

# XB10 10 & 15 joule xenon beacon range

Ex d(e), weatherproof



## Overview

These compact and lightweight 10 & 15 Joule beacons have been designed for use in potentially explosive atmospheres and harsh environmental conditions.

The beacon housing, including the flamepaths, is manufactured completely from a UV stable glass reinforced polyester which is ideally suited for use offshore and onshore. Stainless steel screws and mounting bracket are incorporated ensuring a totally corrosion free unit.

An additional body clamp is available for high-vibration environments. Units can be painted to customer specification and supplied with identification labels.

## Features

- Zone 1 and Zone 2 use
- Ex d(e) IIB T4
- ATEX approved, Ex II 2G
- IECEx certified Gb
- TR CU certified
- Brazilian (INMETRO) certified
- IP66 and IP67
- Certified temperature -55°C to +55°C\*

\*Model dependent

- Low current 10 Joule version available
- Corrosion Free GRP
- Various lens colours
- Lens guard fitted as standard
- Stainless steel mounting bracket & screws
- Replaceable twin tubes
- Optional telephone initiate
- Optional earth continuity



## Certifications

|                     |  |
|---------------------|--|
| <b>ATEX Ex d</b>    | Cert. no. BAS00ATEX2204X<br>Certified to: EN60079-0, EN60079-1<br>Ex II 2G, Ex d IIB T4 Gb             |
| <b>ATEX Ex de</b>   | Cert. no. BAS00ATEX2226X<br>Certified to: EN60079-0, EN60079-1, EN60079-7<br>Ex II 2G, Ex de IIB T4 Gb |
| <b>IECEX Ex d</b>   | Cert. no. IECEX BAS 10.0086X<br>Certified to: IEC60079-0, IEC60079-1<br>Ex d IIB T4 Gb                 |
| <b>IECEX Ex de</b>  | Cert. no. IECEX BAS 10.0087X<br>Certified to: IEC60079-0, IEC60079-1, IEC60079-7<br>Ex de IIB T4 Gb    |
| <b>TR CU Ex d</b>   | 1Ex d IIB T4 Gb. Russian Fire Alarm approved   |
| <b>TR CU Ex de</b>  | 1Ex de IIB T4 Gb. Russian Fire Alarm approved  |
| <b>INMETRO Ex d</b> | Ex d IIB T4 Gb   |

## Specifications

|                           |  |
|---------------------------|--|
| <b>Material</b>           | Body: glass reinforced polyester<br>Lens: glass<br>Cover screws + bracket: stainless steel 316             |
| <b>Finish</b>             | Natural black or painted to customer specification   |
| <b>Weight</b>             | Ex d 2.8kg. Ex de 3.6kg  |
| <b>Certified temp</b>     | 15J unit: Exd -55°C to +50°C<br>Exde -50°C to +50°C<br>10J unit: Exd -55°C to +65°C<br>Exde -50°C to +65°C |
| <b>Ingress protection</b> | IP66 & IP67  |
| <b>Fire retardancy</b>    | GRP is fire retardant to ISO 1210  |
| <b>Terminals</b>          | 4 x 2.5mm <sup>2</sup> (dc), 6 x 2.5mm <sup>2</sup> (ac)   |
| <b>Mounting</b>           | Wall mounted via bracket   |
| <b>Tube life</b>          | >1x10 <sup>6</sup> flashes   |

### Electrical ratings:

| Voltage                  | dc   |        |       |             | ac    |             |       |             |
|--------------------------|--|--------|-------|-------------|-------|-------------|-------|-------------|
|                          | 24   | 48     | 110   | 220/240/254 | 110   | 220/240/254 | 110   | 220/240/254 |
| Tube energy (J)          | 10   | 15     | 10    | 15          | 10    | 15          | 10    | 15          |
| Current (mA)             | 700  | 1200   | 300   | 560         | 190   | 300         | 100   | 145         |
| Effective intensity (Cd) | 285  | 330    | 285   | 330         | 285   | 330         | 285   | 330         |
| Peak intensity (Cd)      | 74179  | 111269 | 74179 | 111269      | 74179 | 111269      | 74179 | 111269      |
| Power consumption (W)    | 16.8   | 28.8   | 14.4  | 26.8        | 20.9  | 33          | 24    | 34.8        |
| Flash rate               | 1Hz (other flash rates available on request, please specify) |        |       |             |       |             |       |             |

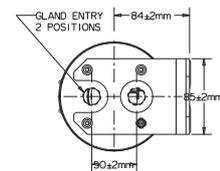
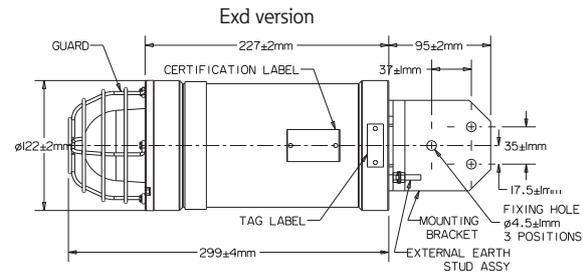
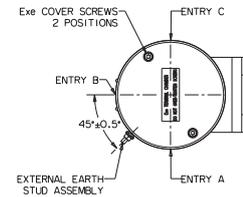
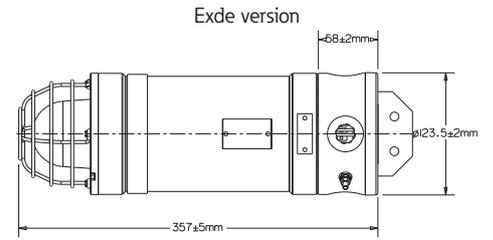
Note: The above figures (Cd) are for a clear lens @ 1Hz flash rate

## 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       | Power | Lens colour | Tag/duty | Options | Entries | Finish |   |            |    |             |    |            |     |             |     |              |    |   |         |      |       |     |       |     |        |     |        |     |        |     |        |     |   |       |      |     |   |     |   |   |             |      |     |   |      |   |       |   |       |   |        |   |       |   |   |       |      |      |   |     |    |   |        |      |      |   |                    |   |                  |   |               |   |   |         |      |             |  |         |    |            |    |         |    |            |    |              |  |         |    |  |        |      |               |   |     |   |      |   |        |   |      |   |       |   |         |    |
|--------------------|---|---------------|-------|-------------|----------|---------|---------|--------|---|------------|----|-------------|----|------------|-----|-------------|-----|--------------|----|---|---------|------|-------|-----|-------|-----|--------|-----|--------|-----|--------|-----|--------|-----|---|-------|------|-----|---|-----|---|---|-------------|------|-----|---|------|---|-------|---|-------|---|--------|---|-------|---|---|-------|------|------|---|-----|----|---|--------|------|------|---|--------------------|---|------------------|---|---------------|---|---|---------|------|-------------|--|---------|----|------------|----|---------|----|------------|----|--------------|--|---------|----|--|--------|------|---------------|---|-----|---|------|---|--------|---|------|---|-------|---|---------|----|
| <b>XB10</b>        |   |               |       |             |          |         |         |        |   |            |    |             |    |            |     |             |     |              |    |   |         |      |       |     |       |     |        |     |        |     |        |     |        |     |   |       |      |     |   |     |   |   |             |      |     |   |      |   |       |   |       |   |        |   |       |   |   |       |      |      |   |     |    |   |        |      |      |   |                    |   |                  |   |               |   |   |         |      |             |  |         |    |            |    |         |    |            |    |              |  |         |    |  |        |      |               |   |     |   |      |   |        |   |      |   |       |   |         |    |
|                    | <table border="1"> <thead> <tr> <th>Certification</th> <th>Code</th> </tr> </thead> <tbody> <tr><td>Uncertified</td><td>W</td></tr> <tr><td>Ex d</td><td>D</td></tr> <tr><td>Ex de</td><td>E</td></tr> <tr><td>IECEX Ex d</td><td>DJ</td></tr> <tr><td>IECEX Ex de</td><td>EJ</td></tr> <tr><td>TR CU Ex d</td><td>DG*</td></tr> <tr><td>TR CU Ex de</td><td>EG*</td></tr> <tr><td>INMETRO Ex d</td><td>DM</td></tr> </tbody> </table> <p>* Russian Fire approved as standard</p> | Certification | Code  | Uncertified | W        | Ex d    | D       | Ex de  | E | IECEX Ex d | DJ | IECEX Ex de | EJ | TR CU Ex d | DG* | TR CU Ex de | EG* | INMETRO Ex d | DM | <table border="1"> <thead> <tr> <th>Voltage</th> <th>Code</th> </tr> </thead> <tbody> <tr><td>24Vdc</td><td>024</td></tr> <tr><td>48Vdc</td><td>048</td></tr> <tr><td>110Vac</td><td>110</td></tr> <tr><td>220Vac</td><td>220</td></tr> <tr><td>240Vac</td><td>240</td></tr> <tr><td>254Vac</td><td>254</td></tr> </tbody> </table> | Voltage | Code | 24Vdc | 024 | 48Vdc | 048 | 110Vac | 110 | 220Vac | 220 | 240Vac | 240 | 254Vac | 254 | <table border="1"> <thead> <tr> <th>Power</th> <th>Code</th> </tr> </thead> <tbody> <tr><td>10J</td><td>T</td></tr> <tr><td>15J</td><td>F</td></tr> </tbody> </table> | Power | Code | 10J | T | 15J | F | <table border="1"> <thead> <tr> <th>Lens 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>Yellow</td><td>Y</td></tr> <tr><td>Clear</td><td>C</td></tr> </tbody> </table> | Lens colour | Code | Red | R | Blue | B | Green | G | Amber | A | Yellow | Y | Clear | C | <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</p> | Label | Code | None | N | Yes | Y* | <table border="1"> <thead> <tr> <th>Option</th> <th>Code</th> </tr> </thead> <tbody> <tr><td>None</td><td>N</td></tr> <tr><td>Telephone initiate</td><td>T</td></tr> <tr><td>Earth continuity</td><td>E</td></tr> <tr><td>3m cable tail</td><td>G</td></tr> </tbody> </table> | Option | Code | None | N | Telephone initiate | T | Earth continuity | E | 3m cable tail | G | <table border="1"> <thead> <tr> <th>Entries</th> <th>Code</th> </tr> </thead> <tbody> <tr><td><b>Ex d</b></td><td></td></tr> <tr><td>1 x M20</td><td>1B</td></tr> <tr><td>1 x PG13.5</td><td>1P</td></tr> <tr><td>2 x M20</td><td>2B</td></tr> <tr><td>2 x PG13.5</td><td>2P</td></tr> <tr><td><b>Ex de</b></td><td></td></tr> <tr><td>3 x M20</td><td>3B</td></tr> </tbody> </table> | Entries | Code | <b>Ex d</b> |  | 1 x M20 | 1B | 1 x PG13.5 | 1P | 2 x M20 | 2B | 2 x PG13.5 | 2P | <b>Ex de</b> |  | 3 x M20 | 3B | <table border="1"> <thead> <tr> <th>Finish</th> <th>Code</th> </tr> </thead> <tbody> <tr><td>Natural black</td><td>N</td></tr> <tr><td>Red</td><td>R</td></tr> <tr><td>Blue</td><td>B</td></tr> <tr><td>Yellow</td><td>Y</td></tr> <tr><td>Grey</td><td>G</td></tr> <tr><td>White</td><td>W</td></tr> <tr><td>Special</td><td>S*</td></tr> </tbody> </table> <p>* Please specify</p> | Finish | Code | Natural black | N | Red | R | Blue | B | Yellow | Y | Grey | G | White | W | Special | S* |
| Certification      | Code  |               |       |             |          |         |         |        |   |            |    |             |    |            |     |             |     |              |    |   |         |      |       |     |       |     |        |     |        |     |        |     |        |     |   |       |      |     |   |     |   |   |             |      |     |   |      |   |       |   |       |   |        |   |       |   |   |       |      |      |   |     |    |   |        |      |      |   |                    |   |                  |   |               |   |   |         |      |             |  |         |    |            |    |         |    |            |    |              |  |         |    |  |        |      |               |   |     |   |      |   |        |   |      |   |       |   |         |    |
| Uncertified        | W   |               |       |             |          |         |         |        |   |            |    |             |    |            |     |             |     |              |    |   |         |      |       |     |       |     |        |     |        |     |        |     |        |     |   |       |      |     |   |     |   |   |             |      |     |   |      |   |       |   |       |   |        |   |       |   |   |       |      |      |   |     |    |   |        |      |      |   |                    |   |                  |   |               |   |   |         |      |             |  |         |    |            |    |         |    |            |    |              |  |         |    |  |        |      |               |   |     |   |      |   |        |   |      |   |       |   |         |    |
| Ex d               | D   |               |       |             |          |         |         |        |   |            |    |             |    |            |     |             |     |              |    |   |         |      |       |     |       |     |        |     |        |     |        |     |        |     |   |       |      |     |   |     |   |   |             |      |     |   |      |   |       |   |       |   |        |   |       |   |   |       |      |      |   |     |    |   |        |      |      |   |                    |   |                  |   |               |   |   |         |      |             |  |         |    |            |    |         |    |            |    |              |  |         |    |  |        |      |               |   |     |   |      |   |        |   |      |   |       |   |         |    |
| Ex de              | E   |               |       |             |          |         |         |        |   |            |    |             |    |            |     |             |     |              |    |   |         |      |       |     |       |     |        |     |        |     |        |     |        |     |   |       |      |     |   |     |   |   |             |      |     |   |      |   |       |   |       |   |        |   |       |   |   |       |      |      |   |     |    |   |        |      |      |   |                    |   |                  |   |               |   |   |         |      |             |  |         |    |            |    |         |    |            |    |              |  |         |    |  |        |      |               |   |     |   |      |   |        |   |      |   |       |   |         |    |
| IECEX Ex d         | DJ  |               |       |             |          |         |         |        |   |            |    |             |    |            |     |             |     |              |    |   |         |      |       |     |       |     |        |     |        |     |        |     |        |     |   |       |      |     |   |     |   |   |             |      |     |   |      |   |       |   |       |   |        |   |       |   |   |       |      |      |   |     |    |   |        |      |      |   |                    |   |                  |   |               |   |   |         |      |             |  |         |    |            |    |         |    |            |    |              |  |         |    |  |        |      |               |   |     |   |      |   |        |   |      |   |       |   |         |    |
| IECEX Ex de        | EJ  |               |       |             |          |         |         |        |   |            |    |             |    |            |     |             |     |              |    |   |         |      |       |     |       |     |        |     |        |     |        |     |        |     |   |       |      |     |   |     |   |   |             |      |     |   |      |   |       |   |       |   |        |   |       |   |   |       |      |      |   |     |    |   |        |      |      |   |                    |   |                  |   |               |   |   |         |      |             |  |         |    |            |    |         |    |            |    |              |  |         |    |  |        |      |               |   |     |   |      |   |        |   |      |   |       |   |         |    |
| TR CU Ex d         | DG*   |               |       |             |          |         |         |        |   |            |    |             |    |            |     |             |     |              |    |   |         |      |       |     |       |     |        |     |        |     |        |     |        |     |   |       |      |     |   |     |   |   |             |      |     |   |      |   |       |   |       |   |        |   |       |   |   |       |      |      |   |     |    |   |        |      |      |   |                    |   |                  |   |               |   |   |         |      |             |  |         |    |            |    |         |    |            |    |              |  |         |    |  |        |      |               |   |     |   |      |   |        |   |      |   |       |   |         |    |
| TR CU Ex de        | EG*   |               |       |             |          |         |         |        |   |            |    |             |    |            |     |             |     |              |    |   |         |      |       |     |       |     |        |     |        |     |        |     |        |     |   |       |      |     |   |     |   |   |             |      |     |   |      |   |       |   |       |   |        |   |       |   |   |       |      |      |   |     |    |   |        |      |      |   |                    |   |                  |   |               |   |   |         |      |             |  |         |    |            |    |         |    |            |    |              |  |         |    |  |        |      |               |   |     |   |      |   |        |   |      |   |       |   |         |    |
| INMETRO Ex d       | DM  |               |       |             |          |         |         |        |   |            |    |             |    |            |     |             |     |              |    |   |         |      |       |     |       |     |        |     |        |     |        |     |        |     |   |       |      |     |   |     |   |   |             |      |     |   |      |   |       |   |       |   |        |   |       |   |   |       |      |      |   |     |    |   |        |      |      |   |                    |   |                  |   |               |   |   |         |      |             |  |         |    |            |    |         |    |            |    |              |  |         |    |  |        |      |               |   |     |   |      |   |        |   |      |   |       |   |         |    |
| Voltage            | Code  |               |       |             |          |         |         |        |   |            |    |             |    |            |     |             |     |              |    |   |         |      |       |     |       |     |        |     |        |     |        |     |        |     |   |       |      |     |   |     |   |   |             |      |     |   |      |   |       |   |       |   |        |   |       |   |   |       |      |      |   |     |    |   |        |      |      |   |                    |   |                  |   |               |   |   |         |      |             |  |         |    |            |    |         |    |            |    |              |  |         |    |  |        |      |               |   |     |   |      |   |        |   |      |   |       |   |         |    |
| 24Vdc              | 024   |               |       |             |          |         |         |        |   |            |    |             |    |            |     |             |     |              |    |   |         |      |       |     |       |     |        |     |        |     |        |     |        |     |   |       |      |     |   |     |   |   |             |      |     |   |      |   |       |   |       |   |        |   |       |   |   |       |      |      |   |     |    |   |        |      |      |   |                    |   |                  |   |               |   |   |         |      |             |  |         |    |            |    |         |    |            |    |              |  |         |    |  |        |      |               |   |     |   |      |   |        |   |      |   |       |   |         |    |
| 48Vdc              | 048   |               |       |             |          |         |         |        |   |            |    |             |    |            |     |             |     |              |    |   |         |      |       |     |       |     |        |     |        |     |        |     |        |     |   |       |      |     |   |     |   |   |             |      |     |   |      |   |       |   |       |   |        |   |       |   |   |       |      |      |   |     |    |   |        |      |      |   |                    |   |                  |   |               |   |   |         |      |             |  |         |    |            |    |         |    |            |    |              |  |         |    |  |        |      |               |   |     |   |      |   |        |   |      |   |       |   |         |    |
| 110Vac             | 110   |               |       |             |          |         |         |        |   |            |    |             |    |            |     |             |     |              |    |   |         |      |       |     |       |     |        |     |        |     |        |     |        |     |   |       |      |     |   |     |   |   |             |      |     |   |      |   |       |   |       |   |        |   |       |   |   |       |      |      |   |     |    |   |        |      |      |   |                    |   |                  |   |               |   |   |         |      |             |  |         |    |            |    |         |    |            |    |              |  |         |    |  |        |      |               |   |     |   |      |   |        |   |      |   |       |   |         |    |
| 220Vac             | 220   |               |       |             |          |         |         |        |   |            |    |             |    |            |     |             |     |              |    |   |         |      |       |     |       |     |        |     |        |     |        |     |        |     |   |       |      |     |   |     |   |   |             |      |     |   |      |   |       |   |       |   |        |   |       |   |   |       |      |      |   |     |    |   |        |      |      |   |                    |   |                  |   |               |   |   |         |      |             |  |         |    |            |    |         |    |            |    |              |  |         |    |  |        |      |               |   |     |   |      |   |        |   |      |   |       |   |         |    |
| 240Vac             | 240   |               |       |             |          |         |         |        |   |            |    |             |    |            |     |             |     |              |    |   |         |      |       |     |       |     |        |     |        |     |        |     |        |     |   |       |      |     |   |     |   |   |             |      |     |   |      |   |       |   |       |   |        |   |       |   |   |       |      |      |   |     |    |   |        |      |      |   |                    |   |                  |   |               |   |   |         |      |             |  |         |    |            |    |         |    |            |    |              |  |         |    |  |        |      |               |   |     |   |      |   |        |   |      |   |       |   |         |    |
| 254Vac             | 254   |               |       |             |          |         |         |        |   |            |    |             |    |            |     |             |     |              |    |   |         |      |       |     |       |     |        |     |        |     |        |     |        |     |   |       |      |     |   |     |   |   |             |      |     |   |      |   |       |   |       |   |        |   |       |   |   |       |      |      |   |     |    |   |        |      |      |   |                    |   |                  |   |               |   |   |         |      |             |  |         |    |            |    |         |    |            |    |              |  |         |    |  |        |      |               |   |     |   |      |   |        |   |      |   |       |   |         |    |
| Power              | Code  |               |       |             |          |         |         |        |   |            |    |             |    |            |     |             |     |              |    |   |         |      |       |     |       |     |        |     |        |     |        |     |        |     |   |       |      |     |   |     |   |   |             |      |     |   |      |   |       |   |       |   |        |   |       |   |   |       |      |      |   |     |    |   |        |      |      |   |                    |   |                  |   |               |   |   |         |      |             |  |         |    |            |    |         |    |            |    |              |  |         |    |  |        |      |               |   |     |   |      |   |        |   |      |   |       |   |         |    |
| 10J                | T   |               |       |             |          |         |         |        |   |            |    |             |    |            |     |             |     |              |    |   |         |      |       |     |       |     |        |     |        |     |        |     |        |     |   |       |      |     |   |     |   |   |             |      |     |   |      |   |       |   |       |   |        |   |       |   |   |       |      |      |   |     |    |   |        |      |      |   |                    |   |                  |   |               |   |   |         |      |             |  |         |    |            |    |         |    |            |    |              |  |         |    |  |        |      |               |   |     |   |      |   |        |   |      |   |       |   |         |    |
| 15J                | F   |               |       |             |          |         |         |        |   |            |    |             |    |            |     |             |     |              |    |   |         |      |       |     |       |     |        |     |        |     |        |     |        |     |   |       |      |     |   |     |   |   |             |      |     |   |      |   |       |   |       |   |        |   |       |   |   |       |      |      |   |     |    |   |        |      |      |   |                    |   |                  |   |               |   |   |         |      |             |  |         |    |            |    |         |    |            |    |              |  |         |    |  |        |      |               |   |     |   |      |   |        |   |      |   |       |   |         |    |
| Lens colour        | Code  |               |       |             |          |         |         |        |   |            |    |             |    |            |     |             |     |              |    |   |         |      |       |     |       |     |        |     |        |     |        |     |        |     |   |       |      |     |   |     |   |   |             |      |     |   |      |   |       |   |       |   |        |   |       |   |   |       |      |      |   |     |    |   |        |      |      |   |                    |   |                  |   |               |   |   |         |      |             |  |         |    |            |    |         |    |            |    |              |  |         |    |  |        |      |               |   |     |   |      |   |        |   |      |   |       |   |         |    |
| Red                | R   |               |       |             |          |         |         |        |   |            |    |             |    |            |     |             |     |              |    |   |         |      |       |     |       |     |        |     |        |     |        |     |        |     |   |       |      |     |   |     |   |   |             |      |     |   |      |   |       |   |       |   |        |   |       |   |   |       |      |      |   |     |    |   |        |      |      |   |                    |   |                  |   |               |   |   |         |      |             |  |         |    |            |    |         |    |            |    |              |  |         |    |  |        |      |               |   |     |   |      |   |        |   |      |   |       |   |         |    |
| Blue               | B   |               |       |             |          |         |         |        |   |            |    |             |    |            |     |             |     |              |    |   |         |      |       |     |       |     |        |     |        |     |        |     |        |     |   |       |      |     |   |     |   |   |             |      |     |   |      |   |       |   |       |   |        |   |       |   |   |       |      |      |   |     |    |   |        |      |      |   |                    |   |                  |   |               |   |   |         |      |             |  |         |    |            |    |         |    |            |    |              |  |         |    |  |        |      |               |   |     |   |      |   |        |   |      |   |       |   |         |    |
| Green              | G   |               |       |             |          |         |         |        |   |            |    |             |    |            |     |             |     |              |    |   |         |      |       |     |       |     |        |     |        |     |        |     |        |     |   |       |      |     |   |     |   |   |             |      |     |   |      |   |       |   |       |   |        |   |       |   |   |       |      |      |   |     |    |   |        |      |      |   |                    |   |                  |   |               |   |   |         |      |             |  |         |    |            |    |         |    |            |    |              |  |         |    |  |        |      |               |   |     |   |      |   |        |   |      |   |       |   |         |    |
| Amber              | A   |               |       |             |          |         |         |        |   |            |    |             |    |            |     |             |     |              |    |   |         |      |       |     |       |     |        |     |        |     |        |     |        |     |   |       |      |     |   |     |   |   |             |      |     |   |      |   |       |   |       |   |        |   |       |   |   |       |      |      |   |     |    |   |        |      |      |   |                    |   |                  |   |               |   |   |         |      |             |  |         |    |            |    |         |    |            |    |              |  |         |    |  |        |      |               |   |     |   |      |   |        |   |      |   |       |   |         |    |
| Yellow             | Y   |               |       |             |          |         |         |        |   |            |    |             |    |            |     |             |     |              |    |   |         |      |       |     |       |     |        |     |        |     |        |     |        |     |   |       |      |     |   |     |   |   |             |      |     |   |      |   |       |   |       |   |        |   |       |   |   |       |      |      |   |     |    |   |        |      |      |   |                    |   |                  |   |               |   |   |         |      |             |  |         |    |            |    |         |    |            |    |              |  |         |    |  |        |      |               |   |     |   |      |   |        |   |      |   |       |   |         |    |
| Clear              | C   |               |       |             |          |         |         |        |   |            |    |             |    |            |     |             |     |              |    |   |         |      |       |     |       |     |        |     |        |     |        |     |        |     |   |       |      |     |   |     |   |   |             |      |     |   |      |   |       |   |       |   |        |   |       |   |   |       |      |      |   |     |    |   |        |      |      |   |                    |   |                  |   |               |   |   |         |      |             |  |         |    |            |    |         |    |            |    |              |  |         |    |  |        |      |               |   |     |   |      |   |        |   |      |   |       |   |         |    |
| Label              | Code  |               |       |             |          |         |         |        |   |            |    |             |    |            |     |             |     |              |    |   |         |      |       |     |       |     |        |     |        |     |        |     |        |     |   |       |      |     |   |     |   |   |             |      |     |   |      |   |       |   |       |   |        |   |       |   |   |       |      |      |   |     |    |   |        |      |      |   |                    |   |                  |   |               |   |   |         |      |             |  |         |    |            |    |         |    |            |    |              |  |         |    |  |        |      |               |   |     |   |      |   |        |   |      |   |       |   |         |    |
| None               | N   |               |       |             |          |         |         |        |   |            |    |             |    |            |     |             |     |              |    |   |         |      |       |     |       |     |        |     |        |     |        |     |        |     |   |       |      |     |   |     |   |   |             |      |     |   |      |   |       |   |       |   |        |   |       |   |   |       |      |      |   |     |    |   |        |      |      |   |                    |   |                  |   |               |   |   |         |      |             |  |         |    |            |    |         |    |            |    |              |  |         |    |  |        |      |               |   |     |   |      |   |        |   |      |   |       |   |         |    |
| Yes                | Y*  |               |       |             |          |         |         |        |   |            |    |             |    |            |     |             |     |              |    |   |         |      |       |     |       |     |        |     |        |     |        |     |        |     |   |       |      |     |   |     |   |   |             |      |     |   |      |   |       |   |       |   |        |   |       |   |   |       |      |      |   |     |    |   |        |      |      |   |                    |   |                  |   |               |   |   |         |      |             |  |         |    |            |    |         |    |            |    |              |  |         |    |  |        |      |               |   |     |   |      |   |        |   |      |   |       |   |         |    |
| Option             | Code  |               |       |             |          |         |         |        |   |            |    |             |    |            |     |             |     |              |    |   |         |      |       |     |       |     |        |     |        |     |        |     |        |     |   |       |      |     |   |     |   |   |             |      |     |   |      |   |       |   |       |   |        |   |       |   |   |       |      |      |   |     |    |   |        |      |      |   |                    |   |                  |   |               |   |   |         |      |             |  |         |    |            |    |         |    |            |    |              |  |         |    |  |        |      |               |   |     |   |      |   |        |   |      |   |       |   |         |    |
| None               | N   |               |       |             |          |         |         |        |   |            |    |             |    |            |     |             |     |              |    |   |         |      |       |     |       |     |        |     |        |     |        |     |        |     |   |       |      |     |   |     |   |   |             |      |     |   |      |   |       |   |       |   |        |   |       |   |   |       |      |      |   |     |    |   |        |      |      |   |                    |   |                  |   |               |   |   |         |      |             |  |         |    |            |    |         |    |            |    |              |  |         |    |  |        |      |               |   |     |   |      |   |        |   |      |   |       |   |         |    |
| Telephone initiate | T   |               |       |             |          |         |         |        |   |            |    |             |    |            |     |             |     |              |    |   |         |      |       |     |       |     |        |     |        |     |        |     |        |     |   |       |      |     |   |     |   |   |             |      |     |   |      |   |       |   |       |   |        |   |       |   |   |       |      |      |   |     |    |   |        |      |      |   |                    |   |                  |   |               |   |   |         |      |             |  |         |    |            |    |         |    |            |    |              |  |         |    |  |        |      |               |   |     |   |      |   |        |   |      |   |       |   |         |    |
| Earth continuity   | E   |               |       |             |          |         |         |        |   |            |    |             |    |            |     |             |     |              |    |   |         |      |       |     |       |     |        |     |        |     |        |     |        |     |   |       |      |     |   |     |   |   |             |      |     |   |      |   |       |   |       |   |        |   |       |   |   |       |      |      |   |     |    |   |        |      |      |   |                    |   |                  |   |               |   |   |         |      |             |  |         |    |            |    |         |    |            |    |              |  |         |    |  |        |      |               |   |     |   |      |   |        |   |      |   |       |   |         |    |
| 3m cable tail      | G   |               |       |             |          |         |         |        |   |            |    |             |    |            |     |             |     |              |    |   |         |      |       |     |       |     |        |     |        |     |        |     |        |     |   |       |      |     |   |     |   |   |             |      |     |   |      |   |       |   |       |   |        |   |       |   |   |       |      |      |   |     |    |   |        |      |      |   |                    |   |                  |   |               |   |   |         |      |             |  |         |    |            |    |         |    |            |    |              |  |         |    |  |        |      |               |   |     |   |      |   |        |   |      |   |       |   |         |    |
| Entries            | Code  |               |       |             |          |         |         |        |   |            |    |             |    |            |     |             |     |              |    |   |         |      |       |     |       |     |        |     |        |     |        |     |        |     |   |       |      |     |   |     |   |   |             |      |     |   |      |   |       |   |       |   |        |   |       |   |   |       |      |      |   |     |    |   |        |      |      |   |                    |   |                  |   |               |   |   |         |      |             |  |         |    |            |    |         |    |            |    |              |  |         |    |  |        |      |               |   |     |   |      |   |        |   |      |   |       |   |         |    |
| <b>Ex d</b>        |   |               |       |             |          |         |         |        |   |            |    |             |    |            |     |             |     |              |    |   |         |      |       |     |       |     |        |     |        |     |        |     |        |     |   |       |      |     |   |     |   |   |             |      |     |   |      |   |       |   |       |   |        |   |       |   |   |       |      |      |   |     |    |   |        |      |      |   |                    |   |                  |   |               |   |   |         |      |             |  |         |    |            |    |         |    |            |    |              |  |         |    |  |        |      |               |   |     |   |      |   |        |   |      |   |       |   |         |    |
| 1 x M20            | 1B  |               |       |             |          |         |         |        |   |            |    |             |    |            |     |             |     |              |    |   |         |      |       |     |       |     |        |     |        |     |        |     |        |     |   |       |      |     |   |     |   |   |             |      |     |   |      |   |       |   |       |   |        |   |       |   |   |       |      |      |   |     |    |   |        |      |      |   |                    |   |                  |   |               |   |   |         |      |             |  |         |    |            |    |         |    |            |    |              |  |         |    |  |        |      |               |   |     |   |      |   |        |   |      |   |       |   |         |    |
| 1 x PG13.5         | 1P  |               |       |             |          |         |         |        |   |            |    |             |    |            |     |             |     |              |    |   |         |      |       |     |       |     |        |     |        |     |        |     |        |     |   |       |      |     |   |     |   |   |             |      |     |   |      |   |       |   |       |   |        |   |       |   |   |       |      |      |   |     |    |   |        |      |      |   |                    |   |                  |   |               |   |   |         |      |             |  |         |    |            |    |         |    |            |    |              |  |         |    |  |        |      |               |   |     |   |      |   |        |   |      |   |       |   |         |    |
| 2 x M20            | 2B  |               |       |             |          |         |         |        |   |            |    |             |    |            |     |             |     |              |    |   |         |      |       |     |       |     |        |     |        |     |        |     |        |     |   |       |      |     |   |     |   |   |             |      |     |   |      |   |       |   |       |   |        |   |       |   |   |       |      |      |   |     |    |   |        |      |      |   |                    |   |                  |   |               |   |   |         |      |             |  |         |    |            |    |         |    |            |    |              |  |         |    |  |        |      |               |   |     |   |      |   |        |   |      |   |       |   |         |    |
| 2 x PG13.5         | 2P  |               |       |             |          |         |         |        |   |            |    |             |    |            |     |             |     |              |    |   |         |      |       |     |       |     |        |     |        |     |        |     |        |     |   |       |      |     |   |     |   |   |             |      |     |   |      |   |       |   |       |   |        |   |       |   |   |       |      |      |   |     |    |   |        |      |      |   |                    |   |                  |   |               |   |   |         |      |             |  |         |    |            |    |         |    |            |    |              |  |         |    |  |        |      |               |   |     |   |      |   |        |   |      |   |       |   |         |    |
| <b>Ex de</b>       |   |               |       |             |          |         |         |        |   |            |    |             |    |            |     |             |     |              |    |   |         |      |       |     |       |     |        |     |        |     |        |     |        |     |   |       |      |     |   |     |   |   |             |      |     |   |      |   |       |   |       |   |        |   |       |   |   |       |      |      |   |     |    |   |        |      |      |   |                    |   |                  |   |               |   |   |         |      |             |  |         |    |            |    |         |    |            |    |              |  |         |    |  |        |      |               |   |     |   |      |   |        |   |      |   |       |   |         |    |
| 3 x M20            | 3B  |               |       |             |          |         |         |        |   |            |    |             |    |            |     |             |     |              |    |   |         |      |       |     |       |     |        |     |        |     |        |     |        |     |   |       |      |     |   |     |   |   |             |      |     |   |      |   |       |   |       |   |        |   |       |   |   |       |      |      |   |     |    |   |        |      |      |   |                    |   |                  |   |               |   |   |         |      |             |  |         |    |            |    |         |    |            |    |              |  |         |    |  |        |      |               |   |     |   |      |   |        |   |      |   |       |   |         |    |
| Finish             | Code  |               |       |             |          |         |         |        |   |            |    |             |    |            |     |             |     |              |    |   |         |      |       |     |       |     |        |     |        |     |        |     |        |     |   |       |      |     |   |     |   |   |             |      |     |   |      |   |       |   |       |   |        |   |       |   |   |       |      |      |   |     |    |   |        |      |      |   |                    |   |                  |   |               |   |   |         |      |             |  |         |    |            |    |         |    |            |    |              |  |         |    |  |        |      |               |   |     |   |      |   |        |   |      |   |       |   |         |    |
| Natural black      | N   |               |       |             |          |         |         |        |   |            |    |             |    |            |     |             |     |              |    |   |         |      |       |     |       |     |        |     |        |     |        |     |        |     |   |       |      |     |   |     |   |   |             |      |     |   |      |   |       |   |       |   |        |   |       |   |   |       |      |      |   |     |    |   |        |      |      |   |                    |   |                  |   |               |   |   |         |      |             |  |         |    |            |    |         |    |            |    |              |  |         |    |  |        |      |               |   |     |   |      |   |        |   |      |   |       |   |         |    |
| Red                | R   |               |       |             |          |         |         |        |   |            |    |             |    |            |     |             |     |              |    |   |         |      |       |     |       |     |        |     |        |     |        |     |        |     |   |       |      |     |   |     |   |   |             |      |     |   |      |   |       |   |       |   |        |   |       |   |   |       |      |      |   |     |    |   |        |      |      |   |                    |   |                  |   |               |   |   |         |      |             |  |         |    |            |    |         |    |            |    |              |  |         |    |  |        |      |               |   |     |   |      |   |        |   |      |   |       |   |         |    |
| Blue               | B   |               |       |             |          |         |         |        |   |            |    |             |    |            |     |             |     |              |    |   |         |      |       |     |       |     |        |     |        |     |        |     |        |     |   |       |      |     |   |     |   |   |             |      |     |   |      |   |       |   |       |   |        |   |       |   |   |       |      |      |   |     |    |   |        |      |      |   |                    |   |                  |   |               |   |   |         |      |             |  |         |    |            |    |         |    |            |    |              |  |         |    |  |        |      |               |   |     |   |      |   |        |   |      |   |       |   |         |    |
| Yellow             | Y   |               |       |             |          |         |         |        |   |            |    |             |    |            |     |             |     |              |    |   |         |      |       |     |       |     |        |     |        |     |        |     |        |     |   |       |      |     |   |     |   |   |             |      |     |   |      |   |       |   |       |   |        |   |       |   |   |       |      |      |   |     |    |   |        |      |      |   |                    |   |                  |   |               |   |   |         |      |             |  |         |    |            |    |         |    |            |    |              |  |         |    |  |        |      |               |   |     |   |      |   |        |   |      |   |       |   |         |    |
| Grey               | G   |               |       |             |          |         |         |        |   |            |    |             |    |            |     |             |     |              |    |   |         |      |       |     |       |     |        |     |        |     |        |     |        |     |   |       |      |     |   |     |   |   |             |      |     |   |      |   |       |   |       |   |        |   |       |   |   |       |      |      |   |     |    |   |        |      |      |   |                    |   |                  |   |               |   |   |         |      |             |  |         |    |            |    |         |    |            |    |              |  |         |    |  |        |      |               |   |     |   |      |   |        |   |      |   |       |   |         |    |
| White              | W   |               |       |             |          |         |         |        |   |            |    |             |    |            |     |             |     |              |    |   |         |      |       |     |       |     |        |     |        |     |        |     |        |     |   |       |      |     |   |     |   |   |             |      |     |   |      |   |       |   |       |   |        |   |       |   |   |       |      |      |   |     |    |   |        |      |      |   |                    |   |                  |   |               |   |   |         |      |             |  |         |    |            |    |         |    |            |    |              |  |         |    |  |        |      |               |   |     |   |      |   |        |   |      |   |       |   |         |    |
| Special            | S*  |               |       |             |          |         |         |        |   |            |    |             |    |            |     |             |     |              |    |   |         |      |       |     |       |     |        |     |        |     |        |     |        |     |   |       |      |     |   |     |   |   |             |      |     |   |      |   |       |   |       |   |        |   |       |   |   |       |      |      |   |     |    |   |        |      |      |   |                    |   |                  |   |               |   |   |         |      |             |  |         |    |            |    |         |    |            |    |              |  |         |    |  |        |      |               |   |     |   |      |   |        |   |      |   |       |   |         |    |

## General arrangement drawing (all dimensions in mm)



### Multiplying factor for coloured lens:

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

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