

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
 318-319

 LED Bezel
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 Indicator Lights
 325-331

 Low Voltage Lampholders
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 LED Lampholders
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 Indicator Lights IP67
 336-337







### Vandal Resistant LED Indicators

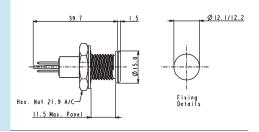


Proud of Panel Profile



DX0505

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



Flush Panel Profile

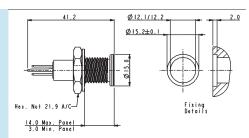


DX0506

/00 (no ballast resistor)

Compliant

- Solder Tag/2.8mm Tag Termination
- Sealed to IP67
- Red, Green, Yellow or Blue **LED Options**
- Wide Viewing Angle
- Shock and Vibration Resistant 0
- Stainless Steel body



Specifications	DX0505/Col/Voltage	DX0506/Col/Voltage
Terminations: Forward Voltage: Cont. Forward Current: (max)	Solder Tab/2.8mm Tab Red 1.85V, Green 2.2V, Yellow 2.0V, Blue 3.8V Red 30mA, Green 25mA, Yellow 30mA, Blue 25mA	Solder Tab/2.8mm Tab Red 1.85V, Green 2.2V, Yellow 2.0V, Blue 3.8V 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: Lens: O Ring (external): (internal):	Stainless Steel Polycarbonate UL94V-0 Nitrile Silicone	Stainless Steel Polycarbonate UL94V-0 Nitrile 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 d.c.), /24 (24V d.c.) or	/12 (12V d.c.), /24 (24V d.c.) or

/00 (no ballast resistor)

Compliant

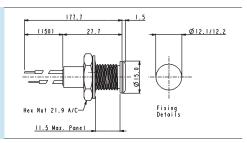
### Vandal Resistant LED Indicators



Proud of Panel Profile



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



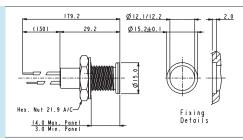
DX0507



Flush Panel Profile

Flying Lead Termination

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



DX0508

Specifications	DX0507/Col/Voltage	DX0508/Col/Voltage
Terminations: Forward Voltage: Cont. Forward Current: (max)	Flying Leads Red 1.85V, Green 2.2V, Yellow 2.0V, Blue 3.8V Red 30mA, Green 25mA, Yellow 30mA, Blue 25mA	Flying Leads Red 1.85V, Green 2.2V, Yellow 2.0V, Blue 3.8V 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: Lens: O Ring (external): (internal):	Stainless Steel Polycarbonate UL94V-0 Nitrile Silicone	Stainless Steel Polycarbonate UL94V-0 Nitrile 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 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



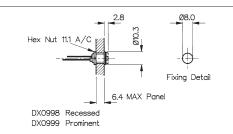




DX0998

DX0999

- O Chrome Plated Brass Bezel
- Prominent or Recessed StyleChoice of LED Types and Colours



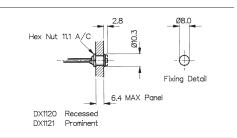
Nylon Bezel



DX1120

DX1121

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



Specifications	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
RoHS	Compliant	Compliant

See Page 212 for LED options and specifications\*

#### Indicators

### 5mm LED Indicators



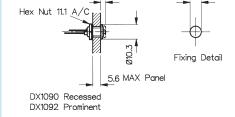




DX1090

DX1092

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



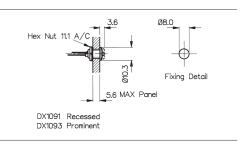
Aluminium Bezel - IP66 Sealed



DX1091

DX1093

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



Specifications	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 EN60529:1992+A2:2013	Protection Classification IP66 to EN60529:1992+A2:2013
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)
Thread Size:	0.312" x 32TPI	0.312" x 32TPI
RoHS	Compliant	Compliant

See Page 212 for LED options and specifications

### 4mm LED Indicators

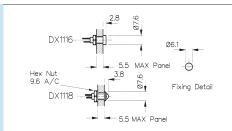


Chrome Plated Brass Bezel



DX1116 DX1118

- O Chrome Plated Brass Bezel
- Prominent or Recessed StyleChoice of LED Types and Colours



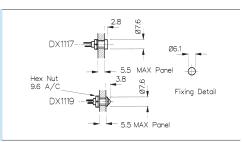
Black Nickel Pated Brass Bezel



Aluminium, Black Anodised

Prominent or Recessed Style Choice of LED Types and

Colours



DX1117 DX1119

Specifications	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 213 for LED specifications\*

# Indicators 5mm LED options



### 5mm LEDs STANDARD

Specification	Red	Green	Yellow	Blue	
Luminous Intensity @20mA: Forward voltage: Cont. Forward Current (max):	25mcd 2.0V 30mA	20mcd 2.0V 25mA	20mcd 2.1V 30mA	21mcd 3.5V 30mA	ANODE 25.0 MIN
Power Dissipation:	105mW (	max) @20°C A	mbient	120mW	CATHODE // BL
Reverse Current: Reverse Voltage:	10μA 5V (max)	10μA 5V (max)	10μA 5V (max)	50μA 5V (max)	ANODE 22.2 MIN /RD, /GN, /YL
Operating Temp:		10°C to +85°C		-20°C to +80°C	
Part No:	/RD	/GN	/YL	/BL	

### 5mm LEDs FLASHING

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

### 5mm LEDs TRI COLOUR

	_	
Specification	Red/Green/Amber	
Luminous Intensity @20mA: Forward voltage: Cont. Forward Current (max): Power Dissipation: Reverse Current: Reverse Voltage: Operating Temp: Part No:	2.5mcd 2.4V 30mA (max) 150mW (max) @ 20°C Ambient 100µA 5V (max) -40°C to +70°C /TR	CATHODE 24.9

### 5mm LEDs DUAL COLOUR

Specifications	Red/Green	Red/Amber	Green/Amber	
Luminous Intensity:	4.5/5mcd 2.2V	4.5/4mcd 2.2V	4/5mcd 2.2V	1.0 MIN 9
Forward voltage: Cont. Forward Current:	2.2V 30mA/30mA	2.2 v 30mA/20mA	2.2V 30mA/20mA	MIN S
Power Dissipation:	100mW/100mW	100mW/60mW	100mW/60mW	2
Reverse Current:	100mA	100mA	100mA	25.0
Reverse Voltage: Operating Temp:	5V (max)	5V (max) -40°C to +85°C	5V (max)	RED RELOW
Part No:	/D1	/D2	/D3	GREEN

# Indicators 4mm LED Options



### 4mm LEDs Standard

Specifications	Red	Green	Yellow	Blue	
Luminous Intensity @10mA:	2.5mcd	2.5mcd	2.5mcd	50mcd	1.0
Forward voltage:	2.0V	2.1V	2.0V	3.8V	MIN
Cont. Forward Current (max):	30mA	30mA	20mA	30mA	ANODE
Power Dissipation (max) @ 20°C Ambient:	100mW	100mW	85mW	120mW	ANODE
Reverse Current:	10μΑ	10μΑ	10μΑ	50μΑ	CATHODE
Reverse Voltage:	5V (max)	5V (max)	5V (max)	5V (max)	12.5
Part No:	/RD	/GN	/YL	/BL	MINT

### Part No Breakdown

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

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



### **Key Features**

### **Colours and voltages:**

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

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



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



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



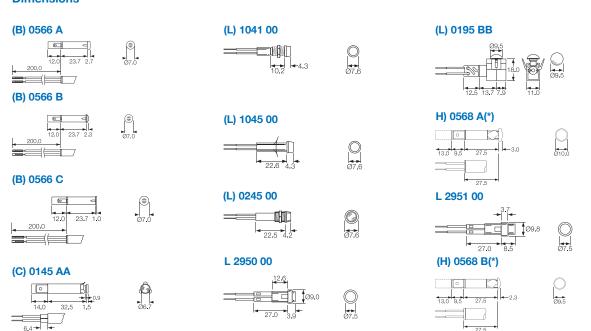
Available with Red, Amber, Green, Clear or Blue lenses 6V, 12/14V, 24/28V.

Terminal	Туре	Sealed	Illumination	Colour	Voltage	Options
B 2.8	(B) 0566 A	6.0 2.0 max p. 340	N -⊕- L <del>∛</del> M <del>≬</del>	Neon & Filament  R Red	1 LED No Resistor	C Chrome Bezel Finish
B 2.8  > L  =	(B) 0566 B	6.0 2.0 max	N -⊕- L <del>≬</del> M <del>≬</del>	A Amber G Green	125V Neon  3 250V Neon	
B 2.8 🗀 L 📴	(B) 0566 C	6.0 2.0max	N -⊕- L <del>∛</del> M <del>∛</del>	B Blue (Special Order)	4 6Vdc LED  5 12Vdc LED	
<b>C</b> 6.3	(C) 0145 AA	5.8  **  3.0max	N	Clear	6 24Vdc LED	
L E	(L) 1041 00	6.3 6.3 6.3max	F -⊗- N -⊕- L <del>∛</del>	Red	7 12/14V Filament 8 24/ 28V Filament	
L E	(L) 1045 00	p. 340	F -⊗- N -⊕-	Yellow  G Green	<b>9</b> 125/250Vac LED	
w 🗅		10.0max p. 340	L <del>Ñ</del> M <del>Ñ</del> F -⊗-	<b>B</b> Blue		



Terminal	Туре	Sealed	Illumination	Colour	Voltage	Options
L E	(L) 0245 00	7.1 6.3 max p. 340	N -{}- L <del>  </del> M <del>  </del> F -⊗-	Neon & Filament  R Red	1 LED No Resistor	C Chrome Bezel Finish
L E	L 2950 00	8.0 0.8-1.6 p. 340	N -⊕- L <del>∯</del> M <del>∯</del> F -⊗-	A Amber G Green	125V Neon 3 250V Neon	
L = C 6.3	(L) 0195 BB	8.0 0.8-3.0 p. 340	N -{}- F -⊗-	B Blue (Special Order)	4 6Vdc LED  5 12Vdc LED	
L E	L 2951 00	8.0 0.8-1.6	N -⊕- L <del>-∯-</del> M <del>-∯-</del>	Clear	6 24Vdc LED	
L	H) 0568 A(*)	p. 340  8.0  0.8-3.5	F -⊗- N -⊕- L <del>  </del> F -⊗-	R Red	12/14V Filament <b>8</b> 24/ 28V Filament	
L	(H) 0568 B(*)	p. 340  p. 340  8.0  0.8-3.5	N -⊕- L <del>-</del> ∯-	Yellow G Green	<b>9</b> 125/250Vac LED	
		p. 340	F -⊗-	Blue		

### **Dimensions**





### **Key Features**

#### ○ Neon, LED, mains LED or filament lamp

- O 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:**



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



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

#### **AC MAINS LED FILAMENT**



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



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

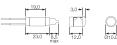
Terminal	Туре	Illumination	Colour	Voltage	Options	Panel	Approval
L	(C) 0273 00	N -⊕- L <del>∰</del>	Neon & Filament	1 LED No Resistor	C Chrome Bezel Finish	9.0	<b>71</b> Kātā <b>6</b>
H 4.8 C 6.3		M <del>∯</del> F -⊗-	Red	<b>2</b> 125V Neon	Dezei Fillisti	Call sales	Keda
L	(C) 0278 00	N -⊕- L <del>*</del>	Amber <b>G</b>	<b>3</b> 250V Neon		9.0 2.0 max	
C 6.3		M <del>∯</del> F -⊗-	Green	4		p. 340	Kādā
L	(C) 0276 AA	N -⊕- L <del>⊕</del>	Blue (Special Order)	6Vdc LED		9.0 • 2.0 max	REVA Keva
<b>C</b> 6.3		M <del>∯</del> F -⊗-	Clear	12Vdc LED		p. 340	Kena Kena
L	(C) 0275 00	N -⊕- L <del>∯</del> M <del>∯</del>		24Vdc LED		9.5 0.8-2.8	FAL KEDA SD Keda Keda SD
C 6.3		F -⊗-	R	12/14V Filament		p. 340	Kēdā <b>G</b>
K 2.8 H 4.8 C 6.3	(C) 0275 00	N -⊕- L ∰- M ∰-	Red Y Yellow	8 24/ 28V Filament		10.0 12.0 p. 340	Kātā S
C 6.3		F -⊗-	<b>G</b> Green	125/250Vac LED		Ø 10.0	
			<b>B</b> Blue			11.5 max p. 340	



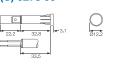
Terminal	Туре	Illumination	Colour	Voltage	Options	Panel	Approva
L	(C) 0276 00	N⊕- L + <del>∳</del> M + <del>∳</del> F⊗-	Neon & Filament  R Red	1 LED No Resistor 2 125V Neon	C Chrome Bezel Finish	2.8 max p. 340	71 KESS <b>3</b> 8 KESS <b>3</b> 8 KESS <b>3</b> 8
L	(C) 0277 00	N -⊕- L <del>∛</del> M <del>∜</del> F -⊗-	Amber  G Green	3 250V Neon		10.0 12 max p. 340	KEDA KEDA
L 2.8 P H 4.8 C 6.3	(C) 0273 LL	N - ⊕- L ∯ M ∯ F -⊗-	Blue (Special Order)  C Clear	6Vdc LED  5 12Vdc LED		10.0 10.0 0.6-2.0 p. 340	KEDA SE
L	(C) 2820 00	N -⊕- L <del>∯</del> M <del>∯</del> F -⊗-	LED R	6 24Vdc LED 7 12/14V Filament		12.0	SAN KEDA SE Keda Keda Keda
L	(C) 2821 00	N - ⊕- L +∳- M +∳- F -⊗-	Red Y Yellow G	8 24/ 28V Filament 9 125/250Vac LED		12.00r12.  o12.0  o12.0  o12.0  o12.0  o12.0  o12.7  o12.7	7 <b>91</b> KEU1 <b>3</b> KEU1 <b>3</b> KEU1 <b>3</b> KEU1
L	(C) 0586 00	N - ⊕- L + ∯ M + ∯ F - ⊗-	Green  B  Blue			12.5 12.5 0.8-1.5 p. 340	71 KESS © KESS © KESS

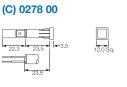
### **Dimensions**

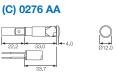
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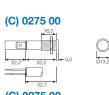


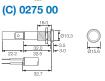


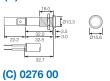






























(C) 2821 00









## **Indicator Lights**

Neon, LED and Filament Lamp



### **Key Features**

- Neon, LED, mains LED or filament lamp
- O 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)



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

### AC MAINS LED FILAMENT



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



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

Terminal	Туре	Illumination	Colour	Voltage	Options	Panel	Approval
L	(C) 2870 00	N <del>-</del> ⊕- L <del>∜</del> M <del>∜</del> F -⊗-	Neon & Filament  R  Red	1 LED No Resistor 2 125V Neon	C Chrome Bezel Finish	12.7 24 0.75-2.0 P. 340	KESA KESA
L	C) 0589 00	N()- L + <del>  </del> M + <del>  </del> F -⊗-	A Amber G Green	3 250V Neon		12.7 0.8-1.5 p. 340	KEGA  KEGA
LE	L 0081 00	N()- L <del>-{ - </del> M - <del> - </del> F -⊗-	Blue (Special Order)  C Clear	6Vdc LED  5 12Vdc LED		12.7 9.5 p. 340	NA RECA SE
L	(C) 0177 00	N <del>- ()-</del> L <del>∛</del> M <del>∜</del> F -⊗-	LED	<b>6</b> 24Vdc LED <b>7</b> 12/14V Filament		12.7  12.0max p. 340	NA REEA ST REEA ST REEA ST
L	(C) 0067 00	N <del>-</del>	Red Y Yellow	8 24/ 28V Filament		12.7  1.14 max  p. 340	KEGA KEGA
L	(C) 0180AA	N()- L <del>†</del> F -⊗-	G Green B Blue	125/250Vac LED		12.7 24 19.0 max p. 340	KEGA



Terminal	Туре	Illumination	Colour	Voltage	Options	Panel	Approval
L	(C) 0180BB  (C) 0579 00  (C) 1092	N → L ♣ F -⊗- N → L ♣ M ♣ F -⊗-	Red A Amber G Green B Blue (Special Order)	1 LED No Resistor 2 125V Neon 3 250V Neon 4 6Vdc LED 5	C Chrome Bezel Finish	13.5  13.5  0.9-1.14  p. 340  14.0  2.5 max  p. 340  19.0  4.0max	KEEL SE
			Clear  LED  Red  Y  Yellow  G  Green  B  Blue	12Vdc LED  6 24Vdc LED  7 12/14V Filament  8 24/ 28V Filament  9 125/250Vac LED		<b>b</b> p. 340	

### **Dimensions**

### (C) 2870 00



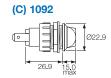












### C) 0589 00





### (C) 0067 00



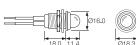


### (C) 0180AA





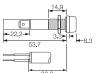
### L 0081 00







### (C) 0177 00





### (C) 0180BB





### (C) 0579 00







### **Key Features**

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

### **Colours and voltages:**



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



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	Туре	Illumination	Colour	Voltage	Options	Panel	Approval
L E	L 0234 00	N -⊕-	Neon & Filament  R Red	1 LED No Resistor 2 125V Neon	C Chrome Bezel Finish	18.2/18.3 × 6.2/6.3* 2.0-3.5 P. 340	FI RESA (SE
L L	L 0233 00	N -⊕-	A Amber  G Green  B Blue (Special Order)  C Clear  LED  R Red  Y Yellow  G Green  B Blue	3 250V Neon  4 6Vdc LED  5 12Vdc LED  6 24Vdc LED  7 12/14V Filament  8 24/ 28V Filament  9 125/250Vac LED		9.27/9.50 4.75. 0.71-1.62 p. 340 p. 340	TALL SEED

### **Dimensions**

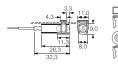
### H 0581 AY



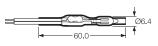




### L 0234 00



### L 0233 00



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

## Low Voltage Lampholders



### **Key Features**

### **Colours and voltages:**

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

These lampholders are suitable for up to 50V max. Bulbs will be supplied (dependent on order quantity) if a voltage is specified.

Colours - Red, Amber, Green, (Clear & Blue, check availability).

Terminal	Туре	Sealed	Illumination	Colour	Voltage	Options	Panel
T þ	T0061 00 (LES)	<b>S</b> Sealed	<b>N</b> Neon	Neon & Filament  R Red	1 LED No Resistor	C Chrome Bezel Finish	9.5 0.9-1.14 T85
c 🗀	(C) 0067 00		DC LED	A Amber G	125V Neon 3 250V Neon		12.7 1.14max
T 6.3	(T) 0062 A0		Mains AC LED	Blue (Special Order)	4 6Vdc LED		12.7  19.6max
T 🍃	(C) 0062 M0		<b>F</b> Mains AC LED	C Clear LED	12Vdc LED  6 24Vdc LED		T85
				R Red Y	<b>7</b> 12/14V Filament		9.6max T85
S OFF	(S) 0095 00			Yellow <b>G</b> Green	8 24/ 28V Filament 9		0
				<b>B</b> Blue	125/250Vac LED		T85

### T0061 00 (LES)









### (T) 0062 A0





### (C) 0067 00





### (C) 0062 M0





### (S) 0095 00







## Large Low Voltage Lampholders









P1090FL - - -

### **Key Features**

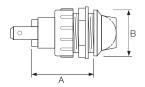
- O Up to 50V
- MES or MBC bulb
- C Flat and domed lens
- Brass or nylon bodies
- Red, Amber, Green, Blue and Clear lenses

### **Approvals and specifications**

Bulbs will be supplied (dependant on order quantity) if a voltage is specified. 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	Туре	Colour	Bulb Voltage	Options	Panel	Lens
C 9.1 6.3 x 0.8	1090 MES (E10) 1091 MBC (BA9s) (C and S Terminals	R Red Y Yellow G Green B Blue C Clear	6 6V 12 12V 24 24V Max of 50V	C Chrome Bezel Finish	Panel Hole   Body   Dim   A   B	F Flat V MES (E10)
Solder  Solder  Solder  Solder	only)				Panel Hole	L No lens

## LED Lamps and LED Lampholders LED Lampholders can be supplied with or without LEDs



### **Key Features**

### **Colours and voltages:**

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

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	Туре	Body Colour	LED Colour	Voltage	Panel Cutout	Approval	Dimensions
W LED fitted  A LED not fitted  J J  L LED & Wires fitted	(W) 1048 00	B Black – Blank	R Red Y Red	1 LED No Resistor 4 6Vdc LED	6.3 6.3max T105		1.5 07.6 07.6
W LED fitted  A LED not fitted  TT  L LED & Wires fitted	(L) 1048 0A		G Green B Blue	5 12Vdc LED 6 24Vdc LED	8.0 5.5max T105		2.0 09.5
W LED fitted  A LED not fitted  TT  L LED & Wires fitted	(W) 1050 0A				8.0 7.0max	KEWA	12.4 2.9 010.0
W LED fitted TT  L LED & Wires fitted	(L) 1035 0A				4.5 0.9-1.6 T105	KEMA	4.30 V 1.50 S.08
W LED fitted  TT  L LED & Wires fitted	(L) 1036 0A				6.0 0.9-1.6	KEMA	5.85 V 20.0 1.0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
W LED fitted  TT  L LED & Wires fitted	(L) 1037 0A				6.35 0.9-1.6 T105	KEMA	6,15 V 20.0 P 1.0

## LED Lamps and LED Lampholders - Sealed to IP67



### Key Features Colours and voltages:

O IP67 front bezel sealing

Colours:

LED lampholders

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

Supplied with or without

LEDs

Voltages:

Black or Chrome finish

LEDs are available for direct connection to

2.0/2.2V or 12Vdc.

For other voltages contact sales.

Terminal	Туре	LED Colour	Voltage	Panel	Approval	Dimensions
L LED & Wires fitted	(L) 1048 00	В	6	8.0 5.5max	Kena	(L) 1048 00
11		Blue	24Vdc LED	T105		+2.0 •9.5
W LED fitted	(W) 1050 00			8.0 7.0max	KEMA	(W) 1050 00
A LED not fitted				7.0max		13.4 +2.9 0 10.0
L LED & Wires fitted	(W) 1050 00			8.0	KEMA	(W) 1050 00
ΨΨ				7.0max T105		13.4 2.9 010.0

### 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.

## Indicator Lights - Sealed to IP67



### **Key Features**

- O 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
- O Red, yellow, green, blue and white LEDs
- O Wide choice of styles

### **Colours and voltages:**



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.

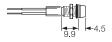
#### **FILAMENT**



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

Terminal	Туре	Sealed	Illumination	Colour	Voltage	Option	Panel Cutout	Approval
L E	(L) 1041 OS	S Sealed	N -⊕- L <del>∜</del> M <del>∜</del> F -⊗-	R Red A Amber	1 LED No Resistor 2 125V Neon	C Chrome Bezel Finish	6.3 5.3max	KEUA
L E	(L) 0245 OS		N -⊕- L <del>*</del> M * <del>}</del> F -⊗-	G Green B Blue	<b>3</b> 250V Neon		7.1 4.6max	KEUA
L C 6.3 P K 2.8 P H 4.8 P	(C) 0275 OS		N -	(Special)  C Clear	4 6Vdc LED  5 12Vdc LED		10.0 11.15max	KEUA
L C 6.3 K 2.8 D H 4.8	(C) 0277 OS		N -⊕- L <del>*</del> M <del>*</del> F -⊗-	R Red	<b>6</b> 24Vdc LED		10.0 11.15max	KEUR
L 6.3 C 4.8	(C) 0177 OS		N -⊕- L <del>*</del> M <del>*</del> F -⊗-	Y Yellow G Green	7 12/14V Filament 8 24/ 28V Filament		12.7 11.15max	KEUA
<b>L</b> 6.3	(C) 1092 FFS		N -Q-	B Blue W White	<b>9</b> 125/250Vac LED		19.0 4.0 max	KEUA

### (L) 1041 OS







### (L) 0245 OS





### (C) 0275 OS





### (C) 0277 OS





### (C) 0177 OS





### (C) 1092 FFS





## Low Voltage Lamp Holders - Sealed to IP67



### **Key Features**

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

### **Colours and voltages:**

These lampholders are suitable for up to 50V max. Bulbs will be supplied (dependent on order quantity) if a voltage is specified.

Colours - Red, Amber, Green, (Clear & Blue, check availability).

Terminal	Туре	Sealed	Colour	Bulb Voltage	Options	Panel	Approvals	Dimensions	
C 6.3	C1090 FPS (MES)	<b>S</b> Sealed	R Red A Amber	6 6V <b>12</b> 12V	C Chrome Bezel Finish	19.0 4.0max	KENA	30.2 12.5 max	
<b>C</b> 6.3	C1091 FQS (MBC)		G Green B Blue (Special)	<b>24</b> 24V		7.1 4.6max	KEUR	35.0 12.5 max	
T	T0062 AOS (Midget flange) Chrome bezel T0063 AOS (LES) Chrome bezel		C Clear			10.0 11.15max	Keur	21.3 9.1	14.7
T Þ	T0062 MOS (LES & Midget flange) T0063 MOS (LES)					10.0 11.15max	KEMA	21.3 9.5	14.7

## **F0445 MO**P.V.C. Insulating terminal cover. For use with C1090 & C1091



### Technical Information - Indicators



The majority of Arcolectric indicator lights can be supplied with alternative light sources:

Neon, Fluorescent, Filament lamp or LED

### NEON and FLUORESCENT LAMPS Colours

Available with Red, Amber, Green, Blue or Clear lenses.

### Maximum striking voltages

Standard brightness types 65Vac 90Vdc. High brightness types 85Vac 135Vdc. High brightness types are usually fitted.

### Life

Typically 25,000 hours (Green fluorescent lamps 20,000 hours). (Measured to a point when the light output of the lamp is half its original level.) The end of life for a neon lamp is not usually a sudden failure.

### False signals due to long wiring

It is possible for neon or fluorescent tubes to glow when they should be off. Thefalse signal is caused by the capacitance effect of fairly long wiring to the indicator being adjacent to other live cables. This effect can be prevented in most cases by fitting a 100k resistor across the supply wires close to the indicator assembly.

#### **MATERIALS**

Moulded bodies and bases . . . . . . . . . Nylon 6.6

Threaded metal nuts . . . . . . . . . . . . . . . . Brass (nickel plated on 0275/7)

\*\* # 3130, 3160, 3161, 3221 have nickel plated terminals with steel screws and plated polyamide bezel trims

### FILAMENT LAMPS Colours

Available with Red, Amber, Green, Clear or Blue lenses

#### LEDs - DC Colours

Red, Yellow, Green, Blue and White.

### Voltage

Basic voltage 2.0/2.2V. Some items are available with integral resistors for 12V use. For details of resistors required for higher voltages, please call sales.

Maximum continuous forward current 20mA

#### Life

>100,000hrs

### LEDs - AC Colours

Red, Yellow, Green, Blue and White.

#### Voltage

Rated up to 230V ac, suitable for use at 110V and 230V ac.

#### Current

<3mA

### Life

>100,000hrs

#### TEMPERATURE RATING

Authority	with Terminals	with Wire leads	
		PVC	SILICONE
European	T125°C	T105°C	T125°C
UL	T65/75°C	T65/75°C	

### **SYMBOLS**

**Terminals** C 6.3, H 4.8, K 2.8

Wire leads Wire leaus 200mm long Standard Solid wires

Panel hole size Panel thickness

