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.
Signaling Devices - Visual and Audible

Table of Contents

Section S of the Eaton's Crouse-Hinds Catalog contains the following product groupings:

Section 1S
Fire Alarm or Emergency Call Points and Heat Detectors
(for use in hazardous areas)
Call points are used for fire alarm activation, evacuation, and process shut-down. Heat detectors are used in turbine/generator skids, switchgear or motor control status rooms, and process tank areas or transmission lines
SM87PBL  BG3
SM87BG  HD1
PB
BG
BG2

Section 2S
Strobe Lights
(for use in hazardous and non-hazardous areas)
Strobe lights for condition signaling, security alerts, equipment obstruction warnings, and emergency evacuation signaling
XB15  XB12  VWL
XB16 UL  XB13  OX2L
SM87 HXB  EXFASC  VX2L
XB11  EXR  OAL
XB4  OWL  VAL

Section 3S
Steady-On Beacons
(for use in hazardous areas)
For safety lighting, continuous communication sources, obstacle warnings, exit or entrance lights, and for identifying the location of safety equipment such as showers or emergency telephones
FB4
FL4
FB11 UL
FB12 UL
FB15
SM87 LU3
SM87 LU1
EXSO, EXDSO
VF

Section 4S
Status Lights
(for use in hazardous areas)
For process status, messaging, and alert or emergency condition indication
SM87 SL
XB11 SLUL
XB12 SL, FB12 SL

Section 5S
Speakers and Tone Generators
(for use in hazardous areas)
For plant-wide alarm notifications and audible process alarms
DB1  ETH855, ETH845
DB3  ETH840, ETH640
DB4  ETH
DB5  W2H
DB12  WH
DB15  ESR
DB16 UL

Section 6S
Visual and Audible Combination Units
(for use in hazardous areas)
Strobe light and audible tone generator in one package
DB3 / XB11
DB3 / SM87HX
DB12 / XB13
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) provide 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.

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 Eaton’s Crouse-Hinds strobes, steady, and flashing beacons come in six lens colors: amber, blue, clear, green, magenta and red. Eaton’s 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 - Denotes 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
### Call Points and Heat Detectors

#### Hazardous

<table>
<thead>
<tr>
<th>Description</th>
<th>Page No.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fire Alarm or Emergency Call Points</strong></td>
<td></td>
</tr>
<tr>
<td>BG, BG2, BG3</td>
<td>see pages 1222–1228</td>
</tr>
<tr>
<td>PB</td>
<td>see pages 1222–1228</td>
</tr>
<tr>
<td>SM87</td>
<td>see pages 1222–1228</td>
</tr>
<tr>
<td><strong>Heat Detectors</strong></td>
<td></td>
</tr>
<tr>
<td>HD1</td>
<td>see pages 1229–1231</td>
</tr>
</tbody>
</table>
Fire Alarm or Emergency Call Points

MEDC Series

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

<table>
<thead>
<tr>
<th>Certification</th>
<th>Ordering Code</th>
<th>Cat. #</th>
<th>Standard Product Configuration</th>
</tr>
</thead>
<tbody>
<tr>
<td>UL, CSA, Class I, Div. 1, Groups C, D, Zone 1</td>
<td>36200102</td>
<td>SM87PBLAUL3T3B3NNR</td>
<td>Explosion protected, 2 × ⅜&quot; NPT entries, duty label “Fire—Press Here,” single pushbutton switch—latching, marine grade alloy, red finish</td>
</tr>
</tbody>
</table>

### SM87BG
### Break Glass Call Point—Explosionproof

<table>
<thead>
<tr>
<th>Certification</th>
<th>Ordering Code</th>
<th>Cat. #</th>
<th>Standard Product Configuration</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATEX Ex II 2GD</td>
<td>16200174</td>
<td>SM87BGLAD1B1NNR</td>
<td>Break glass call point, Ex II 2GD, Ex d IIC T6, IP 66 &amp; 67, 1 × M20 bottom entries, duty label, “Fire Breakglass,” alloy material, red finish</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Certification</th>
<th>Ordering Code</th>
<th>Cat. #</th>
<th>Standard Product Configuration</th>
</tr>
</thead>
<tbody>
<tr>
<td>UL, Class I, Div. 2, Groups A, B, C, D, Zone 1 &amp; 2</td>
<td>869105</td>
<td>PBUL4C6C0DSN7R</td>
<td>Explosion protected, 2 × ⅜&quot; NPT bottom entries, no duty label, DC, single pushbutton switch latch, painted red GRP</td>
</tr>
<tr>
<td>ATEX Ex II 2GD</td>
<td>800010</td>
<td>PBE8B80B0DSN6R</td>
<td>Explosion protected, Ex II 2GD, Exe, IIC, T6, Zone 1 &amp; 2, 2 × M20 entries, DC, single switch, red finish</td>
</tr>
</tbody>
</table>
BG Break Glass Fire Alarm Call Point—Hazardous Locations

Certification
UL Listed for:
- UL, ATEX
  - Class I, Div. 2, Groups A, B, C, D
  - Class I, Zone 2

Certified Ambient Temperature
-13°F to +131°F
-25°C to +55°C

Ingress Protection
NEMA 4X & 6
IP66 & 67

Material
Corrosion-free GRP

Entries
Up to 4 x ½" NPT, M20

Weight
2.6lb/1.2kg

Options
Body color, certification, lift flap, LED, tag & duty label, series and EOL resistor

<table>
<thead>
<tr>
<th>Certification</th>
<th>Type</th>
<th>Ordering Code</th>
<th>Cat. #</th>
<th>Standard Product Configuration</th>
</tr>
</thead>
<tbody>
<tr>
<td>UL Listed, Class I, Div. 2, Groups A, B, C, D, Zone 2</td>
<td>Haz. Loc.</td>
<td>869101</td>
<td>BGUL46C1DSN7R</td>
<td>Explosion protected, 2 x ½” NPT bottom entries, single break glass switch latching, painted red GRP finish</td>
</tr>
<tr>
<td>ATEX Ex II 1GD</td>
<td>Intrinsically Safe</td>
<td>800002</td>
<td>BG1B46B6DSN6</td>
<td>Explosion protected, Zone 0, 1 &amp; 2, DC, 2 x M20 bottom entries, single break glass switch latching, single switch, red finish</td>
</tr>
<tr>
<td>ATEX Ex II 2GD</td>
<td>Increased Safety</td>
<td>800003</td>
<td>BGEB46B6DSN6</td>
<td>Explosion protected Ex II 2GD, Exed, IIC, T6, Zone 1 &amp; 2, DC, 2 x M20 bottom entries, single break glass switch latching, red finish</td>
</tr>
<tr>
<td>IP66 &amp; 67</td>
<td>Waterproof</td>
<td>800001</td>
<td>BGWN46B6B1ASN6</td>
<td>Dust-tight and weatherproof, uncertified AC, 2 x M20 bottom entries, single break glass switch latching, red finish</td>
</tr>
</tbody>
</table>

BG2 Break Glass Call Point—Hazardous Locations

Certification
ATEX
- ATEX Ex II 1GD, Exia IIC T4
- ATEX Ex II 2GD, Exed(m) IIC T4 (T6)

Certified Ambient Temperature
-40°C to +55°C (Exia)
-20°C to +50°C (Exed)

Ingress Protection
IP66 & 67

Material
Corrosion-free GRP

Entries
2 x M20

Weight
1.2kg

Options
Lift flap

<table>
<thead>
<tr>
<th>Certification</th>
<th>Type</th>
<th>Ordering Code</th>
<th>Cat. #</th>
<th>Standard Product Configuration</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATEX Ex II 1GD</td>
<td>Intrinsically Safe</td>
<td>800005</td>
<td>BG2INN1N</td>
<td>Explosion protected, Zone 0, 1 &amp; 2, DC, 2 x M20 bottom entries, single break glass switch latching, red finish</td>
</tr>
<tr>
<td>Increased Safety</td>
<td>Increased Safety</td>
<td>800004</td>
<td>BG2EDC1N</td>
<td>Explosion protected, Zone 1 &amp; 2, DC, 2 x M20 bottom entries, single break glass switch latching, red finish</td>
</tr>
</tbody>
</table>

BG3 Break Glass Call Point—Explosionproof & Weatherproof

Certification
ATEX, GB
- 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 x M20

Weight
0.5kg

Options
Body color, lift flap

<table>
<thead>
<tr>
<th>Certification</th>
<th>Type</th>
<th>Ordering Code</th>
<th>Cat. #</th>
<th>Standard Product Configuration</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATEX Ex II 1G</td>
<td>Intrinsically Safe</td>
<td>800007</td>
<td>BG3INBN</td>
<td>Explosion protected, Zone 0 / 1 &amp; 2 DC, standard models are surface mount version, have 2 x M20 bottom entries, single break glass switch latching, duty label “Burning House,” red GRP finish</td>
</tr>
<tr>
<td>ATEX Ex II 1G</td>
<td>Weatherproof</td>
<td>800006</td>
<td>BG3WNBN</td>
<td>Uncertified, dust-tight &amp; weatherproof, 24V DC, single break glass switch latching, duty label “Burning House,” red finish</td>
</tr>
</tbody>
</table>
**Specification—SM87PBL Unit**

**Certification:**
- UL Listed: Class I, Div. 1, Groups C, D and Class I, Zone 1. Listing No: E186629.
- CSA Certification: I.S. Version
  - Class I, Groups A, B, C, D
  - Exd Class I, Div. 2 1/2, Group D
  - Enclosure type 4, Cert. No. 79120
- ATEX approved:
  - EN50014, EN50018
  - 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 × 1/2” or 3/4” 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: –55°C to 70°C
- –20°C to +55°C (LED version only)
- UL: –67°F to +158°F (–55°C to +70°C)
- –4°F to +131°F (–20°C to +55°C) LED version only
- CSA: –58°F to +131°F (–50°C to +55°C) (Exd)
- –58°F to +104°F (–50°C to +40°C) (Exi)

**Ingress Protection:**
- NEMA 4X and 6, IP66 & 67
- SM87 PB IP68 (40m for 8 hours)

**Addressable:** Consult MEDC for specification

**Resistor Values:** 470R minimum (DC & I.S. units only)

---

**Field Installed Duty Labels**

<table>
<thead>
<tr>
<th>Use with SM87 Call Points</th>
<th>Duty Label</th>
<th>Ordering Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>SM87PBL/SM87BGL</td>
<td>Blank</td>
<td>869530</td>
</tr>
<tr>
<td>SM87PBL/SM87BGL</td>
<td>Fire</td>
<td>869526</td>
</tr>
<tr>
<td>SM87PBL/SM87BGL</td>
<td>Emergency Shut Down</td>
<td>869532</td>
</tr>
<tr>
<td>SM87PBL/SM87BGL</td>
<td>Suppression Release</td>
<td>869534</td>
</tr>
</tbody>
</table>

---

**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.
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.

### Specification—SM87BGL Unit

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Break glass unit, latching</td>
<td>Type SM87BGL</td>
</tr>
<tr>
<td>Lift flap, break glass, latching</td>
<td>Type SM87LBGL</td>
</tr>
<tr>
<td>Voltage:</td>
<td>Exd 24V AC/DC Exia 28V</td>
</tr>
<tr>
<td>Rating:</td>
<td>2 amp</td>
</tr>
<tr>
<td>Switches:</td>
<td>2 pole c/o, wired to terminals</td>
</tr>
<tr>
<td>Optional</td>
<td>Optional up to 4 pole</td>
</tr>
<tr>
<td>Terminals:</td>
<td>Will accept up to 2.5 mm² cable</td>
</tr>
<tr>
<td>Entries:</td>
<td>Up to 4 x 20 mm or 25 mm ISO EExd/EExia</td>
</tr>
<tr>
<td>Optional</td>
<td>A red high intensity LED can be fitted for alarm</td>
</tr>
<tr>
<td>Indicator:</td>
<td>indication</td>
</tr>
<tr>
<td>Material:</td>
<td>Grade 316 ANC4B Stainless Steel or LM 25 TF</td>
</tr>
<tr>
<td>Weight:</td>
<td>Marine Grade Alloy</td>
</tr>
<tr>
<td>Weight:</td>
<td>3.8 kg. steel (approx.) or 2.5 kg. alloy (approx.)</td>
</tr>
<tr>
<td>Finish:</td>
<td>Epoxy paint finish as standard or to customer’s specification</td>
</tr>
<tr>
<td>Certified Temperature:</td>
<td>Exd/Exia*</td>
</tr>
<tr>
<td></td>
<td>–55°C to +70°C</td>
</tr>
<tr>
<td></td>
<td>–20°C to +55°C (LED version only)</td>
</tr>
<tr>
<td></td>
<td>CSA</td>
</tr>
<tr>
<td></td>
<td>–50°C to +55°C (Exd)</td>
</tr>
<tr>
<td></td>
<td>–50°C to +40°C (Exi)</td>
</tr>
<tr>
<td>*Note:</td>
<td>Includes ATEX, GOST &amp; Chinese versions.</td>
</tr>
<tr>
<td>Ingress Protection:</td>
<td>IP66 and IP67</td>
</tr>
<tr>
<td>Protection:</td>
<td>SM87 PB IP68 (40 min for 8 hours)</td>
</tr>
<tr>
<td>Resistor Values:</td>
<td>470R minimum (DC &amp; I.S. units only)</td>
</tr>
</tbody>
</table>

### 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.

**Use with SM87 Call Points:**

- **SM87PBL/SM87BGL**
  - Blank: 869530
  - Fire: 869526
  - Emergency Shut Down: 869532
  - Suppression Release: 869534

**Certification Code:**

- ExdIICT6: 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
- 1/4" NPT Left/Right: 3L3R
- 1/4" NPT Top/Bottom: 3T3B
- 1/4" NPT Bottom: 3B
- 1/2" NPT Left/Right: 4L4R
- 1/2" NPT Top/Bottom: 4T4B
- 1/2" NPT Bottom: 4B

**Certification:**

- ExdIICT6
- CSA

**Features:**

- Tag: N
- Label: N
- N

**Finish:**

- Red: R
- Blue: B
- Yellow: Y
- Black Stripe: X

**Note:** The units can be internally wired to suit customers’ specifications. Please discuss your requirements with us.
Field Installed Duty Labels

<table>
<thead>
<tr>
<th>Use with PB Call Points:</th>
<th>Duty Label</th>
<th>Ordering Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>PB</td>
<td>Blank</td>
<td>869530</td>
</tr>
<tr>
<td>PB</td>
<td>Fire</td>
<td>869526</td>
</tr>
<tr>
<td>PB</td>
<td>Emergency Shut Down</td>
<td>869532</td>
</tr>
<tr>
<td>PB</td>
<td>Suppression Release</td>
<td>869534</td>
</tr>
</tbody>
</table>

Specification—PB Unit

Certification:
UL Listed — Hazardous locations: Class I, Div. 2, Groups A, B, C, D and Class I, Zone 2
UL Listing No. E186629
Ordinary locations: Fire Alarm Boxes. UL Listing No. S8117
CSA Certified to C22.2 (PB only), Nos. 0-M, 0.4-M, 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
ATEX Approved:
EN50014, EN50018, EN50019, EN50028
Cert. No. BAS02ATEX2105X (BG & PB), Exed II C T6 (switch only), Exedm IIC T4 (other versions)

Voltage: Up to 240V

Certified Temperature:
BGUL/PBUL: –13°F to +131°F (–25°C to + 55°C)
PB (CSA): –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 1/2" 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)
PB & BG tag label — worded to client’s requirements (screwed on)

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.

<table>
<thead>
<tr>
<th>Model</th>
<th>Certification</th>
<th>Entries</th>
<th>Labels</th>
<th>Switches</th>
<th>Features</th>
<th>Terminals</th>
<th>Finish</th>
</tr>
</thead>
<tbody>
<tr>
<td>PB</td>
<td>ATEX/CE/EXIE — CEEx</td>
<td></td>
<td>N</td>
<td>DS</td>
<td>N</td>
<td>7</td>
<td></td>
</tr>
</tbody>
</table>
1S Fire Alarm or Emergency Call Points

MEDC Series

Field Installed Duty Labels

Use with BG Call Points:

<table>
<thead>
<tr>
<th>Duty Label</th>
<th>Ordering Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blank</td>
<td>869531</td>
</tr>
<tr>
<td>Fire</td>
<td>869525</td>
</tr>
<tr>
<td>Emergency Shut Down</td>
<td>869533</td>
</tr>
<tr>
<td>Suppression Release</td>
<td>869535</td>
</tr>
</tbody>
</table>

Specification—BG Unit

Certification:

UL Listed — Hazardous locations: Class I, Div. 2, Groups A, B, C, D and Class I, Zone 2
UL Listing No. E186629
Ordinary locations: Fire Alarm Boxes, UL Listing No. S8117,
CSA Certified to C22.2 (PB only), Nos. 0-M, 0.4-M, 14-M, 25.30-M, 94-M, 142-M 1987, 157M 1987, 157–92, Enclosure Type 4, 4A, Class I, Groups A, B, C, D, Cert. No. 79120
ATEX Approved:
–58°F to +104°F (~40°C to +40°C)
Cert. No. BAS02ATEX2105X (BG & PB), Exed II C T6 (switch only), Exedm IIC T4 (other versions)

Voltage:
Up to 240V

Certified Temperature:

BG/UL/PBUL:
–13°F to +131°F (~−25°C to +55°C)
PB (CSA):
–58°F to +104°F (~−40°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 1/2" 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, 470Ω 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:
(1) Fire break glass — press here
(2) Break glass — press here
(3) Worded to client’s requirements
PB & BG tag label — worded to client’s requirements (screwed on)
PB & BG duty label — worded to client’s requirements (riveted on)

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.
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.
Heat Detectors

MEDC Series

**HD1**

<table>
<thead>
<tr>
<th>Heat Detector — Explosionproof &amp; Intrinsically Safe</th>
</tr>
</thead>
<tbody>
<tr>
<td>Certification</td>
</tr>
<tr>
<td>cULus, ATEX, GOST-R, GOST-K, GB</td>
</tr>
<tr>
<td>Certified Ambient Temperature</td>
</tr>
<tr>
<td>Ingress Protection</td>
</tr>
<tr>
<td>Material</td>
</tr>
<tr>
<td>Temperature Settings</td>
</tr>
<tr>
<td>Entries</td>
</tr>
<tr>
<td>Weight</td>
</tr>
<tr>
<td>Options:</td>
</tr>
</tbody>
</table>

**Compensated Heat Detector with Guard Fitted Natural Black Finish**

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

<table>
<thead>
<tr>
<th>Certification</th>
<th>Standard Product Configuration</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATEX Exd 140°F detector, marine grade alloy enclosure, painted gray</td>
<td>46500152 HD1ULE140GN</td>
</tr>
<tr>
<td>ATEX Exd 160°F detector, marine grade alloy enclosure, painted gray</td>
<td>46500153 HD1ULE160GN</td>
</tr>
<tr>
<td>ATEX Exd 190°F detector, marine grade alloy enclosure, painted gray</td>
<td>46500154 HD1ULE190GN</td>
</tr>
<tr>
<td>ATEX Exd 225°F detector, marine grade alloy enclosure, painted gray</td>
<td>46500155 HD1ULE225GN</td>
</tr>
<tr>
<td>ATEX Exd 275°F detector, marine grade alloy enclosure, painted gray</td>
<td>46500156 HD1ULE275GN</td>
</tr>
<tr>
<td>ATEX Exd 325°F detector, marine grade alloy enclosure, painted gray</td>
<td>46500157 HD1ULE325GN</td>
</tr>
<tr>
<td>ATEX Exd 360°F detector, marine grade alloy enclosure, painted gray</td>
<td>46500158 HD1ULE360GN</td>
</tr>
<tr>
<td>ATEX Exd 450°F detector, marine grade alloy enclosure, painted gray</td>
<td>46500159 HD1ULE450GN</td>
</tr>
<tr>
<td>ATEX Exd 160°F detector, GRP enclosure, natural black</td>
<td>46500152 HD1ULE140GN</td>
</tr>
<tr>
<td>ATEX Exd 190°F detector, GRP enclosure, natural black</td>
<td>46500153 HD1ULE160GN</td>
</tr>
<tr>
<td>ATEX Exd 225°F detector, GRP enclosure, natural black</td>
<td>46500155 HD1ULE225GN</td>
</tr>
<tr>
<td>ATEX Exd 275°F detector, GRP enclosure, natural black</td>
<td>46500156 HD1ULE275GN</td>
</tr>
<tr>
<td>ATEX Exd 325°F detector, GRP enclosure, natural black</td>
<td>46500157 HD1ULE325GN</td>
</tr>
<tr>
<td>ATEX Exd 360°F detector, GRP enclosure, natural black</td>
<td>46500158 HD1ULE360GN</td>
</tr>
<tr>
<td>ATEX Exd 450°F detector, GRP enclosure, natural black</td>
<td>46500159 HD1ULE450GN</td>
</tr>
</tbody>
</table>

**Certification**

UL, cUL, Class I, Div 2, Groups A, B, C, D, Class I, Zone 2, IIC

**Temperature Setting**

<table>
<thead>
<tr>
<th>Temperature Setting (°F)</th>
<th>Tolerance (°F)</th>
<th>Color Code Detector Tip</th>
<th>Ordering Code</th>
<th>Cat. #</th>
</tr>
</thead>
<tbody>
<tr>
<td>140</td>
<td>60</td>
<td>±7/-8 ±4 Black</td>
<td>46500152</td>
<td>HD1ULE140GN</td>
</tr>
<tr>
<td>160</td>
<td>71</td>
<td>±7/-8 ±4 Black</td>
<td>46500153</td>
<td>HD1ULE160GN</td>
</tr>
<tr>
<td>190</td>
<td>88</td>
<td>±7/-8 ±4 White</td>
<td>46500154</td>
<td>HD1ULE190GN</td>
</tr>
<tr>
<td>225</td>
<td>107</td>
<td>±7/-8 ±4 White</td>
<td>46500155</td>
<td>HD1ULE225GN</td>
</tr>
<tr>
<td>275</td>
<td>135</td>
<td>±10 ±6 Blue</td>
<td>46500156</td>
<td>HD1ULE275GN</td>
</tr>
<tr>
<td>325</td>
<td>163</td>
<td>±10 ±6 Red</td>
<td>46500157</td>
<td>HD1ULE325GN</td>
</tr>
<tr>
<td>360</td>
<td>182</td>
<td>±10 ±6 Red</td>
<td>46500158</td>
<td>HD1ULE360GN</td>
</tr>
<tr>
<td>450</td>
<td>232</td>
<td>±15 ±8 Green</td>
<td>46500159</td>
<td>HD1ULE450GN</td>
</tr>
</tbody>
</table>

**Certification**

ATEX Exd

**Standard Product Configuration**

<table>
<thead>
<tr>
<th>Certification</th>
<th>Standard Product Configuration</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATEX Exd 140°F detector, marine grade alloy enclosure, painted gray</td>
<td>465607 HD1BD140NG</td>
</tr>
<tr>
<td>ATEX Exd 160°F detector, marine grade alloy enclosure, painted gray</td>
<td>465602 HD1BD160NG</td>
</tr>
<tr>
<td>ATEX Exd 190°F detector, marine grade alloy enclosure, painted gray</td>
<td>465603 HD1BD190NG</td>
</tr>
<tr>
<td>ATEX Exd 225°F detector, marine grade alloy enclosure, painted gray</td>
<td>465614 HD1BD225NG</td>
</tr>
<tr>
<td>ATEX Exd 275°F detector, marine grade alloy enclosure, painted gray</td>
<td>465609 HD1BD275NG</td>
</tr>
<tr>
<td>ATEX Exd 325°F detector, marine grade alloy enclosure, painted gray</td>
<td>465605 HD1BD325NG</td>
</tr>
<tr>
<td>ATEX Exd 360°F detector, marine grade alloy enclosure, painted gray</td>
<td>46500043 HD1BD360NG</td>
</tr>
<tr>
<td>ATEX Exd 450°F detector, marine grade alloy enclosure, painted gray</td>
<td>465601 HD1BD450NG</td>
</tr>
<tr>
<td>ATEX Exd 600°F detector, marine grade alloy enclosure, painted gray</td>
<td>46500045 HD1BD600NG</td>
</tr>
<tr>
<td>ATEX Exd 725°F detector, marine grade alloy enclosure, painted gray</td>
<td>46500104 HD1BD725NG</td>
</tr>
</tbody>
</table>

**Certification**

ATEX Exem

**Standard Product Configuration**

<table>
<thead>
<tr>
<th>Certification</th>
<th>Standard Product Configuration</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATEX Exem 140°F detector, GRP enclosure, natural black</td>
<td>46500026 HD1BE140NN</td>
</tr>
<tr>
<td>ATEX Exem 160°F detector, GRP enclosure, natural black</td>
<td>465301 HD1BE160NN</td>
</tr>
<tr>
<td>ATEX Exem 190°F detector, GRP enclosure, natural black</td>
<td>465305 HD1BE190NN</td>
</tr>
<tr>
<td>ATEX Exem 225°F detector, GRP enclosure, natural black</td>
<td>465304 HD1BE225NN</td>
</tr>
<tr>
<td>ATEX Exem 275°F detector, GRP enclosure, natural black</td>
<td>46500031 HD1BE275NN</td>
</tr>
<tr>
<td>ATEX Exem 325°F detector, GRP enclosure, natural black</td>
<td>465306 HD1BE325NN</td>
</tr>
<tr>
<td>ATEX Exem 360°F detector, GRP enclosure, natural black</td>
<td>46500072 HD1BE360NN</td>
</tr>
<tr>
<td>ATEX Exem 450°F detector, GRP enclosure, natural black</td>
<td>465303 HD1BE450NN</td>
</tr>
</tbody>
</table>
Heat Detectors

MEDC Series

**Specification—HD1 Unit**

Certification:
- CENELEC EN50014, 19 & 28
- Exd IIB T6 (T3 at +125°C), Cert. No. Baseefa 03ATEX0447
- Exia IIC T6 (T4 with diodes/Resistors), Cert. No. Baseefa 03ATEX0427
- Exem II T6, Cert. No. Baseefa 03ATEX0428
- UL listed for USA and Canada — Class I, Div 2, Groups A, B, C & D
- UL Listing No. E252390
- GOST 'R' & 'K' Certification: Exd, Exi & Exem versions

Chinese Certification: CQST — Exd, Exi & Exem versions

Material:
- Detector: 316 stainless steel
- Enclosures: Exd/Exia/Exem/UL — GRP (anti-static)
- 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.
- Exia/Exem/UL, 1.1kg.

Certified Temperature:
- -20°C to +125°C Exd (T3) ATEX & GOST ‘R’ only
- -20°C to +65°C Exd (T6)/Exia/Exem/UL, -55°C to +65°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.

<table>
<thead>
<tr>
<th>Temperature Setting (°F)</th>
<th>Tolerance (°F)</th>
<th>Color Code Detector Tip</th>
</tr>
</thead>
<tbody>
<tr>
<td>140</td>
<td>+7/-8</td>
<td>±4</td>
</tr>
<tr>
<td>160</td>
<td>+7/-8</td>
<td>±4</td>
</tr>
<tr>
<td>190</td>
<td>+7/-8</td>
<td>±4</td>
</tr>
<tr>
<td>225</td>
<td>+7/-8</td>
<td>±4</td>
</tr>
<tr>
<td>275</td>
<td>±10</td>
<td>±6</td>
</tr>
<tr>
<td>325</td>
<td>±10</td>
<td>±6</td>
</tr>
<tr>
<td>360</td>
<td>±10</td>
<td>±6</td>
</tr>
<tr>
<td>450</td>
<td>±15</td>
<td>±8</td>
</tr>
<tr>
<td>600</td>
<td>±20</td>
<td>±11</td>
</tr>
<tr>
<td>725</td>
<td>±25</td>
<td>±14</td>
</tr>
</tbody>
</table>
# Strobe Lights

## Hazardous and Non-hazardous

<table>
<thead>
<tr>
<th>Description</th>
<th>Page No.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Strobe Lights - MEDC Series</strong></td>
<td></td>
</tr>
<tr>
<td>SM87 HXB</td>
<td>see pages 1239–1240</td>
</tr>
<tr>
<td>XB4</td>
<td>see pages 1242–1244</td>
</tr>
<tr>
<td>XB11</td>
<td>see pages 1239–1241</td>
</tr>
<tr>
<td>XB12</td>
<td>see pages 1242–1245</td>
</tr>
<tr>
<td>XB13</td>
<td>see pages 1243–1246</td>
</tr>
<tr>
<td>XB15</td>
<td>see pages 1235–1238</td>
</tr>
<tr>
<td>XB16 UL</td>
<td>see pages 1236–1238</td>
</tr>
<tr>
<td><strong>Strobe Lights - Hazard•Gard EX Series</strong></td>
<td></td>
</tr>
<tr>
<td>EXFASC</td>
<td>see page 1247</td>
</tr>
<tr>
<td>EXR</td>
<td>see pages 1251–1253</td>
</tr>
<tr>
<td>EXS, EXDS</td>
<td>see pages 1248–1250</td>
</tr>
</tbody>
</table>
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 1/2" 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
## XB15

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

<table>
<thead>
<tr>
<th>Certification</th>
<th>Voltage</th>
<th>Lens Color</th>
<th>Ordering Code</th>
<th>Cat. #</th>
<th>Standard Product Configuration</th>
</tr>
</thead>
<tbody>
<tr>
<td>UL, cUL Listed, Class I, Div. 2, Groups A, B, C, D</td>
<td>120V AC</td>
<td>Red</td>
<td>869400</td>
<td>XB15UL12006RWBN</td>
<td>15 joules, direct mount w/backstrap, x ¾&quot; NPT side entries, wire guard, 60 flashes per minute, natural black finish</td>
</tr>
<tr>
<td>UL, cUL Listed, Class I, Div. 2, Groups A, B, C, D</td>
<td>120V AC</td>
<td>Amber</td>
<td>869401</td>
<td>XB15UL12006AWBN</td>
<td>15 joules, pipe mount, 1 x ¾&quot; NPT entry, wire guard, 60 flashes per minute, natural black finish</td>
</tr>
<tr>
<td>UL, cUL Listed, Class I, Div. 2, Groups A, B, C, D</td>
<td>120V AC</td>
<td>Red</td>
<td>869402</td>
<td>XB15UL12006RWPN</td>
<td>15 joule beacon, 60 flashes per minute, wire guard, backstrap, 2 x ¾&quot; NPT entries, natural black enclosure</td>
</tr>
<tr>
<td>UL, cUL Listed, Class I, Div. 2, Groups A, B, C, D</td>
<td>24V DC</td>
<td>Clear</td>
<td>27600042</td>
<td>XB15UL02406CWBN</td>
<td>15 joules, direct mount w/backstrap, x ¾&quot; NPT side entries, wire guard, 60 flashes per minute, natural black finish</td>
</tr>
<tr>
<td>UL, cUL Listed, Class I, Div. 2, Groups A, B, C, D</td>
<td>24V DC</td>
<td>Green</td>
<td>27600043</td>
<td>XB15UL02406GWBN</td>
<td>15 joules, pipe mount, 1 x ¾&quot; NPT entry, wire guard, 60 flashes per minute, natural black finish</td>
</tr>
<tr>
<td>UL, cUL Listed, Class I, Div. 2, Groups A, B, C, D</td>
<td>24V DC</td>
<td>Blue</td>
<td>869393</td>
<td>XB15UL02406BWBNN</td>
<td>15 joule beacon, 60 flashes per minute, wire guard, backstrap, 2 x ¾&quot; NPT entries, natural black enclosure</td>
</tr>
<tr>
<td>UL, cUL Listed, Class I, Div. 2, Groups A, B, C, D</td>
<td>24V DC</td>
<td>Red</td>
<td>869398</td>
<td>XB15UL02406RWBNN</td>
<td>15 joules, direct mount w/backstrap, x ¾&quot; NPT side entries, wire guard, 60 flashes per minute, natural black finish</td>
</tr>
<tr>
<td>UL, cUL Listed, Class I, Div. 2, Groups A, B, C, D</td>
<td>24V DC</td>
<td>Amber</td>
<td>869399</td>
<td>XB15UL02406AWBN</td>
<td>15 joules, pipe mount, 1 x ¾&quot; NPT entry, wire guard, 60 flashes per minute, natural black finish</td>
</tr>
<tr>
<td>UL, cUL Listed, Class I, Div. 2, Groups A, B, C, D</td>
<td>24V DC</td>
<td>Clear</td>
<td>27600047</td>
<td>XB15UL02406CWPN</td>
<td>15 joules, direct mount w/backstrap, x ¾&quot; NPT side entries, wire guard, 60 flashes per minute, natural black finish</td>
</tr>
<tr>
<td>UL, cUL Listed, Class I, Div. 2, Groups A, B, C, D</td>
<td>24V DC</td>
<td>Green</td>
<td>27600048</td>
<td>XB15UL02406GWPN</td>
<td>15 joules, pipe mount, 1 x ¾&quot; NPT entry, wire guard, 60 flashes per minute, natural black finish</td>
</tr>
<tr>
<td>UL, cUL Listed, Class I, Div. 2, Groups A, B, C, D</td>
<td>24V DC</td>
<td>Blue</td>
<td>869394</td>
<td>XB15UL02406BWPNN</td>
<td>15 joule beacon, 60 flashes per minute, wire guard, backstrap, 2 x ¾&quot; NPT entries, natural black enclosure</td>
</tr>
<tr>
<td>UL, cUL Listed, Class I, Div. 2, Groups A, B, C, D</td>
<td>24V DC</td>
<td>Red</td>
<td>869396</td>
<td>XB15UL02406RPNN</td>
<td>15 joules, direct mount w/backstrap, x ¾&quot; NPT side entries, wire guard, 60 flashes per minute, natural black finish</td>
</tr>
<tr>
<td>UL, cUL Listed, Class I, Div. 2, Groups A, B, C, D</td>
<td>24V DC</td>
<td>Amber</td>
<td>869397</td>
<td>XB15UL02406AWPN</td>
<td>15 joules, pipe mount, 1 x ¾&quot; NPT entry, wire guard, 60 flashes per minute, natural black finish</td>
</tr>
<tr>
<td>UL, cUL Listed, Class I, Div. 2, Groups A, B, C, D</td>
<td>120V AC</td>
<td>Clear</td>
<td>27600052</td>
<td>XB15UL12006CWBNN</td>
<td>15 joules, direct mount w/backstrap, x ¾&quot; NPT side entries, wire guard, 60 flashes per minute, natural black finish</td>
</tr>
<tr>
<td>UL, cUL Listed, Class I, Div. 2, Groups A, B, C, D</td>
<td>120V AC</td>
<td>Green</td>
<td>27600053</td>
<td>XB15UL12006GWBN</td>
<td>15 joules, pipe mount, 1 x ¾&quot; NPT entry, wire guard, 60 flashes per minute, natural black finish</td>
</tr>
<tr>
<td>UL, cUL Listed, Class I, Div. 2, Groups A, B, C, D</td>
<td>120V AC</td>
<td>Blue</td>
<td>869405</td>
<td>XB15UL12006BWBNN</td>
<td>15 joules, direct mount w/backstrap, x ¾&quot; NPT side entries, wire guard, 60 flashes per minute, natural black finish</td>
</tr>
<tr>
<td>UL, cUL Listed, Class I, Div. 2, Groups A, B, C, D</td>
<td>120V AC</td>
<td>Clear</td>
<td>27600057</td>
<td>XB15UL12006CWPNN</td>
<td>15 joules, pipe mount, 1 x ¾&quot; NPT entry, wire guard, 60 flashes per minute, natural black finish</td>
</tr>
<tr>
<td>UL, cUL Listed, Class I, Div. 2, Groups A, B, C, D</td>
<td>120V AC</td>
<td>Green</td>
<td>27600058</td>
<td>XB15UL12006GWPNN</td>
<td>15 joules, direct mount w/backstrap, x ¾&quot; NPT side entries, wire guard, 60 flashes per minute, natural black finish</td>
</tr>
<tr>
<td>UL, cUL Listed, Class I, Div. 2, Groups A, B, C, D</td>
<td>120V AC</td>
<td>Blue</td>
<td>869404</td>
<td>XB15UL12006BWPNN</td>
<td>15 joules, pipe mount, 1 x ¾&quot; NPT entry, wire guard, 60 flashes per minute, natural black finish</td>
</tr>
</tbody>
</table>
**2S Strobe Lights**

**Hazardous Locations**  
**Weatherproof**

**MEDC Series**

---

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

### Certification
- cULus, UL 1971 compliant
- UL Listed for:  
  - Class I, Div. 2, Groups A, B, C, D

### Ambient Temperature
- -67°F to +158°F
- -55°C to +70°C

### Ingress Protection
- NEMA 4X & 6
- IP68 & 67

### Material
- Corrosion-free GRP

### Entries
- Standard 1 x 1/2" NPT

### Weight
- 2.2lb/1kg

### Options
- Body & lens color, lens guard, voltages 12–48V DC, 110–254V AC

---

<table>
<thead>
<tr>
<th>Certification</th>
<th>Voltage</th>
<th>Lens Color</th>
<th>Ordering Code</th>
<th>Cat. #</th>
<th>Standard Product Configuration</th>
</tr>
</thead>
<tbody>
<tr>
<td>UL, cUL Listed, Class I, Div. 2, Groups A, B, C, D</td>
<td>120V AC</td>
<td>Blue</td>
<td>869406</td>
<td>XB16UL12060BYNN</td>
<td>10 joules, 60 flashes per minute, lens guard, pipe mounting, 1 x 1/2&quot; NPT entry, natural black enclosure</td>
</tr>
<tr>
<td>UL, cUL Listed, Class I, Div. 2, Groups A, B, C, D</td>
<td>120V AC</td>
<td>Red</td>
<td>869407</td>
<td>XB16UL12060RYNN</td>
<td>10 joules, 60 flashes per minute, 1 x 1/2&quot; NPT entry, 240 Cd, lens guard, natural black finish</td>
</tr>
<tr>
<td>UL, cUL Listed, Class I, Div. 2, Groups A, B, C, D</td>
<td>120V AC</td>
<td>Amber</td>
<td>869408</td>
<td>XB16UL12060AYNN</td>
<td>10 joule beacon, 60 flashes per minute, lens guard, pipe mounting, 1 x 1/2&quot; NPT entry, natural black enclosure</td>
</tr>
<tr>
<td>UL, cUL Listed, Class I, Div. 2, Groups A, B, C, D</td>
<td>120V AC</td>
<td>Clear</td>
<td>29600013</td>
<td>XB16UL12060CYNN</td>
<td>10 joule beacon, 60 flashes per minute, lens guard, pipe mounting, 1 x 1/2&quot; NPT entry, natural black enclosure</td>
</tr>
<tr>
<td>UL, cUL Listed, Class I, Div. 2, Groups A, B, C, D</td>
<td>120V AC</td>
<td>Green</td>
<td>29600014</td>
<td>XB16UL12060GYNN</td>
<td>10 joule beacon, 60 flashes per minute, lens guard, pipe mounting, 1 x 1/2&quot; NPT entry, natural black enclosure</td>
</tr>
<tr>
<td>UL, cUL Listed, Class I, Div. 2, Groups A, B, C, D</td>
<td>120V AC</td>
<td>Blue</td>
<td>29600011</td>
<td>XB16UL12060BYNN</td>
<td>10 joule beacon, 60 flashes per minute, lens guard, pipe mounting, 1 x 1/2&quot; NPT entry, natural black enclosure</td>
</tr>
<tr>
<td>UL, cUL Listed, Class I, Div. 2, Groups A, B, C, D</td>
<td>120V AC</td>
<td>Red</td>
<td>29600003</td>
<td>XB16UL12060RYNN</td>
<td>10 joule beacon, 60 flashes per minute, lens guard, pipe mounting, 1 x 1/2&quot; NPT entry, natural black enclosure</td>
</tr>
<tr>
<td>UL, cUL Listed, Class I, Div. 2, Groups A, B, C, D</td>
<td>120V AC</td>
<td>Amber</td>
<td>29600004</td>
<td>XB16UL12060AYNN</td>
<td>10 joule beacon, 60 flashes per minute, lens guard, pipe mounting, 1 x 1/2&quot; NPT entry, natural black enclosure</td>
</tr>
<tr>
<td>UL, cUL Listed, Class I, Div. 2, Groups A, B, C, D</td>
<td>24V DC</td>
<td>Green</td>
<td>29600016</td>
<td>XB16UL02460GYNN</td>
<td>10 joule beacon, 60 flashes per minute, lens guard, pipe mounting, 1 x 1/2&quot; NPT entry, natural black enclosure</td>
</tr>
<tr>
<td>UL, cUL Listed, Class I, Div. 2, Groups A, B, C, D</td>
<td>24V DC</td>
<td>Blue</td>
<td>29600017</td>
<td>XB16UL02460BYNN</td>
<td>10 joule beacon, 60 flashes per minute, lens guard, pipe mounting, 1 x 1/2&quot; NPT entry, natural black enclosure</td>
</tr>
<tr>
<td>UL, cUL Listed, Class I, Div. 2, Groups A, B, C, D</td>
<td>24V DC</td>
<td>Red</td>
<td>869410</td>
<td>XB16UL02460RYNN</td>
<td>10 joule beacon, 60 flashes per minute, lens guard, pipe mounting, 1 x 1/2&quot; NPT entry, natural black enclosure</td>
</tr>
<tr>
<td>UL, cUL Listed, Class I, Div. 2, Groups A, B, C, D</td>
<td>24V DC</td>
<td>Amber</td>
<td>869411</td>
<td>XB16UL02460AYNN</td>
<td>10 joule beacon, 60 flashes per minute, lens guard, pipe mounting, 1 x 1/2&quot; NPT entry, natural black enclosure</td>
</tr>
</tbody>
</table>
**Strobe Lights**

**MEDC Series**

**Electrical Ratings:**

<table>
<thead>
<tr>
<th>Voltage</th>
<th>DC</th>
<th>24</th>
<th>48</th>
<th>110</th>
<th>120</th>
<th>230</th>
<th>240</th>
<th>254</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current (A) at 80 fpm</td>
<td>.78</td>
<td>.67</td>
<td>.4</td>
<td>.4</td>
<td>.2</td>
<td>.2</td>
<td>.17</td>
<td></td>
</tr>
<tr>
<td>Current (A) at 80 fpm</td>
<td>.99</td>
<td>.73</td>
<td>.4</td>
<td>.4</td>
<td>.2</td>
<td>.2</td>
<td>.17</td>
<td></td>
</tr>
<tr>
<td>Current (A) at 120 fpm</td>
<td>.99</td>
<td>.73</td>
<td>.4</td>
<td>.4</td>
<td>.2</td>
<td>.2</td>
<td>.17</td>
<td></td>
</tr>
</tbody>
</table>

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:**

<table>
<thead>
<tr>
<th>Color</th>
<th>Red</th>
<th>Blue</th>
<th>Amber</th>
<th>Green</th>
<th>Yellow</th>
</tr>
</thead>
<tbody>
<tr>
<td>Factor</td>
<td>0.15</td>
<td>0.12</td>
<td>0.51</td>
<td>0.49</td>
<td>0.86</td>
</tr>
</tbody>
</table>

**Specification—XB15 Unit**

**Certification:**

- UL Listed for USA and Canada:
  - Hazardous locations: Class I, Div. 2, Groups A, B, C, D
  - 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 × 10⁶ 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 × ¾” NPT or 3 × ¾” NPT (direct mount);
  - ¾” 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.

<table>
<thead>
<tr>
<th>Model</th>
<th>XB15</th>
</tr>
</thead>
<tbody>
<tr>
<td>Certification</td>
<td>ATEX B, UL UL</td>
</tr>
<tr>
<td>Voltage</td>
<td>24V DC, 110V AC, 120V AC, 240V AC</td>
</tr>
<tr>
<td>Lens Flashrate</td>
<td>08 12</td>
</tr>
<tr>
<td>Unit Guard</td>
<td>None N, Cast C, Wire W</td>
</tr>
<tr>
<td>Unit Fixing</td>
<td>Pipe mount P*, Direct w/backstrap B</td>
</tr>
</tbody>
</table>

*Not available on ATEX version.*
Specification—XB16UL Unit

Certification:
- UL Listed for USA and Canada:
  - Hazardous locations for USA and Canada
    Class I, Div. 2, Groups A, B, C, D
    UL listing No. E251185
  - Ordinary locations: Visual Signal Device: UL1638
    UL listing No. E251185
  - Hazardous locations for hearing impaired: UL1971
    UL listing No. E251185

Material:
- Body: Glass reinforced polyester
- Lens: U.V. stable polycarbonate
- Lens screws: stainless steel 316

Finish:
- Natural black or painted to customer specification

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

Certified Temperature: -67°F to +158°F (-55°C to +70°C)

Tube Energy: 10 joules
Tube Life: > 1 x 106 flashes
Weight: 2.2lb/1.0kg
Ingress Protection: NEMA 4X & 6, IP66 & IP67

Entries:
- Standard 1 x ½" NPT pipe mount

Terminals: 8 x 14AWG

Labels: Tag/Duty label option

Electrical Ratings:

For Hazardous Locations and Ordinary Locations (UL1638) Units

<table>
<thead>
<tr>
<th></th>
<th>DC</th>
<th>AC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voltage</td>
<td>24</td>
<td>110</td>
</tr>
<tr>
<td>Current (A) at 60 fpm</td>
<td>0.89</td>
<td>0.30</td>
</tr>
<tr>
<td>Current (A) at 80 fpm</td>
<td>0.89</td>
<td>0.30</td>
</tr>
<tr>
<td>Current (A) at 120 fpm</td>
<td>0.89</td>
<td>0.30</td>
</tr>
<tr>
<td>Effective intensity (Cd): 240 at 60 f.p.m.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Peak candlepower: 580,000 (Peak candlepower is the maximum light intensity generated by a flashing light during its light pulse)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

For UL1971 Units Only

<table>
<thead>
<tr>
<th></th>
<th>DC</th>
<th>AC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voltage</td>
<td>24</td>
<td>110</td>
</tr>
<tr>
<td>Current (A) at 60 fpm</td>
<td>1.22</td>
<td>1.52</td>
</tr>
<tr>
<td>Current (A) at 80 fpm</td>
<td>1.22</td>
<td>1.52</td>
</tr>
<tr>
<td>Current (A) at 120 fpm</td>
<td>1.22</td>
<td>1.52</td>
</tr>
<tr>
<td>Effective intensity (Cd): 240 at 80 f.p.m.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Peak candlepower: 580,000 (Peak candlepower is the maximum light intensity generated by a flashing light during its light pulse)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

On UL1971 units, max. current rating is based on in-rush current. This is why the current ratings are not proportional as with other beacons/strobes.

UL 1971 On-axis output: 15 Cd.

Note: 24V DC units are certified 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:

<table>
<thead>
<tr>
<th>Color</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Red</td>
<td>0.15</td>
</tr>
<tr>
<td>Blue</td>
<td>0.12</td>
</tr>
<tr>
<td>Amber</td>
<td>0.51</td>
</tr>
<tr>
<td>Green</td>
<td>0.49</td>
</tr>
<tr>
<td>Yellow</td>
<td>0.86</td>
</tr>
</tbody>
</table>

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.
Strobe Lights

MEDC Series

SM87 HXB

5 Joule Xenon Strobe—Explosionproof

Certification
UL Listed for:
cULus, CSA, ATEX
Class I, Div. 1, Groups C, D
Class I, Zone 1

Certified Ambient Temperature
-67°F to +158°F
-55°C to +70°C

Ingress Protection
NEMA 4X & 6
IP66 & 67

Material
Alloy

Entries
Up to 2 × 1/2" or 3/4" NPT, M20, M25

Weight
4.4lb/2.0kg approx.

Options
Body & lens color, certification, lens guard, voltages 24–48V DC, 110–254V AC

Certification
ATEX EX II 2GD
ATEX EX II 2GD

Voltage
24V DC
24V DC

Lens Color
Red
Amber

Ordering Code
813005
813006

Cat. #
SM87HXBA024RN1R1LNNR
SM87HXBA024AN1R1LNNR

Standard Product Configuration
5 joules, 2 × M20 Entries, 29Cd, Exd IIc

Certification
ATEX EX II 2GD

Voltage
240V AC
240V AC

Lens Color
Red
Amber

Ordering Code
813007
813008

Cat. #
SM87HXBA240RN1R1LNNR
SM87HXBA240AN1R1LNNR

Standard Product Configuration
7 joules, 2 × M20 Entries, 39Cd, Exd IIc

Certification
UL, cUL Listed, Class I, Div. 1,
Groups C, D
UL, cUL Listed, Class I, Div. 1,
Groups C, D
UL, cUL Listed, Class I, Div. 1,
Groups C, D
UL, cUL Listed, Class I, Div. 1,
Groups C, D

Voltage
24V DC
24V DC
110V AC
110V AC

Lens Color
Red
Red
Amber
Amber

Ordering Code
869161
869162
869165
869166

Cat. #
SM87HXBAUL024RN3R3LNNR
SM87HXBAUL024AN3R3LNNR
SM87HXBAUL110RN3R3LNNR
SM87HXBAUL110AN3R3LNNR

Standard Product Configuration
Standard models are in alloy, red body color, no tag or duty labels, 2 × 1/2" NPT entries, 29Cd, 60 flashes per minute

XB11

5 Joule Xenon Strobe—Hazardous Locations

Certification
UL Listed for:
cULus, ATEX
Class I, Div. 2, Groups C, D
Class I, Zones 1 & 2, AExd IIB T5

Certified Ambient Temperature
-67°F to +158°F
-55°C to +70°C

Ingress Protection
NEMA 4X & 6
IP66 & 67

Material
Corrosion-free GRP

Weight
2.6lb/1.2kg

Entries
2 × 1/2" NPT, 20mm

Options
Body & lens color, voltages 24V DC, 24–254V AC

Certification
UL, cUL Listed, Class I, Div. 2, Groups C, D
UL, cUL Listed, Class I, Div. 2, Groups C, D
UL, cUL Listed, Class I, Div. 2, Groups C, D
UL, cUL Listed, Class I, Div. 2, Groups C, D

Voltage
24V DC
24V DC
110V AC
110V AC

Body Color
Natural Black
Natural Black
Natural Black
Natural Black

Lens Color
Red
Amber
Red
Amber

Ordering Code
869171
869172
869174
869175

Cat. #
XB11UL02406RNBNNR
XB11UL02406ANBNNR
XB11UL02406CNBNNR
XB11UL02406BNBNNR

Standard Product Configuration
No tag or duty labels, 2 × 1/2" NPT entries, 60 flashes per minute

Certification
ATEX EX II 2GD
ATEX EX II 2GD
ATEX EX II 2GD

Voltage
24V DC
24V DC
24V DC

Body Color
Natural Black
Natural Black
Natural Black

Ordering Code
811101
811102
811103

Cat. #
XB11B02406RNBNNR
XB11B02406ANBNNR
XB11B02406CNBNNR

Standard Product Configuration
GRP, natural black body, no tag or duty labels, backstrap mounting, 2 × M20 entries, 60 flashes per minute

Crouse-Hinds by


1239
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.
CSA Certification: 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.
ATEX approved: ENS0014, ENS0018, EN50019 Cert. No. Baseefa 03ATEX0222, Exd IIC T6

Material: LM25 TF Marine Grade Alloy
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: –67°F to +158°F, –55°C to +70°C
High temperature unit: –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 & tags labels optional
Entries: Up to 4 off ½” or 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.

For Colored Lenses

<table>
<thead>
<tr>
<th>Color</th>
<th>Red</th>
<th>Blue</th>
<th>Amber</th>
<th>Green</th>
<th>Yellow</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiplier Factor</td>
<td>0.15</td>
<td>0.12</td>
<td>0.51</td>
<td>0.49</td>
<td>0.86</td>
</tr>
</tbody>
</table>

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

Voltage | DC | 24 | 48 | 110 | 120 | 240 | 254 |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Tube Energy (joules)</td>
<td>5</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>7</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>Peak Current Consumption (mA)</td>
<td>320</td>
<td>170</td>
<td>250</td>
<td>275</td>
<td>135</td>
<td>150</td>
<td></td>
</tr>
<tr>
<td>Power Consumption (Watts)</td>
<td>7.2</td>
<td>7.6</td>
<td>25</td>
<td>27</td>
<td>27</td>
<td>35</td>
<td></td>
</tr>
<tr>
<td>Effective Intensity (Cd)</td>
<td>29</td>
<td>29</td>
<td>39</td>
<td>42</td>
<td>39</td>
<td>44</td>
<td></td>
</tr>
<tr>
<td>Peak Candle Power</td>
<td>22213</td>
<td>22213</td>
<td>25061</td>
<td>30187</td>
<td>30187</td>
<td>34174</td>
<td></td>
</tr>
</tbody>
</table>

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

Tube Energy (joules) 55 77 88 110 120 240 254
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 39 42 39 44
Peak Candle Power 22213 22213 25061 30187 30187 34174

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

Certification Code

<table>
<thead>
<tr>
<th>Certification</th>
<th>ATEX</th>
<th>UL</th>
<th>CSA</th>
<th>Only HXB is available CSA certified.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voltage Code</td>
<td>24V DC</td>
<td>110V AC</td>
<td>220V AC</td>
<td>240V AC</td>
</tr>
<tr>
<td>024</td>
<td>110</td>
<td>120</td>
<td>220</td>
<td>240</td>
</tr>
</tbody>
</table>

SM87HXB

MEDC Series

2S Strobe Lights

Material: LM25 TF Marine Grade Alloy
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: –67°F to +158°F, –55°C to +70°C
High temperature unit: –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 & tags labels optional
Entries: Up to 4 off ½” or 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.

For Colored Lenses

<table>
<thead>
<tr>
<th>Color</th>
<th>Red</th>
<th>Blue</th>
<th>Amber</th>
<th>Green</th>
<th>Yellow</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiplier Factor</td>
<td>0.15</td>
<td>0.12</td>
<td>0.51</td>
<td>0.49</td>
<td>0.86</td>
</tr>
</tbody>
</table>

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

Voltage | DC | 24 | 48 | 110 | 120 | 240 | 254 |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Tube Energy (joules)</td>
<td>5</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>7</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>Peak Current Consumption (mA)</td>
<td>320</td>
<td>170</td>
<td>250</td>
<td>275</td>
<td>135</td>
<td>150</td>
<td></td>
</tr>
<tr>
<td>Power Consumption (Watts)</td>
<td>7.2</td>
<td>7.6</td>
<td>25</td>
<td>27</td>
<td>27</td>
<td>35</td>
<td></td>
</tr>
<tr>
<td>Effective Intensity (Cd)</td>
<td>29</td>
<td>29</td>
<td>39</td>
<td>42</td>
<td>39</td>
<td>44</td>
<td></td>
</tr>
<tr>
<td>Peak Candle Power</td>
<td>22213</td>
<td>22213</td>
<td>25061</td>
<td>30187</td>
<td>30187</td>
<td>34174</td>
<td></td>
</tr>
</tbody>
</table>

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

Certification Code

<table>
<thead>
<tr>
<th>Certification</th>
<th>ATEX</th>
<th>UL</th>
<th>CSA</th>
<th>Only HXB is available CSA certified.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voltage Code</td>
<td>24V DC</td>
<td>110V AC</td>
<td>220V AC</td>
<td>240V AC</td>
</tr>
<tr>
<td>024</td>
<td>110</td>
<td>120</td>
<td>220</td>
<td>240</td>
</tr>
</tbody>
</table>
**Strobe Lights**

**Medium Intensity**

**MEDC Series**

---

**Specification—XB11 Unit**

**Certification:**
- UL Listed for USA and Canada
  - Hazardous locations: Class I, Div. 2, Groups C, D
  - Ordinary locations: Visual Signal Device
  - UL Listing No. E187894
  - Ordinary locations: Visual Signal Device
  - UL Listing No. S8128

**ATEX approved:**
- Exd IIB T5/T6
- Cert. No. 99 ATEX 2195X
- CENELEC EN50014 and EN50018

**Material:**
- Body: Glass reinforced polyester
- Lens: Glass
- 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
- High temperature unit: –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 × 1/2" 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.

### DC AC 50/60Hz

<table>
<thead>
<tr>
<th>Voltage</th>
<th>XB11</th>
</tr>
</thead>
<tbody>
<tr>
<td>DC</td>
<td>24</td>
</tr>
<tr>
<td>110</td>
<td>5</td>
</tr>
<tr>
<td>240</td>
<td>5</td>
</tr>
</tbody>
</table>

### Tube Energy (joules)

<table>
<thead>
<tr>
<th>Voltage</th>
<th>XB11</th>
</tr>
</thead>
<tbody>
<tr>
<td>DC</td>
<td>5</td>
</tr>
<tr>
<td>110</td>
<td>5</td>
</tr>
<tr>
<td>240</td>
<td>5</td>
</tr>
</tbody>
</table>

### Peak Current Consumption (mA)

<table>
<thead>
<tr>
<th>Voltage</th>
<th>XB11</th>
</tr>
</thead>
<tbody>
<tr>
<td>DC</td>
<td>320</td>
</tr>
<tr>
<td>110</td>
<td>100</td>
</tr>
<tr>
<td>240</td>
<td>60</td>
</tr>
</tbody>
</table>

### Effective Intensity (Cd)

<table>
<thead>
<tr>
<th>Voltage</th>
<th>XB11</th>
</tr>
</thead>
<tbody>
<tr>
<td>DC</td>
<td>29</td>
</tr>
<tr>
<td>110</td>
<td>29</td>
</tr>
<tr>
<td>240</td>
<td>29</td>
</tr>
</tbody>
</table>

### Peak Candle Power

<table>
<thead>
<tr>
<th>Voltage</th>
<th>XB11</th>
</tr>
</thead>
<tbody>
<tr>
<td>DC</td>
<td>22213</td>
</tr>
<tr>
<td>110</td>
<td>22213</td>
</tr>
<tr>
<td>240</td>
<td>22213</td>
</tr>
</tbody>
</table>

Power Consumption (Watts)

<table>
<thead>
<tr>
<th>Voltage</th>
<th>XB11</th>
</tr>
</thead>
<tbody>
<tr>
<td>DC</td>
<td>8</td>
</tr>
<tr>
<td>110</td>
<td>11</td>
</tr>
<tr>
<td>240</td>
<td>18</td>
</tr>
</tbody>
</table>

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

### For Colored Lenses

<table>
<thead>
<tr>
<th>Color</th>
<th>Red</th>
<th>Blue</th>
<th>Amber</th>
<th>Green</th>
<th>Yellow</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiplying Factor</td>
<td>0.15</td>
<td>0.12</td>
<td>0.51</td>
<td>0.49</td>
<td>0.86</td>
</tr>
</tbody>
</table>

*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.

---

## XB11 Unit

### Voltage

<table>
<thead>
<tr>
<th>Voltage</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>24V DC</td>
<td>024</td>
</tr>
<tr>
<td>110V AC</td>
<td>110</td>
</tr>
<tr>
<td>240V AC</td>
<td>240</td>
</tr>
<tr>
<td>Other voltages available, please specify</td>
<td></td>
</tr>
</tbody>
</table>

### Color

<table>
<thead>
<tr>
<th>Color Code</th>
<th>Red</th>
<th>Blue</th>
<th>Green</th>
<th>Yellow</th>
<th>Amber</th>
<th>Clear</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color</td>
<td>R</td>
<td>B</td>
<td>G</td>
<td>Y</td>
<td>A</td>
<td>C</td>
</tr>
</tbody>
</table>

### Multiplying Factor

<table>
<thead>
<tr>
<th>Factor Code</th>
<th>0.15</th>
<th>0.12</th>
<th>0.51</th>
<th>0.49</th>
<th>0.86</th>
</tr>
</thead>
</table>

---

Crouse-Hinds


1241
2S Strobe Lights

MEDC Series

**XB4** 21 Joule Xenon Strobe—Explosionproof

- **Certification**: cULus, ATEX
  - Class I, Div. 1, Groups C, D
  - Class I, Zone 1, AExd IIB T4, T5
- **Certified Ambient Temperature**: –67°F to +158°F
  - –55°C to +70°C
- **Ingress Protection**: NEMA 4X & 6
  - IP66 & 67
- **Material**: Alloy
- **Entries**: Up to 3 × 1/2" or 3/4" NPT, 20mm, 25mm
- **Weight**: 14.5lb/6.6kg
- **Options**: Body & lens color, lens guard, certification, voltages 24V DC, 110V AC & 240V AC

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

- **Certification**: cULus, ATEX
  - Class I, Div. 2, Groups C, D
  - Class I, Zones 1 & 2, AExd IIB T4
- **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 2 × 1/2" NPT, 20mm
- **Weight**: 15.5lb/7.0kg
- **Options**: Body & lens color, lens guard, certification, voltages 24V DC, 110V AC & 240V AC

---

**Strobe Lights**

MEDC Series
### MEDC Series

#### XB13

**10 Joule Flashing Xenon—Weatherproof and Heavy Duty**

**Certification**
- UL Listed for: Weatherproof, IP66 & IP67

**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

---

<table>
<thead>
<tr>
<th>Certification</th>
<th>Voltage</th>
<th>Lens Color</th>
<th>Ordering Code</th>
<th>Cat. #</th>
<th>Standard Product Configuration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weatherproof, IP66 &amp; 67</td>
<td>24V DC</td>
<td>Red</td>
<td>813101</td>
<td>XB13024R</td>
<td>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</td>
</tr>
<tr>
<td>Weatherproof, IP66 &amp; 67</td>
<td>24V DC</td>
<td>Amber</td>
<td>813102</td>
<td>XB13024A</td>
<td></td>
</tr>
<tr>
<td>Weatherproof, IP66 &amp; 67</td>
<td>230V AC</td>
<td>Red</td>
<td>813103</td>
<td>XB13230R</td>
<td></td>
</tr>
<tr>
<td>Weatherproof, IP66 &amp; 67</td>
<td>230V AC</td>
<td>Amber</td>
<td>813104</td>
<td>XB13230A</td>
<td></td>
</tr>
</tbody>
</table>
**Specification—XB4 Unit**

**Certification:**
- UL Listed for USA and Canada
  - Hazardous locations:
    - Class I, Div. 1, Groups C, D
    - Class I, Zone 1, AEExd IIB T4
    - UL Listing No. E187894
  - Ordinary locations: Visual Signal Device
    - UL Listing No. 58128
  - ATEX approved:
    - Exd IIC T5
    - Cert. No. Baseefa 02ATEX0224X

**Materials:**
- LM25TF Marine Grade Alloy body
- Grade 316 ANC4B Stainless Steel body
- Toughened Wellglass

**Finish:**
- Red epoxy paint finish as standard or to customer’s specification

**Weight:**
- LM25: 14.5lb/6.6kg.
- Stainless Steel: Add 18.5lb/8.5kg.

**Certified Temperature:**
- –67°F to +158°F
- –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 x ½” or ¾” NPT, 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.

<table>
<thead>
<tr>
<th>Model Type</th>
<th>Certification Code</th>
<th>Voltage</th>
<th>Terminals</th>
<th>Cable Entries</th>
<th>Flash Rate</th>
<th>Initiate Options</th>
<th>Lens Guard</th>
<th>Lens Color</th>
<th>Tag/Duty Label</th>
<th>Material</th>
<th>Finish</th>
</tr>
</thead>
<tbody>
<tr>
<td>XB4</td>
<td></td>
<td>DC</td>
<td>Off</td>
<td>8D</td>
<td>06</td>
<td>A</td>
<td>N</td>
<td>R</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

**Entries Code**
- 1LM25 Entry: 1C
- 2LM25 Entries: 2C3C
- 1½” NPT Entry: 1E
- 2½” NPT Entry: 2E3E
- 1-20mm Entry: 1B
- 2-20mm Entries: 2B3B
- 1½” NPT: 1D
- 2½” NPT: 2D3D

**Guard Code**
- Yes: Y
- No: N

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

For Colored Lenses

<table>
<thead>
<tr>
<th>Color</th>
<th>Red</th>
<th>Blue</th>
<th>Amber</th>
<th>Green</th>
<th>Yellow</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.15</td>
<td>0.12</td>
<td>0.51</td>
<td>0.49</td>
<td>0.86</td>
</tr>
</tbody>
</table>

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

The photometric data has been independently verified. A report is available if required.
High Intensity for Outdoor Use

MEDC Series

**Specification—XB12**

**Certification:**
- UL Listed for USA and Canada
  - Hazardous locations:
    - Class I, Div. 2, Groups C, D
    - Class I, Zone 1 & 2, AEExd IIB T4/T5
  - UL Listing No. E187894
  - Ordinary locations: Visual Signal Device
  - UL Listing No. S8128
  - ATEX approved:
    - Exd IIB T4/T5
    - Cert. No. 99 ATEX 2196

**Materials:**
- Body: Glass reinforced polyester
- Lens: Toughened Glass
- Cover Screws + Backstrap: Stainless steel 316

**Finish:**
- Natural black or painted to customer specification

**Weight:**
- 15.5 lb/7.0kg

**Certified Temperature:**
- Hazardous locations: -67°F to +158°F (-55°C to +70°C)
- Ordinary locations: -67°F to +131°F (-55°C to +55°C)

**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 × 1/4" NPT, 20mm

**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.

<table>
<thead>
<tr>
<th>Model Type</th>
<th>Certification</th>
<th>Voltage</th>
<th>Flash Rate</th>
<th>Lens Color</th>
<th>Lens Guard</th>
<th>Unit Fitting</th>
<th>Earth Continuity</th>
<th>Tag/Duty Label</th>
<th>Options</th>
<th>Unit Finish</th>
</tr>
</thead>
<tbody>
<tr>
<td>XB12</td>
<td>ATEX B UL</td>
<td>DC</td>
<td>06</td>
<td>RED</td>
<td>B</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td></td>
<td></td>
<td>AC 50/60Hz</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Voltage**

<table>
<thead>
<tr>
<th>DC</th>
<th>AC 50/60Hz</th>
</tr>
</thead>
<tbody>
<tr>
<td>24</td>
<td>110</td>
</tr>
<tr>
<td>240</td>
<td>240</td>
</tr>
</tbody>
</table>

**Tube Energy (Joules)**

| XB12 | 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**

<table>
<thead>
<tr>
<th>Color</th>
<th>Red</th>
<th>Blue</th>
<th>Amber</th>
<th>Green</th>
<th>Yellow</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.15</td>
<td>0.12</td>
<td>0.51</td>
<td>0.49</td>
<td>0.86</td>
</tr>
</tbody>
</table>

The photometric data has been verified by BSI. A report is available if required.
### Specification—XB13 Unit

**Materials:**
- UV stable glass reinforced polyester body
- UV stable polycarbonate cover/lens
- 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 x 10⁶ flashes

**Voltage:**
- 12V DC, 24V DC, 115V AC, 230V AC

**Current Consumption:**
- | Voltage | Current Consumption |
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>12V DC</td>
<td>1.4A</td>
</tr>
<tr>
<td>24V DC</td>
<td>650mA</td>
</tr>
<tr>
<td>115V AC</td>
<td>180mA</td>
</tr>
<tr>
<td>230V AC</td>
<td>100mA</td>
</tr>
</tbody>
</table>

**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
- Charging time = 1 second
- Cycle repeats every 1.5 seconds

**Labels:**
- Duty and tag labels available

**Tube Type:**
- Up to 3 x M20 via knockouts

**Intensity:**
- Effective intensity 220 Cd. Peak intensity 75,000 Cd.
  (Figures are for clear lens at 1Hz flash rate)

#### For Colored Lenses

<table>
<thead>
<tr>
<th>Color</th>
<th>Red</th>
<th>Blue</th>
<th>Amber</th>
<th>Green</th>
<th>Yellow</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiplying Factor</td>
<td>0.15</td>
<td>0.12</td>
<td>0.51</td>
<td>0.49</td>
<td>0.86</td>
</tr>
</tbody>
</table>

### 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.
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 13 3/4-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:
- ⅝-inch NPT pendant, ceiling and wall mount

Ordering Information:
Step 1 - Order Strobe Type

<table>
<thead>
<tr>
<th>Catalog Number</th>
<th>Voltage</th>
<th>Lens Color</th>
<th>NEMA Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXFASC301/16 33</td>
<td>24 VDC regulated full wave rectified</td>
<td>Clear</td>
<td>3R, 4X</td>
</tr>
</tbody>
</table>

Step 2 - Order Mounting Module

<table>
<thead>
<tr>
<th>Catalog Number</th>
<th>Hub Size</th>
<th>Mounting Style</th>
</tr>
</thead>
<tbody>
<tr>
<td>EVMP2</td>
<td>⅛&quot;</td>
<td>Pendant</td>
</tr>
<tr>
<td>EV22 &amp; EV87</td>
<td>⅛&quot;</td>
<td>Wall</td>
</tr>
<tr>
<td>EV22</td>
<td>⅛&quot;</td>
<td>Ceiling</td>
</tr>
<tr>
<td>EVMJ4</td>
<td>1¼&quot;</td>
<td>Stanchion</td>
</tr>
</tbody>
</table>
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 13 3/4-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

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:
- 3/4-inch NPT pendant, ceiling and wall mount
- 1 1/4-inch NPT stanchion mount

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 Listed
- NEMA 4X; IP66
- 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
### Ordering Information:

#### Step 1 - Order Strobe Type

<table>
<thead>
<tr>
<th>Cat. #</th>
<th>Voltage</th>
<th>Lens Color</th>
<th>NEMA Rating</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXS301A/120</td>
<td>120V AC</td>
<td>Amber</td>
<td>3R 4X, Marine</td>
<td></td>
</tr>
<tr>
<td>EXS301B/120</td>
<td>120V AC</td>
<td>Blue</td>
<td>3R 4X, Marine</td>
<td></td>
</tr>
<tr>
<td>EXS301C/120</td>
<td>120V AC</td>
<td>Clear</td>
<td>3R 4X, Marine</td>
<td></td>
</tr>
<tr>
<td>EXS301G/120</td>
<td>120V AC</td>
<td>Green</td>
<td>3R 4X, Marine</td>
<td></td>
</tr>
<tr>
<td>EXS301M/120</td>
<td>120V AC</td>
<td>Magenta</td>
<td>3R 4X, Marine</td>
<td></td>
</tr>
<tr>
<td>EXS301R/120</td>
<td>120V AC</td>
<td>Red</td>
<td>3R 4X, Marine</td>
<td></td>
</tr>
<tr>
<td>EXSNM301A/12</td>
<td>12–48V DC</td>
<td>Amber</td>
<td>3R 4X</td>
<td></td>
</tr>
<tr>
<td>EXSNM301B/12</td>
<td>12–48V DC</td>
<td>Blue</td>
<td>3R 4X</td>
<td></td>
</tr>
<tr>
<td>EXSNM301C/12</td>
<td>12–48V DC</td>
<td>Clear</td>
<td>3R 4X</td>
<td></td>
</tr>
<tr>
<td>EXSNM301G/12</td>
<td>12–48V DC</td>
<td>Green</td>
<td>3R 4X</td>
<td></td>
</tr>
<tr>
<td>EXSNM301M/12</td>
<td>12–48V DC</td>
<td>Magenta</td>
<td>3R 4X</td>
<td></td>
</tr>
<tr>
<td>EXSNM301R/12</td>
<td>12–48V DC</td>
<td>Red</td>
<td>3R 4X</td>
<td></td>
</tr>
</tbody>
</table>

#### Diode Polarized Explosionproof Strobes

<table>
<thead>
<tr>
<th>Cat. #</th>
<th>Voltage</th>
<th>Lens Color</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXDS301A/24</td>
<td>24V DC</td>
<td>Amber</td>
<td>3R 4X, Marine</td>
</tr>
<tr>
<td>EXDS301B/24</td>
<td>24V DC</td>
<td>Blue</td>
<td>3R 4X, Marine</td>
</tr>
<tr>
<td>EXDS301C/24</td>
<td>24V DC</td>
<td>Clear</td>
<td>3R 4X, Marine</td>
</tr>
<tr>
<td>EXDS301G/24</td>
<td>24V DC</td>
<td>Green</td>
<td>3R 4X, Marine</td>
</tr>
<tr>
<td>EXDS301M/24</td>
<td>24V DC</td>
<td>Magenta</td>
<td>3R 4X, Marine</td>
</tr>
<tr>
<td>EXDS301R/24</td>
<td>24V DC</td>
<td>Red</td>
<td>3R 4X, Marine</td>
</tr>
</tbody>
</table>

### Temperature Performance Data:

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

Dimensions
In Inches:

Net Luminaire Weights:

<table>
<thead>
<tr>
<th>Type</th>
<th>lbs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Luminaire Housing with Guard</td>
<td>11.0</td>
</tr>
</tbody>
</table>

Add mounting modules:

<table>
<thead>
<tr>
<th>Type</th>
<th>lbs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pendant</td>
<td>1.0</td>
</tr>
<tr>
<td>Ceiling</td>
<td>1.0</td>
</tr>
<tr>
<td>Wall</td>
<td>4.5</td>
</tr>
<tr>
<td>Stanchion</td>
<td>2.5</td>
</tr>
</tbody>
</table>
Eaton’s 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 offshore 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 I, Zone 1 and 2, Group IIB
- Class II, Division 1, Groups E, F, G
- Class III
- UL and cUL Listed
- NEMA 4X; 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:
- 3/4-inch NPT pendant, ceiling and wall mount
- 1 1/4-inch NPT stanchion mount
**Ordering Information:**

**Step 1 - Order Rotating Beacon Type**

<table>
<thead>
<tr>
<th>Cat. #</th>
<th>Voltage</th>
<th>Lens Color</th>
<th>NEMA Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXR301A/120</td>
<td>120V AC</td>
<td>Amber</td>
<td>3R, 4X, Marine</td>
</tr>
<tr>
<td>EXR301B/120</td>
<td>120V AC</td>
<td>Blue</td>
<td>3R, 4X, Marine</td>
</tr>
<tr>
<td>EXR301C/120</td>
<td>120V AC</td>
<td>Clear</td>
<td>3R, 4X, Marine</td>
</tr>
<tr>
<td>EXR301G/120</td>
<td>120V AC</td>
<td>Green</td>
<td>3R, 4X, Marine</td>
</tr>
<tr>
<td>EXR301M/120</td>
<td>120V AC</td>
<td>Magenta</td>
<td>3R, 4X, Marine</td>
</tr>
<tr>
<td>EXR301R/120</td>
<td>120V AC</td>
<td>Red</td>
<td>3R, 4X, Marine</td>
</tr>
</tbody>
</table>

**Diode Polarized Explosionproof Rotating Beacons**

<table>
<thead>
<tr>
<th>Cat. #</th>
<th>Voltage</th>
<th>Lens Color</th>
<th>NEMA Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXDR301A/24 28</td>
<td>24–28V DC</td>
<td>Amber</td>
<td>3R, 4X, Marine</td>
</tr>
<tr>
<td>EXDR301B/24 28</td>
<td>24–28V DC</td>
<td>Blue</td>
<td>3R, 4X, Marine</td>
</tr>
<tr>
<td>EXDR301C/24 28</td>
<td>24–28V DC</td>
<td>Clear</td>
<td>3R, 4X, Marine</td>
</tr>
<tr>
<td>EXDR301G/24 28</td>
<td>24–28V DC</td>
<td>Green</td>
<td>3R, 4X, Marine</td>
</tr>
<tr>
<td>EXDR301M/24 28</td>
<td>24–28V DC</td>
<td>Magenta</td>
<td>3R, 4X, Marine</td>
</tr>
<tr>
<td>EXDR301R/24 28</td>
<td>24–28V DC</td>
<td>Red</td>
<td>3R, 4X, Marine</td>
</tr>
</tbody>
</table>

**Step 2 - Order Mounting Module**

<table>
<thead>
<tr>
<th>Cat. #</th>
<th>Hub Size</th>
<th>Mounting Style</th>
</tr>
</thead>
<tbody>
<tr>
<td>EVMP2</td>
<td>¼”</td>
<td>Pendant</td>
</tr>
<tr>
<td>EV22 &amp; EV87</td>
<td>¼”</td>
<td>Wall</td>
</tr>
<tr>
<td>EV22</td>
<td>¼”</td>
<td>Ceiling</td>
</tr>
<tr>
<td>EVMJ4</td>
<td>1 ½”</td>
<td>Stanchion</td>
</tr>
</tbody>
</table>

**Temperature Performance Data:**

<table>
<thead>
<tr>
<th>Description</th>
<th>Class I, Div. 1, Groups C, D</th>
<th>Class II, Class III, Div. 1, Groups E, F, G</th>
<th>Class II, Class III, Div. 2, Groups F, G</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class I, Div. 1, 2, 3, Zone 1, Group IIIB</td>
<td>T6 (85°C)</td>
<td>T4 (120°C)</td>
<td>T4 (135°C)</td>
</tr>
<tr>
<td>Class II, Class III, Div. 1, Groups E, F, G</td>
<td>T5 (100°C)</td>
<td>T4 (135°C)</td>
<td>T4 (135°C)</td>
</tr>
<tr>
<td>Class II, Class III, Div. 2, Groups F, G</td>
<td>T5 (100°C)</td>
<td>T4 (135°C)</td>
<td>T4 (135°C)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>EXR Series Rotating Beacon Voltage 120V AC</th>
<th>Ambient Max. Temp.</th>
<th>Supply Wire</th>
<th>T6 (85°C)</th>
<th>T4 (120°C)</th>
<th>T4 (135°C)</th>
</tr>
</thead>
<tbody>
<tr>
<td>40°C</td>
<td>75°C</td>
<td>55°C</td>
<td>90°C</td>
<td>65°C</td>
<td>105°C</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>40°C</td>
<td>75°C</td>
<td>55°C</td>
<td>90°C</td>
<td>65°C</td>
<td>105°C</td>
</tr>
</tbody>
</table>
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

Dimensions
In Inches:

<table>
<thead>
<tr>
<th>Type</th>
<th>lbs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Luminaire Housing with Guard</td>
<td>11.0</td>
</tr>
</tbody>
</table>

Add mounting modules:

<table>
<thead>
<tr>
<th>Type</th>
<th>lbs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pendant</td>
<td>1.0</td>
</tr>
<tr>
<td>Ceiling</td>
<td>1.0</td>
</tr>
<tr>
<td>Wall</td>
<td>4.5</td>
</tr>
<tr>
<td>Stanchion</td>
<td>2.5</td>
</tr>
</tbody>
</table>

Net Luminaire Weights:

Crouse-Hinds

## Hazardous

### Steady-On Beacons - MEDC Series
- **FB4**
- **FB11 UL**
- **FB12 UL**
- **FB15**
- **FL4**
- **SM87 LU3**
- **SM87 LU1**


### Steady-On Beacons - Hazard•Gard EX Series
- **EXSO, EXDSO**

See pages 1265–1267

### Steady-On Beacons - Compact Fluorescent
- **VF**

See pages 1268–1269
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**

<table>
<thead>
<tr>
<th>Certification</th>
<th>Ordering Code</th>
<th>Cat. #</th>
<th>Standard Product Configuration</th>
</tr>
</thead>
<tbody>
<tr>
<td>UL Listed, Class I, Div. 2, Groups C, D</td>
<td>17800002</td>
<td>FB4EUL8U1N100B1N1G</td>
<td>Marine grade alloy, 120V AC, 100W bulb (not included) blue lens, lens guard, no labels, gray finish</td>
</tr>
</tbody>
</table>

- **Certification**: cULus, ATEX
- **Certified Ambient Temperature**: –67°F to +131°F, –55°C to +55°C
- **Ingress Protection**: NEMA 4X & 6, IP66 & 67
- **Material**: Alloy
- **Entries**: Up to 3 × 1/2" or 2 × 3/4" NPT
- **Weight**: 13lb/6.4kg
- **Options**: Body & lens color, lens guard, certification, voltage 120V AC only

### FL4

**13–39 Watt Steady Fluorescent Light—Explosionproof**

<table>
<thead>
<tr>
<th>Certification</th>
<th>Ordering Code</th>
<th>Cat. #</th>
<th>Standard Product Configuration</th>
</tr>
</thead>
<tbody>
<tr>
<td>UL Listed, Class I, Div. 2, Groups C, D</td>
<td>27800006</td>
<td>FL4BUL8U2M3M13R1N1RZ</td>
<td>Marine grade alloy, 24V DC, 2 × 1/2&quot; NPT entries, 13W tube (not included), red lens, lens guard, red finish, one certified plug</td>
</tr>
</tbody>
</table>

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

---

Crouse-Hinds by Eaton

### 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, Exd IIB T4/T5
- 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 × 1/2” NPT or 2 × 3/4” NPT

---

### FL4 Lamp Details

<table>
<thead>
<tr>
<th>Unit Type</th>
<th>Lamp Type</th>
<th>Lamp Ref.</th>
<th>Holder Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>FL4 DC</td>
<td>Osram Dulux D/E 13W</td>
<td>DD/E 13/XX</td>
<td>G24q-1</td>
</tr>
<tr>
<td></td>
<td>Philips PLC 13W</td>
<td>PLC 13 P4</td>
<td>G24q-1</td>
</tr>
<tr>
<td>FL4 AC</td>
<td>Osram Dulux D 13W</td>
<td>DD 13</td>
<td>G24d-1</td>
</tr>
<tr>
<td></td>
<td>Philips PLC 13W</td>
<td>PLC 13</td>
<td>G24d-1</td>
</tr>
</tbody>
</table>

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

### Temperature Ratings

<table>
<thead>
<tr>
<th>Type</th>
<th>Voltage/Wattage</th>
<th>Lamp Ref.</th>
<th>Max. Amb.</th>
</tr>
</thead>
<tbody>
<tr>
<td>FL4</td>
<td>DC units 60W</td>
<td>DD/E 13/XX</td>
<td>55°C</td>
</tr>
<tr>
<td></td>
<td>AC units 100W</td>
<td>PLC 13 P4</td>
<td>55°C</td>
</tr>
<tr>
<td>FB4</td>
<td>DD 13</td>
<td>PLC 13</td>
<td>55°C</td>
</tr>
</tbody>
</table>

### 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.

<table>
<thead>
<tr>
<th>Unit Type</th>
<th>Voltage Code</th>
<th>Certification</th>
<th>Options</th>
<th>Lens Color</th>
<th>Guard Code</th>
<th>Finish</th>
</tr>
</thead>
<tbody>
<tr>
<td>FL4</td>
<td>24V DC B</td>
<td>ATEX B8D</td>
<td>N</td>
<td>Clear</td>
<td>None</td>
<td>Stainless Steel</td>
</tr>
<tr>
<td></td>
<td>120V AC E</td>
<td>UL*</td>
<td></td>
<td>Red</td>
<td>Guard 1</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>240V AC H</td>
<td>UL8U</td>
<td></td>
<td>Blue</td>
<td></td>
<td>1</td>
</tr>
</tbody>
</table>

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

#### FB11 UL

<table>
<thead>
<tr>
<th>Certification</th>
<th>Ordering Code</th>
<th>Cat. #</th>
<th>Standard Product Configuration</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATEX</td>
<td>32500004</td>
<td>FB11B02410RNBNR</td>
<td>24V DC, 10W bulb, red lens, mounting bracket, natural black finish</td>
</tr>
<tr>
<td>UL, cUL Listed, Div. I, Div. 2, Groups C, D</td>
<td>32500028</td>
<td>FB11UL02410GNBNR</td>
<td>10W incandescent beacon, 24V DC, green lens, no lens guard, 2 × ½ NPT entries, painted red enclosure</td>
</tr>
<tr>
<td>UL, cUL Listed, Div. I, Div. 2, Groups C, D</td>
<td>32500029</td>
<td>FB11UL11010GNBNR</td>
<td>10W incandescent beacon, 110V AC, green lens, no lens guard, 2 × ½ NPT, painted red enclosure</td>
</tr>
</tbody>
</table>

#### FB12 UL

<table>
<thead>
<tr>
<th>Certification</th>
<th>Ordering Code</th>
<th>Cat. #</th>
<th>Standard Product Configuration</th>
</tr>
</thead>
<tbody>
<tr>
<td>UL, cUL Listed, Div. I, Div. 2, Groups C, D</td>
<td>326023</td>
<td>FB12UL12060CNBNR</td>
<td>120V AC, 60W bulb, clear lens, mounting bracket, no labels, natural black finish</td>
</tr>
<tr>
<td>UL, cUL Listed, Div. I, Div. 2, Groups C, D</td>
<td>32600035</td>
<td>FB12UL12060GNBNR</td>
<td>60W incandescent beacon, 120V AC, green lens, no lens guard, 2 × ½ NPT entries in a painted red enclosure</td>
</tr>
<tr>
<td>UL, cUL Listed, Div. I, Div. 2, Groups C, D</td>
<td>32600036</td>
<td>FB12UL02460GNBNR</td>
<td>60W incandescent beacon, 24V DC, green lens, no lens guard, 2 × ½ NPT entries, painted red enclosure</td>
</tr>
<tr>
<td>UL, cUL Listed, Div. I, Div. 2, Groups C, D</td>
<td>32600037</td>
<td>FB12UL120100GNBNR</td>
<td>100W incandescent beacon, 24V DC, green lens, no lens guard, 2 × ½ NPT entries, painted red enclosure</td>
</tr>
</tbody>
</table>

**Certification**
- cULus, ATEX
- Class I, Div. 2, Groups C, D
- Class I, Zone 1, AExd IIB T4/T5

**Certified Ambient Temperature**
- –67°F to +131°F
- –55°C to +55°C

**Ingress Protection**
- NEMA 4X & 6
- 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

---

**FB12 UL**

60W/100W Steady Incandescent Light—Hazardous Locations

---

**FB11 UL**

10 Watt Steady Incandescent Light—Hazardous Locations
**3S Steady-On Beacons**

**MEDC Series**

<table>
<thead>
<tr>
<th>FB15</th>
<th>100W Steady Incandescent Light—Hazardous &amp; Ordinary Locations</th>
</tr>
</thead>
</table>
| Certification | cULus, ATEX  
Cl. I, Div. 2,  
Groups A, B, C, D  
Cl. I, Zone 1,  
AEExd IIC T3/T4 |
| 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 x 1/2" NPT or 3 x 3/4" 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 |

<table>
<thead>
<tr>
<th>Certification</th>
<th>Ordering Code</th>
<th>Cat. #</th>
<th>Standard Product Configuration</th>
</tr>
</thead>
<tbody>
<tr>
<td>UL, cUL Listed, Class I, Div. 2, Groups A, B, C, D</td>
<td>47600001</td>
<td>FB15UL120100GNANR</td>
<td>120V AC, 100W bulb, green lens, mounting bracket, no labels, red finish</td>
</tr>
<tr>
<td>UL, cUL Listed, Class I, Div. 2, Groups A, B, C, D</td>
<td>47600020</td>
<td>FB15UL120100ANPNN</td>
<td>100W incandescent beacon, 120V AC, amber lens, no lens guard, pipe mounting, 1 x 3/4&quot; NPT entry, natural black enclosure</td>
</tr>
<tr>
<td>UL, cUL Listed, Class I, Div. 2, Groups A, B, C, D</td>
<td>47600021</td>
<td>FB15UL120100RNPNN</td>
<td>100W incandescent beacon, 120V AC, red lens, no lens guard, pipe mounting, 1 x 3/4&quot; NPT entry, natural black enclosure</td>
</tr>
<tr>
<td>UL, cUL Listed, Class I, Div. 2, Groups A, B, C, D</td>
<td>47600022</td>
<td>FB15UL120100GNPNN</td>
<td>100W incandescent beacon, 120V AC, green lens, no lens guard, pipe mounting, 1 x 3/4&quot; NPT entry, natural black enclosure</td>
</tr>
<tr>
<td>UL, cUL Listed, Class I, Div. 2, Groups A, B, C, D</td>
<td>47600023</td>
<td>FB15UL120100CNPNN</td>
<td>100W incandescent beacon, 120V AC, clear lens, no lens guard, pipe mounting, 1 x 3/4&quot; NPT entry, natural black enclosure</td>
</tr>
<tr>
<td>UL, cUL Listed, Class I, Div. 2, Groups A, B, C, D</td>
<td>47600024</td>
<td>FB15UL120100BNPNN</td>
<td>100W incandescent beacon, 120V AC, blue lens, no lens guard, pipe mounting, 1 x 3/4&quot; NPT entry, natural black enclosure</td>
</tr>
<tr>
<td>UL, cUL Listed, Class I, Div. 2, Groups A, B, C, D</td>
<td>47600025</td>
<td>FB15UL024100ANPNN</td>
<td>100W incandescent beacon, 24V DC, amber lens, no lens guard, pipe mounting, 1 x 3/4&quot; NPT entry, natural black enclosure</td>
</tr>
<tr>
<td>UL, cUL Listed, Class I, Div. 2, Groups A, B, C, D</td>
<td>47600026</td>
<td>FB15UL024100RNPNN</td>
<td>100W incandescent beacon, 24V DC, red lens, no lens guard, pipe mounting, 1 x 3/4&quot; NPT entry, natural black enclosure</td>
</tr>
<tr>
<td>UL, cUL Listed, Class I, Div. 2, Groups A, B, C, D</td>
<td>47600027</td>
<td>FB15UL024100GNPNN</td>
<td>100W incandescent beacon, 24V DC, green lens, no lens guard, pipe mounting, 1 x 3/4&quot; NPT entry, natural black enclosure</td>
</tr>
<tr>
<td>UL, cUL Listed, Class I, Div. 2, Groups A, B, C, D</td>
<td>47600028</td>
<td>FB15UL024100CNPNN</td>
<td>100W incandescent beacon, 24V DC, clear lens, no lens guard, pipe mounting, 1 x 3/4&quot; NPT entry, natural black enclosure</td>
</tr>
<tr>
<td>UL, cUL Listed, Class I, Div. 2, Groups A, B, C, D</td>
<td>47600029</td>
<td>FB15UL024100BNPNN</td>
<td>100W incandescent beacon, 24V DC, blue lens, no lens guard, pipe mounting, 1 x 3/4&quot; NPT entry, natural black enclosure</td>
</tr>
</tbody>
</table>
Steady-On Beacons

MEDC Series

Specification—FB11 and FB12 Units

Models: FB11 & FB12—Incandescent

Certification: UL Listed for USA and Canada
- Class I, Div. 2, Groups C, D
- Class I, Zone 1, AExd IIB T4/T5
UL listing No. E187894
ATEX approved:
CENELEC EN50014 and EN50018
FB11: Cert. No. 99 ATEX 2195X
FB12: Cert. No. 99 ATEX 2196

Voltage:
FB11: 24, 48V DC
110, 220, 240, 250V AC
FB12: 120V AC

Incandescent:
FB11: 10W incandescent fitted as standard
FB12: 60W or 100W incandescent fitted as standard

Material:
Body: Glass reinforced polyester
Lens: Glass
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
FB12: 6 x 10 AWG

Labels: Duty/Tag Label optional

Entries:
2 x ⅛" NPT

Certified Temperature:
FB11: –67°F to +131°F (–55°C to +55°C) T4
–67°F to +104°F (–55°C to +40°C) T5.
FB12: –67°F to +131°F (–55°C to +55°C) T4
–67°F to +104°F (–55°C to +40°C) T5.

Weight:
FB11: 6.2lb / 2.8kg.
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.

<table>
<thead>
<tr>
<th>Unit Type</th>
<th>Certification</th>
<th>Voltage</th>
<th>Lamp Wattage</th>
<th>Lens Color</th>
<th>Lens Guard</th>
<th>Unit Fixing</th>
<th>Earth Continuity</th>
<th>Tag/Duty Label</th>
<th>Finish</th>
</tr>
</thead>
<tbody>
<tr>
<td>FB11</td>
<td>ATEX UL Listed</td>
<td>24V DC</td>
<td>024</td>
<td>N</td>
<td>B</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>FB12</td>
<td>UL</td>
<td>110V AC</td>
<td>110</td>
<td>N</td>
<td>B</td>
<td>N</td>
<td>N</td>
<td>R</td>
<td>N</td>
</tr>
</tbody>
</table>

Other voltages available, please specify.
‘FB12 UL Listed only

<table>
<thead>
<tr>
<th>Voltage</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>24V DC</td>
<td>024</td>
</tr>
<tr>
<td>110V AC</td>
<td>110</td>
</tr>
<tr>
<td>120V AC</td>
<td>120</td>
</tr>
<tr>
<td>240V AC</td>
<td>240</td>
</tr>
</tbody>
</table>

Lamp Wattage

| 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

| Red     | R  |
| Blue    | B  |
| Green   | G  |
| Amber   | A  |
| Yellow  | Y  |
| Clear   | C  |
### 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):
  - ¾” 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.

<table>
<thead>
<tr>
<th>Model</th>
<th>Certification</th>
<th>Voltage</th>
<th>Lamp Wattage</th>
<th>Lens Color</th>
<th>Unit Guard</th>
<th>Fixing</th>
<th>Unit Options</th>
<th>Finish</th>
</tr>
</thead>
<tbody>
<tr>
<td>FB15</td>
<td>ATEX B</td>
<td>24V DC</td>
<td>60</td>
<td>60</td>
<td>None</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td></td>
<td>UL UL</td>
<td>110V AC</td>
<td>60</td>
<td>60</td>
<td>Cast</td>
<td>C</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td></td>
<td></td>
<td>120V AC</td>
<td>100</td>
<td>100</td>
<td>Wire</td>
<td>W</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>240V AC</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

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

- **Guard Code**:
  - None: N
  - Cast: C
  - Wire: W

- **Voltage Code**:
  - 24V: 24
  - 110V: 110
  - 120V: 120
  - 240V: 240

- **Lamp Wattage Code**:
  - 60: 60
  - 100: 100

- **Not Available on ATEX version.**
### SM87 LU3

**10 Watt Steady Incandescent Light—Explosionproof**

<table>
<thead>
<tr>
<th>Certification</th>
<th>Ordering Code</th>
<th>Cat. #</th>
<th>Standard Product Configuration</th>
</tr>
</thead>
<tbody>
<tr>
<td>UL, cUL Listed, Class I, Div. 2, Groups C, D</td>
<td>762311</td>
<td>SM87LU3AUL024RN3R3LN3R</td>
<td>24V DC, red lens, 2 x ½” NPT entries, no labels, red finish</td>
</tr>
<tr>
<td>ATEX</td>
<td>46200122</td>
<td>SM87LU3AB024GN1T1BNR</td>
<td>Exd, IIC, T4/T6 incandescent beacon, 24V DC, green lens, no lens guard, 2 x M20 cable entries, painted red enclosure</td>
</tr>
<tr>
<td>UL, cUL Listed, Class I, Div. 1, Groups C, D</td>
<td>46200096</td>
<td>SM87LU3AUL024GN3T3BNR</td>
<td>24V DC, green lens, 10W incandescent bulb, marine grade alloy, red finish</td>
</tr>
</tbody>
</table>

### SM87 LU1

**10 Watt Steady Fluorescent Light—Explosionproof**

<table>
<thead>
<tr>
<th>Certification</th>
<th>Ordering Code</th>
<th>Cat. #</th>
<th>Standard Product Configuration</th>
</tr>
</thead>
<tbody>
<tr>
<td>UL, cUL Listed, Class I, Div. 2, Groups C, D</td>
<td>46200054</td>
<td>SM87LU1AUL024RN4T4BNR</td>
<td>24V DC, red lens, 2 x ¼” NPT entries, no labels, red finish</td>
</tr>
<tr>
<td>UL, cUL Listed, Class I, Div. 1, Groups C, D</td>
<td>46200052</td>
<td>SM87LU1AUL024GN4T4BNR</td>
<td>24V DC, green lens, 10W fluorescent bulb, marine grade alloy, red finish</td>
</tr>
<tr>
<td>ATEX</td>
<td>46200121</td>
<td>SM87LU1AB024GN1T1BNR</td>
<td>Exd, IIC, T4/T6 fluorescent beacon, 24V DC, green lens, no lens guard, 2 x M20 cable entries, painted red enclosure</td>
</tr>
</tbody>
</table>
### Specifications—SM87LU1/SM87LU3 Units

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

### 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.

<table>
<thead>
<tr>
<th>Model Type</th>
<th>Code</th>
<th>Certification</th>
<th>Voltage Code</th>
<th>Lens Color</th>
<th>Lens Guard</th>
<th>Entries</th>
<th>Tag/Duty Label</th>
<th>Unit Finish</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fluorescent</td>
<td>SM87LU1/3</td>
<td></td>
<td>24V DC</td>
<td>024</td>
<td>N</td>
<td></td>
<td>N</td>
<td>R</td>
</tr>
<tr>
<td>Incandescent</td>
<td>SM87LU1/3</td>
<td></td>
<td>110V AC</td>
<td>110</td>
<td></td>
<td></td>
<td>N</td>
<td>R</td>
</tr>
<tr>
<td></td>
<td>SM87LU1/3</td>
<td></td>
<td>240V AC</td>
<td>240</td>
<td></td>
<td></td>
<td>N</td>
<td>R</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Certification Code</th>
<th>ATEX/CENELEC</th>
<th>UL Listed</th>
<th>CSA Certified</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td>UL Listed</td>
<td>UL Listed</td>
<td></td>
</tr>
<tr>
<td>C</td>
<td></td>
<td></td>
<td>CSA Certified</td>
</tr>
</tbody>
</table>
HAZARD•GARD®

Steady-On Beacons

Eaton’s 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, offshore 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 13\(\frac{3}{4}\)-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 II
- 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 (EXDSO)
- Operating Current: 0.35 amps at 120V AC (EXSO); 0.8 amps at 24–28V DC (EXDSO, diode polarized)
- Peak Candlepower: 3328

Hub Size:
- \(\frac{1}{2}\)-inch NPT pendant, ceiling and wall mount
- 1\(\frac{1}{4}\)-inch NPT stanchion mount
## Steady-On Beacons

### Ordering Information:
**Step 1 - Order Rotating Beacon Type**

<table>
<thead>
<tr>
<th>Cat. #</th>
<th>Voltage</th>
<th>Lens Color</th>
<th>NEMA Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>ExsO301A/120</td>
<td>120V AC</td>
<td>Amber</td>
<td>3R, 4X, Marine</td>
</tr>
<tr>
<td>ExsO301B/120</td>
<td>120V AC</td>
<td>Blue</td>
<td>3R, 4X, Marine</td>
</tr>
<tr>
<td>ExsO301C/120</td>
<td>120V AC</td>
<td>Clear</td>
<td>3R, 4X, Marine</td>
</tr>
<tr>
<td>ExsO301G/120</td>
<td>120V AC</td>
<td>Green</td>
<td>3R, 4X, Marine</td>
</tr>
<tr>
<td>ExsO301M/120</td>
<td>120V AC</td>
<td>Magenta</td>
<td>3R, 4X, Marine</td>
</tr>
<tr>
<td>ExsO301R/120</td>
<td>120V AC</td>
<td>Red</td>
<td>3R, 4X, Marine</td>
</tr>
</tbody>
</table>

**Diode Polarized Explosionproof Steady-On Beacons**

<table>
<thead>
<tr>
<th>Cat. #</th>
<th>Voltage</th>
<th>Lens Color</th>
<th>NEMA Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXDSO301A/24</td>
<td>24–28V DC</td>
<td>Amber</td>
<td>3R, 4X, Marine</td>
</tr>
<tr>
<td>EXDSO301B/24</td>
<td>24–28V DC</td>
<td>Blue</td>
<td>3R, 4X, Marine</td>
</tr>
<tr>
<td>EXDSO301C/24</td>
<td>24–28V DC</td>
<td>Clear</td>
<td>3R, 4X, Marine</td>
</tr>
<tr>
<td>EXDSO301G/24</td>
<td>24–28V DC</td>
<td>Green</td>
<td>3R, 4X, Marine</td>
</tr>
<tr>
<td>EXDSO301M/24</td>
<td>24–28V DC</td>
<td>Magenta</td>
<td>3R, 4X, Marine</td>
</tr>
<tr>
<td>EXDSO301R/24</td>
<td>24–28V DC</td>
<td>Red</td>
<td>3R, 4X, Marine</td>
</tr>
</tbody>
</table>

### Step 2 - Order Mounting Module

<table>
<thead>
<tr>
<th>Cat. #</th>
<th>Hub Size</th>
<th>Mounting Style</th>
</tr>
</thead>
<tbody>
<tr>
<td>EVMP2</td>
<td>¼&quot;</td>
<td>Pendant</td>
</tr>
<tr>
<td>EV22 &amp; EV87</td>
<td>¾&quot;</td>
<td>Wall</td>
</tr>
<tr>
<td>EV22</td>
<td>¾&quot;</td>
<td>Ceiling</td>
</tr>
<tr>
<td>EVMJ4</td>
<td>1½&quot;</td>
<td>Stanchion</td>
</tr>
</tbody>
</table>

### Temperature Performance Data:

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

Dimensions
In Inches:

<table>
<thead>
<tr>
<th>Description</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Luminaire Housing with Guard</td>
<td>11.0 lbs.</td>
</tr>
</tbody>
</table>

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

Crouse-Hinds

VF "Steady On" Beacon
Compact Fluorescent
Warning and Visual
Indication Light

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

Features:
- Extremely energy-efficient, only 18 watt (2-9 watt compact fluorescent lamps)
- Packs considerable punch for ample visibility even in harsh environments
- 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

Ordering Information:
<table>
<thead>
<tr>
<th>Style</th>
<th>Cat. # - by Globe Color</th>
<th>Red</th>
<th>Amber</th>
<th>Green</th>
<th>Blue</th>
<th>Clear</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pendant</td>
<td>VFA222GRP</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wall</td>
<td>VFA222GAP</td>
<td>VFA222GP</td>
<td>VFA222GGP</td>
<td>VFA222GBP</td>
<td>VFA222GP</td>
<td></td>
</tr>
<tr>
<td>Stanchion</td>
<td>VFHF222GRP</td>
<td>VFHF222GAP</td>
<td>VFHF222GGP</td>
<td>VFHF222GBP</td>
<td>VFHF222GP</td>
<td></td>
</tr>
<tr>
<td></td>
<td>VFHA422GRP</td>
<td>VFHA422GAP</td>
<td>VFHA422GGP</td>
<td>VFHA422GBP</td>
<td>VFHA422GP</td>
<td></td>
</tr>
</tbody>
</table>

Temperature Performance Data:
<table>
<thead>
<tr>
<th>Style</th>
<th>1 &amp; 2 Lamp</th>
<th>Class I, Div. 2</th>
<th>Max. Ambient</th>
<th>Supply Wire °C</th>
<th>Minimum Operating</th>
</tr>
</thead>
<tbody>
<tr>
<td>9W</td>
<td>T3B</td>
<td>40°C</td>
<td>75°C</td>
<td>-4°C (25°F)</td>
<td></td>
</tr>
</tbody>
</table>
**VF "Steady On" Beacon**

Compact Fluorescent
Warning and Visual
Indication Light

**Dimensions**
In Inches:

- **Pendant**
  - VFA
  - Dimensions: 12 x 11\(\frac{1}{8}\)

- **Wall**
  - VFHBF
  - Dimensions: 7 x 6 x 2\(\frac{15}{16}\)

- **Stanchion**
  - VFHA
  - Dimensions: 6 x 3\(\frac{3}{8}\)

- **Ceiling**
  - VFHF
  - Dimensions: 4\(\frac{1}{2}\) x \(\frac{7}{8}\)

- **Wet Locations**
  - 3, 3R

- **Cl. I, Div. 2, Groups A, B, C, D**

- **Cl. I, Zone 2, Group IIIC**

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

Crouse-Hinds
by Eaton


1269
## Status Lights

### Hazardous

<table>
<thead>
<tr>
<th>Description</th>
<th>Page No.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Status Lights - MEDC Series</strong></td>
<td></td>
</tr>
<tr>
<td>FB12 SL</td>
<td>see pages 1272–1275</td>
</tr>
<tr>
<td>SM87 SL</td>
<td>see pages 1272–1275</td>
</tr>
<tr>
<td>XB11 SLUL</td>
<td>see pages 1272–1275</td>
</tr>
<tr>
<td>XB12 SL</td>
<td>see pages 1272–1275</td>
</tr>
</tbody>
</table>
Status Lights

MEDC Series

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

<table>
<thead>
<tr>
<th>Certification</th>
<th>Voltage</th>
<th>Ordering Code</th>
<th>Cat. #</th>
<th>Standard Product Configuration</th>
</tr>
</thead>
<tbody>
<tr>
<td>UL, cUL Listed, Class I, Div. 1, Groups C, D</td>
<td>24V DC</td>
<td>26200043</td>
<td>SM87SL3</td>
<td>Explosion protected, three stack, one ( \frac{1}{2} )&quot; NPT entry on bottom, no lens guards, xenon strobe with red, green, and clear lens</td>
</tr>
<tr>
<td>UL, cUL Listed, Class I, Div. 1, Groups C, D</td>
<td>24V DC</td>
<td>26200055</td>
<td>SM87SL2</td>
<td>Xenon status lamp, two stack 5 joule beacons interconnected on a painted red stainless steel baseplate, one red and one green lens color, ( \frac{1}{2} )&quot; NPT entry in the bottom unit for customer connection</td>
</tr>
<tr>
<td>UL, cUL Listed, Class I, Div. 1, Groups C, D</td>
<td>24V DC</td>
<td>26200056</td>
<td>SM87SL2</td>
<td>Incandescent status lamp, two stack 40 watt beacons interconnected on a painted red stainless steel baseplate, one red and one green lens color, ( \frac{1}{2} )&quot; NPT entry in the bottom unit for customer connection</td>
</tr>
<tr>
<td>UL, cUL Listed, Class I, Div. 1, Groups C, D</td>
<td>24V DC</td>
<td>26200057</td>
<td>SM87SL2</td>
<td>Fluorescent status lamp, two stack 5 watt beacons interconnected on a painted red stainless steel baseplate, one red and one green lens color, ( \frac{1}{2} )&quot; NPT entry in the bottom unit for customer connection</td>
</tr>
<tr>
<td>UL, cUL Listed, Class I, Div. 1, Groups C, D</td>
<td>110V AC</td>
<td>26200058</td>
<td>SM87SL2</td>
<td>Xenon status lamp, two stack 5 joule beacons interconnected on a painted red stainless steel baseplate, one red and one green lens color, ( \frac{1}{2} )&quot; NPT entry in the bottom unit for customer connection</td>
</tr>
<tr>
<td>UL, cUL Listed, Class I, Div. 1, Groups C, D</td>
<td>24V DC</td>
<td>26200059</td>
<td>SM87SL3</td>
<td>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, ( \frac{1}{2} )&quot; NPT entry in the bottom unit for customer connection</td>
</tr>
<tr>
<td>UL, cUL Listed, Class I, Div. 1, Groups C, D</td>
<td>24VDC</td>
<td>26200060</td>
<td>SM87SL3</td>
<td>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, ( \frac{1}{2} )&quot; NPT entry in the bottom unit for customer connection</td>
</tr>
<tr>
<td>UL, cUL Listed, Class I, Div. 1, Groups C, D</td>
<td>24V DC</td>
<td>26200061</td>
<td>SM87SL3</td>
<td>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, ( \frac{1}{2} )&quot; NPT entry in the bottom unit for customer connection</td>
</tr>
<tr>
<td>UL, cUL Listed, Class I, Div. 1, Groups C, D</td>
<td>110V AC</td>
<td>26200062</td>
<td>SM87SL3</td>
<td>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, ( \frac{1}{2} )&quot; NPT entry in the bottom unit for customer connection</td>
</tr>
<tr>
<td>UL, cUL Listed, Class I, Div. 1, Groups C, D</td>
<td>110V AC</td>
<td>26200066</td>
<td>SM87SL3</td>
<td>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, ( \frac{1}{2} )&quot; NPT entry in the bottom unit for customer connection</td>
</tr>
<tr>
<td>UL, cUL Listed, Class I, Div. 1, Groups C, D</td>
<td>220V AC</td>
<td>26200063</td>
<td>SM87SL3</td>
<td>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, ( \frac{1}{2} )&quot; NPT entry in the bottom unit for customer connection</td>
</tr>
</tbody>
</table>
### MEDC Series

#### XB11 SLUL

**Xenon Strobe & Incandescent Status Lights—Hazardous Locations**

<table>
<thead>
<tr>
<th>Certification</th>
<th>Ordering Code</th>
<th>Cat. #</th>
<th>Standard Product Configuration</th>
</tr>
</thead>
<tbody>
<tr>
<td>UL Listed, Class I, Div. 2, Groups C, D</td>
<td>42500005</td>
<td>XB11ULSL3</td>
<td>Explosion protected, 3 stack, one ¼” 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</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Certification</th>
<th>Ordering Code</th>
<th>Cat. #</th>
<th>Standard Product Configuration</th>
</tr>
</thead>
<tbody>
<tr>
<td>UL Listed, Class I, Div. 2, Groups C, D</td>
<td>42600001</td>
<td>XB12ULSL3</td>
<td>110V AC, explosion protected, <strong>three stack</strong>, one ¼” NPT entry on top, one ½” NPT entry in the bottom unit for customer connection</td>
</tr>
<tr>
<td>UL Listed, Class I, Div. 2, Groups C, D</td>
<td>42600007</td>
<td>XB12ULSL2</td>
<td>24V DC xenon status lamp, <strong>two stack</strong> 21 joule beacons interconnected on a painted red stainless steel baseplate, one red and one green lens color, ¼” NPT entry in the bottom unit for customer connection</td>
</tr>
<tr>
<td>UL Listed, Class I, Div. 2, Groups C, D</td>
<td>42600008</td>
<td>FB12ULSL2</td>
<td>24V DC incandescent status lamp, <strong>two stack</strong> 60W beacons interconnected on a painted red stainless steel baseplate, one red and one green lens color, ¼” NPT entry in the bottom unit for customer connection</td>
</tr>
<tr>
<td>UL Listed, Class I, Div. 2, Groups C, D</td>
<td>42600009</td>
<td>XB12ULSL3</td>
<td>24V DC xenon status lamp, <strong>three stack</strong> 21 joule beacons interconnected on a painted red stainless steel baseplate, one red, one amber and one green lens color, ¼” NPT entry in the bottom unit for customer connection</td>
</tr>
<tr>
<td>UL Listed, Class I, Div. 2, Groups C, D</td>
<td>42600010</td>
<td>FB12ULSL3</td>
<td>24V DC incandescent status lamp, <strong>three stack</strong> 60W beacons interconnected on a painted red stainless steel baseplate, one red, one amber and one green lens color, ¼” NPT entry in the bottom unit for customer connection</td>
</tr>
</tbody>
</table>
MEDC Series

Typical four unit assembly. Various options are available.

SM87 SL typical three unit assembly

XB12 SL

Typical two unit assembly. Various options are available.

SM87 SL

XB11 SL

Status Lights

Explosionproof

Weatherproof

Lamp Types

Specification—SM87 SL Unit and XB12 SL Unit

<table>
<thead>
<tr>
<th>SM87 SL</th>
<th>XB12 SL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lamp Types</td>
<td>Lantern 5 joules maximum</td>
</tr>
<tr>
<td>Fluorescent 10W or 5W</td>
<td>Incandescent 40W maximum</td>
</tr>
<tr>
<td>Voltage Frequency</td>
<td>50 Hz as standard, 60 Hz available if required.</td>
</tr>
<tr>
<td>Xenon Voltages</td>
<td>24, 48V DC, 110, 120, 240, 254V AC</td>
</tr>
<tr>
<td>(see SM87 HXB data sheet for further information)</td>
<td>24V DC, 110V, 240V AC</td>
</tr>
<tr>
<td>(see XB12 SL data sheet for further information)</td>
<td>120V AC</td>
</tr>
<tr>
<td>Incandescent Voltages</td>
<td>12, 24, 48V DC, 110, 220, 240, 254V AC</td>
</tr>
<tr>
<td>(see SM87 LU3 data sheet for further information)</td>
<td>120V AC</td>
</tr>
<tr>
<td>(see FB12 data sheet for further information)</td>
<td>–</td>
</tr>
<tr>
<td>Fluorescent Voltages</td>
<td>12, 24, 48V, 220, 240, 254V AC</td>
</tr>
<tr>
<td>(see SM87 LU1 data sheet for further information)</td>
<td>–</td>
</tr>
<tr>
<td>Lamp Colors</td>
<td>Red, Amber, Yellow, Green, Blue or Clear</td>
</tr>
<tr>
<td>Certification</td>
<td>UL Listed for USA and Canada Class I, Div. 1, Groups C, D, Class I, Zone 1, AExd IIB T6, Listing No. E187894. CSA Certified: Class I, Div. 1 &amp; 2, Group D. Cert. No. 96406. ATEX Approved: Exd IIC T4 (incandescent), Exd IIC T6 (Fluorescent &amp; Xenon) Cert. No. Baseefa 03ATEX0222X CENELEC EN50014, EN50018</td>
</tr>
<tr>
<td>UL Listed for USA and Canada Class I, Div. 2, Groups C, D, Class I, Zones 1 &amp; 2, AExd IIB T4/T5, Listing No. E187894 ATEX Approved: Exd IIB T4/T5 Cert. No. 99 ATEX 2196 CENELEC EN50014 and EN50018</td>
<td></td>
</tr>
<tr>
<td>Terminals</td>
<td>Will accept up to 14AWG cable</td>
</tr>
<tr>
<td>Wiring</td>
<td>Standard configuration of internal wiring is to common the negative/neutral connections</td>
</tr>
<tr>
<td>Entries</td>
<td>Up to 3 x 1/8&quot; or 1/4&quot; NPT</td>
</tr>
<tr>
<td>Enclosure</td>
<td>LM 25TF Marine Grade Alloy</td>
</tr>
<tr>
<td>Lens</td>
<td>Glass</td>
</tr>
<tr>
<td>Finish</td>
<td>Epoxy paint as standard or to customer’s specification</td>
</tr>
<tr>
<td>Ingress Protection</td>
<td>NEMA 4X and 6, IP66 &amp; 67</td>
</tr>
<tr>
<td>Ambient Temp.</td>
<td>–13°F to 131°F (–25°C to +55°C) – Class I, Div 1</td>
</tr>
<tr>
<td></td>
<td>–67°F to +131°F (–55°C to +55°C) – Class I, Zone 1</td>
</tr>
</tbody>
</table>

Crouse-Hinds by Eaton


1275
### Audible Signaling Devices

#### Hazardous

<table>
<thead>
<tr>
<th>Description</th>
<th>Page No.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Speakers and Tone Generators - MEDC Series</strong></td>
<td></td>
</tr>
<tr>
<td>DB1</td>
<td>see pages 1278–1280</td>
</tr>
<tr>
<td>DB3</td>
<td>see pages 1278–1281</td>
</tr>
<tr>
<td>DB4</td>
<td>see pages 1282–1285</td>
</tr>
<tr>
<td>DB5</td>
<td>see pages 1282–1286</td>
</tr>
<tr>
<td>DB12</td>
<td>see pages 1283–1287</td>
</tr>
<tr>
<td>DB15</td>
<td>see pages 1283–1288</td>
</tr>
<tr>
<td>DB16 UL</td>
<td>see pages 1284–1289</td>
</tr>
<tr>
<td><strong>Speakers and Tone Generators - Flex•Tone Series</strong></td>
<td></td>
</tr>
<tr>
<td>ETH640, ETH840</td>
<td>see page 1292</td>
</tr>
<tr>
<td>ETH645, ETH845</td>
<td>see page 1291</td>
</tr>
<tr>
<td>ETH655, ETH855</td>
<td>see page 1290</td>
</tr>
<tr>
<td><strong>Signaling Horns and Bells</strong></td>
<td></td>
</tr>
<tr>
<td>ESR</td>
<td>see pages 1296–1297</td>
</tr>
<tr>
<td>ETH</td>
<td>see page 1293</td>
</tr>
<tr>
<td>W2H</td>
<td>see page 1294</td>
</tr>
<tr>
<td>WH</td>
<td>see page 1295</td>
</tr>
</tbody>
</table>
Speakers & Tone Generators

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 notification
- Audible process alarms

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

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.
Speakers & Tone Generators

Hazardous Locations

Weatherproof

Up to 30 Watts

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

**Certification**
UL, ATEX
Class I, Div. 1, Groups C, D
Class I, Zone 1

**Certified Ambient Temperature**
~13°F to +118°F
~25°C to +70°C

**Ingress Protection**
NEMA 4X & 6
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
12–48V DC, 110V ACC

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

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

**Certification**
cULus, ATEX
Class I, Div. 2, Groups A, B, C, D
Class I, Zones 1 & 2, AExd IIC T4

**Certified Ambient Temperature**
~67°F to +118°F
~−55°C to +70°C

**Ingress Protection**
NEMA 4X & 6
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
12–48V DC, 110V–254V AC

<table>
<thead>
<tr>
<th>Certification</th>
<th>Body Color</th>
<th>Voltage</th>
<th>Type*</th>
<th>Ordering Code</th>
<th>Cat. #</th>
<th>Standard Product Configuration</th>
</tr>
</thead>
<tbody>
<tr>
<td>UL, cUL Listed, Class I, Div. 2, Groups A, B, C, D</td>
<td>Red</td>
<td>12–48V DC</td>
<td>Single Stage</td>
<td>869131</td>
<td>DB3UL048N2CNRRZ</td>
<td>27 tones, no tag or duty labels, 108 dB(A) output, NEMA 4X &amp; 6, 2 x ½” NPT entries with one certified plug fitted</td>
</tr>
<tr>
<td>UL, cUL Listed, Class I, Div. 2, Groups A, B, C, D</td>
<td>Red</td>
<td>12–48V DC</td>
<td>Two Stage</td>
<td>869132</td>
<td>DB3PUL048N2CNRRZ</td>
<td></td>
</tr>
<tr>
<td>UL, cUL Listed, Class I, Div. 2, Groups A, B, C, D</td>
<td>Red</td>
<td>110V AC</td>
<td>Single Stage</td>
<td>869135</td>
<td>DB3UL110N2CNRRZ</td>
<td></td>
</tr>
<tr>
<td>ATEX Ex II 2GD</td>
<td>Natural Black</td>
<td>12–48V DC</td>
<td>Two Stage</td>
<td>803121</td>
<td>DB3PD048N2BNNZ</td>
<td></td>
</tr>
<tr>
<td>ATEX Ex II 2GD</td>
<td>Natural Black</td>
<td>240V AC</td>
<td>Single Stage</td>
<td>803122</td>
<td>DB3D240N2BNNZ</td>
<td></td>
</tr>
<tr>
<td>ATEX Ex II 2GD</td>
<td>Red</td>
<td>12–48V DC</td>
<td>Two Stage</td>
<td>803123</td>
<td>DB3PD048N2BNNZ</td>
<td></td>
</tr>
<tr>
<td>ATEX Ex II 2GD</td>
<td>Red</td>
<td>240V AC</td>
<td>Single Stage</td>
<td>803124</td>
<td>DB3D240N2BNNZ</td>
<td></td>
</tr>
<tr>
<td>ATEX Ex II 2GD</td>
<td>Red</td>
<td>12–48V DC</td>
<td>Single Stage</td>
<td>803125</td>
<td>DB3D048N2BNNZ</td>
<td></td>
</tr>
</tbody>
</table>

*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.
Speakers & Tone Generators

Up to 30 Watts

Specification—DB1 Unit

**Certification:**
UL Listed for Class I, Div. 1, Groups C, D and Class I, Zone 1
UL Listing No. E187688
ATEX Approved:
Exd IIB T3
Cert. No. Baseefa 02ATEX0207 for DB1(P)
Cert. No. Baseefa 02ATEX0209 for DB1HP

**Material:**
LM25 corrosion resistant alloy with stainless steel cover screws
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)
DB1HP=100 ± 3dB(A) @ 10 feet
Note: Sound level is dependent upon the tone selection.

**Weight:**
DB1P 7.7lb/3.5kg approx.
DB1HP 12.3lb/5.6kg approx.

**Certified Temperature:**
–13°F to +158°F
–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 1/4 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 1/4 Hz
8 Sweep 1200–500Hz 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 1/4 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 1/4 sec. on 1 sec. off 27 Int 3100 Hz 0.3 sec. on 0.7 sec. off
14 Continuous at 970 Hz

**Current Consumption:**

<table>
<thead>
<tr>
<th>Voltage</th>
<th>DB1P</th>
<th>DB1HP</th>
</tr>
</thead>
<tbody>
<tr>
<td>12V</td>
<td>125mA</td>
<td>900mA</td>
</tr>
<tr>
<td>24V</td>
<td>250mA</td>
<td>700mA</td>
</tr>
<tr>
<td>48V</td>
<td>250mA</td>
<td>–</td>
</tr>
<tr>
<td>110V</td>
<td>60mA</td>
<td>200mA</td>
</tr>
</tbody>
</table>

**Labels:**
Duty and tag labels optional

**Entries:**
Up to 3 x 1/2” or 3/4” 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.

**Certification:**
DB1P DB1HP

**Material:**
Stainless Steel

**Voltage Code:**
12V DC 012
24V DC 024
110V AC 110
240V AC 240

**Cable Entries Code:**
1 x 25mm A3
1 x 25mm B3
1 x 1/8” NPT (US only) C3
1 x 1/8” NPT (UK only) D3
2 x M20 A1A2
2 x M30 B1B2
2 x 1/8” NPT C1C2
2 x 1/8” NPT D1D2

**Duty Label Code:**
A

**Tag Label Code:**
N

**Features Code:**
R
Speakers & Tone Generators

Up to 30 Watts

Hazardous Locations
Weatherproof

5S

Specification—DB3 Unit

Certification: 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
  UL Listing No. E203310
– Ordinary locations: Audible Signal Device
  UL Listing No. 58116
ATEX approved:
  CENELEC EN50014, 18, 19
  Cert. No. BAS00ATEX2097X, Exd IIC
  Cert. No. BAS00ATEX2098X, Exde IIC
  Zones 1 & 2

Material: Body & horn in anti-static, UV stable, glass reinforced polyester
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:
*Nominal Input Current
Output (dBa) (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
–55°C to +70°C

Ingress Protection:
NEMA 4X & 6, IP66 & 67

Voltage:
Up to 48V DC Up to 254V AC

Current Consumption:
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

Terminals:
4 x 14 AWG (AC), 6 x 14 AWG (DC)

Mounting:
Stainless steel bracket with ratchet facility

Labels:
Duty and tag labels optional

Cable Entries:
UP TO 2 x ½” NPT

Tone Selection:
27 user selectable tones available

Horn/Strobe Unit:
The DBS may be combined with an MEDC strobe to create a combined audio/visual alarm.
Contact MEDC for price and specification.

Two Stage Unit: DB3P
Switchable between any two tones by either:
(i) Reversing the polarity of the supply, or
(ii) by a 3 wire common +ve system, switching between the two —ve lines.
Note: Two stage unit available in DC versions only.

3 & 4 Tone Unit:
Remote 3 & 4 tone unit 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.

<table>
<thead>
<tr>
<th>Unit Type</th>
<th>Certifications</th>
<th>Voltage</th>
<th>Labels</th>
<th>Entries</th>
<th>Options</th>
<th>Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>Details</td>
<td></td>
<td>N</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>DB3</td>
<td>Standard unit</td>
<td>12V-48V DC</td>
<td>O48</td>
<td>1 x 20 mm (EExd)</td>
<td>18</td>
<td>N</td>
</tr>
<tr>
<td>DB3P</td>
<td>Two stage (DC only)</td>
<td>110V AC</td>
<td>110</td>
<td>2 x 20 mm (EExd/EExed)</td>
<td>28</td>
<td>R</td>
</tr>
<tr>
<td></td>
<td></td>
<td>120V AC</td>
<td>120</td>
<td>1 x ½” NPT (UL only)</td>
<td>1C</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>240V AC</td>
<td>240</td>
<td>2 x ½” NPT (UL only)</td>
<td>2C</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>254V AC</td>
<td>254</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Crouse-Hinds

by FPE

**DB4**

8-25 Watt Speaker—Hazardous Locations

- **Certification**: cULus, ATEX
- **UL Listed for**: Class I, Div. 2, Groups A, B, C, D
  - Class I, Zone 1, AExd IIC T4
- **Certified Ambient Temperature**: 
  - 27°C to +70°C
  - −55°C to +85°C
- **Ingress Protection**: NEMA 4X & 6
  - IP66 & 67
- **Material**: Corrosion-free GRP
- **Output**: 
  - 97 dBA at 1W at 10 feet
  - 109 dBA at 25W at 10 feet
- **Entries**: Up to 2 x 1/2” NPT, 20mm
- **Weight**: 11lb/5.0kg
- **Options**: Body color, transformer, certification, power 25W, 15W, 8W

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

**DB5**

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

- **Certification**: FM, ATEX
  - Class I, Div. 1 & 2, Groups A, B, C, D
- **Certified Ambient Temperature**: 
  - −4°F to +131°F
  - −20°C to +55°C
- **Ingress Protection**: NEMA 4
  - 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

<table>
<thead>
<tr>
<th>Certification</th>
<th>Voltage</th>
<th>Ordering Code</th>
<th>Cat. #</th>
<th>Standard Product Configuration</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATEX Approved ExII 1G</td>
<td>12V DC</td>
<td>805001</td>
<td>DB5B012NR</td>
<td>Intrinsically safe, up to 3 x M20 entries via knockouts, no labels, natural red finish</td>
</tr>
<tr>
<td>ATEX Approved ExII 1G</td>
<td>24V DC</td>
<td>805002</td>
<td>DB5B024NR</td>
<td></td>
</tr>
<tr>
<td>FM Approved for Class I, Div. 1 &amp; 2, Groups A, B, C, D</td>
<td>24V DC</td>
<td>869150</td>
<td>DB5FM024NR</td>
<td>Intrinsically safe, 26 tones, 93 dB(A) output, natural red body color, no tag or duty labels, 2 x 13/16” entries via knockouts</td>
</tr>
</tbody>
</table>
## 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, IP66 & 67
- Material: Corrosion-free GRP

### Specifications
- Entries: Up to 3 x 20mm
- Weight: 1kg
- No. of Tones: 27 + 5 programmable

### Options
- Body color, voltages 12V & 24V DC

### Certification Table

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

## 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, IP66 & 67
- Material: Corrosion-free GRP

### Specifications
- 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 Table

<table>
<thead>
<tr>
<th>Certification</th>
<th>Voltage</th>
<th>Type</th>
<th>Ordering Code</th>
<th>Cat. #</th>
<th>Standard Product Configuration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CE Certification</td>
<td>12–48V DC</td>
<td>Two Stage</td>
<td>808110</td>
<td>DB15P048NN</td>
<td>Weatherproof, dust-tight, no labels, choice of 27 tones, painted gray finish</td>
</tr>
<tr>
<td>CE Certification</td>
<td>12–48V DC</td>
<td>Two Stage</td>
<td>808115</td>
<td>DB15P048NR</td>
<td>Weatherproof, dust-tight, no labels, choice of 27 tones, painted red finish</td>
</tr>
<tr>
<td>CE Certification</td>
<td>240V AC</td>
<td>Single Stage</td>
<td>808120</td>
<td>DB15240NN</td>
<td>Weatherproof, dust-tight, choice of 27 tones, natural gray finish</td>
</tr>
<tr>
<td>CE Certification</td>
<td>240V AC</td>
<td>Single Stage</td>
<td>808125</td>
<td>DB15240NR</td>
<td>Weatherproof, dust-tight, choice of 27 tones, painted red finish</td>
</tr>
</tbody>
</table>
### DB16 UL

**30 Watt Speaker — Hazardous & Ordinary Locations**

<table>
<thead>
<tr>
<th>Certification</th>
<th>UL Listed for:</th>
</tr>
</thead>
<tbody>
<tr>
<td>UL</td>
<td>cULus, ATEX, Class I, Div 2, Groups C, D / A, B, C, D</td>
</tr>
<tr>
<td></td>
<td>Class I, Zone 1, AExde IIB T3/IIC T110°C</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Certified Ambient Temperature</th>
<th>–61°F to +90°F</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>–50°C to +40°C</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ingress Protection</th>
<th>NEMA 4X &amp; 6</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>IP66 &amp; 67</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Material</th>
<th>Corrosion-free GRP</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Output Groups A, B, C, D:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Groups C &amp; D:</td>
<td>100dB(A) at 1 Watt at 10 ft.</td>
</tr>
<tr>
<td></td>
<td>112dB(A) at 30 Watts at 10 ft.</td>
</tr>
<tr>
<td></td>
<td>3dB(A) less than C &amp; D versions</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Entries</th>
<th>Up to 2 x 1/2&quot; NPT or 2 x 3/4&quot; NPT, 20mm, 25mm</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Weight</th>
<th>12.1lb/5.5kg</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Tappings @ 30 Watts</th>
<th>30, 25, 12, 6, 4, 2</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Options:</th>
<th>Body color, transformer</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Certification</th>
<th>Ordering Code</th>
<th>Cat. #</th>
<th>Standard Product Configuration</th>
</tr>
</thead>
<tbody>
<tr>
<td>UL, cUL Listed, Class I, Div 2, Groups C &amp; D</td>
<td>28600006</td>
<td>DB16UCXN2MPN</td>
<td>Unit suitable for gas Groups A, B, C, D, 70V line transformer, 2 x 1/2&quot; NPT, one certified plug, natural black finish</td>
</tr>
</tbody>
</table>
Speakers & Tone Generators

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
  - Class I, Div. 2, Groups A, B, C, D
  - Class I, Zone 1, AExd IIC T4
- UL Listing No. E203310
- ATEX approved:
  - EN50014, 18, 19
  - Cert. No.BAS00ATEX2097X, Exd IIC T4/T5
  - Cert. No. BAS00ATEX2098X, Exd IIC T4/T5
- Zones 1 and 2; not for use in atmospheres containing carbon disulphide

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

**Finish:**
- Body and horn, natural black or epoxy paint coated to client’s color requirements

**Output:**
- 97 dB(A) at 1 watt at 10 feet
- 100 dB(A) at 25 watts at 10 feet
- Measured in accordance with IEC 268

**Weight:**
- 11lb/5.0kg approx. dependent on model

**Certified Temperature:**
- –67°F to +158°F
- –55°C to +70°C

**Ingress Protection:**
- NEMA 4X and 6, IP66 & 67

**Frequency Range:**
- 400Hz to 8kHz

**Voice Coil Impedance:**
- 8 ohms

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

<table>
<thead>
<tr>
<th>Transformer Tappings</th>
<th>Power</th>
</tr>
</thead>
<tbody>
<tr>
<td>1:2</td>
<td>25W</td>
</tr>
<tr>
<td>2:3</td>
<td>15W</td>
</tr>
<tr>
<td>3:4</td>
<td>8W</td>
</tr>
<tr>
<td>1:3</td>
<td>20W</td>
</tr>
<tr>
<td>2:4</td>
<td>10W</td>
</tr>
<tr>
<td>1:4</td>
<td>5W</td>
</tr>
</tbody>
</table>

**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 T4AWG
- 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**

<table>
<thead>
<tr>
<th>DB4</th>
<th>Max. Rated Power</th>
<th>Certification</th>
<th>Transformer</th>
<th>Labels</th>
<th>Color</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>8 watt</td>
<td>EExd D</td>
<td>Yes</td>
<td>N</td>
<td>Natural Black</td>
</tr>
<tr>
<td></td>
<td>15 watt</td>
<td>UL listed</td>
<td>None</td>
<td>N</td>
<td>Red</td>
</tr>
<tr>
<td></td>
<td>25 watt</td>
<td>UL listed</td>
<td>*Std 100V Other values available, specify voltage.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

To specify certified plug, suffix appropriate code with "p", e.g. 2BP is 2 x M20 entries with one certified plug.
Speakers & Tone Generators

Up to 30 Watts

Specification—DB5 Unit

Certification:
- FM approved for Class I, Div. 1, Groups A, B, C, D, J.I. 3001835
- CSA certified to C22.2 Nos. 0, 0.4, 0.5, 25, 30, 205, Class I, Groups A, B, D, Cert. No. 79122
- ATEX approved, EN50014 and EN50020 & EN50284
- Exia IIC T4, 12/24V version Cert. No. BAS00ATEX 1259 (unit) and 01E2024 (system)
- HSE(M) to EN50014, EN50020 and EN50303
- Exia 1 Cert. No. MECS01ATEX4260 (unit) and 94Y7005 (system)

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

Finish:
- Available in red as standard

Certified Temperature:
- –4°F to +131°F
- –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
- Typical max value only—variable with tone

Current Consumption:
- 24V model—14 mA max. nominal
- 12V model—12 mA max. nominal
Speakers & Tone Generators

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 |
| Typical value only—variable with tone |
| Volume Control: | Integral volume control |

<table>
<thead>
<tr>
<th>Nominal Output (dBa)</th>
<th>Input Current (mA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>92</td>
<td>60</td>
</tr>
<tr>
<td>100</td>
<td>70</td>
</tr>
<tr>
<td>104</td>
<td>80</td>
</tr>
<tr>
<td>109</td>
<td>90</td>
</tr>
</tbody>
</table>

Output measured with 24V input voltage. Tone set to 2860Hz continuous.

**Tone Selection:**

- **Single Stage DB12:** 27 user selectable tones
- **Two stage Unit DB12P:** Switchable between any two tones by either:
  - (i) Reversing the polarity of the supply, or
  - (ii) by a 3 wire common +ve system, switching between the two -ve lines.

Note: Two stage unit available in 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
- 12V operation 55mA–90mA
- 115V operation 85mA–140mA
- 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.

<table>
<thead>
<tr>
<th>Unit type</th>
<th>Voltage</th>
<th>Labels</th>
<th>Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>Details</td>
<td>Code</td>
<td>N</td>
</tr>
<tr>
<td>DB12</td>
<td>Standard Unit</td>
<td>012</td>
<td>N</td>
</tr>
<tr>
<td>DB12P</td>
<td>Two Stage (DC only)</td>
<td>024</td>
<td>N</td>
</tr>
<tr>
<td></td>
<td>12V DC</td>
<td>115/230V AC</td>
<td>115</td>
</tr>
</tbody>
</table>
Speakers & Tone Generators

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

<table>
<thead>
<tr>
<th>*Nominal Output (dBa)</th>
<th>Input Current (mA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>150</td>
</tr>
<tr>
<td>105</td>
<td>250</td>
</tr>
<tr>
<td>108</td>
<td>350</td>
</tr>
<tr>
<td>110</td>
<td>450</td>
</tr>
<tr>
<td>112</td>
<td>550</td>
</tr>
</tbody>
</table>

*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:**

<table>
<thead>
<tr>
<th>V</th>
<th>I</th>
</tr>
</thead>
<tbody>
<tr>
<td>12V DC</td>
<td>900mA</td>
</tr>
<tr>
<td>24V DC</td>
<td>600mA</td>
</tr>
<tr>
<td>48V DC</td>
<td>280mA</td>
</tr>
<tr>
<td>110V AC</td>
<td>150mA</td>
</tr>
<tr>
<td>120V AC</td>
<td>175mA</td>
</tr>
<tr>
<td>220V AC</td>
<td>93mA</td>
</tr>
<tr>
<td>240V AC</td>
<td>86mA</td>
</tr>
<tr>
<td>254V AC</td>
<td>80mA</td>
</tr>
</tbody>
</table>

**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.

<table>
<thead>
<tr>
<th>Unit Type</th>
<th>Voltage</th>
<th>Options</th>
<th>Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>DB15</td>
<td>12V DC</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td></td>
<td>24V–48V DC</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>*110V AC</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>*120V AC</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>*240V AC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DB15P</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*DB15P not available in AC version.*
Speakers & Tone Generators
Hazardous Locations
Weatherproof

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
- Hazardous locations:
  Class I, Div. 2, Groups C, D, Class I, Zone 1, AExde IIB T3
  Class I, Div. 2, Groups A, B, C, D, Class I, Zone 1, AExde IIC T110°C
  UL Listing No. E203310
- Ordinary locations: Signalling Speaker; UL Listing No. 58847
  CENELEC EN50014; 18, 19
  IIB Version: Cert. No. Baseef04ATEX0166X
  ATEX Ex II 2G Exde IIB T3 (Tamb. -50°C to +40°C)
  IIC Version: Cert. No. Baseef04ATEX0167X
  ATEX Ex II 2GD Exde IIC T110°C (Tamb. -50°C to +40°C)
  Zones 1 and 2
Material: Body & horn in anti-static, UV stable, glass reinforced polyester
  Mounting stirrup and fixtures in stainless steel
Finish: All natural or body and horn can be painted to client’s requirements
Output: Groups C, D Version: Maximum output at 1W at 10 feet is 100dBA
  Maximum output at 30W at 10 feet is 112dBA
  Groups A, B, C, D Version: Maximum output at 1W at 10 feet is 97dBA
  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

<table>
<thead>
<tr>
<th>Transformer Tappings</th>
<th>Power (W)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1:2</td>
<td>30</td>
</tr>
<tr>
<td>2:3</td>
<td>25</td>
</tr>
<tr>
<td>3:4</td>
<td>12</td>
</tr>
<tr>
<td>1:3</td>
<td>6</td>
</tr>
<tr>
<td>2.4</td>
<td>4</td>
</tr>
<tr>
<td>1.4</td>
<td>2</td>
</tr>
</tbody>
</table>

(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
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 ⅜” NPT or 2 x ⅝” 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.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>UL, UL, C, O</td>
<td>Yes</td>
<td>No</td>
<td>N</td>
<td>1 x M20</td>
</tr>
<tr>
<td>ATEX, IC</td>
<td>*Std 100°C</td>
<td></td>
<td></td>
<td>2 x M20</td>
</tr>
<tr>
<td>Units available in pressure groups.</td>
<td>Other voltages available, specify voltage</td>
<td></td>
<td></td>
<td>2 x M25</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2 x ⅞” NPT</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2 x ⅞” NPT</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2 x ⅝” NPT</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2 x ⅝” NPT</td>
</tr>
</tbody>
</table>

Poly chat and frequency response can be seen for other speakers are available upon request.
Eaton’s 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, Groups 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.

**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 1/2” 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:

<table>
<thead>
<tr>
<th>Cat. #</th>
<th>Voltage</th>
<th>Signal OFF Standby Current (Amps)</th>
<th>Signal OFF Operating Current (Amps)</th>
<th>Signal ON Operating Current (Amps)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETH855/24</td>
<td>24VDC</td>
<td>0.061</td>
<td></td>
<td>0.250</td>
</tr>
<tr>
<td>ETH855/36</td>
<td>36VDC</td>
<td>0.077</td>
<td></td>
<td>0.380</td>
</tr>
<tr>
<td>ETH855/24</td>
<td>24VAC, 50 / 60Hz</td>
<td>0.250</td>
<td></td>
<td>0.950</td>
</tr>
<tr>
<td>ETH855/120</td>
<td>120VAC</td>
<td>0.088</td>
<td></td>
<td>0.260</td>
</tr>
<tr>
<td>ETH855/240</td>
<td>240VAC</td>
<td>0.091</td>
<td></td>
<td>0.190</td>
</tr>
<tr>
<td>ETH855/125</td>
<td>125VDC</td>
<td>0.031</td>
<td></td>
<td>0.130</td>
</tr>
<tr>
<td>ETH855/250</td>
<td>250VDC</td>
<td>0.019</td>
<td></td>
<td>0.070</td>
</tr>
</tbody>
</table>

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 |

Crouse-Hinds

ETH Flex•Tone™ Series
Signaling Devices
Remote Speaker / Amplifier

Eaton’s 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 Eaton’s Crouse-Hinds Flex•Tone Panel Control Signal Generator on next page.

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 1/2” 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:

<table>
<thead>
<tr>
<th>Cat. #</th>
<th>Voltage</th>
<th>Signal OFF Standby Current (Amps)</th>
<th>Signal ON Operating Current (Amps)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETH845/24</td>
<td>24VDC</td>
<td>0.061</td>
<td>0.250</td>
</tr>
<tr>
<td>ETH645/24</td>
<td>24VAC, 50/60Hz</td>
<td>0.250</td>
<td>0.950</td>
</tr>
<tr>
<td>ETH645/120</td>
<td>120VAC</td>
<td>0.088</td>
<td>0.260</td>
</tr>
<tr>
<td>ETH645/240</td>
<td>240VAC</td>
<td>0.091</td>
<td>0.190</td>
</tr>
<tr>
<td>ETH645/125</td>
<td>125VDC</td>
<td>0.031</td>
<td>0.130</td>
</tr>
<tr>
<td>ETH645/250</td>
<td>250VDC</td>
<td>0.091</td>
<td>0.070</td>
</tr>
</tbody>
</table>

ETH845 Series Remote Speaker/Amplifiers must be used with Eaton’s 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.
Eaton’s 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:

<table>
<thead>
<tr>
<th>Cat. #</th>
<th>Voltage</th>
<th>Input Card Activation Voltage</th>
<th>Signal OFF Standby Current (Amps)</th>
<th>Signal ON Operating Current (Amps)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETH840/24E74</td>
<td>24VDC</td>
<td>24VDC</td>
<td>0.10</td>
<td>0.74</td>
</tr>
<tr>
<td>ETH640/24E13</td>
<td>24V, 50/60Hz</td>
<td>24VDC</td>
<td>0.10</td>
<td>1.30</td>
</tr>
<tr>
<td>ETH640/120E36</td>
<td>120V, 50/60Hz</td>
<td>24VDC</td>
<td>0.10</td>
<td>0.36</td>
</tr>
<tr>
<td>ETH640/120M38</td>
<td>120V, 50/60Hz</td>
<td>120VAC</td>
<td>0.10</td>
<td>0.38</td>
</tr>
<tr>
<td>ETH640/120E32</td>
<td>120V, 50/60Hz</td>
<td>24VDC</td>
<td>0.10</td>
<td>0.32</td>
</tr>
<tr>
<td>ETH640/240E20</td>
<td>240V, 50/60Hz</td>
<td>24VDC</td>
<td>0.10</td>
<td>0.20</td>
</tr>
<tr>
<td>ETH840/125E21</td>
<td>125VDC</td>
<td>24VDC</td>
<td>0.10</td>
<td>0.21</td>
</tr>
<tr>
<td>ETH840/250EO10</td>
<td>250VDC</td>
<td>24VDC</td>
<td>0.02</td>
<td>0.10</td>
</tr>
<tr>
<td>ETH840/120M31</td>
<td>120V, 50/60Hz</td>
<td>120VAC</td>
<td>0.10</td>
<td>0.31</td>
</tr>
<tr>
<td>ETH640/240M20</td>
<td>240V, 50/60Hz</td>
<td>120VAC</td>
<td>0.10</td>
<td>0.20</td>
</tr>
<tr>
<td>ETH640/125M20</td>
<td>125VDC</td>
<td>120VAC</td>
<td>0.10</td>
<td>0.20</td>
</tr>
<tr>
<td>ETH840/250M10</td>
<td>250VDC</td>
<td>120VAC</td>
<td>0.02</td>
<td>0.10</td>
</tr>
<tr>
<td>ETH640/120R31</td>
<td>120V, 50/60Hz</td>
<td>RS485</td>
<td>0.10</td>
<td>0.31</td>
</tr>
<tr>
<td>ETH640/240R20</td>
<td>240V, 50/60Hz</td>
<td>RS485</td>
<td>0.10</td>
<td>0.20</td>
</tr>
<tr>
<td>ETH840/125R20</td>
<td>125VDC</td>
<td>RS485</td>
<td>0.10</td>
<td>0.20</td>
</tr>
<tr>
<td>ETH840/250R10</td>
<td>250VDC</td>
<td>RS485</td>
<td>0.02</td>
<td>0.10</td>
</tr>
</tbody>
</table>

Dimensions
In Inches:

- Speaker prints 180°
- Mounting flange 4 holes (2 each side)
- 1/2” (13mm) conduit mounting
- 2 1/2” (64mm)
- 6” (152mm)
- 2” (51mm)
- 6” (152mm)
- 3” (89mm)
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

Table 1
Operating Current in Amperes at the Nominal Voltage for Horn and Siren Signals

<table>
<thead>
<tr>
<th>Horn Signal</th>
<th>Amperes</th>
<th>Grill Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single Projector</td>
<td></td>
<td></td>
</tr>
<tr>
<td>50 to 60 hertz AC</td>
<td>ETH2702, ETH2703</td>
<td>50 to 60 hertz AC</td>
</tr>
<tr>
<td>ETH2313, ETH2316, ETH2312</td>
<td>DC</td>
<td>ETH2416</td>
</tr>
<tr>
<td>24</td>
<td>0.625</td>
<td>0.16</td>
</tr>
<tr>
<td>115</td>
<td>.45</td>
<td>0.13</td>
</tr>
<tr>
<td>230</td>
<td>.2</td>
<td>0.065</td>
</tr>
</tbody>
</table>

Ordering Information:

<table>
<thead>
<tr>
<th>Supply</th>
<th>Nom. Volts</th>
<th>Nom. Watts</th>
<th>Minimum audibility rating (dB) at 10′</th>
<th>Hub Size</th>
<th>Cat. #</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single Projector Horn Signal</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>50 to 60 hertz AC</td>
<td>115</td>
<td>33</td>
<td>105 dB</td>
<td>½</td>
<td>ETH2703</td>
</tr>
<tr>
<td>hertz AC</td>
<td>230</td>
<td>33</td>
<td>105 dB</td>
<td>½</td>
<td>ETH2702</td>
</tr>
<tr>
<td>Grill Type Horn Signals</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>50 to 60 hertz AC</td>
<td>115</td>
<td>49</td>
<td>100 dB</td>
<td>½</td>
<td>ETH2316</td>
</tr>
<tr>
<td>230</td>
<td>100 dB</td>
<td>½</td>
<td>ETH2313</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DC</td>
<td>24</td>
<td>30</td>
<td>100 dB</td>
<td>½</td>
<td>ETH2416</td>
</tr>
</tbody>
</table>

Dimensions
In Inches:

Table 1 for more complete ratings

Crouse-Hinds
by Eaton

Dimensions are approximate, not for construction purposes.
5S  W2H Signaling Devices

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: 1203
- 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:

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

Electrical Rating Ranges:
- Nominal voltage – 24, 120, 240 AC; 60 Hz 24 DC

Ordering Information - Normal Power

<table>
<thead>
<tr>
<th>Nominal Voltage</th>
<th>Operating Current</th>
<th>Standby Current</th>
<th>Cat. #</th>
</tr>
</thead>
<tbody>
<tr>
<td>24VDC</td>
<td>0.55A</td>
<td>0.06A</td>
<td>W2H840</td>
</tr>
<tr>
<td>24VAC</td>
<td>1.25A</td>
<td>0.13A</td>
<td>W2H640</td>
</tr>
<tr>
<td>120VAC</td>
<td>0.27A</td>
<td>0.03A</td>
<td>W2H620</td>
</tr>
<tr>
<td>240VAC</td>
<td>0.15A</td>
<td>0.02A</td>
<td>W2H660</td>
</tr>
</tbody>
</table>

Dimensions

In Inches:

Dimensions are approximate, not for construction purposes.
WH Vibrating Horn Signals

Weather Resistant

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 rain tightness

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

Ordering Information

<table>
<thead>
<tr>
<th>Nominal Voltage</th>
<th>Nominal Voltage</th>
<th>Grill Cat #</th>
<th>Single Projector Cat. #</th>
<th>Double Projector Cat. #</th>
</tr>
</thead>
<tbody>
<tr>
<td>.15</td>
<td>120 AC 50 to 60 Hz</td>
<td>WH13503</td>
<td>WH13513</td>
<td>WH13523</td>
</tr>
</tbody>
</table>

Dimensions

In Inches:

Dimensions are approximate, not for construction purposes.
5S ESR Bell Signals

Factory Sealed

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

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:

<table>
<thead>
<tr>
<th>Dia. Gong</th>
<th>a</th>
<th>b</th>
<th>c</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>6</td>
<td>6½</td>
<td>5½</td>
</tr>
<tr>
<td>10</td>
<td>10</td>
<td>10½</td>
<td>6</td>
</tr>
</tbody>
</table>

Table 1
Operating Current in Amperes at the Nominal Voltage For Bell Signals

<table>
<thead>
<tr>
<th>Nom. Volts</th>
<th>Amperes All Vibrating 25 to 60 Hz AC</th>
<th>Amperes All Single Stroke 50 to 60 Hz AC</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>1.67</td>
<td>1.75</td>
</tr>
<tr>
<td>24</td>
<td>.53</td>
<td>.62</td>
</tr>
<tr>
<td>48</td>
<td>.44</td>
<td>.41</td>
</tr>
<tr>
<td>115</td>
<td>.189</td>
<td>.189</td>
</tr>
<tr>
<td>230</td>
<td>.092</td>
<td>.086</td>
</tr>
</tbody>
</table>

Dimensions are approximate, not for construction purposes.
## ESR Bell Signals

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  

**Factory Sealed**

### Ordering Information:

<table>
<thead>
<tr>
<th>Hub Size</th>
<th>Supply</th>
<th>Nom. Volts</th>
<th>Voltage Range</th>
<th>Dia. Bell</th>
<th>Vibrating Hammer (25 to 60 hertz)</th>
<th>Minimum audibility rating (dB) at 10':</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Standard Units Cat. #</td>
<td>Group B Units‡ Cat. #</td>
</tr>
<tr>
<td>3/4 AC</td>
<td>12</td>
<td>9.6 to 13.2</td>
<td></td>
<td></td>
<td>ESR2675 ESR2675 GB</td>
<td>67</td>
</tr>
<tr>
<td></td>
<td>24</td>
<td>19.2 to 26.4</td>
<td></td>
<td></td>
<td>ESR2674 ESR2674 GB</td>
<td>82</td>
</tr>
<tr>
<td></td>
<td>48</td>
<td>38.4 to 52.8</td>
<td></td>
<td>6</td>
<td>ESR2673 ESR2673 GB</td>
<td>88</td>
</tr>
<tr>
<td></td>
<td>115</td>
<td>92 to 126.5</td>
<td></td>
<td></td>
<td>ESR2672 ESR2672 GB</td>
<td>88</td>
</tr>
<tr>
<td></td>
<td>230</td>
<td>184 to 253</td>
<td></td>
<td></td>
<td>ESR2671 ESR2671 GB</td>
<td>85</td>
</tr>
<tr>
<td>3/4 AC</td>
<td>12</td>
<td>9.6 to 13.2</td>
<td></td>
<td></td>
<td>ESR2615 ESR2615 GB</td>
<td>82</td>
</tr>
<tr>
<td></td>
<td>24</td>
<td>19.2 to 26.4</td>
<td></td>
<td></td>
<td>ESR2614 ESR2614 GB</td>
<td>85</td>
</tr>
<tr>
<td></td>
<td>48</td>
<td>38.4 to 52.8</td>
<td></td>
<td>10</td>
<td>ESR2613 ESR2613 GB</td>
<td>85</td>
</tr>
<tr>
<td></td>
<td>115</td>
<td>92 to 126.5</td>
<td></td>
<td></td>
<td>ESR2612 ESR2612 GB</td>
<td>91</td>
</tr>
<tr>
<td></td>
<td>230</td>
<td>184 to 253</td>
<td></td>
<td></td>
<td>ESR2611 ESR2611 GB</td>
<td>85</td>
</tr>
</tbody>
</table>

‡ Install seal within 1/2" of conduit opening.
## Combination Visual & Audible Signaling Devices

### Hazardous

<table>
<thead>
<tr>
<th>Description</th>
<th>Page No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Combination Units - MEDC Series</td>
<td></td>
</tr>
<tr>
<td>DB3/SM87</td>
<td>see pages 1300-1301</td>
</tr>
<tr>
<td>DB3/XB11</td>
<td>see pages 1300-1301</td>
</tr>
<tr>
<td>DB12/XB13</td>
<td>see pages 1300-1301</td>
</tr>
</tbody>
</table>
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.

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

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

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

<table>
<thead>
<tr>
<th>Certification</th>
<th>Voltage</th>
<th>Lens/Body Color</th>
<th>Ordering Code</th>
<th>Cat. #</th>
<th>Standard Product Configuration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ex II 2GD</td>
<td>24V DC</td>
<td>Red/Red</td>
<td>62500009</td>
<td>DB12/XB13 24V RED/RED</td>
<td>IP66 &amp; 67 weatherproof only, 24V DC, GRP sounder interconnected to, on a painted red stainless steel baseplate, a IP66 &amp; 67 weatherproof only, GRP 10 joule beacon</td>
</tr>
</tbody>
</table>