Two Stage
Switchable unit available in DC versions only either by:
(i) Reversing the polarity of the supply, or,
(ii) By a 3 wire common +ve system, switching between the –ve lines.

## Up to 30 Watts




## Specification—DB1 Unit

| | |
|---|---|
| **Certification:** | UL Listed for Class I, Div. 1, Groups C, D and Class I, Zone 1<br>UL Listing No. E187688<br>**ATEX Approved:**<br>Exd, IIB T3<br>Cert. No. Baseefa 02ATEX0207 for DB1(P)<br>Cert. No. Baseefa 02ATEX0209 for DB1H(P) |
| **Material:** | LM25 corrosion resistant alloy with stainless steel cover screws<br>ABS flare |
| **Finish:** | Epoxy paint finish as standard or to customer's specification |
| **Max. Sound Levels:** | DB1P=93±3dB(A) (86±3dB(A) for 12V DB1)<br>DB1HP=100 ± 3dB(A) @ 10 feet<br>Note: Sound level is dependent upon the tone selection. |
| **Weight:** | DB1P 7.7lb/3.5kg approx.<br>DB1HP. 12.3lb/5.6kg approx. |
| **Certified Temperature:** | –13°F to +158°F<br>–25°C to +70°C |
| **Ingress Protection:** | NEMA 4X, IP66 |
| **Tone Selection:** | 27 user selectable tones |

| Tone | Tone Frequency | Tone | Tone Frequency |
|---|---|---|---|
| 1 | Alt Tones 800/970Hz at ¼ sec. | 15 | 554 Hz for 0.1S/440 Hz for 0.1S |
| 2 | Sweeping 800/970Hz at 7 Hz | 16 | Int 660 Hz 150 mS on 150 mS off |
| 3 | Sweeping 800/970Hz at 1 Hz | 17 | Int 660 Hz 1.8 sec. on 1.8 sec. off |
| 4 | Continuous at 2850 Hz | 18 | Int 660 Hz 6.5 sec. on 13 sec. off |
| 5 | Sweeping 2400–2850 Hz at 7 Hz | 19 | Continuous 660 Hz |
| 6 | Sweeping 2400–2850 Hz at 1 Hz | 20 | Alt 554/440 Hz at 1 Hz |
| 7 | Slow Whoop | 21 | Int 660 Hz at ⅞ Hz |
| 8 | Sweep 1200–500 Hz at 1 Hz | 22 | Int 2850 Hz 150 mS on 100 mS off |
| 9 | Alt Tones 2400/2850Hz at 2 Hz | 23 | Sweep 800–970 Hz at 50 Hz |
| 10 | Int Tones of 970 Hz at 1 Hz | 24 | Sweep 2400–2850 Hz at 50 Hz |
| 11 | Alt Tones 800/970Hz at ⅞ Hz | 25 | 3x970 Hz pulses 0.5 off, 1.5 off |
| 12 | Int Tone at 2850 Hz at 1 Hz | 26 | 3x2850z pulses 0.5 on/0.5 off, 1.5 off. |
| 13 | 970 Hz at ¼ sec. on 1 sec. off | 27 | Int 3100 Hz 0.3 sec. on 0.7 sec. off |
| 14 | Continuous at 970 Hz | | |

**Single Stage**

4 wired diode monitored connection—on board diode allows unit to be operated in supervisory mode when monitoring line in reverse polarity.

**Two Stage**

Switchable unit available in DC versions only either by:
(i) Reversing the polarity of the supply, or,
(ii) By a 3 wire common +ve system, switching between the –ve lines.

**Current Consumption:**

| Voltage | DB1P | DB1HP |
|---|---|---|
| 12V | 125mA | 900mA |
| 24V | 250mA | 700mA |
| 48V | 250mA | – |
| 110V | 60mA | 200mA |

| | |
|---|---|
| **Labels:** | Duty and tag labels optional |
| **Entries:** | Up to 3 x ½" or ¾" NPT |
| **Terminals:** | Suitable to accept up to 12 AWG conductor size |

## 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 |
|---|---|---|---|---|---|---|---|---|
| | | | | | N | N | N | R |

| Unit Type |
|---|
| DB1 |
| DB1H |
| DB1P |
| DB1HP |

| Cert. | Code |
|---|---|
| ATEX/CENELEC | B |
| UL(DBIP & DB & IHP only) | UL |

UL – available Alloy only.
– 12V DC, 24V DC,
48V DC, 110V AC only

| Material | Code |
|---|---|
| Stainless Steel | S |
| Alloy | A |

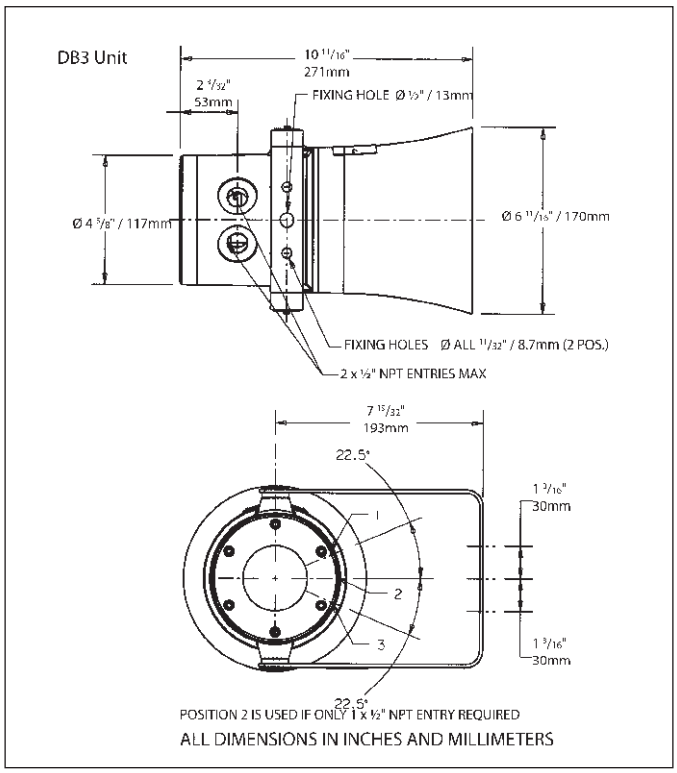
| Voltage | Code |
|---|---|
| 12V DC | 012 |
| 24V DC | 024 |
| 110V AC | 110 |
| 240V AC | 240 |

| Entries | Code |
|---|---|
| 1 x 20mm | A3 |
| 1 x 25mm | B3 |
| 1 x ½" NPT (UL only) | C3 |
| 1 x ¾" NPT (UL only) | D3 |
| 2 x M20 | A1A2 |
| 2 x M25 | B1B2 |
| 2 x ½" NPT | C1C2 |
| 2 x ¾" NPT | D1D2 |

COOPER Crouse-Hinds

## Up to 30 Watts




| | |
|---|---|
| **Terminals:** | 4 x 14 AWG (AC), 6 x 14 AWG (DC) |
| **Mounting:** | Stainless steel bracket with rachet facility |
| **Labels:** | Duty and tag labels optional |
| **Cable Entries:** | UP TO 2 × ½" NPT |
| **Tone Selection:** | 27 user selectable tones available |
| **Horn/Strobe Unit:** | The DB3 may be combined with an MEDC strobe to create a combined audio/visual alarm.<br>Contact MEDC for price and specification. |
| **Two Stage Unit: DB3P** | Switchable between any two tones by either:<br><br>(i) Reversing the polarity of the supply, or<br>(ii) by a 3 wire common +ve system, switching between the two –ve lines.<br>Note: Two stage unit available in DC versions only. |
| **3 & 4 Tone Unit:** | Remote 3 & 4 tone unit available—contact sales office for details. |

## Specification—DB3 Unit

| | |
|---|---|
| **Certification:** | UL Listed for USA and Canada<br>– Hazardous locations:<br>Class I, Div. 2, Groups A, B, C, D<br>Class I, Zones 1 & 2, AExd IIC T4<br>UL Listing No. E203310<br>– Ordinary locations: Audible Signal Device<br>UL Listing No. S8116<br>**ATEX approved:**<br>CENELEC EN50014, 18, 19<br>Cert. No. BAS00ATEX2097X, Exd IIC<br>Cert. No. BAS00ATEX2098X, Exde IIC<br>Zones 1 & 2 |
| **Material:** | Body & horn in anti-static, UV stable, glass reinforced polyester<br>Swivel bracket and captive cover screws in stainless steel |
| **Finish:** | Body and horn, natural black or epoxy paint coated to client's color requirements |
| **Sound Output:** | DB3 105 ±3dB(A) Typical at 10 feet (tone dependent) |
| **Volume Control:** | Integral volume control |

| *Nominal Output (dBa) | Input Current (mA) |
|---|---|
| 83 | 50 |
| 95 | 100 |
| 98 | 150 |
| 101 | 200 |
| 102 | 250 |
| 104 | 300 |
| 105 | 350 |

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

| | |
|---|---|
| **Weight:** | 13.2lb/6.0kg approx. |
| **Certified Temperature:** | –67°F to +158°F<br>–55°C to +70°C |
| **Ingress Protection:** | NEMA 4X & 6, IP66 & 67 |
| **Voltage:** | Up to 48V DC Up to 254V AC |

| **Current Consumption:** | V | I |
|---|---|---|
| | 12V DC | 760mA |
| | 24V DC | 380mA |
| | 48V DC | 190mA |
| | 110V AC | 135mA |
| | 120V AC | 124mA |
| | 220V AC | 68mA |
| | 230V AC | 65mA |
| | 240V AC | 62mA |
| | 254V AC | 62mA |

## 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 [ ]

| Type | Details |
|---|---|
| DB3 | Standard unit |
| DB3P | Two stage (DC only) |

Certification [ ]

| Type | Code |
|---|---|
| EExd | D |
| UL Listed | UL |

Voltage [ ]

| Voltage | Code |
|---|---|
| 12V–48V DC | 048 |
| *110V AC | 110 |
| *120V AC | 120 |
| *240V AC | 240 |

*DB3P not available in AC version.

Labels [ **N** ]

Entries [ ]

| Entries | Code |
|---|---|
| 1 x 20 mm (EExd) | 1B |
| 2 x 20mm (EExd/EExde) | 2B |
| 1 x ½" NPT (UL only) | 1C |
| 2 x ½" NPT (UL only) | 2C |

Options [ **N** ]

Color [ ]

| Finish | Code |
|---|---|
| Natural Black | N |
| Red | R |

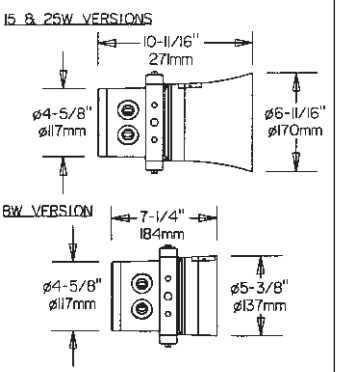


## Up to 30 Watts

### DB4 — 8-25 Watt Speaker—Hazardous Locations

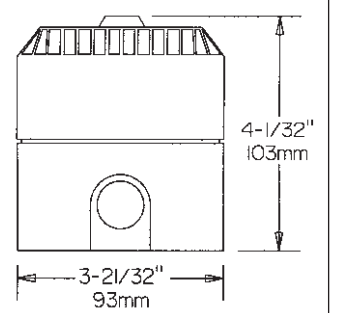
| | |
|---|---|
| **Certification UL Listed for:** | cULus, ATEX<br>Class I, Div. 2, Groups A, B, C, D<br>Class I, Zone 1, AExd IIC T4 |
| **Certified Ambient Temperature** | –67°F to +158°F<br>–55°C to +70°C |
| **Ingress Protection** | NEMA 4X & 6<br>IP66 & 67 |
| **Material** | Corrosion-free GRP |
| **Output** | 97 dB(A) at 1W at 10 feet<br>109 dB(A) at 25W at 10 feet |
| **Entries** | Up to 2 x ½" NPT, 20mm |
| **Weight** | 11lb/5.0kg |
| **Options** | Body color, transformer, certification, power 25W, 15W, 8W |




| Certification | Power | Ordering Code | Cat. # | Standard Product Configuration |
|---|---|---|---|---|
| UL, cUL Listed Class I, Div. 2, Groups A, B, C, D | 25W | 869142 | **DB425ULX(100)N2CNR** | 100V line transformer, no labels, 2 x ½" NPT entries, red finish |
| UL, cUL Listed Class I, Div. 2, Groups A, B, C, D | 25W | 869144 | **DB425ULX(70)N2CNR** | 70V line transformer, no labels, 2 x ½" NPT entries, red finish |
| ATEX Approved ExII 1G | 15W | 804215 | **DB415DXN2BNZ** | 100V line transformer, no labels, 2 x M20, one certified plug, flameproof enclosure, natural black finish |
| ATEX Approved ExII 1G | 25W | 804225 | **DB425DXN2BNZ** | |

### DB5 — Up to 93dB(A) @ 10ft Horn—Intrinsically Safe

| | |
|---|---|
| **Certification FM Approved for:** | FM, ATEX<br>Class I, Div. 1 & 2, Groups A, B, C, D |
| **Certified Ambient Temperature** | –4°F to +131°F<br>–20°C to +55°C |
| **Ingress Protection** | NEMA 4<br>IP65 |
| **Material** | Corrosion-free ABS |
| **Entries** | Up to 2 x 13/16" via knockouts |
| **Weight** | 0.7lb/0.3kg |
| **No. of Tones** | 26 |
| **Options** | Body color, certification, voltages 12V–240V DC |

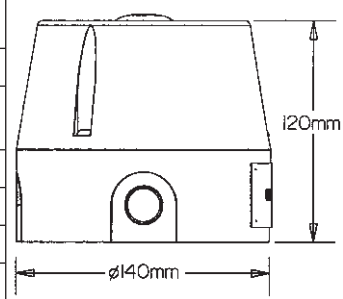



| Certification | Voltage | Ordering Code | Cat. # | Standard Product Configuration |
|---|---|---|---|---|
| ATEX Approved ExII 1G | 12V DC | 805001 | **DB5B012NR** | Intrinsically safe, up to 3 × M20 entries via knockouts, no labels, natural red finish |
| ATEX Approved ExII 1G | 24V DC | 805002 | **DB5B024NR** | |
| FM Approved for Class I, Div. 1 & 2, Groups A, B, C, D | 24V DC | 869150 | **DB5FM024NR** | Intrinsically safe, 26 tones, 93 dB(A) output, natural red body color, no tag or duty labels, 2 × 13/16" entries via knockouts |

## Up to 30 Watts

### DB12 — 110dB(A) Sounder—Weatherproof & Heavy Duty

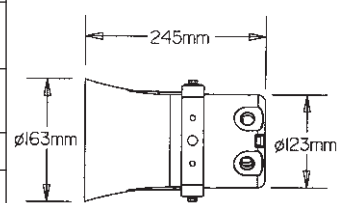
| | |
|---|---|
| **Certification UL Listed for:** | Weatherproof |
| **Certified Ambient Temperature** | –55°C to +70°C |
| **Ingress Protection** | NEMA 4X & 6<br>IP66 & 67 |
| **Material** | Corrosion-free GRP |
| **Entries** | Up to 3 x 20mm |
| **Weight** | 1kg |
| **No. of Tones** | 27 + 5 programmable |
| **Options** | Body color, voltages 12V & 24V DC |




| Certification | Voltage | Type | Ordering Code | Cat. # | Standard Product Configuration |
|---|---|---|---|---|---|
| CE Certification | 115/230V AC | Single Stage | 808003 | **DB12115NN** | Weatherproof, dust-tight, no labels, choice of 27 tones, natural red finish, 3 x M20 knockouts |
| CE Certification | 24V DC | Two Stage | 869155 | **DB12P024NN** | Weatherproof, choice of 27 tones, natural red finish, 3 x M20 knockouts |

### DB15 — 110dB(A) Tone Generator—Weatherproof & Heavy Duty

| | |
|---|---|
| **Certification UL Listed for:** | Weatherproof |
| **Certified Ambient Temperature** | –55°C to +70°C |
| **Ingress Protection** | NEMA 4X & 6<br>IP66 & 67 |
| **Material** | Corrosion-free GRP |
| **Entries** | 2 x M20 |
| **Weight** | 2.6kg |
| **No. of Tones** | 27 + 5 programmable |
| **Options** | Body color, two stage alarm (DB15P) version, earth continuity, EOL resistor, voltages 12–48V DC, 110–254V AC |

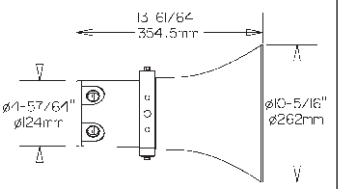



| Certification | Voltage | Type | Ordering Code | Cat. # | Standard Product Configuration |
|---|---|---|---|---|---|
| CE Certification | 12–48V DC | Two Stage | 808110 | **DB15P048NN** | Weatherproof, dust-tight, no labels, choice of 27 tones, painted gray finish |
| CE Certification | 12–48V DC | Two Stage | 808115 | **DB15P048NR** | Weatherproof, dust-tight, no labels, choice of 27 tones, painted red finish |
| CE Certification | 240V AC | Single Stage | 808120 | **DB15240NN** | Weatherproof, dust-tight, choice of 27 tones, natural gray finish |
| CE Certification | 240V AC | Single Stage | 808125 | **DB15240NR** | Weatherproof, dust-tight, choice of 27 tones, painted red finish |

## Up to 30 Watts

### DB16 UL — 30 Watt Speaker — Hazardous & Ordinary Locations

| | |
|---|---|
| **Certification UL Listed for:** | cULus, ATEX<br>Class I, Div. 2, Groups C, D / A, B, C, D<br>Class I, Zone 1, AExde IIB T3/IIC T110°C |
| **Certified Ambient Temperature** | –61°F to +90°F<br>–50°C to +40°C |
| **Ingress Protection** | NEMA 4X & 6<br>IP66 & 67 |
| **Material** | Corrosion-free GRP |
| **Output**<br><br>**Groups A, B, C, D:** | Groups C & D:100dB(A) at 1Watt at 10 ft.<br>112dB(A) at 30 Watts at 10 ft.<br>3dB(A) less than C & D versions |
| **Entries** | Up to 2 x ½" NPT or 2 x ¾" NPT, 20mm, 25mm |
| **Weight** | 12.1lb/5.5kg |
| **Tappings @ 30 Watts** | 30, 25, 12, 6, 4, 2 |
| **Options:** | Body color, transformer |

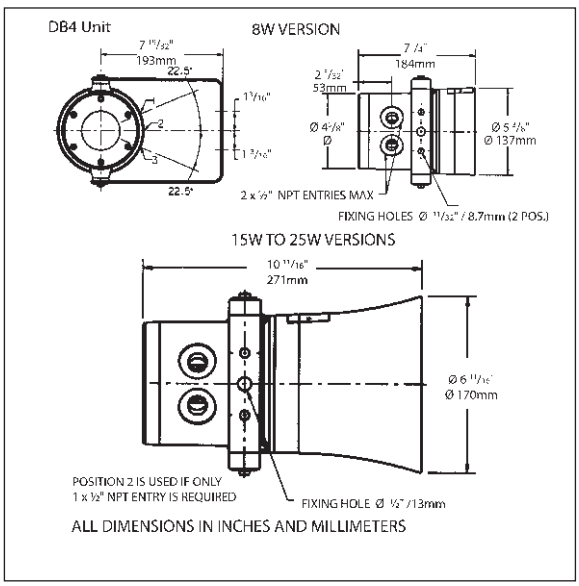


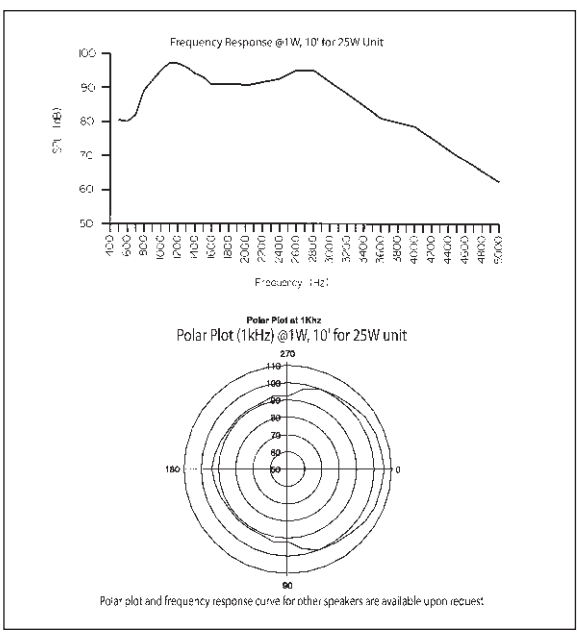

| Certification | Ordering Code | Cat. # | Standard Product Configuration |
|---|---|---|---|
| UL, cUL Listed, Class I, Div 2, Groups C & D | 28600006 | **DB16UCXN2MPN** | Unit suitable for gas Groups A, B, C, D, 70V line transformer, 2 x ½" NPT, one certified plug, natural black finish |



## Up to 30 Watts

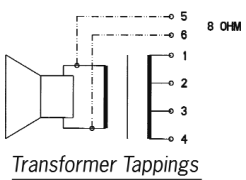



## Specification - DB4 Unit

| | |
|---|---|
| **Rated Power:** | 8, 15 or 25 watts RMS continuous (at 77°F) |
| **Certification:** | UL Listed for USA and Canada<br>– Class I, Div. 2, Groups A, B, C, D<br>– Class I, Zone 1, AExd IIC T4<br>UL Listing No. E203310<br>**ATEX approved:**<br>EN50014, 18, 19<br>Cert. No.BAS00ATEX2097X, Exd IIC T4/T5<br>Cert. No. BAS00ATEX2098X, ExDC IIC T4/T5<br>Zones 1 and 2; not for use in atmospheres containing carbon disulphide |
| **Material:** | Body & horn in anti-static, UV stable, glass reinforced polyester<br>Swivel bracket in stainless steel<br>Captive cover screws in stainless steel |
| **Finish:** | Body and horn, natural black or epoxy paint coated to client's color requirements |
| **Output:** | 97 dB(A) at 1 watt at 10 feet<br>109 dB(A) at 25 watts at 10 feet<br>Measured in accordance with IEC 268 |
| **Weight:** | 11lb/5.0kg approx. dependent on model |
| **Certified Temperature:** | –67°F to +158°F<br>–55°C to +70°C |
| **Ingress Protection:** | NEMA 4X and 6, IP66 & 67 |
| **Frequency Range:** | 400Hz to 8kHz |
| **Voice Coil Impedance:** | 8 ohms |

**Transformer:**




*Transformer Tappings*

**Used to vary the rated power by selecting different tappings (see table below).**

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

Transformer Options:
i) 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.

| | |
|---|---|
| **Terminals:** | 8 x 14AWG<br>Other terminal arrangements available on request |
| **Mounting:** | Bracket with ratchet facility |
| **Labels:** | Duty and tag labels optional |
| **Cable Entries:** | Up to 2 x ½" NPT |

## Ordering Requirements

| DB4 | Max. Rated Power | Certification | Transformer | Labels | Entries | Color |
|---|---|---|---|---|---|---|
| | | | | N | | |

| Po wer | Code |
|---|---|
| 8 watt | 8 |
| 15 watt | 15 |
| 25 watt | 25 |

| Type | Code |
|---|---|
| EExd | D |
| UL lised | UL |

| Transformer | Code |
|---|---|
| Yes | X* |
| None | N |

*Std 100V Other values available, specify voltage.

| Entries | Code |
|---|---|
| 1 x M20 (EExd) | 1B |
| 2 x M20 (EExd/EExdel) | 2B |
| 1 x ½"NPT (UL lised only) | 1C |
| 2 x ½"NPT (UL lised only) | 2C |

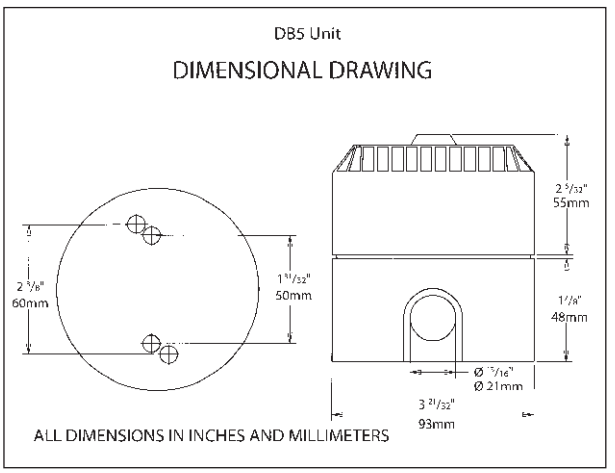
To specify certified plug, suffix appropriate code with 'P'.
e.g. 2BP is 2 x M20 entries with one certified plug.

| Color | Code |
|---|---|
| Natural Black | N |
| Red | R |



## Up to 30 Watts




## Specification—DB5 Unit

| | |
|---|---|
| **Certification:** | FM approved for Class I, Div. 1,Groups A, B, C, D, J.I. 3001835<br>**CSA certified** to C22.2 Nos. 0, 0.4, 0.5, 25, 30, 205, Class I, Groups A, B, D, Cert. No. 79122<br>**ATEX approved**, EN50014 and EN50020 & EN50284 Exia IICT4. 12/24V version Cert. No. BAS00ATEX 1259 (unit) and 01E2024 (system)<br>HSE(M) to EN50014, EN50020 and EN50303<br>Exia 1 Cert. No. MECS01ATEX4260 (unit) and 94Y7095 (system) |
| **Material:** | A.B.S. (Acrylonitrile Butadiene Styrene) |
| **Finish:** | Available in red as standard |
| **Certified Temperature:** | –4°F to +131°F<br>–20°C to +55°C |
| **Weight:** | 0.7lb/0.3kg |
| **Entries:** | Up to 1 x 13/16" on each side via knockouts |
| **Sound Output:** | 90± 3dB(A) at 10 feet for 12V and 24V versions<br>Typical max value only—variable with tone |

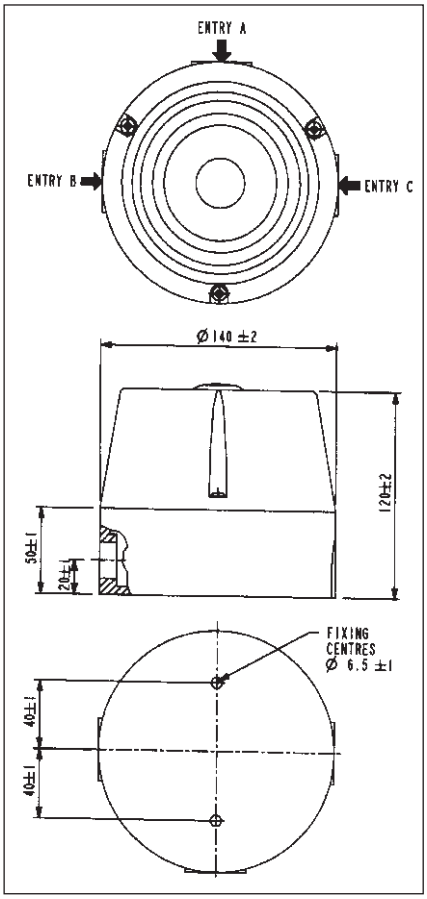
**Current Consumption:**

24V model—14 mA max. nominal
12V model—12 mA max. nominal



## Up to 30 Watts




## Specification—DB12 Unit

| | |
|---|---|
| **Material:** | UV stable glass reinforced polyester. Retained stainless steel cover screws |
| **Finish:** | Self colored red as standard or epoxy coated to customer's specification |
| **Sound Output:** | 107± 3dB(A) at 1 meter<br>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:<br>(i) Reversing the polarity of the supply, or<br>(ii) by a 3 wire common +ve system, switching between the two -ve lines.<br>Note: Two stage unit available in DC versions only. |
| **Weight:** | 1.0 kg. Dc, 1.2kg AC |
| **Operating Temperature:** | –55°C to +70°C |
| **Ingress Protection:** | IP66 & IP67 |
| **Voltage:** | DC: 12V, 24V AC: 115/230V |
| **Current Consumption:** | 24V operation 55mA–100mA 115V operation 85mA–140mA<br>12V operation 55mA–90mA 230V operation 45mA–60mA |
| **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 the selection of the correct unit. Build up the reference number by inserting the code for each component into the appropriate box.

Unit Type [ ]

| Type | Details |
|---|---|
| DB12 | Standard Unit |
| DB12P | Two Stage (DC only) |

Voltage [ ]

| Voltage | Code |
|---|---|
| 12V DC | 012 |
| 24V DC | 024 |
| 115/230V AC | 115 |

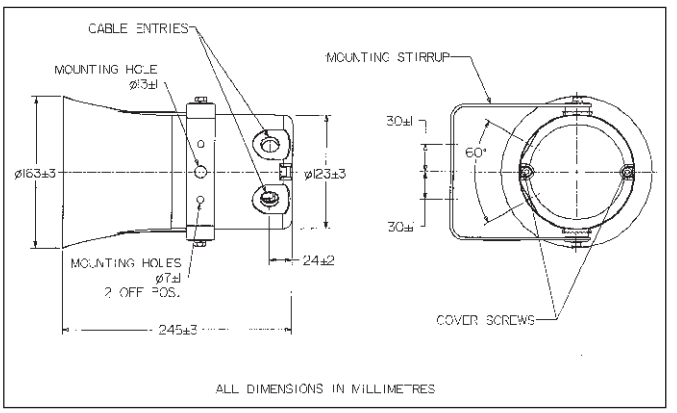
Labels [N]

Color [N]



## Up to 30 Watts




**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 DC versions (DB15P) only.

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

## Specification—DB15 Unit

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

**Finish:** Body and horn, natural gray to RAL 7035 or epoxy paint coated to client's color 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 DC Up to 254V AC

**Current Consumption:**

| V | I |
|---|---|
| 12V DC | 900mA |
| 24V DC | 600mA |
| 48V DC | 280mA |
| 110V AC | 150mA |
| 120V AC | 175mA |
| 220V AC | 93mA |
| 240V AC | 86mA |
| 254V AC | 80mA |

**Terminals:** 4 x 2.5mm² (AC), 6 x 2.5mm² (DC)

**Earth Continuity:** Available

**Mounting:** Stainless steel bracket with ratchet facility

**Labels:** Duty and tag labels optional

**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.

| Unit Type | Voltage | Options | Color |
|---|---|---|---|
| | | **N** | **N** |

**DB15**
**DB15P**

| Voltage | Code |
|---|---|
| 12V DC | 012 |
| 24V–48V DC | 048 |
| *110V AC | 110 |
| *120V AC | 120 |
| *240V AC | 240 |

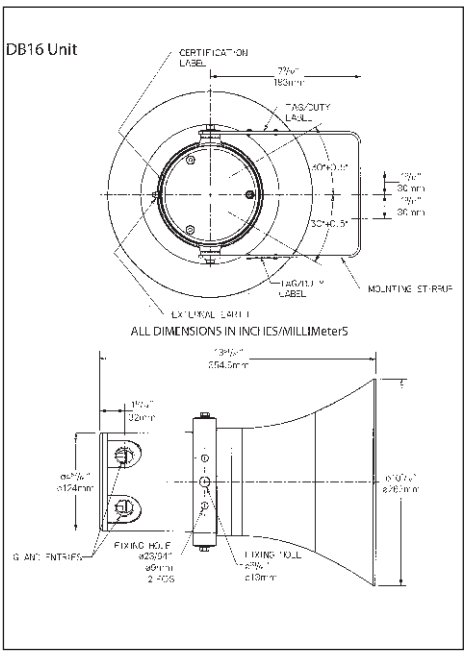
*DB15P not available in AC version.

## Up to 30 Watts

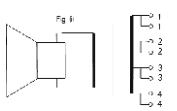
## Specification—DB16 Unit

| | |
|---|---|
| **Rated Power:** | 30 Watts RMS continuous (at 77°F/25°C) |
| **Certification:** | **UL Listed for USA and Canada**<br>– Hazardous locations:<br>Class I, Div. 2, Groups C, D, Class I, Zone 1, AExde IIB T3<br>Class I, Div. 2, Groups A, B, C, D, Class I, Zone 1, AExde IIC T110°C<br>UL Listing No. E203310<br>– Ordinary locations: Signalling Speaker; UL Listing No. 58847<br>CENELEC EN50014, 18, 19<br>IIB Version: Cert. No. Baseefa04ATEX0166X<br>ATEX Ex II 2G Exde IIB T3 (Tamb. -50°C to +40°C)<br>IIC Version: Cert. No. Baseefa04ATEX0167X<br>ATEX Ex II 2GD Exde IIC T110°C (Tamb. -50°C to +40°C)<br>Zones 1 and 2 |
| **Material:** | Body & horn in anti-static, UV stable, glass reinforced polyester<br>Mounting stirrup and fixtures in stainless steel |
| **Finish:** | All natural or body and horn can be painted to client's requirements |
| **Output:** | Groups C, D Version: Maximum output at 1W at 10 feet is 100dBA<br>Maximum output at 30W at 10 feet is 112dBA<br>Groups A, B, C, D Version: Maximum output at 1W at 10 feet is 97dBA<br>Maximum output at 30W at 10 feet is 109dBA |
| **Weight:** | 12lb/5.5kg approx. |
| **Certified Temperature:** | 67°F to +104°F (-50°C to +40°C) |
| **Ingress Protection:** | NEMA 4X & 6, IP66 & IP67 |
| **Voltage:** | 370Hz to 8kHz |
| **Voice Coil Impedance:** | 8 ohms |
| **Transformer:** | Used by combining the rated power tappings below |

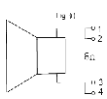



Transformer Tapping Options:

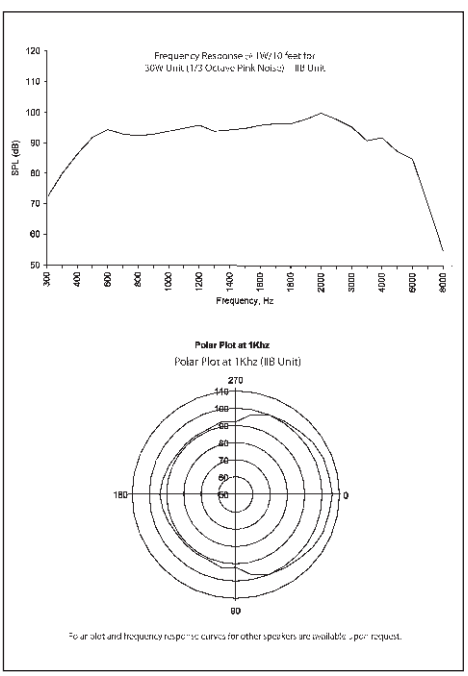
| Transformer Tappings | Power (W) |
|---|---|
| 1:2 | 30 |
| 2:3 | 25 |
| 3:4 | 12 |
| 1:3 | 6 |
| 2.4 | 4 |
| 1.4 | 2 |



**(i) Loop in/loop out (4 x 2) power tap change; 8 terminals**



**(ii) Loop in/loop out (2 x 2) 8 ohm; 4 terminals**




For all plot and frequency response curves for other speakers are available upon request.

| | |
|---|---|
| **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 ½" NPT or 2 x ¾" NPT into termination chamber, 20mm, 25mm |

## 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.

**DB16** [ ] [ ] **N** [ ] [ ]

Certification

| Certification | Code |
|---|---|
| UL (A, B, C, D) | UC |
| ATEX IIC | BC |

Unit suitable for gas groups.

Transformer

| Transformer | Code |
|---|---|
| Yes | X* |
| No | N |

*Std 100V.
Other voltages available, specify voltage.

Options: **N**

Entries

| Entries | Code |
|---|---|
| 1 x M20 | 1B |
| 2 x M20 | 2B |
| 1 x M25 | 1C |
| 2 x M25 | 2C |
| 1 x ½" NPT | 1M |
| 2 x ½" NPT | 2M |
| 1 x ¾" NPT | 1N |
| 2 x ¾" NPT | 2N |

To specify certified plug, suffix appropriate code with 'P', e.g. 2BP is 2 x M20 entries with one certified plug.

Finish

| Option | Code |
|---|---|
| Natural Black | N |
| Red | R |



# ETH Flex•Tone™ Series Signaling Devices

## Electronic Signals

Cl. I, Div. 1 & 2, Groups B, C, D
Cl. II, Div. 1 & 2, Groups E, F, G
Cl. III
UL and cUL 464 and 1203 listed

Explosionproof
Dust-Ignitionproof
Raintight
Wet Locations

Cooper Crouse-Hinds **Flex•Tone Series Electronic Signals** are explosionproof, heavy-duty, tone-selectable signaling devices capable of producing volume-controlled, high-decibel tones. Certified for use in Class I, Division 1, Group B, C, and D applications, the Flex•Tone Series is ideal for signaling warning or emergency conditions.

The **Flex•Tone ETH855** accepts up to two contact closures and delivers two audible output signals selected from 55 available tones. The two tones are selected by setting miniature switches within the unit. One of the tones can be assigned a priority status to override the other tone.

The **Flex•Tone ETHD855** is diode polarized for applications requiring electrical supervision of signaling circuit field wiring. The signal delivers one audible output signal selected from the 55 tones available.

**Explosionproof Electronic Signal Stand - Alone Unit**

## Applications:

- For use where a high-decibel sound is required for alert or evacuation in hazardous locations.

## Features and Benefits:

- Heavy-duty zinc cast construction.
- 55 tone capacity – no additional tone modules needed.
- Internal volume control with internal potentiometer.
- Corrosion-resistant heat-flowed epoxy finish.
- Supplied with factory sealed ½" threaded fitting for quick installation.
- Speaker can swivel 180° vertically or horizontally depending on orientation of mounting bracket.
- Mounts onto any surface using only three bolts.
- 30" numbered wire leads.

## Certifications and Compliances:

- Class I, Division 1, Groups B, C, D
- Class II, Division 1, Groups E, F, G
- Class III
- UL and cUL 464 and 1203 Listed

## Materials and Finishes:

- Body – Heavy-duty zinc cast construction
- External hardware – Stainless steel

## Ratings:

- 24VDC, 36VDC, 125VDC, 250VDC, 24VAC, 120VAC and 240VAC (ETH)
- 20 – 31VDC (ETHD)

## Output Sound Pressure:

- 109 decibel (dBA) output

## Ordering Information:

| Cat. # | Voltage | Signal OFF Standby Current (Amps) | Signal ON Operating Current (Amps) |
|---|---|---|---|
| **Explosionproof, Two Output** | | | |
| **ETH855/24** | 24VDC | 0.061 | 0.250 |
| **ETH855/36** | 36VDC | 0.077 | 0.380 |
| **ETH655/24** | 24VAC, 50 / 60Hz | 0.250 | 0.950 |
| **ETH655/120** | 120VAC | 0.088 | 0.260 |
| **ETH655/240** | 240VAC | 0.091 | 0.190 |
| **ETH855/125** | 125VDC | 0.031 | 0.130 |
| **ETH855/250** | 250VDC | 0.019 | 0.070 |
| **Diode Polarized, Explosionproof, Single Output For Fire Alarm Applications** | | | |
| Meets min. 75 dBA for fire alarm indication | | | |
| **ETHD855/24** | 20 – 31VDC | 0.061 | 0.950 |

Cooper Crouse-Hinds **Flex•Tone Series Explosionproof Remote Speaker/Amplifier** is designed for remote mounting in Division 1 areas where simultaneous high-decibel signaling is required.

Used in connection with the Panel Control Signaling Generator, the **Flex•Tone ETH845** operates directly from local power sources, allowing remote speaker/amplifiers of different voltages to be connected within the same system. Available in both AC and DC voltages, the Flex•Tone can be mixed and matched throughout an application using the available line power.

**ETH845 Series Remote Speaker/Amplifiers must be used with Cooper Crouse-Hinds Flex•Tone Panel Control Signal Generator on next page.**

**Explosionproof Remote Speaker/Amplifier**

## Applications:

- For use where simultaneous signaling of a high-decibel sound is required for alert or evacuation in hazardous locations.

## Features and Benefits:

- Heavy-duty zinc cast construction.
- Individual volume control.
- Corrosion-resistant heat-flowed epoxy finish.
- Supplied with factory sealed ½" threaded fitting for quick installation.
- Speaker can swivel 180° vertically or horizontally depending on orientation of mounting bracket.
- Mounts onto any surface using only three bolts.
- 30" numbered wire leads.

## Certifications and Compliances:

- Class I, Division 1, Groups B, C, D
- Class II, Division 1, Groups E, F, G
- Class III
- UL and cUL 464 and 1203 Listed

## Materials and Finishes:

- Body – Heavy-duty zinc cast construction
- External hardware – Stainless steel

## Ratings:

- 120VAC, 240VAC, 125VDC and 250VDC

## Output Sound Pressure:

- 109 decibel (dBA) output

## Ordering Information:

| Cat. # | Voltage | Signal OFF Standby Current (Amps) | Signal ON Operating Current (Amps) |
|---|---|---|---|
| **Explosionproof Remote Speaker/Amp** | | | |
| **ETH845/24** | 24VDC | 0.061 | 0.250 |
| **ETH645/24** | 24VAC, 50/60Hz | 0.250 | 0.950 |
| **ETH645/120** | 120VAC | 0.088 | 0.260 |
| **ETH645/240** | 240VAC | 0.091 | 0.190 |
| **ETH845/125** | 125VDC | 0.031 | 0.130 |
| **ETH845/250** | 250VDC | 0.091 | 0.070 |

ETH845 Series Remote Speaker/Amplifiers must be used with Cooper Crouse-Hinds Flex•Tone Panel Control Signal Generator on next page.

ETH845 Series Remote Speaker/Amplifiers **accept a 10VAC audio signal** from Flex•Tone Panel Control Signal Generator.

# ETH Flex•Tone™ Series Signaling Devices

## Control Signal Generator

Cl. I, Div. 2, Groups A, B, C, D
Cl. II, Div. 2, Groups F, G
Cl. III

UL 464 and 1604 listed
NEMA 3R, IP 44

Cooper Crouse-Hinds **Flex•Tone Series Panel Control Signal Generator** controls and initiates a synchronous signaling sound from all Flex•Tone 3 Remote Speaker/Amps installed in a system. The Panel Control Signal Generator is mounted in a Division 2 area, while controlling the Flex•Tone 3 Speaker/Amps that are remotely mounted in Division 1 areas.

The Panel Control Signal Generator produces 27 sounds. Four tones may be activated from field-wired, normally open contacts, or a 24VDC or 120VAC external voltage source such as an output from a PLC.

## Applications:

- Hazardous area applications calling for high-decibel output with simultaneous signal delivery over all speakers installed in a system
- Emergency warning systems, plant evacuation alarms, security intrusion alarms, process monitoring, shift start and dismissal horns, and paging signals

## Features and Benefits:

- 27 tone capability – no additional tone modules needed.
- Centralized programmable tone selection.
- PLC compatible.
- System-wide priority tone.
- 24 VDC battery back-up terminals.
- Short circuit protected.

## Certifications and Compliances:

- Class I, Division 2, Groups A, B, C, D
- Class II, Division 2, Groups F, G
- Class III
- UL 464 and 1604 Listed
- cUL C22.2 No. 205
- CE Marked – CENELEC LV and EMC Directives
- NEMA 3R, IP44

## Materials and Finishes:

- Zinc-cast construction with an epoxy powder coat finish

## Ratings:

- See table below

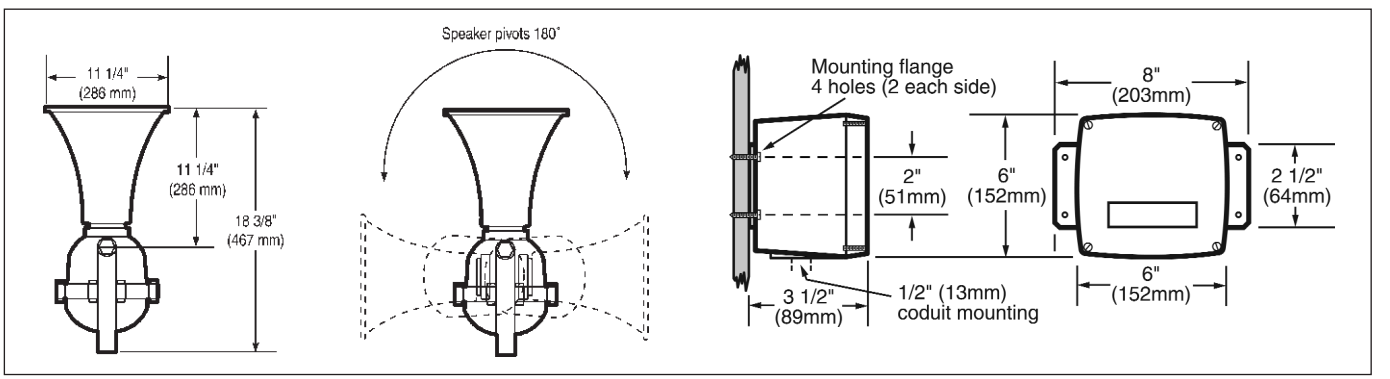
## Ordering Information:

| Cat. # | Voltage | Input Card Activation Voltage | Signal OFF Standby Current (Amps) | Signal ON Operating Current (Amps) |
|---|---|---|---|---|
| **Panel Control Signal Generator** | | | | |
| **ETH840/24E74** | 24VDC | 24VDC | 0.10 | 0.74 |
| **ETH640/24E13** | 24VAC, 50/60Hz | 24VDC | 0.10 | 1.30 |
| **ETH640/120E36** | 120VAC, 50/60Hz | 24VDC | 0.10 | 0.36 |
| **ETH640/120M38** | 120VAC, 50/60Hz | 120VAC | 0.10 | 0.38 |
| **ETH640/120E32** | 120VAC, 50/60Hz | 24VDC | 0.10 | 0.32 |
| **ETH640/240E20** | 240VAC, 50/60Hz | 24VDC | 0.10 | 0.20 |
| **ETH840/125E21** | 125VDC | 24VDC | 0.10 | 0.21 |
| **ETH840/250E10** | 250VDC | 24VDC | 0.02 | 0.10 |
| **ETH640/120M31** | 120VAC, 50/60Hz | 120VAC | 0.10 | 0.31 |
| **ETH640/240M20** | 240VAC, 50/60Hz | 120VAC | 0.10 | 0.20 |
| **ETH840/125M20** | 125VDC | 120VAC | 0.10 | 0.20 |
| **ETH840/250M10** | 250VDC | 120VAC | 0.02 | 0.10 |
| **ETH640/120R31** | 120VAC, 50/60Hz | RS485 | 0.10 | 0.31 |
| **ETH640/240R20** | 240VAC, 50/60Hz | RS485 | 0.10 | 0.20 |
| **ETH840/125R20** | 125VDC | RS485 | 0.10 | 0.20 |
| **ETH840/250R10** | 250VDC | RS485 | 0.02 | 0.10 |

Flex•Tone Panel Control Signal Generator must be used with Cooper Crouse-Hinds ETH845 Remote Speaker/Amps on previous page.

## Dimensions

### In Inches:



COOPER Crouse-Hinds

# ETH Horn Signals

## Factory Sealed

Cl. I, Div. 1 & 2, Groups B†, C, D
Cl. II, Div. 1, Groups E, F, G
Cl. II, Div. 2, Groups F, G
Cl. III
NEMA 7B†CD, 9EFG

Explosionproof
Dust-Ignitionproof
Raintight
Wet Locations

## Applications:

ETH horn signals are used:

- For call signals, alarms, and various other signalling applications
- In specific hazardous atmospheres as found in chemical plants, oil and gas refineries, bulk loading stations, paint and varnish manufacturing plants, grain processing industries and grain elevators, as well as in certain metal, coal, combustible fiber processing or handling areas
- In conduit systems and mounted on a flat surface with the projectors aimed in the desired direction

## Features:

- No external conduit seal is required.
- The AC signals do not have arcing contacts.
- The DC horns have factory sealed wire leads in the interconnecting nipple and hub.
- The body cover joint of AC horn signals is of serrated construction, machined to close tolerance to ensure flametightness and secured by a clamping ring. The DC unit has a ground joint design.

## Certifications and Compliances:

- NEC:
  - Class I, Division 1 & 2, Groups B†, C, D
  - Class II, Division 1, Groups E, F, G
  - Class II, Division 2, Groups F, G
  - Class III
- UL Standard: 464, 1203
- CSA Standard: C22.2 No. 30

## Standard Materials:

- Copper-free aluminum

## Standard Finishes:

- Natural

## Size Ranges:

- Hub – ½" or ¾" size

## Sound Levels:

- See Ordering Information table for individual ratings

## Electrical Rating Ranges:

- Nominal voltage – 24, 115, 230 VAC 24 VDC

**ETH grill type horn signal**

## Table 1

### Operating Current in Amperes at the Nominal Voltage for Horn and Siren Signals

### Horn Signal

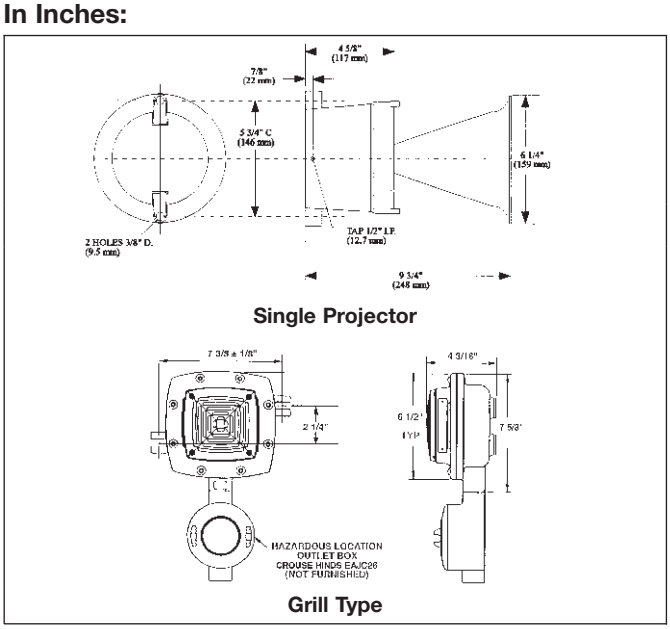
| | Amperes | | |
|---|---|---|---|
| | Single Projector | Grill Type | |
| Nom. Volts | 50 to 60 hertz AC ETH2702, ETH2703 | 50 to 60 hertz AC ETH2313, ETH2316, ETH2312 | DC ETH2416 |
| 24 | — | 0.625 | 0.16 |
| 115 | .45 | 0.13 | |
| 230 | .2 | 0.065 | |

## Ordering Information:

| Supply | Nom. Volts* | Nom. Watts | Minimum audibility rating (dB) at 10': | Hub Size | Cat. # |
|---|---|---|---|---|---|
| **Single Projector Horn Signal** | | | | | |
| 50 to 60 hertz AC | 115 | 33 | 105 dB | ½ | **ETH2703** |
| | 230 | 33 | 105 dB | ½ | **ETH2702** |
| **Grill Type Horn Signals** | | | | | |
| 50 to 60 hertz AC | 24 | 49 | 100 dB | ¾ | **ETH2316** |
| | 115 | | 100 dB | ¾ | **ETH2313** |
| | 230 | | 100 dB | ¾ | **ETH2312** |
| DC | 24 | 30 | 100 dB | ¾ | **ETH2416** |

## Dimensions

### In Inches:




**Single Projector**

**Grill Type**

Dimensions are approximate, not for construction purposes.

†Grill type horns are certified for Group B.
* See Table 1 for more complete ratings

# W2H Signaling Devices

Cl. I, Div. 2, Groups A, B, D
Cl. II, Div. 2, Group G
NEMA 3, 7ABCD (Div. 2), 9G (Div. 2)
Raintight

Dust-tight
Wet Locations

## Applications:

W2H series signaling devices are used:

- As independent audible signal or warning devices
- In Class I, Division 2, Groups A, B, C, D hazardous areas where flammable vapors or gases may be present due to accidental or abnormal operation
- In Class II, Division 2, Group G hazardous areas where combustible dusts may be present due to accidental or abnormal operation

## Features:

- The W2H is solid-state, compact, rugged but lightweight. The system is programmable, which allows the convenience of tone selection, without the need for separate tone modules. Each unit can be programmed for any one of four different tones (whoop, wail, hi-lo and horn), by wiring to the corresponding terminal on the unit's terminal strip. Separate sound modules not required.
- Unit may be field wired for multiple signal selection by manual or automatic control.
- 180° speaker rotation allows flexibility in direction of sound.
- Corrosion-resistant conformal coating protects the printed circuit and other interior components.

## Certifications and Compliances:

- UL: Standard 886
- NEC:
  Class I, Division 2, Groups A, B, C, D
  Class II, Division 2, Group G
- NEMA 3, 7ABCD Division 2, 9G Division 2

## Standard Materials:

- Body – die-cast aluminum
- Projector – spun aluminum
- Hardware – stainless steel

## Standard Finishes:

- Body and projector – gray hammertone enamel
- Stainless steel – natural

## Sound Levels:

- Minimum audibility rating (dB) at 10': W2H Series – 93dB

## Signal Selection:

| Signal Terminal | Sound Description | Audible Frequency | Repetition Rate |
|---|---|---|---|
| #4 Whoop | Ascending low to high, repeated | Low tone – 400 Hz<br>High tone – 850 Hz | 48 cy/min.<br>48 cy/min. |
| #5 Wail | Conventional Siren | 400 – 1100 Hz | 24 cy/min. |
| #6 Hi-Lo | Alternating Hi-Lo | Low tone – 650 Hz<br>High tone – 850 Hz | 24 cy/min.<br>24 cy/min. |
| #7 Horn | Steady | 630 Hz | Continuous |

## Electrical Rating Ranges:

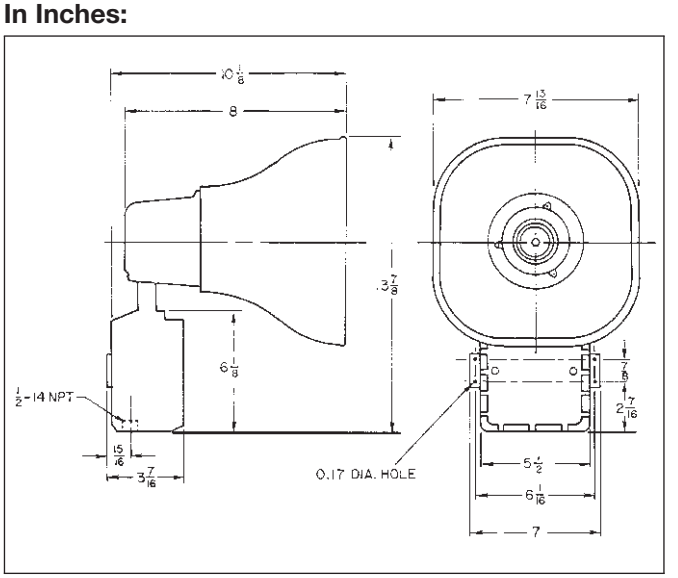
- Nominal voltage – 24, 120, 240 AC; 60 Hz 24 DC

## Ordering Information - Normal Power

| Nominal Voltage | Operating Current | Standby Current | Cat. # |
|---|---|---|---|
| 24VDC | 0.55A | 0.06A | **W2H840** |
| 24VAC | 1.25A | 0.13A | **W2H640** |
| 120VAC | 0.27A | 0.03A | **W2H620** |
| 240VAC | 0.15A | 0.02A | **W2H660** |

## Dimensions

### In Inches:




Dimensions are approximate, not for construction purposes.

## Applications:

WH vibrating horn signals are used:

- For code or call signals, or as a general alarm in a signal system that might involve hours of continuous operation
- In non-hazardous atmospheres of industrial areas such as warehouses, yards, exteriors of buildings, and in-plant areas
- Mounted on walls or other flat surfaces with projectors aimed in a desired direction

## Features:

- The joint between the body and horn assembly is gasketed for raintightness

## Certifications and Compliances:

- UL Standard: 464

## Standard Materials:

- Copper-free aluminum and die cast zinc

## Standard Finishes:

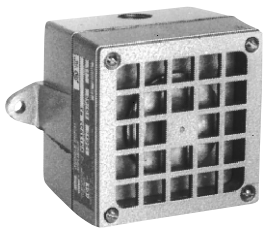
- Gray hammertone enamel

## Capacity Ranges:

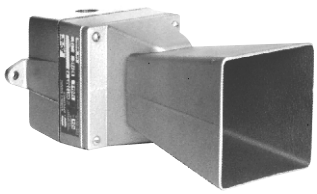
- Minimum audibility rating (dB) at 10':
  AC – 87 decibels

## Electrical Rating Ranges:

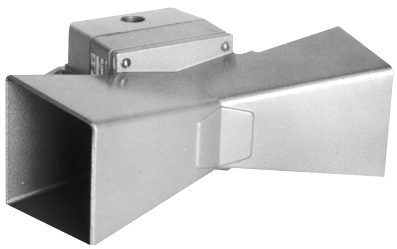
- Nominal voltage
  120 AC, 50 / 60 hertz
- Operating characteristics
  Voltage range +10%, –20%
  Nominal watts – 18 VA on 120 VAC



**WH with grill**



**WH with single projector**



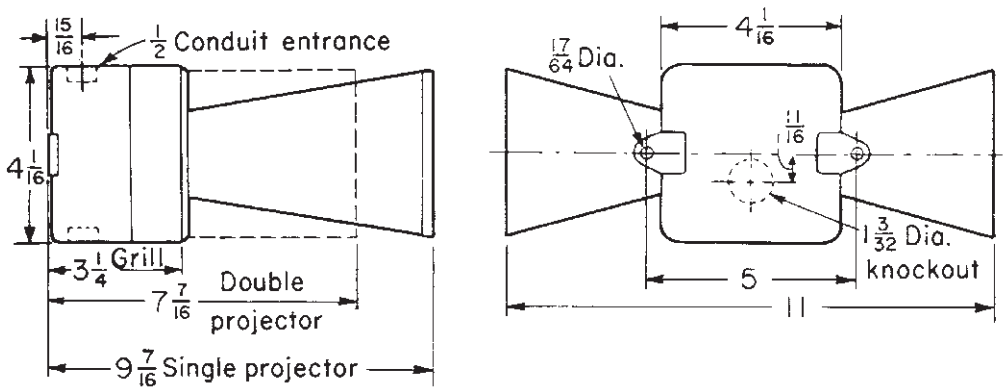
**WH with double projector**

## Ordering Information

| Nominal Voltage | Nominal Voltage | Grill Cat # | Single Projector Cat. # | Double Projector Cat. # |
|---|---|---|---|---|
| .15 | 120 AC 50 to 60 Hz | **WH13503** | **WH13513** | **WH13523** |

## Dimensions

### In Inches:




Dimensions are approximate, not for construction purposes.

# 5S ESR Bell Signals

## Factory Sealed

Cl. I, Div. 1 & 2, Groups B, C, D
Cl. II, Div. 1, Groups E, F, G
Cl. II, Div. 2, Groups F, G
Cl. III

Explosionproof
Dust-Ignitionproof
Raintight
Wet Locations

## Applications:

ESR bell signals are used:

- For call signals, alarms, or in various other signalling applications
- In specific hazardous atmospheres such as in chemical plants, oil and gas refineries, bulk loading stations, paint and varnish manufacturing plants, grain processing industries and grain elevators, as well as in certain metal, coal, combustible fiber processing or handling areas
- In conduit systems, and mounted on a vertical flat surface with the striker at the bottom

## Features:

- The conduit hub contains an integral bushing.
- The body cover assembly permits the location of a hub at the top, bottom or either side (the striker must be located at the bottom for proper operation).
- There are no external seals required except when used in Group B hazardous areas.
- The AC signal does not have arcing contacts.
- Binding screw terminals are provided in AC signals for supply conductors.
- A vibrating or single stroke striker mechanism is furnished with 6 or 10 inch diameter gongs.

## Certifications and Compliances:

**Standard Units:**

- NEC/CEC:
  Class I, Division 1 & 2, Groups C, D
  Class II, Division 1, Groups E, F, G
  Class II, Division 2, Groups F, G
  Class III

**NEMA/EEMAC: 7CD, 9EFG**

- UL Standard: 464, 1203
- CSA Standard: C22.2 No. 30

**Group B Units:**

- NEC/CEC:
  Class I, Division 1 & 2, Groups B, C, D
  Class II, Division 1, Groups E, F, G
  Class II, Division 2, Groups F, G
  Class III

**NEMA/EEMAC: 7BCD, 9EFG**

- UL Standard: 464, 1203
- CSA Standard: C22.2 No. 30

## Standard Materials:

- Body – *Feraloy*® iron alloy
- Cover – copper-free aluminum
- Junction box
  body – Feraloy iron alloy
  cover – copper-free aluminum
- Gong – steel

## Standard Finishes:

- *Feraloy* iron alloy – electrogalvanized and aluminum acrylic paint
- Aluminum – natural
- Steel – gray matte

## Size Ranges:

- Hub – one ¾" size

## Sound Levels:

- See Table 1 below for individual ratings

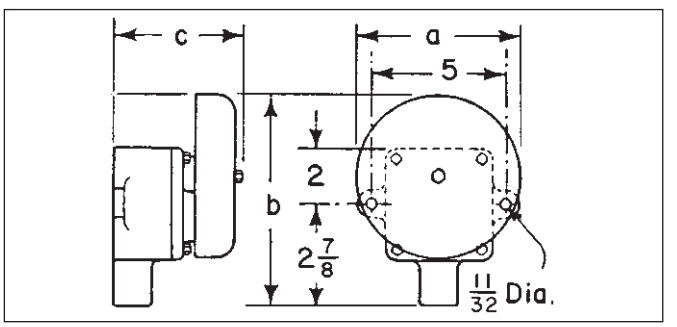
## Electrical Rating Ranges:

- Nominal voltage – 12, 24, 48, 115, 230 AC

See Table 1 for complete ratings.

## Dimensions

### In Inches:




Dimensions are approximate, not for construction purposes.

| Dia. Gong | a | b | c |
|---|---|---|---|
| 6 | 6 | 6¾ | 5¼ |
| 10 | 10 | 10¾ | 6 |

## Table 1

### Operating Current in Amperes at the Nominal Voltage For Bell Signals

| Nom. Volts | Amperes All Vibrating 25 to 60 Hz AC | All Single Stroke 50 to 60 Hz AC |
|---|---|---|
| 12 | 1.67 | 1.75 |
| 24 | .53 | .62 |
| 48 | .44 | .41 |
| 115 | .189 | .189 |
| 230 | .092 | .086 |

## Factory Sealed

## Ordering Information:

| Hub Size | Supply | Nom. Volts | Voltage Range | Dia. Bell | Vibrating Hammer (25 to 60 hertz) Standard Units Cat. # | Vibrating Hammer (25 to 60 hertz) Group B Units‡ Cat. # | Minimum audibility rating (dB) at 10': | Single Stroke Hammer (50 to 60 hertz) Cat. # | Minimum audibility rating (dB) at 10': |
|---|---|---|---|---|---|---|---|---|---|
| | | 12 | 9.6 to 13.2 | | **ESR2675** | **ESR2675 GB** | 67 | **ESR2665** | 64 |
| | | 24 | 19.2 to 26.4 | | **ESR2674** | **ESR2674 GB** | 82 | **ESR2664** | 64 |
| | | 48 | 38.4 to 52.8 | 6 | **ESR2673** | **ESR2673 GB** | 88 | **ESR2663** | 67 |
| | | 115 | 92 to 126.5 | | **ESR2672** | **ESR2672 GB** | 88 | **ESR2662** | 67 |
| | | 230 | 184 to 253 | | **ESR2671** | **ESR2671 GB** | 85 | **ESR2661** | 67 |
| ¾ | AC | | | | | | | | |
| | | 12 | 9.6 to 13.2 | | **ESR2615** | **ESR2615 GB** | 82 | **ESR2625** | 64 |
| | | 24 | 19.2 to 26.4 | | **ESR2614** | **ESR2614 GB** | 85 | **ESR2624** | 64 |
| | | 48 | 38.4 to 52.8 | 10 | **ESR2613** | **ESR2613 GB** | 85 | **ESR2623** | 67 |
| | | 115 | 92 to 126.5 | | **ESR2612** | **ESR2612 GB** | 91 | **ESR2622** | 67 |
| | | 230 | 184 to 253 | | **ESR2611** | **ESR2611 GB** | 85 | **ESR2621** | 67 |

‡ Install seal within 1½" of conduit opening.

# Visual and Audible Combination Units

## MEDC Series



Truly a unique product offering with integral visual and audible signaling devices pre-wired for simultaneous output activation.

- Suitable for Class I, Division 2 applications
- Strobe light and audible tone generator in one package
- Mounts with ease and facilitates quick field wiring
- UL, cUL, Ex and ATEX for worldwide acceptance

This range of lightweight all GRP, explosionproof horns 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 flamepaths, flare, and 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.

**Horn/Strobe Combination Unit**

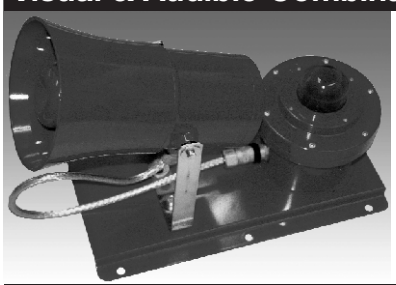
## Features and Benefits:

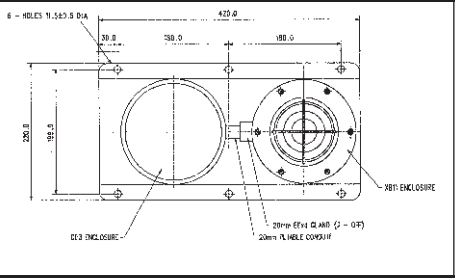
- All GRP corrosion-free
- Up to 108dBA output at 10 feet
- Integral volume control
- 27 tones, user selectable
- Horn/Strobe Combination Unit available

## Certifications and Compliances:

- UL Listed for USA and Canada
  Hazardous locations:
  Class I, Div. 2, Groups A, B, C, D
  Class I, Zones 1 & 2, AExd IIC T4
  Ordinary locations: Audible Signal device
- ATEX approved
- NEMA 4X & 6, IP66 & 67
- Certified temperature
  –67°F to +158°F
  –55°C to +70°C

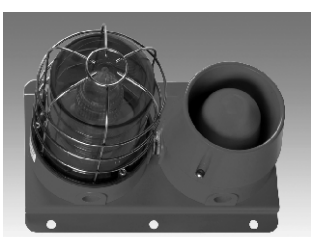
## Visual & Audible Combination Units—Hazardous Locations, Weatherproof






| Certification | Voltage | Lens/Body Color | Ordering Code | Cat. # | Standard Product Configuration |
|---|---|---|---|---|---|
| ATEX Ex II 2GD | 24V DC | Red/Red | 803130 | **DB3/XB11B24V RED/RED** | DB3/XB11, Exd IIB T5, choice of 27 tones, 115dB(A) at 1m output, 29 Cd, no labels, 1 x M20 entry |
| UL, cUL Listed, Class I, Div. 2, Groups C, D | 24V DC | Red/Natural Black | 869200 | **DB3/XB11UL24V RED/NB** | DB3/XB11, GRP material, NEMA 4X & 6, choice of 27 tones, 106dB(A) at 10 feet output, 29 Cd, no labels, 1 x ½" NPT entries |
| UL, cUL Listed, Class I, Div. 2, Groups C, D | 24V DC | Red/Red | 869205 | **DB3/XB11UL24V RED/RED** | |
| UL, cUL Listed, Class I, Div. 2, Groups C, D | 110V AC | Red/Red | 869210 | **DB3/XB11UL110V RED/RED** | |

| Certification | Voltage | Lens/Body Color | Ordering Code | Cat. # | Standard Product Configuration |
|---|---|---|---|---|---|
| UL, cUL Listed, Class I, Div. 1, Groups C, D | 24V DC | Red/Red | 62500182 | **DB1P/SM87HXBUL 24V RED/RED** | 24V DC, alloy sounder, interconnected to, painted red stainless steel baseplate, alloy 5 joule beacon |
| UL, cUL Listed, Class I, Div. 2, Groups C, D | 24V DC | Red/Red | 62500183 | **DB3/SM87HXBUL 24V RED/RED** | GRP sounder interconnected to, painted red stainless steel baseplate, alloy 5 joule beacon |



| Certification | Voltage | Lens/Body Color | Ordering Code | Cat. # | Standard Product Configuration |
|---|---|---|---|---|---|
| Ex II 2GD | 24V DC | Red/Red | 62500009 | **DB12/XB13 24V RED/RED** | IP66 & 67 weatherproof only, 24V DC, GRP sounder interconnected to, on a painted red stainless steel baseplate, a IP66 & 67 weatherproof only, GRP 10 joule beacon |