

## Introduction Indicators

This range of panel mounting LED indicators consists of many different **bezel styles**, types of LED's and colours. The range has developed to meet the different needs of panel design including **IP66 and IP67 environmentally sealed versions** for use where a front panel seal is needed.

The vandal resistant LED indicators are designed to complement the vandal resistant switches (see the Switch Section), they have similar profiles with stainless steel bodies, sealing to IP66 & 68 and are built to withstand harsh environments.

|                                   |     |
|-----------------------------------|-----|
| Vandal Resistant LED Indicators   | 528 |
| 5mm LED Indicators                | 530 |
| Indicator Lights                  | 535 |
| Low Voltage Lampholders           | 542 |
| LED Lamps and LED Lampholders     | 544 |
| Indicator Lights - Sealed to IP67 | 545 |



## SYMBOLS

|                                   |                                     |                                                 |                 |                 |                    |
|-----------------------------------|-------------------------------------|-------------------------------------------------|-----------------|-----------------|--------------------|
| Terminals<br>K 2.8, H 4.8 & C 6.3 | L Wire Leads<br>200mm long Standard | Solid wires<br>W LED fitted<br>A LED not fitted | Panel hole size | Panel thickness | Temperature rating |
|-----------------------------------|-------------------------------------|-------------------------------------------------|-----------------|-----------------|--------------------|

# Indicators

## Vandal Resistant LED Indicators

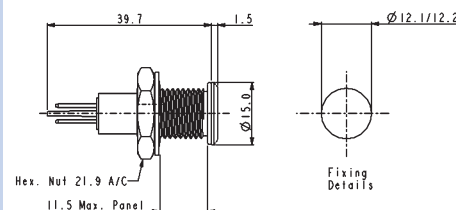


Proud of Panel Profile

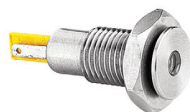


DX0505

- Solder Tag/2.8mm Tag Termination
- Sealed to IP67
- Red, Green, Yellow or Blue LED Options
- Wide Viewing Angle
- Shock and Vibration Resistant
- Stainless Steel body

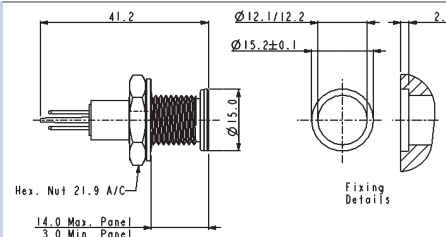


Flush Panel Profile



DX0506

- Solder Tag/2.8mm Tag Termination
- Sealed to IP67
- Red, Green, Yellow or Blue LED Options
- Wide Viewing Angle
- Shock and Vibration Resistant
- Stainless Steel body



| Specifications               | DX0505/Col/Voltage                                                           | DX0506/Col/Voltage                                                           |
|------------------------------|------------------------------------------------------------------------------|------------------------------------------------------------------------------|
| Terminations:                | Solder Tab/2.8mm Tab                                                         | Solder Tab/2.8mm Tab                                                         |
| Forward Voltage:             | Red 1.85V, Green 2.2V, Yellow 2.0V, Blue 3.8V                                | Red 1.85V, Green 2.2V, Yellow 2.0V, Blue 3.8V                                |
| Cont. Forward Current: (max) | Red 30mA, Green 25mA, Yellow 30mA, Blue 25mA                                 | Red 30mA, Green 25mA, Yellow 30mA, Blue 25mA                                 |
| Power Dissipation:           | Red 100mW, Green 105mW, Yellow 125mW, Blue 120mW                             | Red 100mW, Green 105mW, Yellow 125mW, Blue 120mW                             |
| Reverse Current: (@Vr = 5V)  | Red 10µA max., Green 10µA max., Yellow 10µA max., Blue 50µA max.             | Red 10µA max., Green 10µA max., Yellow 10µA max., Blue 50µA max.             |
| LED Luminous Intensity:      | Red 2000mcd, Green 100mcd, Yellow 400mcd, Blue 1600mcd (typ)                 | Red 2000mcd, Green 100mcd, Yellow 400mcd, Blue 1600mcd (typ)                 |
| Operating Temp. Range:       | -40°C to +80°C                                                               | -40°C to +80°C                                                               |
| Storage Temperature:         | -40°C to +85°C                                                               | -40°C to +85°C                                                               |
| Sealing (Front of panel):    | Protection Classification IP67 to EN60529:1992+A2:2013                       | Protection Classification IP67 to EN60529:1992+A2:2013                       |
| Materials                    |                                                                              |                                                                              |
| Body:                        | Stainless Steel                                                              | Stainless Steel                                                              |
| Lens:                        | Polycarbonate UL94V-0                                                        | Polycarbonate UL94V-0                                                        |
| O Ring (external):           | Nitrile                                                                      | Nitrile                                                                      |
| (internal):                  | Silicone                                                                     | Silicone                                                                     |
| Tightening Torque            | 0.5Nm - 0.9Nm (4.4lbf.in. - 8.0lbf.in.)                                      | 0.5Nm - 0.9Nm (4.4lbf.in. - 8.0lbf.in.)                                      |
| Thread Size:                 | M12 x 1.25-6g                                                                | M12 x 1.25-6g                                                                |
| LED Colours:                 | /RD (Red), /GN (Green), /YL (Yellow) /BL (Blue), with colour coded insulator | /RD (Red), /GN (Green), /YL (Yellow) /BL (Blue), with colour coded insulator |
| LED Voltage:                 | /12 (12V DC), /24 (24V DC) or /00 (no ballast resistor)                      | /12 (12V DC), /24 (24V DC) or /00 (no ballast resistor)                      |
| RoHS                         | Compliant                                                                    | Compliant                                                                    |

## Indicators

## Vandal Resistant LED Indicators

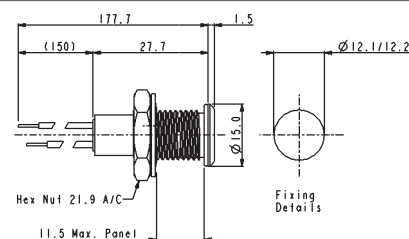


## Proud of Panel Profile

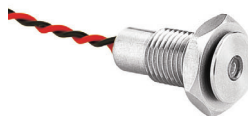


DX0507

- Flying Lead Termination
- Sealed to IP67
- Red, Green, Yellow or Blue LED Options
- Wide Viewing Angle
- Shock and Vibration Resistant
- Stainless Steel body

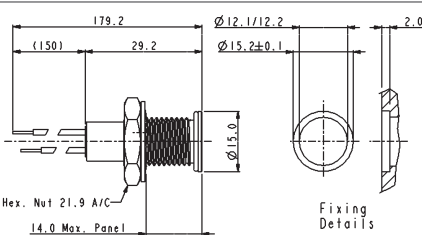


## Flush Panel Profile



DX0508

- Flying Lead Termination
- Sealed to IP67
- Red, Green, Yellow or Blue LED Options
- Wide Viewing Angle
- Shock and Vibration Resistant
- Stainless Steel body

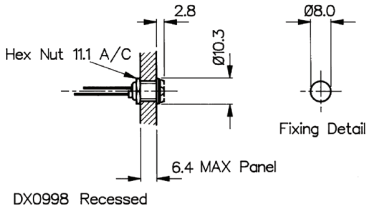
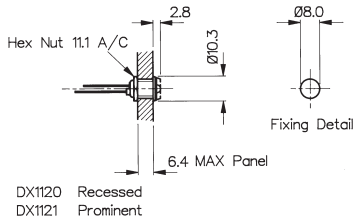


| Specifications               | DX0507/Col/Voltage                                                           | DX0508/Col/Voltage                                                           |
|------------------------------|------------------------------------------------------------------------------|------------------------------------------------------------------------------|
| Terminations:                | Flying Leads                                                                 | Flying Leads                                                                 |
| Forward Voltage:             | Red 1.85V, Green 2.2V, Yellow 2.0V, Blue 3.8V                                | Red 1.85V, Green 2.2V, Yellow 2.0V, Blue 3.8V                                |
| Cont. Forward Current: (max) | Red 30mA, Green 25mA, Yellow 30mA, Blue 25mA                                 | Red 30mA, Green 25mA, Yellow 30mA, Blue 25mA                                 |
| Power Dissipation:           | Red 100mW, Green 105mW, Yellow 125mW, Blue 120mW                             | Red 100mW, Green 105mW, Yellow 125mW, Blue 120mW                             |
| Reverse Current: (@Vr = 5V)  | Red 10µA max., Green 10µA max., Yellow 10µA max., Blue 50µA max.             | Red 10µA max., Green 10µA max., Yellow 10µA max., Blue 50µA max.             |
| LED Luminous Intensity:      | Red 2000mcd, Green 100mcd, Yellow 400mcd, Blue 1600mcd (typ)                 | Red 2000mcd, Green 100mcd, Yellow 400mcd, Blue 1600mcd (typ)                 |
| Operating Temp. Range:       | -40°C to +80°C                                                               | -40°C to +80°C                                                               |
| Storage Temperature:         | -40°C to +85°C                                                               | -40°C to +85°C                                                               |
| Sealing (Front of panel):    | Protection Classification IP67 to EN60529:1992+A2:2013                       | Protection Classification IP67 to EN60529:1992+A2:2013                       |
| Materials                    |                                                                              |                                                                              |
| Body:                        | Stainless Steel                                                              | Stainless Steel                                                              |
| Lens:                        | Polycarbonate UL94V-0                                                        | Polycarbonate UL94V-0                                                        |
| O Ring (external):           | Nitrile                                                                      | Nitrile                                                                      |
| (internal):                  | Silicone                                                                     | Silicone                                                                     |
| Tightening Torque            | 0.5Nm - 0.9Nm (4.4lbf.in. - 8.0lbf.in.)                                      | 0.5Nm - 0.9Nm (4.4lbf.in. - 8.0lbf.in.)                                      |
| Thread Size:                 | M12 x 1.25-6g                                                                | M12 x 1.25-6g                                                                |
| LED Colours:                 | /RD (Red), /GN (Green), /YL (Yellow) /BL (Blue), with colour coded insulator | /RD (Red), /GN (Green), /YL (Yellow) /BL (Blue), with colour coded insulator |
| LED Voltage:                 | /12 (12V DC), /24 (24V DC) or /00 (no ballast resistor)                      | /12 (12V DC), /24 (24V DC) or /00 (no ballast resistor)                      |
| RoHS                         | Compliant                                                                    | Compliant                                                                    |

Indicators

5mm LED Indicators



|                                                                                                                                                     |                                                                                                                                                                                                              |                                                                                                                                                |
|-----------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|
| <div>Chrome Plated Brass Bezel</div> <div></div> <div>DX0998</div> | <div><div><div></div></div><div><div></div></div><div><div></div></div></div> <div><div>Chrome Plated Brass Bezel</div><div>Recessed Style</div><div>Choice of LED Types and Colours</div></div>             | <div></div> <div>DX0998 Recessed</div>                      |
| <div>Nylon Bezel</div> <div></div> <div>DX1120      DX1121</div>   | <div><div><div></div></div><div><div></div></div><div><div></div></div></div> <div><div>Glass Filled Nylon Bezel</div><div>Prominent or Recessed Style</div><div>Choice of LED Types and Colours</div></div> | <div></div> <div>DX1120 Recessed<br/>DX1121 Prominent</div> |

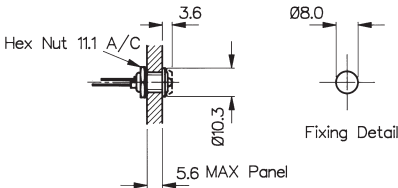
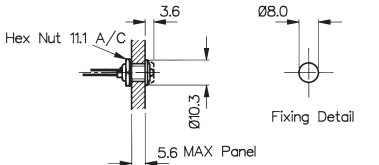
| Specifications         | DX0998 Colour/Options                                                                                                                                                         | DX1120, DX1121/Colour/Options                                                                                                                                                 |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Bezel Material:        | Brass, Chrome Plated                                                                                                                                                          | Glass Filled Nylon                                                                                                                                                            |
| Style:                 | Recessed (DX0998)                                                                                                                                                             | Recessed (DX1120)<br>Prominent (DX1121)                                                                                                                                       |
| Operating Temp. Range: | Dependent on LED used                                                                                                                                                         | Dependent on LED used                                                                                                                                                         |
| Storage Temperature:   | Dependent on LED used                                                                                                                                                         | Dependent on LED used                                                                                                                                                         |
| LED Colours:           | /RD (Red), /GN (Green), /YL (Yellow),<br>/BL (Blue), /TR (Tri Colour),<br>/D1 (Dual Colour - Red/Green),<br>/D2 (Dual Colour - Red/Amber),<br>/D3 (Dual Colour - Green/Amber) | /RD (Red), /GN (Green), /YL (Yellow),<br>/BL (Blue), /TR (Tri Colour),<br>/D1 (Dual Colour - Red/Green),<br>/D2 (Dual Colour - Red/Amber),<br>/D3 (Dual Colour - Green/Amber) |
| LED Options:           | /02 (Flashing, Green or Red only)                                                                                                                                             | /02 (Flashing, Green or Red only)                                                                                                                                             |
| Thread Size:           | 0.312" x 32TPI                                                                                                                                                                | 0.312" x 32TPI                                                                                                                                                                |
| RoHS                   | Compliant                                                                                                                                                                     | Compliant                                                                                                                                                                     |

See Page 533 for LED options and specifications\*

# Indicators

## 5mm LED Indicators



|                                                                                                                                                  |                                                                                                                                                                                                                  |                                                                                                                                 |
|--------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| <p>Aluminium Bezel - IP66 Sealed</p>  <p>DX1090      DX1092</p> | <ul style="list-style-type: none"> <li>Aluminium Bezel, Black</li> <li>Anodised Finish</li> <li>IP66 Front Panel Sealed</li> <li>Prominent or Recessed Style</li> <li>Choice of LED Types and Colours</li> </ul> |  <p>DX1090 Recessed<br/>DX1092 Prominent</p> |
| <p>Aluminium Bezel - IP66 Sealed</p>  <p>DX1091      DX1093</p> | <ul style="list-style-type: none"> <li>Aluminium Bezel, Clear</li> <li>Anodised Finish</li> <li>IP66 Front Panel Sealed</li> <li>Prominent or Recessed Style</li> <li>Choice of LED Types and Colours</li> </ul> |  <p>DX1091 Recessed<br/>DX1093 Prominent</p> |

| Specifications            | DX1090, DX1092/Colour/Options                                                                                                                                                 | DX1091, DX1093/Colour/Options                                                                                                                                                 |
|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Materials:                | Aluminium - Black                                                                                                                                                             | Aluminium - Clear                                                                                                                                                             |
| Style:                    | Recessed (DX1090)<br>Prominent (DX1092)                                                                                                                                       | Recessed (DX1091)<br>Prominent (DX1093)                                                                                                                                       |
| Operating Temp. Range:    | Dependent on LED used                                                                                                                                                         | Dependent on LED used                                                                                                                                                         |
| Storage Temperature:      | Dependent on LED used                                                                                                                                                         | Dependent on LED used                                                                                                                                                         |
| Sealing (Front of panel): | Protection Classification IP66 to EN60529:1992+A2:2013                                                                                                                        | Protection Classification IP66 to EN60529:1992+A2:2013                                                                                                                        |
| Tightening Torque:        | 0.056 - 0.064Nm (8 - 9ozf.in.)                                                                                                                                                | 0.056 - 0.064Nm (8 - 9ozf.in.)                                                                                                                                                |
| Lead Solder Time:         | 260°C for 5 seconds max.                                                                                                                                                      | 260°C for 5 seconds max.                                                                                                                                                      |
| LED Colours:              | /RD (Red), /GN (Green), /YL (Yellow),<br>/BL (Blue), /TR (Tri Colour),<br>/D1 (Dual Colour - Red/Green),<br>/D2 (Dual Colour - Red/Amber),<br>/D3 (Dual Colour - Green/Amber) | /RD (Red), /GN (Green), /YL (Yellow),<br>/BL (Blue), /TR (Tri Colour),<br>/D1 (Dual Colour - Red/Green),<br>/D2 (Dual Colour - Red/Amber),<br>/D3 (Dual Colour - Green/Amber) |
| Thread Size:              | 0.312" x 32TPI                                                                                                                                                                | 0.312" x 32TPI                                                                                                                                                                |
| RoHS                      | Compliant                                                                                                                                                                     | Compliant                                                                                                                                                                     |

See Page 533 for LED options and specifications

Indicators

4mm LED Indicators

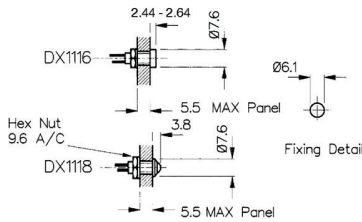


Chrome Plated Brass Bezel



DX1116DX1118

- Chrome Plated Brass Bezel
- Prominent or Recessed Style
- Choice of LED Types and Colours

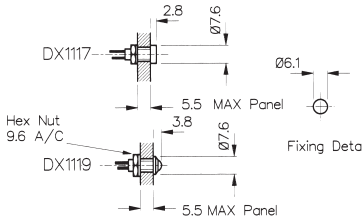


Black Nickel Pated Brass Bezel



DX1117DX1119

- Aluminium, Black Anodised Bezel
- Prominent or Recessed Style
- Choice of LED Types and Colours

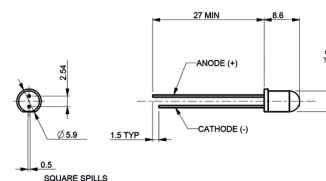


| Specifications         | DX1116, DX1118/Colour                               | DX1117, DX1119/Colour                               |
|------------------------|-----------------------------------------------------|-----------------------------------------------------|
| Bezel Materials:       | Brass, Chrome Plated                                | Aluminium, Black Anodised                           |
| Style:                 | Recessed (DX1116)<br>Prominent (DX1118)             | Recessed (DX1117)<br>Prominent (DX1119)             |
| Operating Temp. Range: | Dependent on LED used                               | Dependent on LED used                               |
| Storage Temperature:   | Dependent on LED used                               | Dependent on LED used                               |
| Lead Solder Time:      | 260°C for 5 seconds max.                            | 260°C for 5 seconds max.                            |
| LED Colours:           | /RD (Red), /GN (Green), /YL (Yellow),<br>/BL (Blue) | /RD (Red), /GN (Green), /YL (Yellow),<br>/BL (Blue) |
| RoHS                   | Compliant                                           | Compliant                                           |

See Page 534 for LED specifications\*

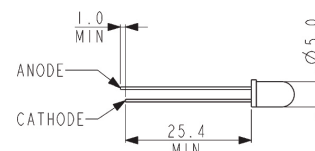
### 5mm LEDs STANDARD

| Specification                | Red                       | Green    | Yellow   | Blue           |
|------------------------------|---------------------------|----------|----------|----------------|
| Luminous Intensity @20mA:    | 25mcd                     | 20mcd    | 20mcd    | 21mcd          |
| Forward voltage:             | 2.0V                      | 2.0V     | 2.1V     | 3.5V           |
| Cont. Forward Current (max): | 30mA                      | 25mA     | 30mA     | 30mA           |
| Power Dissipation:           | 105mW (max) @20°C Ambient |          |          | 120mW          |
| Reverse Current:             | 10µA                      | 10µA     | 10µA     | 50µA           |
| Reverse Voltage:             | 5V (max)                  | 5V (max) | 5V (max) | 5V (max)       |
| Operating Temp:              | -40°C to +85°C            |          |          | -20°C to +80°C |
| Part No:                     | /RD                       | /GN      | /YL      | /BL            |



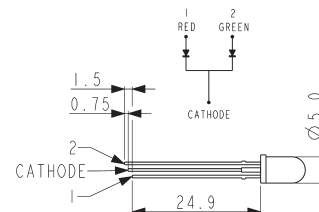
## 5mm LEDs FLASHING

| Specification                | Red                        | Green  |
|------------------------------|----------------------------|--------|
| Luminous Intensity @20mA:    | 1.2mcd                     | 20mcd  |
| Forward voltage:             | 2.0-15.0V                  | 2.0V   |
| Cont. Forward Current (max): | 10-30mA                    | 25mA   |
| Power Dissipation:           | 200mW (max) @ 20°C ambient |        |
| Flash Frequency @ 3V supply: | 2.2Hz (typ)                |        |
| Operating Temp:              | 0°C to +70°C               |        |
| Part No:                     | /RD/02                     | /GN/02 |



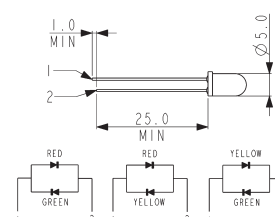
### 5mm LEDs TRI COLOUR

| Specification                | Red/Green/Amber            |
|------------------------------|----------------------------|
| Luminous Intensity @20mA:    | 2.5mcd                     |
| Forward voltage:             | 2.4V                       |
| Cont. Forward Current (max): | 30mA (max)                 |
| Power Dissipation:           | 150mW (max) @ 20°C Ambient |
| Reverse Current:             | 100µA                      |
| Reverse Voltage:             | 5V (max)                   |
| Operating Temp:              | -40°C to +70°C             |
| Part No:                     | /TR                        |



## 5mm LEDs DUAL COLOUR

| Specifications         | Red/Green      | Red/Amber  | Green/Amber |
|------------------------|----------------|------------|-------------|
| Luminous Intensity:    | 4.5/5mcd       | 4.5/4mcd   | 4/5mcd      |
| Forward voltage:       | 2.2V           | 2.2V       | 2.2V        |
| Cont. Forward Current: | 30mA/30mA      | 30mA/20mA  | 30mA/20mA   |
| Power Dissipation:     | 100mW/100mW    | 100mW/60mW | 100mW/60mW  |
| Reverse Current:       | 100mA          | 100mA      | 100mA       |
| Reverse Voltage:       | 5V (max)       | 5V (max)   | 5V (max)    |
| Operating Temp:        | -40°C to +85°C |            |             |
| Part No:               | /D1            | /D2        | /D3         |

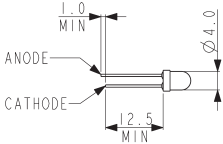


Indicators  
4mm LED Options



4mm LEDs Standard

| Specifications                          | Red      | Green    | Yellow   | Blue     |
|-----------------------------------------|----------|----------|----------|----------|
| Luminous Intensity @10mA:               | 2.5mcd   | 2.5mcd   | 2.5mcd   | 50mcd    |
| Forward voltage:                        | 2.0V     | 2.1V     | 2.0V     | 3.8V     |
| Cont. Forward Current (max):            | 30mA     | 30mA     | 20mA     | 30mA     |
| Power Dissipation (max) @ 20°C Ambient: | 100mW    | 100mW    | 85mW     | 120mW    |
| Reverse Current:                        | 10µA     | 10µA     | 10µA     | 50µA     |
| Reverse Voltage:                        | 5V (max) | 5V (max) | 5V (max) | 5V (max) |
| Part No:                                | /RD      | /GN      | /YL      | /BL      |



Part No Breakdown

| DXxxxx     | XX                                                                                                                                                                                                                                  | XX                                                                         |
|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|
| Bezel Type | LED Colour<br>RD = Red<br>GN = Green<br>YL = Yellow<br>BL = Blue<br>D1 = Dual Colour - 5mm (Red/ Green)<br>D2 = Dual Colour - 5mm (Red/ Amber)<br>D3 = Dual Colour - 5mm (Green/ Amber)<br>TR = Tri Colour - 5mm (Red/ Green/Amber) | LED Options<br>Blank = Standard<br>02 = Flashing - 5mm (Red or Green only) |

**Example:**  
DX1092/RD/02 = Black Aluminum IP66 Prominent Bezel, with Red flashing LED

# Indicator Lights

Neon, LED and Filament Lamp



## Key Features

- Neon, LED, mains LED or filament lamp
- Bezel sizes from 6.7 to 16.3mm diameter
- Red, amber, green, blue and clear lenses
- Red, yellow, green, blue and white LEDs
- Wide choice of styles

## Colours and voltages:

NEON

Available with Red, Amber, Green or Clear lenses  
100/130V (marked 110V),  
200/250V (marked 230V)

DC LED

Red, Yellow, Green, Blue, White  
2.0/2.2V  
Resistors for other voltages available.

AC MAINS LED

Red, Yellow, Green, Blue, White  
110-230V AC operation.

FILAMENT

Available with Red, Amber, Green, Clear or Blue lenses  
6V, 12/14V, 24/28V.

| Terminal   | Type        | Sealed                       | Illumination     | Colour                    | Voltage               | Options                  |
|------------|-------------|------------------------------|------------------|---------------------------|-----------------------|--------------------------|
| K 2.8<br>L | (K) 0566 A  | <br>6.0<br>2.0 max<br>p. 340 | N<br>L<br>M      | Neon & Filament           | 1<br>LED No Resistor  | C<br>Chrome Bezel Finish |
|            |             |                              |                  | R<br>Red                  | 2<br>125V Neon        |                          |
|            |             |                              |                  | A<br>Amber                | 3<br>250V Neon        |                          |
| K 2.8<br>L | (K) 0566 B  | <br>6.0<br>2.0 max<br>p. 340 | N<br>L<br>M      | G<br>Green                | 4<br>6VDC LED         |                          |
|            |             |                              |                  | B<br>Blue (Special Order) | 5<br>12VDC LED        |                          |
|            |             |                              |                  | C<br>Clear                | 6<br>24VDC LED        |                          |
| C 6.3      | (C) 0145 AA | <br>5.8<br>3.0max<br>p. 340  | N<br>L<br>M<br>F | LED                       | 7<br>12/14V Filament  |                          |
|            |             |                              |                  | R<br>Red                  | 8<br>24/ 28V Filament |                          |
|            |             |                              |                  | Y<br>Yellow               | 9<br>125/250VAC LED   |                          |
| L<br>W     | (L) 1041 00 | <br>6.3<br>6.3max<br>p. 340  | N<br>L<br>F      | G<br>Green                |                       |                          |
|            |             |                              |                  | B<br>Blue                 |                       |                          |
|            |             |                              |                  |                           |                       |                          |
| L<br>W     | (L) 1045 00 | <br>6.3<br>10.0max<br>p. 340 | N<br>L<br>M<br>F |                           |                       |                          |
|            |             |                              |                  |                           |                       |                          |
|            |             |                              |                  |                           |                       |                          |

# Indicator Lights

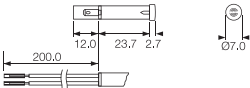
Neon, LED and Filament Lamp



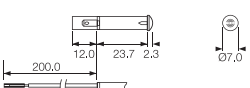
| Terminal                 | Type                     | Sealed                               | Illumination                                 | Colour                                                                                                                                   | Voltage                                                                                                                                                                                                                                              | Options                            |
|--------------------------|--------------------------|--------------------------------------|----------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|
| <b>L</b><br><b>W</b>     | <b>(L) 0245 00</b><br>   | <br>7.1<br><br>6.3 max<br><br>p. 340 | <b>N</b><br><b>L</b><br><b>M</b><br><b>F</b> | Neon & Filament<br><b>R</b><br>Red<br><b>A</b><br>Amber<br><b>G</b><br>Green<br><b>B</b><br>Blue<br>(Special Order)<br><b>C</b><br>Clear | <b>1</b><br>LED No Resistor<br><b>2</b><br>125V Neon<br><b>3</b><br>250V Neon<br><b>4</b><br>6VDC LED<br><b>5</b><br>12VDC LED<br><b>6</b><br>24VDC LED<br><b>7</b><br>12/14V Filament<br><b>8</b><br>24/ 28V Filament<br><b>9</b><br>125/250Vac LED | <b>C</b><br>Chrome<br>Bezel Finish |
| <b>L</b>                 | <b>L 2950 00</b><br>     | <br>8.0<br><br>0.8-1.6<br><br>p. 340 | <b>N</b><br><b>L</b><br><b>M</b><br><b>F</b> |                                                                                                                                          |                                                                                                                                                                                                                                                      |                                    |
| <b>L</b><br><b>C</b> 6.3 | <b>(L) 0195 BB</b><br>   | <br>8.0<br><br>0.8-3.0<br><br>p. 340 | <b>N</b><br><b>F</b>                         |                                                                                                                                          |                                                                                                                                                                                                                                                      |                                    |
| <b>L</b>                 | <b>L 2951 00</b><br>     | <br>8.0<br><br>0.8-1.6<br><br>p. 340 | <b>N</b><br><b>L</b><br><b>M</b><br><b>F</b> |                                                                                                                                          |                                                                                                                                                                                                                                                      |                                    |
| <b>L</b><br><b>H</b> 4.8 | <b>H) 0568 A(*)</b><br>  | <br>8.0<br><br>0.8-3.5<br><br>p. 340 | <b>N</b><br><b>L</b><br><b>F</b>             | <b>R</b><br>Red<br><b>Y</b><br>Yellow<br><b>G</b><br>Green<br><b>B</b><br>Blue                                                           |                                                                                                                                                                                                                                                      |                                    |
| <b>L</b><br><b>H</b> 4.8 | <b>(H) 0568 B(*)</b><br> | <br>8.0<br><br>0.8-3.5<br><br>p. 340 | <b>N</b><br><b>L</b><br><b>F</b>             |                                                                                                                                          |                                                                                                                                                                                                                                                      |                                    |

## Dimensions

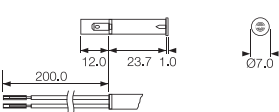
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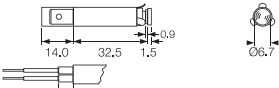
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(K) 0566 C



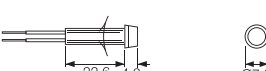
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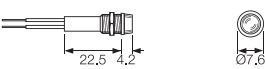
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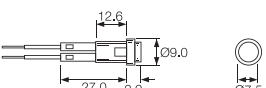
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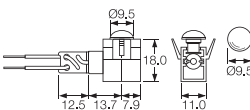
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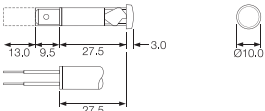
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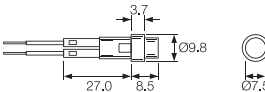
(L) 0195 BB



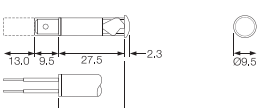
H) 0568 A(\*)



L 2951 00



(H) 0568 B(\*)



# Indicator Lights

Neon, LED and Filament Lamp



## Key Features

- Neon, LED, mains LED or filament lamp
- Bezel sizes from 6.7 to 16.3mm diameter
- Red, amber, green, blue and clear lenses
- Red, yellow, green, blue and white LEDs
- Wide choice of styles

## Colours and voltages:

**NEON**

Available with Red, Amber, Green or Clear lenses  
100/130V (marked 110V),  
200/250V (marked 230V)

**DC LED**

Red, Yellow, Green, Blue, White  
2.0/2.2V  
Resistors for other voltages available.

**AC MAINS LED**

Red, Yellow, Green, Blue, White  
110-230V AC operation.

**FILAMENT**

Available with Red, Amber, Green, Clear or Blue lenses  
6V, 12/14V, 24/28V.

| Terminal                     | Type        | Illumination     | Colour                          | Voltage               | Options                  | Panel                      | Approval |
|------------------------------|-------------|------------------|---------------------------------|-----------------------|--------------------------|----------------------------|----------|
| L<br>K 2.8<br>H 4.8<br>C 6.3 | (C) 0273 00 | N<br>L<br>M<br>F | Neon & Filament<br><br>R<br>Red | 1<br>LED No Resistor  | C<br>Chrome Bezel Finish | 9.0<br>2.0 max<br>p. 340   | RA       |
| L<br>K 2.8<br>H 4.8<br>C 6.3 | (C) 0278 00 | N<br>L<br>M<br>F | A<br>Amber                      | 2<br>125V Neon        |                          | 9.0<br>2.0 max<br>p. 340   | RA       |
| L<br>K 2.8<br>H 4.8<br>C 6.3 | (C) 0276 AA | N<br>L<br>M<br>F | G<br>Green                      | 3<br>250V Neon        |                          | 9.0<br>2.0 max<br>p. 340   | RA       |
| L<br>K 2.8<br>H 4.8<br>C 6.3 | (C) 0275 00 | N<br>L<br>M<br>F | B<br>Blue<br>(Special Order)    | 4<br>6VDC LED         |                          | 9.5<br>0.8-2.8<br>p. 340   | RA       |
| L<br>K 2.8<br>H 4.8<br>C 6.3 | (C) 0275 00 | N<br>L<br>M<br>F | C<br>Clear                      | 5<br>12VDC LED        |                          | 10.0<br>12.0<br>p. 340     | RA       |
| L<br>K 2.8<br>H 4.8<br>C 6.3 | (C) 0275 00 | N<br>L<br>M<br>F | LED                             | 6<br>24VDC LED        |                          | 10.0<br>11.5 max<br>p. 340 | RA       |
| L<br>K 2.8<br>H 4.8<br>C 6.3 | (C) 0275 00 | N<br>L<br>M<br>F | R<br>Red                        | 7<br>12/14V Filament  |                          | 10.0<br>11.5 max<br>p. 340 | RA       |
| L<br>K 2.8<br>H 4.8<br>C 6.3 | (C) 0275 00 | N<br>L<br>M<br>F | Y<br>Yellow                     | 8<br>24/ 28V Filament |                          |                            |          |
| L<br>K 2.8<br>H 4.8<br>C 6.3 | (C) 0275 00 | N<br>L<br>M<br>F | G<br>Green                      | 9<br>125/250VAC LED   |                          |                            |          |
| L<br>K 2.8<br>H 4.8<br>C 6.3 | (C) 0275 00 | N<br>L<br>M<br>F | B<br>Blue                       |                       |                          |                            |          |

# Indicator Lights

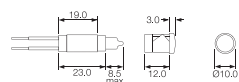
Neon, LED and Filament Lamp



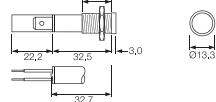
| Terminal                                                 | Type                   | Illumination                                 | Colour                                                                                                                                   | Voltage                                                                                                                                                                                                                                              | Options                            | Panel                                                                        | Approval |
|----------------------------------------------------------|------------------------|----------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|------------------------------------------------------------------------------|----------|
| <b>L</b><br><b>K</b> 2.8<br><b>H</b> 4.8<br><b>C</b> 6.3 | <b>(C) 0276 00</b><br> | <b>N</b><br><b>L</b><br><b>M</b><br><b>F</b> | Neon & Filament<br><b>R</b><br>Red<br><b>A</b><br>Amber<br><b>G</b><br>Green<br><b>B</b><br>Blue<br>(Special Order)<br><b>C</b><br>Clear | <b>1</b><br>LED No Resistor<br><b>2</b><br>125V Neon<br><b>3</b><br>250V Neon<br><b>4</b><br>6VDC LED<br><b>5</b><br>12VDC LED<br><b>6</b><br>24VDC LED<br><b>7</b><br>12/14V Filament<br><b>8</b><br>24/ 28V Filament<br><b>9</b><br>125/250VAC LED | <b>C</b><br>Chrome<br>Bezel Finish | <br>10.0<br><br>2.8 max<br><br>p. 340                                        |          |
| <b>L</b><br><b>K</b> 2.8<br><b>H</b> 4.8<br><b>C</b> 6.3 | <b>(C) 0277 00</b><br> | <b>N</b><br><b>L</b><br><b>M</b><br><b>F</b> | <b>R</b><br>Red<br><b>A</b><br>Amber<br><b>G</b><br>Green<br><b>B</b><br>Blue<br>(Special Order)<br><b>C</b><br>Clear                    | <b>1</b><br>LED No Resistor<br><b>2</b><br>125V Neon<br><b>3</b><br>250V Neon<br><b>4</b><br>6VDC LED<br><b>5</b><br>12VDC LED<br><b>6</b><br>24VDC LED<br><b>7</b><br>12/14V Filament<br><b>8</b><br>24/ 28V Filament<br><b>9</b><br>125/250VAC LED | <b>C</b><br>Chrome<br>Bezel Finish | <br>10.0<br><br>12 max<br><br>p. 340                                         |          |
| <b>L</b><br><b>K</b> 2.8<br><b>H</b> 4.8<br><b>C</b> 6.3 | <b>(C) 0273 LL</b><br> | <b>N</b><br><b>L</b><br><b>M</b><br><b>F</b> | <b>R</b><br>Red<br><b>A</b><br>Amber<br><b>G</b><br>Green<br><b>B</b><br>Blue<br>(Special Order)<br><b>C</b><br>Clear                    | <b>1</b><br>LED No Resistor<br><b>2</b><br>125V Neon<br><b>3</b><br>250V Neon<br><b>4</b><br>6VDC LED<br><b>5</b><br>12VDC LED<br><b>6</b><br>24VDC LED<br><b>7</b><br>12/14V Filament<br><b>8</b><br>24/ 28V Filament<br><b>9</b><br>125/250VAC LED | <b>C</b><br>Chrome<br>Bezel Finish | <br>10.0<br><br>0.6-2.0<br><br>p. 340                                        |          |
| <b>L</b><br><b>K</b> 2.8<br><b>H</b> 4.8<br><b>C</b> 6.3 | <b>(C) 2820 00</b><br> | <b>N</b><br><b>L</b><br><b>M</b><br><b>F</b> | <b>R</b><br>Red<br><b>A</b><br>Amber<br><b>G</b><br>Green<br><b>B</b><br>Blue<br>(Special Order)<br><b>C</b><br>Clear                    | <b>1</b><br>LED No Resistor<br><b>2</b><br>125V Neon<br><b>3</b><br>250V Neon<br><b>4</b><br>6VDC LED<br><b>5</b><br>12VDC LED<br><b>6</b><br>24VDC LED<br><b>7</b><br>12/14V Filament<br><b>8</b><br>24/ 28V Filament<br><b>9</b><br>125/250VAC LED | <b>C</b><br>Chrome<br>Bezel Finish | <br>12.0<br><br>0.75-2.0<br><br>p. 340                                       |          |
| <b>L</b><br><b>K</b> 2.8<br><b>H</b> 4.8<br><b>C</b> 6.3 | <b>(C) 2821 00</b><br> | <b>N</b><br><b>L</b><br><b>M</b><br><b>F</b> | <b>R</b><br>Red<br><b>A</b><br>Amber<br><b>G</b><br>Green<br><b>B</b><br>Blue<br>(Special Order)<br><b>C</b><br>Clear                    | <b>1</b><br>LED No Resistor<br><b>2</b><br>125V Neon<br><b>3</b><br>250V Neon<br><b>4</b><br>6VDC LED<br><b>5</b><br>12VDC LED<br><b>6</b><br>24VDC LED<br><b>7</b><br>12/14V Filament<br><b>8</b><br>24/ 28V Filament<br><b>9</b><br>125/250VAC LED | <b>C</b><br>Chrome<br>Bezel Finish | <br>12.0or12.7<br><br>σ12.0<br>= 0.8-2.5<br>σ12.7<br>= 1.1-2.5<br><br>p. 340 |          |
| <b>L</b><br><b>K</b> 2.8<br><b>H</b> 4.8<br><b>C</b> 6.3 | <b>(C) 0586 00</b><br> | <b>N</b><br><b>L</b><br><b>M</b><br><b>F</b> | <b>R</b><br>Red<br><b>A</b><br>Amber<br><b>G</b><br>Green<br><b>B</b><br>Blue<br>(Special Order)<br><b>C</b><br>Clear                    | <b>1</b><br>LED No Resistor<br><b>2</b><br>125V Neon<br><b>3</b><br>250V Neon<br><b>4</b><br>6VDC LED<br><b>5</b><br>12VDC LED<br><b>6</b><br>24VDC LED<br><b>7</b><br>12/14V Filament<br><b>8</b><br>24/ 28V Filament<br><b>9</b><br>125/250VAC LED | <b>C</b><br>Chrome<br>Bezel Finish | <br>12.5<br><br>0.8-1.5<br><br>p. 340                                        |          |

## Dimensions

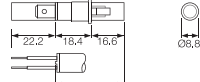
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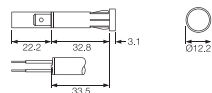
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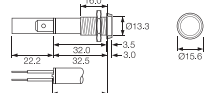
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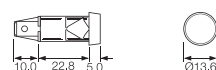
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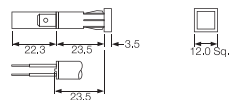
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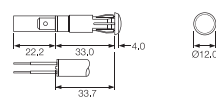
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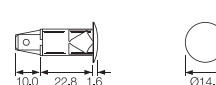
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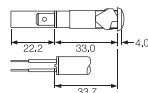
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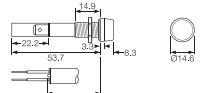
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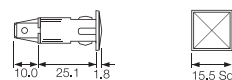
### (C) 0276 AA



### (C) 0277 00



### (C) 0586 00



# Indicator Lights

Neon, LED and Filament Lamp



### Key Features

- Neon, LED, mains LED or filament lamp
- Bezel sizes from 6.7 to 16.3mm diameter
- Red, amber, green and clear lenses
- Red, yellow, green, blue and white LEDs
- Wide choice of styles

### Colours and voltages:

**NEON**

Available with Red, Amber, Green or Clear lenses  
100/130V (marked 110V),  
200/250V (marked 230V)

**DC LED**

Red, Yellow, Green, Blue, White  
2.0/2.2V  
Resistors for other voltages available.

**AC MAINS LED**

Red, Yellow, Green, Blue, White  
110-230V AC operation.

**FILAMENT**

Available with Red, Amber, Green, Clear or Blue lenses  
6V, 12/14V, 24/28V.

| Terminal                     | Type            | Illumination     | Colour                                                                                                                    | Voltage                                                                                                     | Options                  | Panel                      | Approval |
|------------------------------|-----------------|------------------|---------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|--------------------------|----------------------------|----------|
| L<br>K 2.8<br>H 4.8<br>C 6.3 | (C) 2870 00<br> | N<br>L<br>M<br>F | Neon & Filament<br><br>R<br>Red<br><br>A<br>Amber<br><br>G<br>Green<br><br>B<br>Blue<br>(Special Order)<br><br>C<br>Clear | 1<br>LED No Resistor<br><br>2<br>125V Neon<br><br>3<br>250V Neon<br><br>4<br>6VDC LED<br><br>5<br>12VDC LED | C<br>Chrome Bezel Finish | 12.7<br>0.75-2.0<br>P. 340 |          |
| L<br>K 2.8<br>H 4.8<br>C 6.3 | (C) 0589 00<br> | N<br>L<br>M<br>F |                                                                                                                           |                                                                                                             |                          | 12.7<br>0.8-1.5<br>p. 340  |          |
| L                            | L 0081 00<br>   | N<br>L<br>M<br>F |                                                                                                                           |                                                                                                             |                          | 12.7<br>9.5<br>p. 340      |          |
| L<br>K 2.8<br>H 4.8<br>C 6.3 | (C) 0177 00<br> | N<br>L<br>M<br>F | LED                                                                                                                       | 6<br>24Vdc LED<br><br>7<br>12/14V Filament                                                                  |                          | 12.7<br>12.0max<br>p. 340  |          |
| L<br>K 2.8<br>H 4.8<br>C 6.3 | (C) 0067 00<br> | N<br>L<br>M<br>F | R<br>Red<br><br>Y<br>Yellow<br><br>G<br>Green<br><br>B<br>Blue                                                            | 8<br>24/ 28V Filament<br><br>9<br>125/250VAC LED                                                            |                          | 12.7<br>1.14 max<br>p. 340 |          |
| L<br>C 6.3                   | (C) 0180AA<br>  | N<br>L<br>F      |                                                                                                                           |                                                                                                             |                          | 12.7<br>19.0 max<br>p. 340 |          |

# Indicator Lights

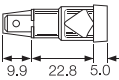
Neon, LED and Filament Lamp



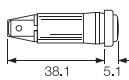
| Terminal                 | Type                  | Illumination                     | Colour                                                                                                                                                                                                                                | Voltage                                                                                                                                                                                                                                              | Options                            | Panel                                                                                                                           | Approval |
|--------------------------|-----------------------|----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|----------|
| <b>L</b><br><b>C</b> 6.3 | <b>(C) 0180BB</b><br> | <b>N</b><br><b>L</b><br><b>F</b> | Neon & Filament<br><b>R</b><br>Red<br><b>A</b><br>Amber<br><b>G</b><br>Green<br><b>B</b><br>Blue<br>(Special Order)<br><b>C</b><br>Clear<br><br>LED<br><b>R</b><br>Red<br><b>Y</b><br>Yellow<br><b>G</b><br>Green<br><b>B</b><br>Blue | <b>1</b><br>LED No Resistor<br><b>2</b><br>125V Neon<br><b>3</b><br>250V Neon<br><b>4</b><br>6VDC LED<br><b>5</b><br>12VDC LED<br><b>6</b><br>24VDC LED<br><b>7</b><br>12/14V Filament<br><b>8</b><br>24/ 28V Filament<br><b>9</b><br>125/250VAC LED | <b>C</b><br>Chrome<br>Bezel Finish | <br>13.5<br><br>0.9-1.14<br><br>p. 340<br><br><br>14.0<br><br>2.5 max<br><br>p. 340<br><br><br>19.0<br><br>4.0max<br><br>p. 340 |          |

## Dimensions

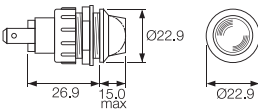
(C) 2870 00



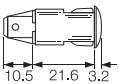
(C) 0067 00



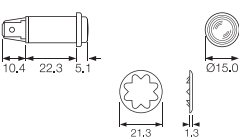
(C) 1092



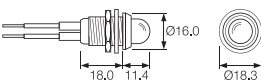
C) 0589 00



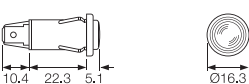
(C) 0180AA



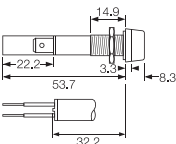
L 0081 00



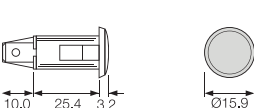
(C) 0180BB



(C) 0177 00



(C) 0579 00



# Indicator Lights

Neon, LED and Filament Lamp



## Key Features

- Neon, LED, mains LED or filament lamp
- Bezel sizes from 6.7 to 16.3mm diameter
- Red, amber, green and clear lenses
- Red, yellow, green, blue and white LEDs
- Wide choice of styles

## Colours and voltages:

**NEON**  
  
Available with Red, Amber, Green or Clear lenses  
100/130V (marked 110V),  
200/250V (marked 230V)

**DC LED**  
  
Red, Yellow, Green, Blue, White  
2.0/2.2V  
Resistors for other voltages available.

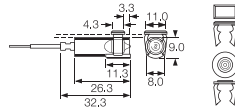
**AC MAINS LED**  
  
Red, Yellow, Green, Blue, White  
110-230V AC operation.

**FILAMENT**  
  
Available with Red, Amber, Green, Clear or Blue lenses  
6V, 12/14V, 24/28V.

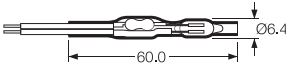
| Terminal | Type                                                                               | Illumination                                                                                     | Colour                                                                                                 | Voltage               | Options                  | Panel                                                                                                                                                                                                                 | Approval                                                                            |
|----------|------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|-----------------------|--------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| L        |   | L 0234 00<br>   | N <br>Neon & Filament | 1<br>LED No Resistor  | C<br>Chrome Bezel Finish | <br>18.2/18.3<br>x<br>6.2/6.3*<br>2.0-3.5<br>   |  |
| L        |  | L 0233 00<br> | N <br>Amber          | 2<br>125V Neon        |                          | <br>9.27/9.50<br>x<br>4.75*<br>0.71-1.62<br> |                                                                                     |
|          |                                                                                    |                                                                                                  | G<br>Green                                                                                             | 3<br>250V Neon        |                          |                                                                                                                                                                                                                       |                                                                                     |
|          |                                                                                    |                                                                                                  | B<br>Blue<br>(Special Order)                                                                           | 4<br>6Vdc LED         |                          |                                                                                                                                  |                                                                                     |
|          |                                                                                    |                                                                                                  | C<br>Clear                                                                                             | 5<br>12VDC LED        |                          |                                                                                                                                  |                                                                                     |
|          |                                                                                    |                                                                                                  | LED                                                                                                    | 6<br>24VDC LED        |                          |                                                                                                                                                                                                                       |                                                                                     |
|          |                                                                                    |                                                                                                  | R<br>Red                                                                                               | 7<br>12/14V Filament  |                          |                                                                                                                                                                                                                       |                                                                                     |
|          |                                                                                    |                                                                                                  | Y<br>Yellow                                                                                            | 8<br>24/ 28V Filament |                          |                                                                                                                                                                                                                       |                                                                                     |
|          |                                                                                    |                                                                                                  | G<br>Green                                                                                             | 9<br>125/250VAC LED   |                          |                                                                                                                                                                                                                       |                                                                                     |
|          |                                                                                    |                                                                                                  | B<br>Blue                                                                                              |                       |                          |                                                                                                                                                                                                                       |                                                                                     |

## Dimensions

### L 0234 00



### L 0233 00



Neon tube, resistor and flexible lead assembly, protected by "shrunk on" transparent sleeving.

# Low Voltage Lampholders



## Key Features

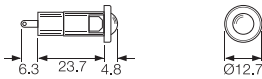
- Up to 50V
- Red, Amber, Green, Blue and Clear
- Linestra/Philinea lamp holder

## Colours and voltages:

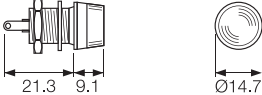
These lampholders are suitable for up to 50V max.  
Colours - Red, Amber, Green, (Clear & Blue, check availability).

| Terminal     | Type                      | Colour                                                                                                                                   | Options                         | Panel                  |
|--------------|---------------------------|------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|------------------------|
| <b>K</b> 2.8 | <b>K0061 00 (LES)</b><br> | Neon & Filament<br><b>R</b><br>Red<br><b>A</b><br>Amber<br><b>G</b><br>Green<br><b>B</b><br>Blue<br>(Special Order)<br><b>C</b><br>Clear | <b>C</b><br>Chrome Bezel Finish | 9.5<br>0.9-1.14<br>T85 |
| <b>C</b> 6.3 | <b>(C) 0067 00</b><br>    | <b>G</b><br>Green                                                                                                                        |                                 | 12.7<br>1.14max<br>T85 |
| <b>K</b> 2.8 | <b>(K) 0062 A0</b><br>    | <b>B</b><br>Blue<br>(Special Order)<br><b>C</b><br>Clear                                                                                 |                                 | 12.7<br>9.6max<br>T85  |
| <b>K</b> 2.8 | <b>(K) 0062 M0</b><br>    | LED<br><b>R</b><br>Red<br><b>Y</b><br>Yellow                                                                                             |                                 | 12.7<br>9.6max<br>T85  |
| <b>S</b>     | <b>(S) 0095 00</b><br>    | <b>G</b><br>Green<br><b>B</b><br>Blue                                                                                                    |                                 | T85                    |

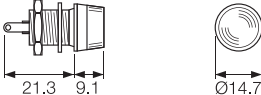
### K0061 00 (LES)



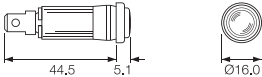
### (K) 0062 M0



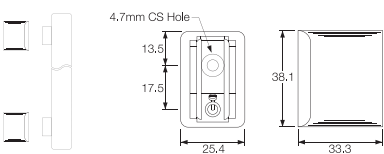
### (K) 0062 A0



### (C) 0067 00



### (S) 0095 00



# Large Low Voltage Lampholders



C1090FE ---



P1090FL ---

## Key Features

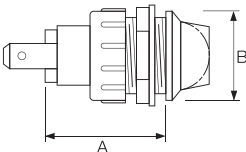
- Up to 50V
- MES or MBC bulb
- Flat and domed lens
- Brass or nylon bodies
- Red, Amber, Green, Blue and Clear lenses

## Approvals and specifications

These lampholders are suitable for up to 50V max.

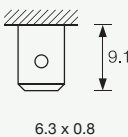
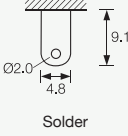
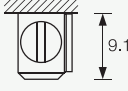
Colours - Red, Amber, Green, (Clear & Blue, check availability).  
Brass bodies have polished chrome finish.

## Dimensions and Options



F0445 MO  
P.V.C. Insulating terminal cover.



| Terminal                                                                                                           | Type                                                                                                                                      | Colour             | Options                         | Panel                   |                              |              |              | Lens                                                                                                           |
|--------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|--------------------|---------------------------------|-------------------------|------------------------------|--------------|--------------|----------------------------------------------------------------------------------------------------------------|
| <b>C</b><br><br>6.3 x 0.8       | <b>1090</b><br>MES (E10)<br>                           | <b>R</b><br>Red    | <b>C</b><br>Chrome Bezel Finish | <b>1090 (MES lamps)</b> |                              |              |              | <b>F</b><br>Flat<br>      |
|                                                                                                                    |                                                                                                                                           | <b>Y</b><br>Yellow |                                 |                         |                              |              |              |                                                                                                                |
|                                                                                                                    |                                                                                                                                           | <b>G</b><br>Green  |                                 |                         |                              |              |              |                                                                                                                |
|                                                                                                                    |                                                                                                                                           | <b>B</b><br>Blue   |                                 |                         |                              |              |              |                                                                                                                |
| <b>H</b><br><br>Solder          | <b>1091</b><br>MBC (BA9s) (C and S Terminals only)<br> | <b>C</b><br>Clear  |                                 |                         |                              |              |              | <b>V</b><br>MES (E10)<br> |
|                                                                                                                    |                                                                                                                                           |                    |                                 |                         |                              |              |              |                                                                                                                |
|                                                                                                                    |                                                                                                                                           |                    |                                 |                         |                              |              |              |                                                                                                                |
|                                                                                                                    |                                                                                                                                           |                    |                                 |                         |                              |              |              |                                                                                                                |
| <b>S</b><br><br>Screw and Clamp |                                                                                                                                           |                    |                                 | <b>1091 (MBC lamps)</b> |                              |              |              | <b>L</b><br>No lens                                                                                            |
|                                                                                                                    |                                                                                                                                           |                    |                                 |                         |                              |              |              |                                                                                                                |
|                                                                                                                    |                                                                                                                                           |                    |                                 |                         |                              |              |              |                                                                                                                |
|                                                                                                                    |                                                                                                                                           |                    |                                 |                         |                              |              |              |                                                                                                                |
|                                                                                                                    |                                                                                                                                           |                    |                                 | <b>Panel Hole Dia</b>   | <b>Body Material</b>         | <b>Dim A</b> | <b>Dim B</b> |                                                                                                                |
|                                                                                                                    |                                                                                                                                           |                    |                                 | <b>A</b>                | 19.0 Brass                   | 35.0         | 22.0         |                                                                                                                |
|                                                                                                                    |                                                                                                                                           |                    |                                 | <b>D</b>                | 19.0 Brass                   | 30.2         | 22.0         |                                                                                                                |
|                                                                                                                    |                                                                                                                                           |                    |                                 | <b>E</b>                | 19.0 Nylon with chrome bezel | 30.2         | 22.0         |                                                                                                                |
|                                                                                                                    |                                                                                                                                           |                    |                                 | <b>G</b>                | 19.0 Brass                   | 30.2         | 22.8         |                                                                                                                |
|                                                                                                                    |                                                                                                                                           |                    |                                 | <b>H</b>                | 19.0 Nylon with chrome bezel | 24.6         | 22.0         |                                                                                                                |
|                                                                                                                    |                                                                                                                                           |                    |                                 | <b>L</b>                | 25.4 Brass                   | 24.6         | 22.8         |                                                                                                                |
|                                                                                                                    |                                                                                                                                           |                    |                                 |                         |                              | 26.0         | 31.5         |                                                                                                                |
|                                                                                                                    |                                                                                                                                           |                    |                                 | <b>Panel Hole Dia</b>   | <b>Body Material</b>         | <b>Dim A</b> | <b>Dim B</b> |                                                                                                                |
|                                                                                                                    |                                                                                                                                           |                    |                                 | <b>B</b>                | 19.0 Brass                   | 36.0         | 22.0         |                                                                                                                |
|                                                                                                                    |                                                                                                                                           |                    |                                 | <b>C</b>                | 19.0 Nylon                   | 36.6         | 22.0         |                                                                                                                |
|                                                                                                                    |                                                                                                                                           |                    |                                 | <b>Q</b>                | 19.0 Nylon (Chrome twin)     | 36.6         | 22.8         |                                                                                                                |
|                                                                                                                    |                                                                                                                                           |                    |                                 | <b>M</b>                | 25.4 Brass                   | 38.1         | 31.5         |                                                                                                                |

# LED Lamps and LED Lampholders

LED Lampholders can be supplied with or without LEDs



## Key Features

- LED lampholders
- Supplied with or without LEDs
- Black or Chrome finish

## Colours and voltages:

Colours: Red, Yellow, Green and Blue LEDs  
(High Intensity is standard. Option of extra super bright).

Voltages: LEDs are available for direct connection to 2.0/2.2V or 12VDC

For other voltages contact sales.

| Terminal                                                                      | Type                   | Body Colour                                 | LED Colour                                                         | Voltage                                                                              | Panel Cutout                | Approval | Dimensions                                       |
|-------------------------------------------------------------------------------|------------------------|---------------------------------------------|--------------------------------------------------------------------|--------------------------------------------------------------------------------------|-----------------------------|----------|--------------------------------------------------|
| <b>W</b> LED fitted<br><b>A</b> LED not fitted<br><b>L</b> LED & Wires fitted | <b>(W) 1047 00</b><br> | <b>B</b><br>Black<br><br><b>C</b><br>Chrome | <b>R</b><br>Red<br><br><b>Y</b><br>Yellow<br><br><b>G</b><br>Green | <b>1</b><br>LED No Resistor<br><br><b>4</b><br>6VDC LED<br><br><b>5</b><br>12VDC LED | <br>6.3<br>6.3max<br>T105   |          | <br>12.7<br>14.5 (+/-0.36)<br>Ø7.6               |
| <b>W</b> LED fitted<br><b>A</b> LED not fitted<br><b>L</b> LED & Wires fitted | <b>(L) 1048 00</b><br> |                                             | <b>B</b><br>Blue                                                   | <b>6</b><br>24VDC LED                                                                | <br>8.0<br>5.5max<br>T105   |          | <br>10.0<br>14.5<br>Ø9.5                         |
| <b>W</b> LED fitted<br><b>A</b> LED not fitted<br><b>L</b> LED & Wires fitted | <b>(W)1050 00</b><br>  |                                             |                                                                    |                                                                                      | <br>8.0<br>7.0max<br>T105   |          | <br>12.4<br>16.9<br>Ø10.0                        |
| <b>W</b> LED fitted<br><b>L</b> LED & Wires fitted                            | <b>(L) 1035 0A</b><br> |                                             |                                                                    |                                                                                      | <br>4.5<br>0.9-1.6<br>T105  |          | <br>4.30<br>20.0<br>1.0<br>200.0<br>1.50<br>5.08 |
| <b>W</b> LED fitted<br><b>L</b> LED & Wires fitted                            | <b>(L) 1036 0A</b><br> |                                             |                                                                    |                                                                                      | <br>6.0<br>0.9-1.6<br>T105  |          | <br>5.85<br>20.0<br>1.0<br>200.0<br>4.0<br>7.9   |
| <b>W</b> LED fitted<br><b>L</b> LED & Wires fitted                            | <b>(L) 1037 0A</b><br> |                                             |                                                                    |                                                                                      | <br>6.35<br>0.9-1.6<br>T105 |          | <br>6.15<br>20.0<br>1.0<br>200.0<br>4.0<br>7.9   |

# LED Lamps and LED Lampholders - Sealed to IP67



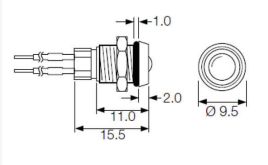
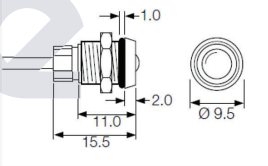
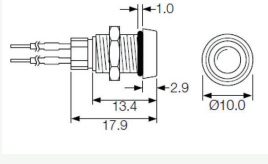
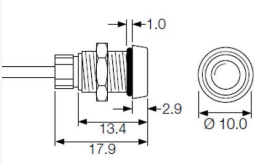
### Key Features

- IP67 front bezel sealing
- LED lampholders
- Supplied with or without LEDs
- Black or Chrome finish

### Colours and voltages:

Colours:  
Red, Yellow Green and Blue LEDs.  
(High Intensity is standard. Option of extra super bright).

Voltages:  
LEDs are available for direct connection to 2.0/2.2V or 12VDC.  
For other voltages contact sales.

| Terminal                                                                                                         | Type                                                                                                      | Body Colour        | LED Colour         | Voltage                     | Panel                                                                                                                                                                                                                                                                             | Dimensions                                                                                                  |
|------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|--------------------|--------------------|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|
| <b>L</b> LED & Wires fitted<br> | <b>(L) 1048 OA</b><br>   | <b>B</b><br>Black  | <b>R</b><br>Red    | <b>1</b><br>LED No Resistor |  8.0<br> 5.5max<br> T105       | <b>(L) 1048 OA</b><br>  |
| <b>W</b> LED fitted<br>         |                                                                                                           | <b>C</b><br>Chrome | <b>Y</b><br>Yellow | <b>4</b><br>6VDC LED        |                                                                                                                                                                                                                                                                                   |                                                                                                             |
|                                                                                                                  |                                                                                                           |                    | <b>G</b><br>Green  | <b>5</b><br>12VDC LED       |                                                                                                                                                                                                                                                                                   |                                                                                                             |
| <b>A</b> LED not fitted<br>   | <b>(W) 1048 OA</b><br> |                    | <b>B</b><br>Blue   | <b>6</b><br>24VDC LED       |                                                                                                                                                                                                                                                                                   | <b>(W) 1048 OA</b><br> |
|                                                                                                                  | <b>(L) 1050 OA</b><br> |                    |                    |                             |  8.0<br> 7.0max<br> T105 | <b>(L) 1050 OA</b><br> |
|                                                                                                                  | <b>(W) 1050 OA</b><br> |                    |                    |                             |  8.0<br> 7.0max<br> T105 | <b>(W) 1050 OA</b><br> |

### Properties

Sealing  
O-ring sealing equivalent to IP67, of both the LED to bezel, and bezel to panel is available where shown.

Polarity  
The nylon base mouldings are polarity marked.

Body Material and Finish  
Chromed brass or Black oxide coated brass.

Lampholders only  
Items prefixed 'A' are supplied without LEDs.

LED wires or PVC covered wire leads  
125mm min length wires, 6.3mm standard strip.  
Alternative colours, length and strip available.

## Key Features

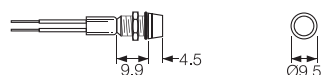
- IP67 Panel Sealing
- Supplied complete with gaskets/'O' rings
- Neon, LED, mains LED or filament lamp
- Bezel sizes from 7.6 to 22.9mm diameter
- Red, amber, green, blue and clear lenses
- Red, yellow, green, blue and white LEDs
- Wide choice of styles

## Colours and voltages:

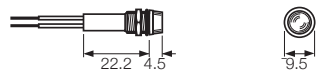
| NEON                                                                                                  | DC LED                                                                                 | AC MAINS LED                                              | FILAMENT                                                                      |
|-------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|-----------------------------------------------------------|-------------------------------------------------------------------------------|
|                                                                                                       |                                                                                        |                                                           |                                                                               |
| Available with Red, Amber, Green or Clear lenses<br>100/130V (marked 110V),<br>200/250V (marked 230V) | Red, Yellow, Green, Blue, White<br>2.0/2.2V<br>Resistors for other voltages available. | Red, Yellow, Green, Blue, White<br>110-230V AC operation. | Available with Red, Amber, Green, Clear or Blue lenses<br>6V, 12/14V, 24/28V. |

| Terminal                     | Type        | Sealed      | Illumination     | Colour                                               | Voltage                                                              | Option                   | Panel Cutout     | Approval |
|------------------------------|-------------|-------------|------------------|------------------------------------------------------|----------------------------------------------------------------------|--------------------------|------------------|----------|
| L                            | (L) 1041 OS | S<br>Sealed | N<br>L<br>M<br>F | R<br>Red<br>A<br>Amber                               | 1<br>LED No Resistor<br>2<br>125V Neon                               | C<br>Chrome Bezel Finish | 6.3<br>5.3max    | UL       |
| L                            | (L) 0245 OS |             | N<br>L<br>M<br>F | G<br>Green<br>B<br>Blue (Special)                    | 3<br>250V Neon<br>4<br>6VDC LED                                      |                          | 7.1<br>4.6max    | UL       |
| L<br>K 2.8<br>H 4.8<br>C 6.3 | (C) 0275 OS |             | N<br>L<br>M<br>F | C<br>Clear                                           | 5<br>12VDC LED                                                       |                          | 10.0<br>11.15max | UL       |
| L<br>K 2.8<br>H 4.8<br>C 6.3 | (C) 0277 OS |             | N<br>L<br>M<br>F | LED<br>R<br>Red                                      | 6<br>24VDC LED                                                       |                          | 10.0<br>11.15max | UL       |
| L<br>K 2.8<br>H 4.8<br>C 6.3 | (C) 0177 OS |             | N<br>L<br>M<br>F | Y<br>Yellow<br>G<br>Green<br>B<br>Blue<br>W<br>White | 7<br>12/14V Filament<br>8<br>24/ 28V Filament<br>9<br>125/250VAC LED |                          | 12.7<br>11.15max | UL       |

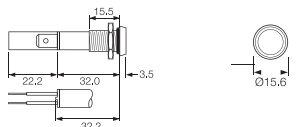
(L) 1041 OS



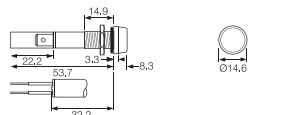
(L) 0245 OS



(C) 0275 OS



(C) 0277 OS



(C) 0177 OS

