

Indicators

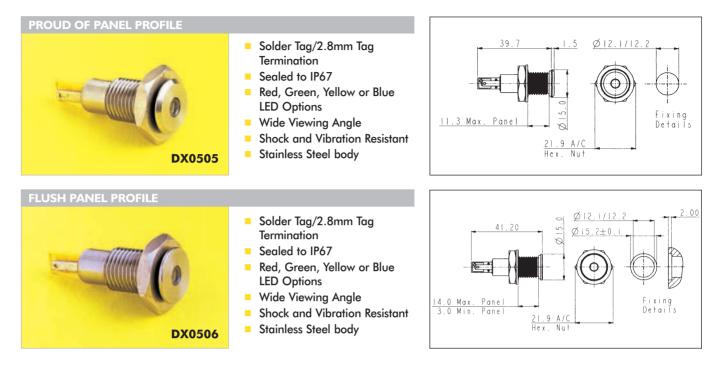
This range of panel mounting LED indicators consists of many different bezel styles, types of LED's and colours. The range has developed to meet the many different needs of panel design including IP67 environmentally sealed versions for use where a front panel seal is needed.

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.

age
166
167
168
168
169
170

Vandal Resistant LED Indicators





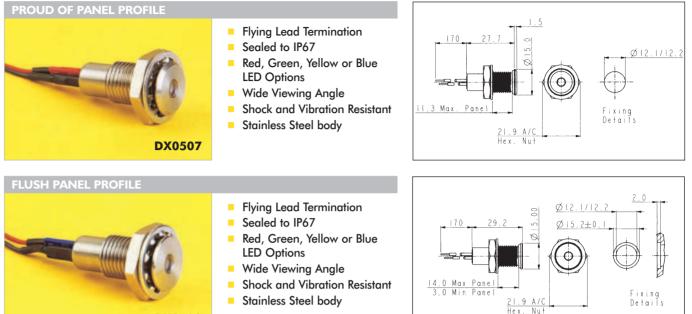
Specification	DX0505/Col/Voltage	DX0506/Col/Voltage	
Terminations:	Solder Tab/2.8mm Tab	Solder Tab/2.8mm Tab	
Forward Voltage:	Red 1.85V, Green 2.2V, Yellow 2.0V, Blue 3.8V	Red 1.85V, Green 2.2V, Yellow 2.0V, Blue 3.8V	
Cont. Forward Current: (max)	Red 30mA, Green 25mA, Yellow 30mA, Blue 25mA	Red 30mA, 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: Lens: O Ring (external): (internal):	Stainless Steel Polycarbonate UL94V-0 Nitrile Silicon	Stainless Steel Polycarbonate UL94V-0 Nitrile 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	

166

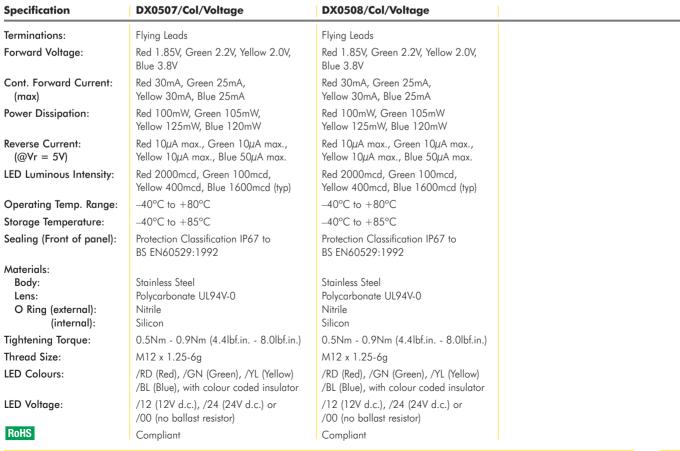


INDICATORS

Vandal Resistant LED Indicators



DX0508



INDICATORS

5mm LED Indicators



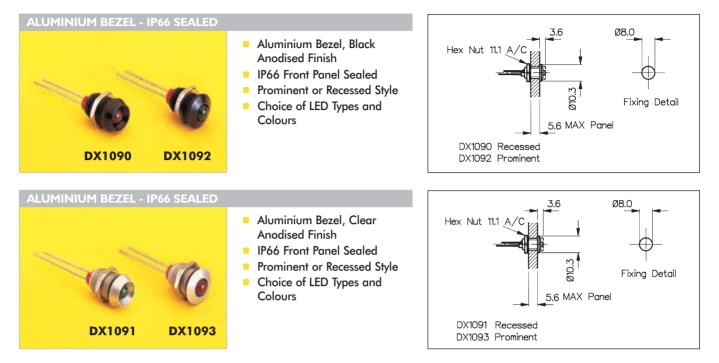


Specification	DX0998, DX0999/Colour/Options	DX1120, DX1121/Colour/Options
Bezel Material:	Brass, Chrome Plated	Glass filled Nylon
Style:	Recessed (DX0998) Prominent (DX0999)	Recessed (DX1120) Prominent (DX1121)
Operating Temp. Range:	Dependent on LED used	Dependent on LED used
Storage Temperature:	Dependent 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 specific	cations
RoHS	Compliant	Compliant



INDICATORS

5mm LED Indicators



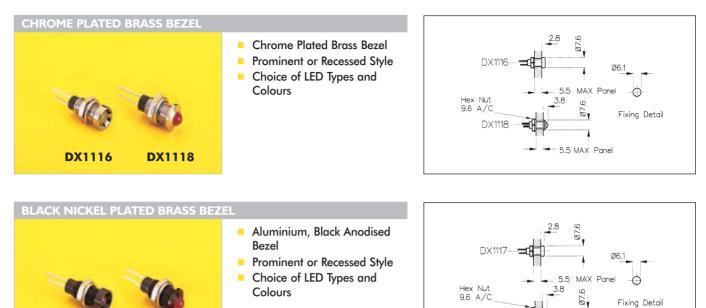
Specification	DX1090, DX1092/Colour/Options	DX1091, DX1093/Colour/Options
Materials:	Aluminium - Black	Aluminium - Clear
Style:	Recessed (DX1090) Prominent (DX1092)	Recessed (DX1091) Prominent (DX1093)
Operating Temp. Range:	Dependent on LED used	Dependent on LED used
Storage Temperature:	Dependent on 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	0.312" x 32TPI
	See Page 171 for LED options and specific	cations
RoHS	Compliant	Compliant

4mm LED Indicators

DX1117

DX1119





DX1119

1

- 5.5 MAX Panel

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	

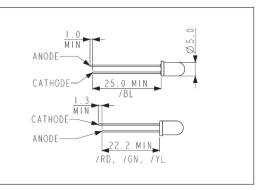
BBULGIN

INDICATORS

5mm LED options

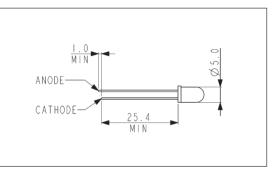
5mm LEDs STANDARD

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	

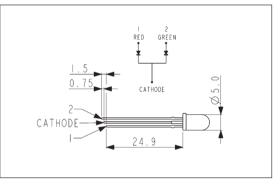


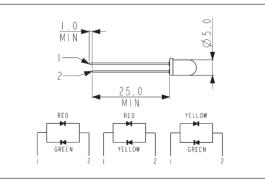
5mm LEDs TRI COLOUR

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	

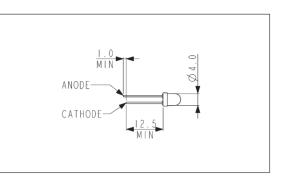




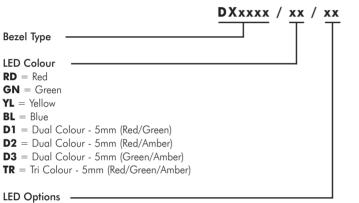
BBULGIN

4mm LED options

4mm LEDs STANDARD				
Specification	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)			
Part No:	/RD	/GN	/YL	/BL



PART NO BREAKDOWN



Blank = Standard

02 = Flashing - 5mm (Red or Green only)

Example:

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