### 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.

426 Vandal Resistant LED Indicators 5mm LED Indicators 428 433 Indicator Lights Low Voltage Lampholders 440 LED Lamps and LED Lampholders 442 Indicator Lights - Sealed to IP67 443







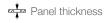
#### **SYMBOLS**













### Vandal Resistant LED Indicators

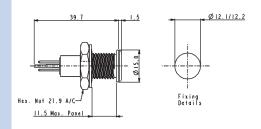


Proud of Panel Profile



DX0505

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

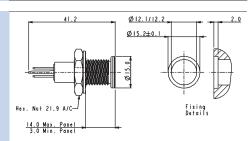


Flush Panel Profile



DX0506

- Solder Tag/2.8mm Tag Termination
- Sealed to IP67
- Red, Green, Yellow or Blue **LED Options**
- Wide Viewing Angle Shock and Vibration Resistant 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 DC), /24 (24V DC) or /00 (no ballast resistor)	/12 (12V DC), /24 (24V DC) or /00 (no ballast resistor)

Compliant

Compliant

### Vandal Resistant LED Indicators

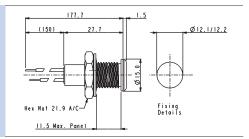


Proud of Panel Profile



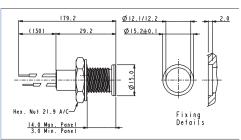
Flush Panel Profile

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





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



DX0508

DX0507

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 DC), /24 (24V DC) or /00 (no ballast resistor)	/12 (12V DC), /24 (24V DC) or /00 (no ballast resistor)
RoHS	Compliant	Compliant

## 5mm LED Indicators

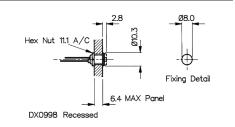


Chrome Plated Brass Bezel



DX0998

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



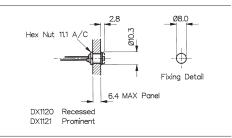
Nylon Bezel



DX1120

DX1121

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



Specifications	DX0998 Colour/Options	DX1120, DX1121/Colour/Options
Bezel Material:	Brass, Chrome Plated	Glass Filled Nylon
Style:	Recessed (DX0998)	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



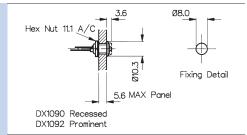
Aluminium Bezel - IP66 Sealed



DX1090

DX1092

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



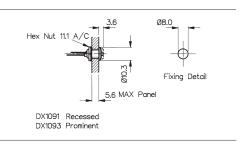
Aluminium Bezel - IP66 Sealed



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:	0.056 - 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), /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

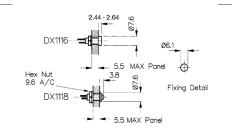


Chrome Plated Brass Bezel



DX1116 DX1118

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



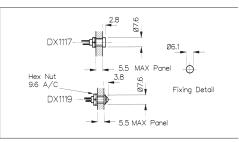
Black Nickel Pated Brass Bezel



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\*

## 5mm LED options



#### **5mm LEDs STANDARD**

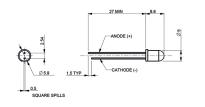
Specification	Red	Green	Yellow	Blue
Luminous Intensity @20mA: Forward voltage: Cont. Forward Current (max):	25mcd 2.0V 30mA	20mcd 2.0V 25mA	20mcd 2.1V 30mA	21mcd 3.5V 30mA
Power Dissipation:	105mW (	max) @20°C A	mbient	120mW
Reverse Current: Reverse Voltage:	10μA 5V (max)	10μA 5V (max)	10μA 5V (max)	50μA 5V (max)
Operating Temp:		10°C to +85°C		–20°C to +80°C

/GN

/YL

/BL

/RD



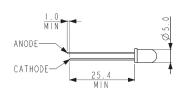
#### 5mm LEDs FLASHING

Part No:

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



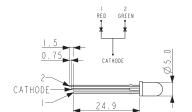
#### 5mm LEDs TRI COLOUR

#### 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:  $100\mu A$ Reverse Voltage: 5V (max)Operating Temp:  $-40^{\circ}\text{C}$  to  $+70^{\circ}\text{C}$ 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	WIN T
Cont. Forward Current:	30mA/30mA	30mA/20mA	30mA/20mA	
Power Dissipation:	100mW/100mW	100mW/60mW	100mW/60mW	2
Reverse Current:	100mA	100mA	100mA	25.0
Reverse Voltage:	5V (max)	5V (max)	5V (max)	MIN
Operating Temp:	- ( )	-40°C to +85°C	- ( )	RED RED YELLOW
Part No:	/D1	/D2	/D3	GREEN YELLOW GREEN

# 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	<u>₩, №</u>
Cont. Forward Current (max):	30mA	30mA	20mA	30mA	ANODE 8
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	MIN

#### Part No Breakdown

DXxxxx	/ <b>xx</b> /	/ xx	
Bezel Type	LED Colour  RD = Red  GN = Green  YL = Yellow  BL = Blue  D1 = Dual Colour - 5mm (Red/  Green)  D2 = Dual Colour - 5mm (Red/  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

## **Indicator Lights**

Neon, LED and Filament Lamp



#### **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
- 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.



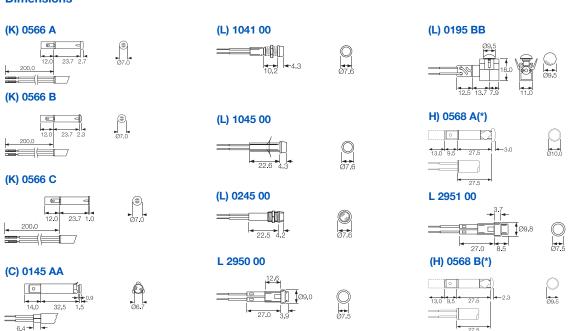
Available with Red, Amber, Green, Clear or Blue lenses 6V, 12/14V, 24/28V.

Terminal	Туре	Sealed	Illumination	Colour	Voltage	Options
K 2.8	(K) 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
K 2.8 🍃 L 📴	(K) 0566 B	6.0 2.0 max p. 340	N -⊕- L <del>≬</del> M <del>≬</del>	A Amber G Green	125V Neon 3 250V Neon	
K 2.8 🍃	(K) 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 p. 340	N -⊕- L <del>∜</del> M <del>∜</del>	LED	6 24VDC LED	
L E	(L) 1041 00	6.3 6.3max p. 340	F -⊗- N -⊕- L <del>†</del> i F -⊗-	Red Yellow	12/14V Filament <b>8</b> 24/ 28V Filament	
L E	(L) 1045 00	6.3 10.0max	N()- L + <del>()</del> M + <del>()</del> F -⊗-	G Green B Blue	9 125/250VAC LED	
	,					



Terminal	Туре	Sealed	Illumination	Colour	Voltage	Options
L H	(L) 0245 00	7.1 6.3 max p. 340	N() L + <del>  </del> M +  -	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	3 250V Neon	
L E-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 p. 340	N -⊕- L <del>*</del> M • F -⊗-	LED	6 24VDC LED 7	
L	H) 0568 A(*)	8.0 • 0.8-3.5 p. 340	N -⊕- L -∯- F -⊗-	Red Y Yellow	12/14V Filament <b>8</b> 24/ 28V Filament	
L E H 4.8	(H) 0568 B(*)	8.0 0.8-3.5 p. 340	N -⊕- L <del>-≗</del> F -⊗-	G Green B Blue	125/250Vac LED	

#### **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**



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



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

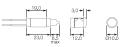
Terminal	Туре	Illumination	Colour	Voltage	Options	Panel	Approval
L	(C) 0273 00	N -()-	Neon & Filament	1	С	9.0	<b>71</b> Keth <b>©</b>
K 2.8		L 🦸	R	LED No Resistor	Chrome	2.0 max	KENA
H 4.8 🗀		M <del>§</del>	Red	2	Bezel Finish	p. 340	KEDA
C 0.3		F -⊗-	A	125V Neon			
LE	(C) 0278 00	N -()-	Amber			Ø 9.0	<b>71</b> K⊞ <b>®</b>
K 2.8		L #		3		2.0 max	KEDA
<b>H</b> 4.8	6	 M <del>- ∭</del>	G	250V Neon		$\cap$	KEDA SP
C 6.3		F -⊗-	Green	4		p. 340	KEDA
			В	<b>4</b> 6VDC LED		~	
L E	(C) 0276 AA	N	Blue (Special Order)	OVDC LLD		9.5	<b>FL</b> KEUA <b>()</b>
K 2.8		L 🐇		5		0.8-2.8	KEUR
C 6.3		M <del>≬</del>	<b>C</b> Clear	12VDC LED		p. 340	KEDA
0.0		F -⊗-	Oleai				
L E	(C) 0275 00	N -⊕-		6		Ø 10.0	AN KEDA 👁
<b>K</b> 2.8		L 🙀		24VDC LED		12.0	KEDA
<b>H</b> 4.8		M <del>∳</del>	LED	7		p. 340	KEDA <b>()</b>
<b>C</b> 6.3		F -⊗-		12/14V Filament		р. 040	KEDA
. % <del>-</del>	(0) 0075 00		R			~	<b>71</b> Kella <b>(8</b>
L =	(C) 0275 00	N	Red	8		Ø 10.0	KEUN
H 4.8		L <del>∯</del> M <del>∯</del>	Y	24/ 28V Filament		11.5 max	KEDA SE
C 6.3		W <del>2</del> F -⊗-	Yellow	9		p. 340	KEDA
			G	125/250VAC LED			
			Green				
			В				
			Blue				



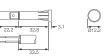
Terminal	Туре	Illumination	Colour	Voltage	Options	Panel	Approval
L	(C) 0276 00	N - ⊕- L +∳ M +∳ F -⊗-	Neon & Filament  R Red	1 LED No Resistor 2 125V Neon	C Chrome Bezel Finish	2.8 max	71 Kin (8 Kin (8 71 Kin (8 Kin (8)
L	(C) 0277 00	N -⊕- L <del>∜</del> M <del>∜</del> F -⊗-	Amber  G Green  B	3 250V Neon 4		10.0 12 max p. 340	KEDA KEDA KEDA
L	(C) 0273 LL	N ⊕- L <del>ᢤ</del> M <del>ᢤ</del> F -⊗-	Blue (Special Order)  C Clear	6VDC LED  5 12VDC LED		10.0 0.6-2.0 p. 340	REDA SE
L	(C) 2820 00	N -⊕- L <del>∯</del> M <del>∯</del> F -⊗-	LED R	24VDC LED  7 12/14V Filament		12.0 0.75-2.0 p. 340	KEDA KEDA
L	(C) 2821 00	N - ⊕- L + ⊕ M + ⊕ F - ⊗-	Red Y Yellow	8 24/ 28V Filament 9 125/250VAC LED		12.0or12.  o12.0  o12.0  o12.0  o12.7  o12.7	7 PA KEDD SP KEDD SP KEDD
L	(C) 0586 00	N⊕- L + <del>∳</del> M + <del>∳</del> F-⊗-	Green  B  Blue			12.5 0.8-1.5 p. 340	REDD (REDD)  KEDD (REDD)  KEDD (REDD)

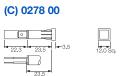
#### **Dimensions**

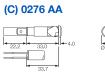
#### (L) 0569 AW





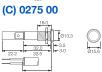


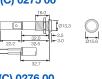




# (C) 0275 00











## (C) 0273 LL











#### (C) 2821 00





#### (C) 0586 00







#### **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:**



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.

L	N	Neon & Filament				
H 4.8 C 6.3 C C) 0589 00	. 24	Neon a mament	1	С	() 12.7	N KEGA 🚯
C 6.3 C C) 0589 00	L <del>®</del>	R	LED No Resistor	Chrome	0.75-2.0	KEDA
L 🖺 C) 0589 00	M <del>∜</del> F -⊗-	Red	2	Bezel Finish		KECA
	F 💝	Α	125V Neon		P. 340	KEGA
	N O	Amber			<b>A</b>	
. L.O %	N -⊕- L <del>-</del>		3			MEGA SE
H 4.8	_	G	250V Neon		0.8-1.5	KEGA
C 6.3	F -⊗-	Green			p. 340	KEGA
		В	4			
L L 0081 00	N	Blue	6VDC LED		Ø 12.7	M KEGA SD
	L 🕏	(Special Order)	5		9.5	KEDA
	M <del>∜</del> F -⊗-	C	12VDC LED			
	F ©	Clear	12VDC LED		p. 340	KEDA
			6		$\sim$	
L (C) 0177 00 K 2.8	N		24Vdc LED		12.7	KECA G
i e	L <del>∜</del> M <del>%</del>		_		12.0max	KEDA
H 4.8 🗇	M <del>*</del> F -⊗-	LED	7		p. 340	KEDA SE
N		R	12/14V Filament			
L (C) 0067 00	N	Red	8		12.7	M KEGA 🚳
K 2.8	L 🕏	Y	24/ 28V Filament		1.14 max	KECA
H 4.8	<b>M</b> ★	Yellow			$\cap$	KECA
C 6.3	<b>F</b> −⊗-		9		p. 340	KEDA
3-		G	125/250VAC LED			
L (C) 0180AA	N	Green			212.7	KECA 🚳
C 6.3	L <del>∜</del> F-⊗-	В			19.0 max	_
	<b>F</b> ⊗	Blue			p. 340	KEDA
					J	



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

#### **Dimensions**

#### (C) 2870 00







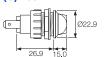












#### C) 0589 00





## (C) 0180AA





#### L 0081 00



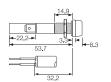








#### (C) 0177 00









#### (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 110-230V AC Red, Yellow, Green, Blue, White 2.0/2.2V Resistors for operation. other voltages available.

#### **FILAMENT**



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

Terr	ninal	Туре	Illumination	Colour	Voltage	Options	Panel	Approval
L	1	L 0234 00	N -⊕-	Neon & Filament	1	С	18.2/18.3 × 6.2/6.3*	FAL KEGA 🚳
				R	LED No Resistor	Chrome Bezel Finish	2.0-3.5	[Neur]
		6		Red	2		P. 340	
				A	125V Neon			
L		L 0233 00	N	Amber <b>G</b>	<b>3</b> 250V Neon		9.27/9.50 × 4 . 7 5 •	TI KEGA 🏵
				Green			p. 340	
				Blue (Special Order)	4 6Vdc LED		p. 340	Kega
				<b>C</b> Clear	5 12VDC LED			
				LED	6			
					24VDC LED			
				R	7			
				Red	12/14V Filament			
				Yellow	8			
				G	24/ 28V Filament			
				Green	9			
				В	125/250VAC LED			
				Blue				

#### **Dimensions**

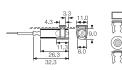
#### H 0581 AY



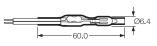




#### L 0234 00



#### 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

These lampholders are suitable for up to 50V max.

Red, Amber, Green, Blue and Clear

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

C Linestra/Philinea lamp holder

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

#### K0061 00 (LES)















#### (C) 0067 00





## (K) 0062 M0





#### (S) 0095 00







## Large Low Voltage Lampholders









P1090FL - - -

#### **Key Features**

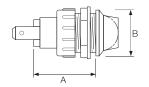
- O Up to 50V
- MES or MBC bulb
- C Flat and domed lens
- Brass or nylon bodiesRed, Amber, Green, Blue and Clear lenses

#### **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	Туре	Colour	Options	Panel	Lens
6.3 x 0.8  H  02.0 4.8  Solder	1090 MES (E10)  1091 MBC (BA9s) (C and S Terminals only)	R Red Y Yellow G Green B Blue C Clear	C Chrome Bezel Finish	Panel Hole	F Flat  V MES (E10)  L No lens
Screw and Clamp					

## 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  T  L LED & Wires fitted	(W) 1047 00	B Black — Blank	R Red Y Yellow	1 LED No Resistor 4 6VDC LED	6.3 6.3max T105		14.5 (±/-0.36)
W LED fitted  A LED not fitted  T LED & Wires fitted	(L) 1048 00		G Green B Blue	5 12VDC LED 6 24VDC LED	8.0 5.5max		-2.0 <del>09.5</del>
W LED fitted A LED not fitted TT L LED & Wires fitted	(W)1050 00				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	KEDA	4.30 V 1.50 S.08
W LED fitted  T T  L LED & Wires fitted	(L) 1036 0A				6.0 (2) (4) (1) (1) (2) (3) (4) (5) (6) (7) (7) (7) (7) (7) (7) (7) (7	KEMA	5.85 1.0
W LED fitted  TT  L LED & Wires fitted	(L) 1037 0A				6.35 0.9-1.6 T105	<b>S7</b>	200.0

## LED Lamps and LED Lampholders - Sealed to IP67



#### Key Features Colours and voltages:

O IP67 front bezel sealing

Colours:

O LED lampholders

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

brig 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	Body Colour	LED Colour	Voltage	Panel	Approval	Dimensions
L LED & Wires fitted	(L) 1048 OA	<b>B</b> Black	R Red	1 LED No Resistor	8.0 5.5max	KEMA	(L) 1048 OA
W LED fitted		<b>C</b> Chrome	Y Yellow	4 6VDC LED	T105		1.0
A LED not fitted	(W) 1048 OA		Green	12VDC LED		KEMA	(W) 1048 OA
			Blue	24VDC LED			2.0
	(L) 1050 OA				8.0 7.0max	KEUR	(L) 1050 OA
					T105		13.4 +2.9
	(W) 1050 OA				8.0 7.0max	KEMA	(W) 1050 OA
					7.0max		1.0 13.4 17.9

#### 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**

- 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
- Q Red, amber, green, blue and clear lenses
- 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 White 2.0/2.2V Resistors for other voltages available.

#### AC MAINS LED



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

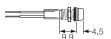
#### FILAMENT



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

Terminal	Туре	Sealed	Illumination	Colour	Voltage	Option	Panel Cutout	Approval
LE	(L) 1041 OS	<b>S</b> 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	Keda
L E	(L) 0245 OS		N -⊕- L <del>∛</del> M <del>∛</del> F -⊗-	G Green B	<b>3</b> 250V Neon		7.1 4.6max	KEMA
L	(C) 0275 OS		N - ⊕- L * ⊕ M • ⊕ F - ⊗-	C Clear	4 6VDC LED  5 12VDC LED		10.0 11.15max	KEMA
L	(C) 0277 OS		N -⊕- L <del>†</del> M <del>†</del> F -⊗-	R Red	6 24VDC LED		10.0 11.15max	KEUR
L	(C) 0177 OS		N <del>-</del>	Y Yellow G Green	7 12/14V Filament  8 24/ 28V Filament		12.7 † 11.15max	KETA
N.				B Blue W White	<b>9</b> 125/250VAC LED			
(L) 1041 OS			(C)	0275 OS		(C) 0177	os	

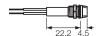
#### (L) 1041 OS







#### (L) 0245 OS

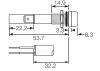




#### (C) 0275 OS









#### (C) 0277 OS





### 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
Metal bodies and bezels
Lenses
Terminals (most types)
Terminals (exceptions)
Threaded metal nuts Brass (nickel plated on 0275/7)
Other fixings
* R9, 0061, 0062, 0430, 0480, 1090, 1091, 6030, 7030, 8630, 8580
** # 3130, 3160, 3161, 3221 have nickel plated terminals with steel screws
and plated polyamide bezel trims

#### TEMPERATURE RATING

Authority	with Terminals	with Wire leads			
		PVC	SILICONE		
European	ropean T105°C		T105°C T105°C		
UL	T65/75°C	5/75°C T65/75°C			

#### 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.

#### Current

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

### **Mouser Electronics**

**Authorized Distributor** 

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#### Bulgin:

FL2870WL7R FL2950BWL7A FL2951WL7G FL67H8C LE1041WL39007 LE1041WL39017 LE276C5G
LE569WL39007 LH1037OA37007 LH1048BSWL3702 LH1048BSWL37028 LH1048WL3600 LH1048WL3601
LH1050 LH10503700 LH382R NL177C3G NL177C3R NL276C2R NL276C3A NL2870C3R NL579C3G
NL67WL2BL FL276WL8G FL2950BWL7R FL2950WL8A FL568AH7R FL67C7G FL2760K8C FL2950CWL7R
FL589C8R LE177C39027 LE177C39028 LE275CH5A LE278WL5R LE276WL5A LE2950WL5A LE2951WL5R
FL2950BWL8A FL2951WL8R FL589WL8R LE1041WL39027 LE2950WL39018 LE2951WL5G
LH1048BSWL37017/22 LH1048SWL3700 LH1050S LH1050WL3702 LE2870C5R LE2950WL39028
LE568AH39007 LE67C39007 LE67C5C FL67WL7A FL67WL8R LE177C3600 LE177C5C LE177C5R LE275SC5A
LE276C39007 LE2951WL5C LE67C39017 LE67C5A LH1037OAWL37007 LH1037OAWL37047 LH1048BS
LH1048BSWL37007/22 LH1048BWL3602 LH1048BWL37006 LH1050B LH1050BS LH382B LH392C LH692G
LHM62A NL275CWL2A NL276C3G NL276H2R NL2870C2A LE67C5R LH10483702 LH1048B3700
LH1048BWL3701 LH677C NL180AAC3R NL276WL3R FL195BWL8C-14 FL245CWL7G FL2950CWL7A
FL2950CWL7G FL67WL7B L117-RED LE177WL5G LE275SC39008 LE2870C39018 LE67WL39008
LH1048BS3702 LH1048BWL3601 NL1041WL3A NL177WL2G

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