

A comprehensive range of lamps designed for use with Tranlamp illuminated products. Selection depends on required voltage, power limitations, lamp life, brightness, cost, cap size and indicator colour.

Filament

The standard for indicator switch products unless otherwise specified. Use with any lens colour. *Transformer indicators with 6V lamps are run at reduced voltage, giving up to 400% extra life.

Volts AC or DC	Watts	mA	Product Code ☆			Typical Life (hours) † - AC volts (DC-reduce to 60% of AC)	Typical Brightness (Lumens)	Dimensions mm
			MES	MBC	LES			
6	0.36	60	-	-	6V0.36 LES	10,000	1	 MES 28 10.3 Weight: 2 g
6	0.9 Flash	50	6V0.9 Flash	-	-	-	-	
6 ●	1.8	300	6V1.8	6V1.8 MBC	-	4,000 *	11	 MBC 30 max 10.3 Weight: 2 g
6.5	2.0	300	-	6.5V2.0 MBC	-	4,000	12	
12	1.2	100	12V1.2	12V1.2 MBC	-	5,000	5	 LES 16 5.25 Weight: 0.5 g
24	1.2	50	24V1.2	24V1.2 MBC	-	5,000	4	
24	2.8	120	24V2.8	24V2.8 MBC	-	3,000	12	Lamp lives given here are typical only. Actual lives depend on environmental conditions such as shock, vibration, temperature and voltage fluctuations.
28	1.1	40	-	-	28V1.1 LES	4,000	4.5	
28	1.0	40	28V1.0	28V1.0 MBC	-	3,000	12	
50	2.5	50	50V2.5	50V2.5 MBC	-	5,000	9	
60	1.2	20	60V1.2	60V1.2 MBC	-	3,000	2.2	
60	3.0	50	60V3.0	60V3.0 MBC	-	3,000	10.5	
130	2.6	20	130V2.6	130V2.6 MBC	-	3,000	3	

LED Clusters

Long life, bright lamps at lower currents. The leds are configured as standard in parallel circuits. This means that the functionality of the lamp is maintained in the event of a diode failure although there is obviously some reduction in light emission. Where the lowest possible current is required a series circuit is used. The 5 colours are usually used with the matching colour lenses, but amber and green can be used with clear and white lenses respectively for colour variation.

Type	Supply		Current mA			Product Code Make-up ☆					Dimensions mm		Typical Brightness		
	AC/DC	Volts	AGR	B	W	Type	Colour	Supply V	Current	Cap					
LED7 Wide light spread for indicator lamps	AC	4.5	60	80	80	LED7	A	4.5AC	Enter mA from Current table	MES	LED7	MES	 LED7 MES 13.4 Weight: 3 g		
		24	40	40	40		G	24AC						MBC	
		24	20	-	-		R	24AC							
		110	14	-	8		B	110AC							
		4.5*	80	-	-		W	4.5DC							
	DC	12	40	-	60	W	12DC	MBC							
		24	20	20	20	24DC									
		24	40	40	40	24DC									
		24	40	40	40	24DC									
		24	40	40	40	24DC									
LED4 for indicator lamps	AC	4.5	40	40	40	LED4	A	4.5AC	Enter mA from Current table	MES	LED4	MES	 LED4 MES 14.4 Weight: 3 g		
		24	40	40	40		G	24AC						MBC	
		24	20	-	-		R	24AC							
		110	15	-	15		B	110AC							
		4.5*	40	40	-		W	4.5DC							
	DC	12	20	-	-	W	12DC	MBC							
		24	20	20	20	24DC									
		24	40	40	40	24DC									
		24	40	40	40	24DC									
		24	40	40	40	24DC									
LEDM4 for illuminated actuating assemblies	AC	4.5	40	40	40	LEDM4	A	4.5AC	Enter mA from Current table	MES	LEDM4	MES	 LEDM4 MES 10.5 Weight: 2 g		
		24	40	40	40		G	24AC						MBC	
		110	8	8	8		R	110AC							
	24	40	40	40	B		24DC								
	DC	24	40	40	40		W	24DC							MBC
24		20	20	20	24DC										
LEDM1 for indicator lamps	AC	4.5	30	30	30	LEDM1	A	4.5AC	X	MES	LEDM1 and LEDM1F	MES		 LEDM1 and LEDM1F MES 10.5 Weight: 2 g	
		24	30	30	30		G	24AC							MBC
		110	30	30	30		R	110AC							
	24	30	30	30	B		24DC								
	DC	24	30	30	30		W	24DC					MBC		
24		30	30	30	24DC										
LEDM1F for indicator lamps flashing at a nominal 2Hz	AC & DC	4.5	30	30	30	LEDM1F	A	4.5	X	MES	LEDM1 and LEDM1F	MBC	 LEDM1 and LEDM1F MBC 10.5 Weight: 2 g		
		24	30	30	30		G	4.5							MBC
		110	30	30	30		R	4.5							
		24	30	30	30		B	4.5							
		24	30	30	30		W	4.5							

* Blue and White clusters are not available at 4.5Vdc. Other AC/DC voltages for any of the above can be considered on application. Colour Key:- A=Amber, G=Green, R=Red, B=Blue, W=White

Example 1: LED7A 4.5AC 60mA MES = Amber 7 LED cluster with Miniature Edison Screw cap supplied from 4.5VAC.
 Example 2: LED4R 24DC 20mA MBC = Red 4 LED cluster (20mA option) with Miniature Bayonet Cap supplied from 24VDC.

Lamp Cap Types:

MES = Miniature Edison Screw (E10). Supplied as standard unless otherwise specified.
 MBC = Miniature Bayonet Cap (BA9s). Available for most lamp types. Specify if required.
 LES = Lilliput Edison Screw (E5). Available only for 6V and 28V Filament.

☆ Use product codes given here to order lamps independently from indicator assemblies

Lamps

Neons/Fluorescent Optoled7



Product Data Sheet 201/2 Issue 2

Neon, Fluorescent A very low current alternative, if low brightness is acceptable. Neon's can be used with opal, clear, red and amber lenses; fluorescents only their own colour lenses.

Current Rating		Product Code ★						Dimensions mm	
All 1.8mA		For Tranilamp "N" type indicator bodies only. Data sheet 206.		For direct connection to Supply Voltage (internal resistor fitted). Use with Direct Voltage Indicator Body Type LMU. Data Sheet 205				MES	
Colour	Type	Supply 110V (AC only)			Supply 240V (AC or DC)			MBC	
Orange	Neon	NB2 MES	NB2 MBC	NB2R 110 MES	NB2R 110 MBC	NB2R 240 MES	NB2R 240 MBC		
Green	Fluor'	NG2 MES	NG2 MBC	NG2R 110 MES	NG2R 110 MBC	NG2R 240 MES	NG2R 240 MBC		
Blue	Fluor'	NW2 MES	NW2 MBC	NW2R 110 MES	NW2R 110 MBC	NW2R 240 MES	NW2R 240 MBC	Weight: 3 g	
Typical Life 10,000 hours on AC Supply - 6,000 hours on DC Supply				Typical Brightness All 0.27 lumens					

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Optoled7

Design Registration No 2051734

This Cluster lamp has been designed as a replacement for control panel pigmy lamps and on control panels where very high brightness, low power consumption and long life are desirable.

Standard features:

● Long Life

More than 100,000 hours, even in environments of high shock, high vibration and large temperature variations. This leads to considerably reduced maintenance costs.

● Very bright

By using 7 ultra-bright LED's the total brightness is typically 2,000 mcd (25 lumens). The arrangement of LED's ensures the optimum diffusion of light through a lens, minimising light concentrations.

● Supply Voltages

Available in standard supply volts of 24V, 110V, 230V ac at 50/60 Hz and 24V, 110V dc. Other voltages can be considered, if requested. Overvoltage tolerance of +20% is standard.

● Low Current

Less than 25mA per lamp (total for 7 LED's)

● Flame Resistant

The plastic body is to flame retardent standard UL94V0.

● Low Operating Temperature

Body temperature operates much lower than filament.

● Colour Options

LED colours available are amber, green, red, blue & white.

Product Code Make-up

Type	Colour /	Supply V /	Cap
OPTOLED7	A	24AC	BC
	G	24DC	SBC
	R	110AC	
	B	110DC	
	W	230AC	
	A = Amber G = Green R = Red B = Blue W = White	Above voltages are available for all colours. Frequency: 50/60Hz	BC=Bayonet Cap(B22d) SBC = Small Bayonet Cap (B15d)

Examples

1. OPTOLED7A /110AC/BC 2. OPTOLED7W/24DC/SBC

