

Ex d, Weatherproof

AVAILABLE IN
STAINLESS STEEL



Introduction

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

LED version available, offering extended lifetimes.

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

Stainless steel, one of the most durable materials available on the market, is both hard wearing and corrosion resistant, increasing the life of products in harsh environments and therefore reducing maintenance costs.

Features

- Zone 1 and Zone 2 use.
- Ex d IICT4/T5/T6.
- ATEX approved Ex II 2GD.
- BASEEFA certified.
- IECEx certified Gb, Db.
- UL Listed for USA and Canada:
 - Class I, Div. 1, Groups C & D.
 - Class I, Zone 1 AExd IIB.
- CSA certified.
- CUTR certified*.
- Chinese (CQST) certified.
- Brazilian (Inmetro) certified.
- IP66 and IP67.
- Certified temperature: -55°C to $+70^{\circ}\text{C}$ *.
- High temperature version (up to 85°C) available.†
- Stainless steel or marine grade alloy.
- Xenon or LED versions.
- Various lens colours.
- Optional lens guard.
- Telephone or relay initiated.

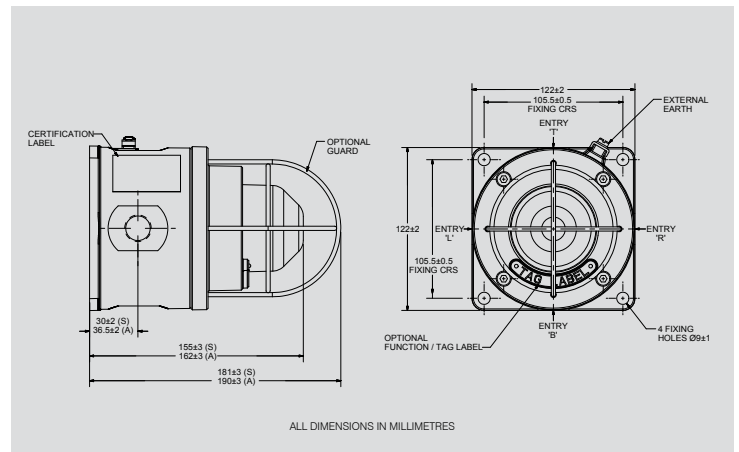
*Depending on version.

†Please contact MEDC Technical Sales.



Certification and Specification

| | |
|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ATEX Ex d: | Cert. no. Baseefa 03ATEX0222. Certified to: EN60079-0, EN60079-1, EN60079-31. HXB: Ex II 2GD, Ex d IIC T5/T6 Gb, Ex tb IIIC T65°C/ T80°C/ T95°C Db. LED: Ex II 2GD, Ex d IIC T6 Gb, Ex tb IIIC T55°C/ T70°C Db. XBT: Ex II 2GD, Ex d IIC T4 Gb, Ex tb IIIC T110°C Db. |
| IECEx Ex d: | Cert. no. IECEx BAS 09.0059. Certified to: IEC60079-0, IEC60079-1, IEC60079-31. HXB: Ex d IIC T5/T6 Gb, Ex tb IIIC T65°C/ T80°C/ T95°C Db. LED: Ex d IIC T6 Gb, Ex tb IIIC T55°C/ T70°C Db. XBT: Ex d IIC T4 Gb, Ex tb IIIC T110°C Db. |
| UL: | Listing no. E187894. Class I, Div 1, Groups C & D. Class I, Zones 1. (HXB & XBT only). |
| CSA: | Cert no. 96406. (HXB only). Certified to: C22.2 Nos 0, 0.4, 0.5, 9, 30-M1986, 94-M91, 137-M1981. Class I, Div 1, Group D. |
| CUTR Ex d: | HXB: 1Ex d IIC T5/T6 Gb, Ex tb IIIC T65°C/ T80°C/ T95°C Db. LED: 1Ex d IIC T6 Gb, Ex tb IIIC T55°C/ T70°C Db. XBT: 1Ex d IIC T4 Gb, Ex tb IIIC T110°C Db. Russian Fire Alarm approved. |
| Inmetro Ex d: | Exd IIC T4/T5/T6 Gb. HXB: Ex d IIC T5/T6 Gb, Ex tb IIIC T65°C/ T80°C/ T95°C Db. LED: Ex d IIC T6 Gb, Ex tb IIIC T55°C/ T70°C Db. XBT: Ex d IIC T4 Gb, Ex tb IIIC T110°C Db. |
| CQST: | Exd IIC T4/T5/T6. (HXB only). |
| Material: | HXBS, XBTS and LEDS – Grade 316 ANC4B Stainless Steel. HXBA, XBTA & LEDA – LM25 TF Marine Grade Alloy. Lens – Glass. UL version available only in marine grade alloy. CSA version available only in stainless steel. |
| Finish: | Epoxy paint finish as standard or to customer specification. |
| Certified Temp: | ATEX/IECEx HXB = -55°C to +70°C (T5) -55°C to +55°C (T6) LED = -55°C to +55°C*(T6) XBT = -55°C to +85°C (T4) CSA HXB = -50°C to +40°C UL HXB = -55°C to +70°C XBT = -40°C to +85°C GOST 'R' HXB = -55°C to +55°C *Operating temp is -20°C |
| Weight: | HXBS & LEDS – 3.8kg each (approx). HXBA & LEDA – 2kg. each (approx). |
| Ingress Protection: | IP66 & IP67. |
| Entries: | Up to 4 x M20 / M25 ISO or 1/2" / 3/4" NPT. |
| Terminals: | HXB & XBT – 6 off suitable for up to 1.5mm ² cable. LED – 6 off suitable for up to 1.5mm ² cable. |
| Relay Initiate: | Initiation by telephone ringing tone or low voltage control signals. |
| Labels: | Duty & Tag Labels optional. |



Electrical Ratings:

| | d.c. | | a.c. 50/60Hz | | | | |
|----------------------------------|-------|-------|--------------|-------|-------|-------|-------|
| | 24 | 48 | 110 | 120 | 220 | 240 | 254 |
| Voltage | | | | | | | |
| Tube Energy (Joules) | 5 | 5 | 6 | 7 | 6 | 7 | 8 |
| SM87 HXB XBT | | | | | | | |
| Peak Current | 393 | 175 | 250 | 275 | 120 | 135 | 153 |
| Consumption (mA) | | | | | | | |
| Current Consumption | 165mA | 85mA | N/A | N/A | N/A | N/A | N/A |
| SM87 LED | | | | | | | |
| Power Consumption (Watts) | 7.2 | 7.6 | 25 | 27 | 25 | 27 | 35 |
| Effective Intensity (Cd) | 29 | 29 | 32 | 39 | 32 | 39 | 44 |
| Peak Intensity (Cd) | 22213 | 22213 | 25061 | 30187 | 25061 | 30187 | 34174 |

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

Multiplying Factor for Coloured Lenses.

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

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

LED Light Output. Steady or Flashing (customer selectable)

| | Red | Blue | Amber | Green |
|-----------------------------------|-----|------|-------|-------|
| Total LED Output (Candela) | 192 | 64 | 64 | 17 |

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

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

Ordering Requirements

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

| Model | Certification | Voltage | Lens/LED Colour | Guard | Entries | Tag/Duty | Options | Finish | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|---------|-------------------------|----------|---------------|----------|---------|-----------|--------------------|--|-------|-----------|------------------------------|--|---------------------------|----------|-----------------|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|------|------|---|-------|---|----|----|-----|---|------|----|----------------|---|---------|----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|------|----------|-----|----------|-----|-------------------|-----|-------------------|-----|-------------------|-----|-------------------|-----|-------------------|-----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|------|-----|---|------|---|-------|---|-------|---|-------|---|------------------|---|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|------|------|---|-----|---|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|------|-----|---|-----|---|----------|---|----------|---|-----|----|--------|----|-----|----|-----|----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|------|------|---|-----|----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|------|-----------|----|-------|----|--------------|-----|------|---|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|------|-----|---|------|---|--------|---|---------------------|---|------|---|-------|---|---------|----|
| <table border="1"> <thead> <tr> <th>Model</th> <th>Code</th> </tr> </thead> <tbody> <tr><td>Xenon (stainless steel)</td><td>SM87HXBS</td></tr> <tr><td>Xenon (alloy)</td><td>SM87HXBA</td></tr> <tr><td>Xenon</td><td>SM87XBTA*</td></tr> <tr><td>High Temp. (alloy)</td><td></td></tr> <tr><td>Xenon</td><td>SM87XBTS*</td></tr> <tr><td>High Temp. (stainless steel)</td><td></td></tr> <tr><td>LED Exd (stainless steel)</td><td>SM87LEDS</td></tr> <tr><td>LED Exd (alloy)</td><td>SM87LEDA</td></tr> </tbody> </table> <p>* Only available 24V d.c.</p> | Model | Code | Xenon (stainless steel) | SM87HXBS | Xenon (alloy) | SM87HXBA | Xenon | SM87XBTA* | High Temp. (alloy) | | Xenon | SM87XBTS* | High Temp. (stainless steel) | | LED Exd (stainless steel) | SM87LEDS | LED Exd (alloy) | SM87LEDA | <table border="1"> <thead> <tr> <th>Certification</th> <th>Code</th> </tr> </thead> <tbody> <tr><td>ATEX</td><td>B</td></tr> <tr><td>IECEx</td><td>J</td></tr> <tr><td>UL</td><td>UL</td></tr> <tr><td>CSA</td><td>C</td></tr> <tr><td>CUTR</td><td>G*</td></tr> <tr><td>Chinese (CQST)</td><td>Q</td></tr> <tr><td>Inmetro</td><td>DM</td></tr> </tbody> </table> <p>* Russian Fire Approval as standard.</p> | Certification | Code | ATEX | B | IECEx | J | UL | UL | CSA | C | CUTR | G* | Chinese (CQST) | Q | Inmetro | DM | <table border="1"> <thead> <tr> <th>Voltage</th> <th>Code</th> </tr> </thead> <tbody> <tr><td>24V d.c.</td><td>024</td></tr> <tr><td>48V d.c.</td><td>048</td></tr> <tr><td>110V a.c. not LED</td><td>110</td></tr> <tr><td>120V a.c. not LED</td><td>120</td></tr> <tr><td>220V a.c. not LED</td><td>220</td></tr> <tr><td>240V a.c. not LED</td><td>240</td></tr> <tr><td>254V a.c. not LED</td><td>254</td></tr> </tbody> </table> | Voltage | Code | 24V d.c. | 024 | 48V d.c. | 048 | 110V a.c. not LED | 110 | 120V a.c. not LED | 120 | 220V a.c. not LED | 220 | 240V a.c. not LED | 240 | 254V a.c. not LED | 254 | <table border="1"> <thead> <tr> <th>Colour</th> <th>Code</th> </tr> </thead> <tbody> <tr><td>Red</td><td>R</td></tr> <tr><td>Blue</td><td>B</td></tr> <tr><td>Green</td><td>G</td></tr> <tr><td>Amber</td><td>A</td></tr> <tr><td>Clear</td><td>C</td></tr> <tr><td>Yellow (not LED)</td><td>Y</td></tr> </tbody> </table> | Colour | Code | Red | R | Blue | B | Green | G | Amber | A | Clear | C | Yellow (not LED) | Y | <table border="1"> <thead> <tr> <th>Guard</th> <th>Code</th> </tr> </thead> <tbody> <tr><td>None</td><td>N</td></tr> <tr><td>Yes</td><td>Y</td></tr> </tbody> </table> | Guard | Code | None | N | Yes | Y | <table border="1"> <thead> <tr> <th>Entries</th> <th>Code</th> </tr> </thead> <tbody> <tr><td>M20</td><td>1</td></tr> <tr><td>M25</td><td>2</td></tr> <tr><td>1/2" NPT</td><td>3</td></tr> <tr><td>3/4" NPT</td><td>4</td></tr> <tr><td>Top</td><td>*T</td></tr> <tr><td>Bottom</td><td>*B</td></tr> <tr><td>RHS</td><td>*R</td></tr> <tr><td>LHS</td><td>*L</td></tr> </tbody> </table> <p>* Prefix position with entry size code. e.g. 1T1B=M20 Top and Bottom entries.</p> | Entries | Code | M20 | 1 | M25 | 2 | 1/2" NPT | 3 | 3/4" NPT | 4 | Top | *T | Bottom | *B | RHS | *R | LHS | *L | <table border="1"> <thead> <tr> <th>Label</th> <th>Code</th> </tr> </thead> <tbody> <tr><td>None</td><td>N</td></tr> <tr><td>Yes</td><td>Y*</td></tr> </tbody> </table> <p>* Please specify wording. (Note: 15 characters maximum).</p> | Label | Code | None | N | Yes | Y* | <table border="1"> <thead> <tr> <th>Options</th> <th>Code</th> </tr> </thead> <tbody> <tr><td>Telephone</td><td>T*</td></tr> <tr><td>Relay</td><td>R*</td></tr> <tr><td>EOL Resistor</td><td>E*†</td></tr> <tr><td>None</td><td>N</td></tr> </tbody> </table> <p>* Not available on UL versions. † Please specify.</p> | Options | Code | Telephone | T* | Relay | R* | EOL Resistor | E*† | None | N | <table border="1"> <thead> <tr> <th>Finish</th> <th>Code</th> </tr> </thead> <tbody> <tr><td>Red</td><td>R</td></tr> <tr><td>Blue</td><td>B</td></tr> <tr><td>Yellow</td><td>Y</td></tr> <tr><td>Yellow/Black Stripe</td><td>X</td></tr> <tr><td>Grey</td><td>G</td></tr> <tr><td>White</td><td>W</td></tr> <tr><td>Special</td><td>S*</td></tr> </tbody> </table> <p>* Please specify.</p> | Finish | Code | Red | R | Blue | B | Yellow | Y | Yellow/Black Stripe | X | Grey | G | White | W | Special | S* |
| Model | Code | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Xenon (stainless steel) | SM87HXBS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Xenon (alloy) | SM87HXBA | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Xenon | SM87XBTA* | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| High Temp. (alloy) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Xenon | SM87XBTS* | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| High Temp. (stainless steel) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| LED Exd (stainless steel) | SM87LEDS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| LED Exd (alloy) | SM87LEDA | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Certification | Code | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ATEX | B | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| IECEx | J | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| UL | UL | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CSA | C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CUTR | G* | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Chinese (CQST) | Q | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Inmetro | DM | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Voltage | Code | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 24V d.c. | 024 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 48V d.c. | 048 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 110V a.c. not LED | 110 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 120V a.c. not LED | 120 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 220V a.c. not LED | 220 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 240V a.c. not LED | 240 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 254V a.c. not LED | 254 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Colour | Code | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Red | R | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Blue | B | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Green | G | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Amber | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Clear | C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Yellow (not LED) | Y | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Guard | Code | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| None | N | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Yes | Y | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Entries | Code | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| M20 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| M25 | 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1/2" NPT | 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3/4" NPT | 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Top | *T | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bottom | *B | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| RHS | *R | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| LHS | *L | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Label | Code | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| None | N | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Yes | Y* | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Options | Code | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Telephone | T* | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Relay | R* | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| EOL Resistor | E*† | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| None | N | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Finish | Code | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Red | R | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Blue | B | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Yellow | Y | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Yellow/Black Stripe | X | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Grey | G | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| White | W | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Special | S* | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |