



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 many different needs of panel design including 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.

Type	Page
Vandal Resistant LEDs	
DX0505, DX0506	166
DX0507, DX0508	167
LEDs	
DX0998, DX0999	168
DX1120, DX1121	168
DX1090, DX1091, DX1092, DX1093	169
DX1116, DX1117, DX1118, DX1119	170

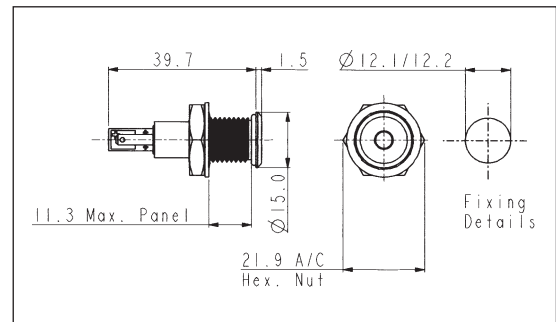
Vandal Resistant LED Indicators

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

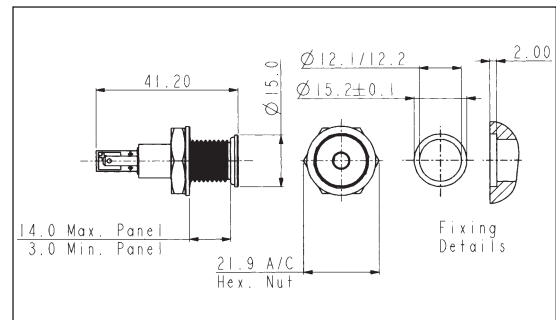


FLUSH PANEL PROFILE



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



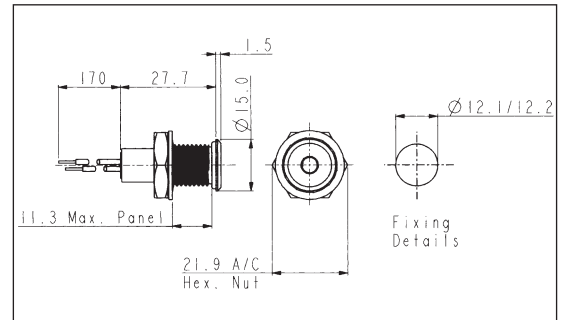
Specification	DX0505/Col/Voltage	DX0506/Col/Voltage
Terminations:	Solder Tab/2.8mm Tab	Solder Tab/2.8mm Tab
Forward Voltage:	Red 1.85V, Green 2.2V, Yellow 2.0V, Blue 3.8V	Red 1.85V, Green 2.2V, Yellow 2.0V, Blue 3.8V
Cont. Forward Current: (max)	Red 30mA, Green 25mA, Yellow 30mA, Blue 25mA	Red 30mA, 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 BS EN60529:1992	Protection Classification IP67 to BS EN60529:1992
Materials:		
Body:	Stainless Steel	Stainless Steel
Lens:	Polycarbonate UL94V-0	Polycarbonate UL94V-0
O Ring (external):	Nitrile	Nitrile
(internal):	Silicon	Silicon
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 d.c.), /24 (24V d.c.) or /00 (no ballast resistor)	/12 (12V d.c.), /24 (24V d.c.) or /00 (no ballast resistor)
RoHS	Compliant	Compliant

Vandal Resistant LED Indicators

PROUD OF PANEL PROFILE


DX0507

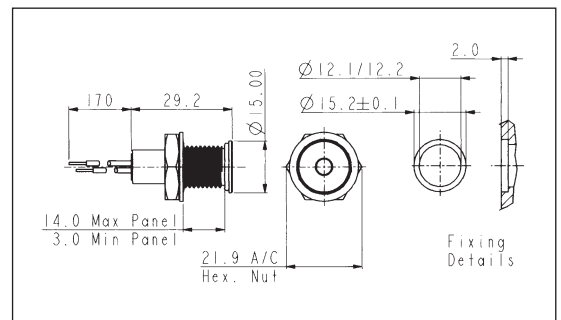
- Flying Lead Termination
- Sealed to IP67
- Red, Green, Yellow or Blue LED Options
- Wide Viewing Angle
- Shock and Vibration Resistant
- Stainless Steel body



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



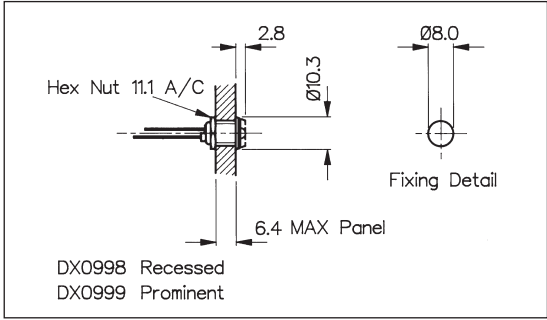
Specification	DX0507/Col/Voltage	DX0508/Col/Voltage
Terminations:	Flying Leads	Flying Leads
Forward Voltage:	Red 1.85V, Green 2.2V, Yellow 2.0V, Blue 3.8V	Red 1.85V, Green 2.2V, Yellow 2.0V, Blue 3.8V
Cont. Forward Current: (max)	Red 30mA, Green 25mA, Yellow 30mA, Blue 25mA	Red 30mA, Green 25mA, Yellow 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 BS EN60529:1992	Protection Classification IP67 to BS EN60529:1992
Materials:		
Body:	Stainless Steel	Stainless Steel
Lens:	Polycarbonate UL94V-0	Polycarbonate UL94V-0
O Ring (external):	Nitrile	Nitrile
(internal):	Silicon	Silicon
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 d.c.), /24 (24V d.c.) or /00 (no ballast resistor)	/12 (12V d.c.), /24 (24V d.c.) or /00 (no ballast resistor)
RoHS	Compliant	Compliant

5mm LED Indicators

CHROME PLATED BRASS BEZEL



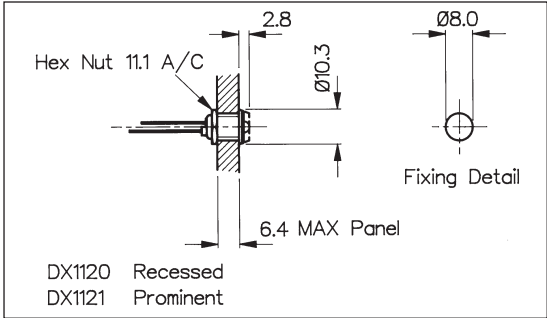
- Chrome Plated Brass Bezel
- Prominent or Recessed Style
- Choice of LED Types and Colours



NYLON BEZEL



- Glass Filled Nylon Bezel
- Prominent or Recessed Style
- Choice of LED Types and Colours



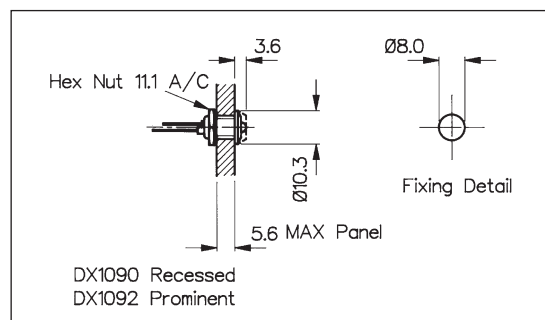
Specification	DX0998, DX0999/Colour/Options	DX1120, DX1121/Colour/Options
Bezel Material:	Brass, Chrome Plated	Glass filled Nylon
Style:	Recessed (DX0998) Prominent (DX0999)	Recessed (DX1120) Prominent (DX1121)
Operating Temp. Range:	Dependent on LED used	Dependent on LED used
Storage Temperature:	Dependent on LED used	Dependent on LED used
LED Colours:	/RD (Red), /GN (Green), /YL (Yellow), /BL (Blue), /TR (Tri Colour), /D1 (Dual Colour - Red/Green), /D2 (Dual Colour - Red/Amber), /D3 (Dual Colour - Green/Amber)	/RD (Red), /GN (Green), /YL (Yellow), /BL (Blue), /TR (Tri Colour), /D1 (Dual Colour - Red/Green), /D2 (Dual Colour - Red/Amber), /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
	See Page 171 for LED options and specifications	
RoHS	Compliant	Compliant

5mm LED Indicators

ALUMINIUM BEZEL - IP66 SEALED



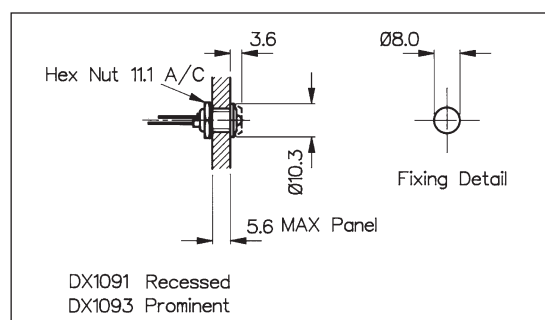
- Aluminium Bezel, Black Anodised Finish
- IP66 Front Panel Sealed
- Prominent or Recessed Style
- Choice of LED Types and Colours

DX1090
DX1092


ALUMINIUM BEZEL - IP66 SEALED



- Aluminium Bezel, Clear Anodised Finish
- IP66 Front Panel Sealed
- Prominent or Recessed Style
- Choice of LED Types and Colours

DX1091
DX1093


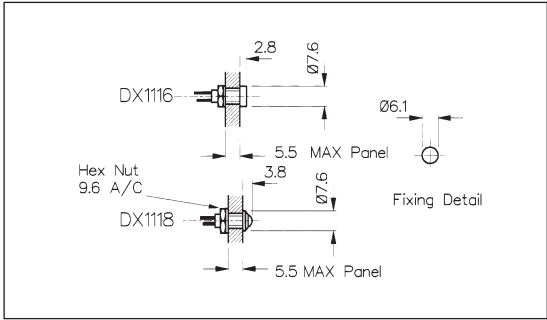
Specification	DX1090, DX1092/Colour/Options	DX1091, DX1093/Colour/Options
Materials:	Aluminium - Black	Aluminium - Clear
Style:	Recessed (DX1090) Prominent (DX1092)	Recessed (DX1091) Prominent (DX1093)
Operating Temp. Range:	Dependent on LED used	Dependent on LED used
Storage Temperature:	Dependent on LED used	Dependent on LED used
Sealing (Front of panel):	Protection Classification IP66 to BS EN60529: 1992	Protection Classification IP66 to BS EN60529: 1992
Tightening Torque:	0.056Nm (8ozf.in.) min	0.056Nm (8ozf.in.) min
Lead Solder Time:	260°C for 5 seconds max.	260°C for 5 seconds max.
LED Colours:	/RD (Red), /GN (Green), /YL (Yellow), /BL (Blue), /TR (Tri Colour), /D1 (Dual Colour - Red/Green), /D2 (Dual Colour - Red/Amber), /D3 (Dual Colour - Green/Amber)	/RD (Red), /GN (Green), /YL (Yellow), /BL (Blue), /TR (Tri Colour), /D1 (Dual Colour - Red/Green), /D2 (Dual Colour - Red/Amber), /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 See Page 171 for LED options and specifications	0.312" x 32TPI
RoHS	Compliant	Compliant

4mm LED Indicators

CHROME PLATED BRASS BEZEL



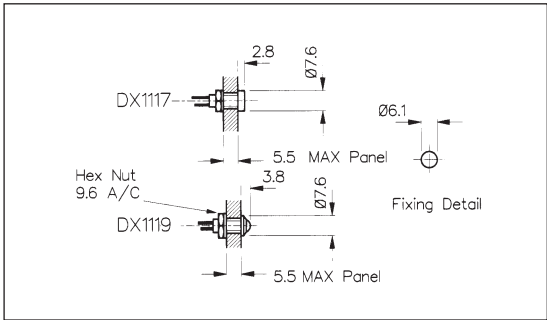
- Chrome Plated Brass Bezel
- Prominent or Recessed Style
- Choice of LED Types and Colours



BLACK NICKEL PLATED BRASS BEZEL



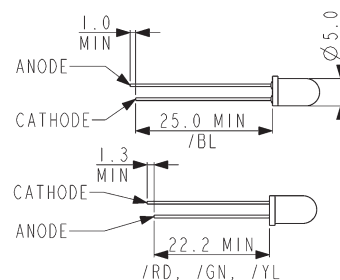
- Aluminium, Black Anodised Bezel
- Prominent or Recessed Style
- Choice of LED Types and Colours



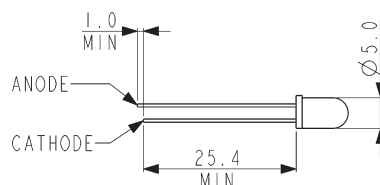
Specification	DX1116, DX1118/Colour	DX1117, DX1119/Colour	
Bezel Materials:	Brass, Chrome Plated	Aluminium, Black Anodised	
Style:	Recessed (DX1116) Prominent (DX1118)	Recessed (DX1117) Prominent (DX1119)	
Operating Temp. Range:	Dependent on LED used	Dependent on LED used	
Storage Temperature:	Dependent 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), /BL (Blue)	/RD (Red), /GN (Green), /YL (Yellow), /BL (Blue)	
RoHS	Compliant	Compliant	
	See Page 172 for LED specifications		

5mm LED options
5mm LEDs STANDARD

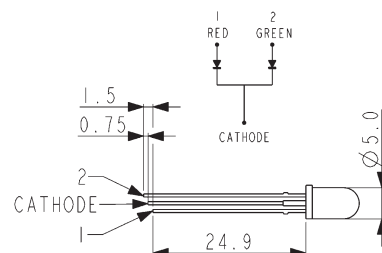
Specification	Red	Green	Yellow	Blue
Luminous Intensity @20mA:	25mcd	20mcd	20mcd	21mcd
Forward voltage:	2.0V	2.0V	2.1V	3.5V
Cont. Forward Current (max):	30mA	25mA	30mA	30mA
Power Dissipation:	105mW (max) @20°C Ambient			120mW
Reverse Current:	10µA	10µA	10µA	50µA
Reverse Voltage:	5V (max)	5V (max)	5V (max)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


5mm LEDs FLASHING

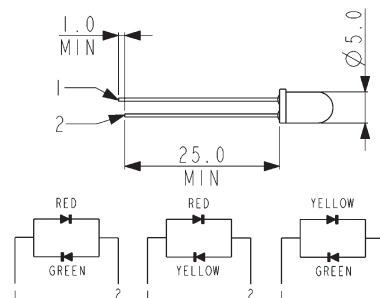
Specification	Red	Green
Luminous Intensity @20mA:	1.2mcd	1.2mcd
Forward voltage:	2.0-15.0V	2.0-15.0V
Cont. Forward Current:	10-30mA	10-30mA
Power Dissipation:	200mW (max) @ 20°C ambient	
Flash Frequency @ 3V supply:	2.2Hz (typ)	
Operating Temp:	0°C to +70°C	
Part No:	/RD/02	/GN/02


5mm LEDs TRI COLOUR

Specification	Red/Green/Amber
Luminous Intensity @10mA:	2.5mcd
Forward voltage:	2.4V
Cont. Forward Current:	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

Specification	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



4mm LEDs STANDARD

Technical drawing of a cathodic protection system for a steel structure. The drawing shows a cross-section of a steel member with an anode and a cathode. The anode is a vertical rod with a diameter of 1.0 MIN. The cathode is a horizontal rod with a diameter of 12.5 MIN. The distance between the anode and the cathode is 4.0. The drawing is labeled 'ANODE' and 'CATHODE'.

PART NO BREAKDOWN

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