

## LED Module and Arrays Emergency Equipment

### LD-CO Range

#### Easy conversion of all modern LED luminaires

The ELP **LD-CO** emergency LED control gear allows maintained operation of high power LED modules or arrays, when utilizing the standard mains voltage LED control gear in-line with the emergency LED control gear.

**LD-CO** Kits incorporate the appropriate **LD-CO** driver/charger module, high temperature Nickel Cadmium (or Nickel Metal Hydride) battery, required connectors and charge indicator. In the event of a mains failure, an integral relay disconnects the LED lighting load from the mains control gear and then connects it to the emergency control gear which operates the LED module/array at constant power providing a precise Emergency Ballast Lumen Factor throughout the entire duration of 3 hours.

The various high power LED modules utilise different arrays of LEDs connected in series or a combination of series and parallel and there will be an ideal **LD-CO** kit to suit any of these. Each **LD-CO** module is configured for a maximum forward voltage and an optimum operating current. The **LD-CO** modules will operate any LED requiring a forward voltage below the maximum rating of the module. However, for best performance it is recommended that the **LD-CO** module with the rated forward voltage closest to the LED rating is selected.

**NB:** Accurate selection of the best module for any given LED can easily be checked on the product selector at: [www.elp.uk.com](http://www.elp.uk.com)

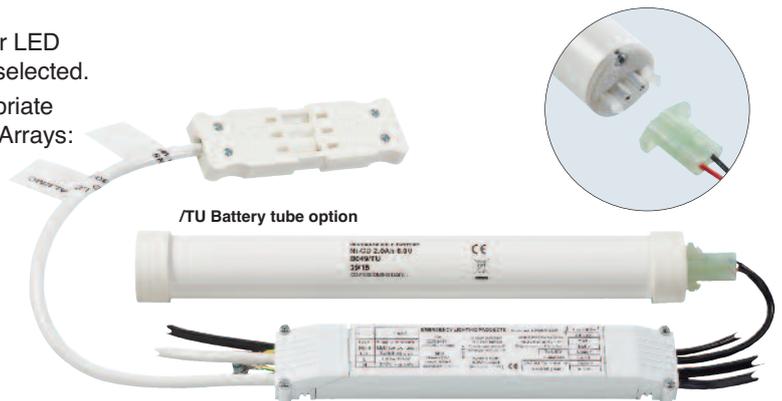
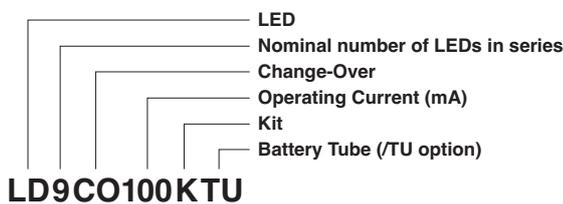
**Note:** For versions offering Self-Test or fully interoperable DALI control and reporting functions please refer to the **LDpro** range.



#### ORDER CODES FOR KITS

To ensure the best operation of each type of high power LED module/array the correct **LD-CO** equipment should be selected.

The following codes should be used to order the appropriate module and battery for the following LED Modules and Arrays:



LEDs WITH FORWARD VOLTAGE <23.5V

e.g. Xicato XSM 400-1300 lumen

LEDs WITH FORWARD VOLTAGE <33.0V

e.g. DLM Flex Range 1100 lumen, Bridgelux ES Range and Citizen CL Range

LEDs WITH FORWARD VOLTAGE <56.0V

e.g. Xicato XSM 2000-3000 lumen

LEDs WITH FORWARD VOLTAGE <90.0V

e.g. Osram PrevaLED 2

LEDs WITH FORWARD VOLTAGE <200.0V

e.g. Osram PrevaLED Linear Fit D

**LD8CO300K (High output)**

**LD9CO100K**

**LD16CO100K**

**LD32CO50K**

**LD64CO22K**

**Notes:** Kits will be supplied with Nickel Cadmium batteries unless NiMH batteries are specified (see 'number and types of cells').  
/TU Option offers the battery sealed in a tube making the whole kit suitable for remote mounting.

**LD-CO** modules only provide emergency lighting operation; standard mains drivers are required for maintained operation.



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## SPECIFICATION

Section	Subject	Plastic housed module
<b>Environmental</b>	Protection against electric shock	SELV equivalent (except <b>LD32</b> and <b>LD64</b> )
	Ingress protection	IP20
	Module rated operating ambient temperature)	-20 to 50°C
	Battery rated operating ambient temperature	0 to 50°C
	Maximum case temperature	65°C
<b>Mains operation</b>	Rated voltage supply	220/240 VAC
	Mains frequency	50/60 Hz
	Mains supply current	15mA
	Mains supply power	3.6W
	Power factor	0.6
	Indicator LED	2 wire Green colour
	Maximum power that can be switched via relay contacts	125VAC/90W
	Maximum current that can be switched via relay contacts	1A 125VAC/3A 30VDC
<b>Emergency operation</b>	Maximum voltage that can be switched via relay contacts	250VAC/220VDC
	Emergency duration	1 or 3 hours
	Battery chemistry type	NiCd or NiMH
	Number and type of cells <b>LD22CO50K</b> and <b>LD9CO100K</b>	5 x 2Ah NiCd sub-C cells
	<b>LD16CO100K</b> , <b>LD32CO50K</b> and <b>LD64CO22K</b>	5 x 4Ah NiCd D or 4Ah NiMH C cells
	<b>LD8CO300K</b>	6 x 4Ah NiCd D or 4Ah NiMH C cells
	Battery recharge period	<24 hours
	Battery charge current <b>LD22CO50K</b> and <b>LD9CO100K</b>	100mA
	<b>LD16CO100K</b> , <b>LD8CO300K</b> , <b>LD32CO50K</b> and <b>LD64CO22K</b>	160mA
	Battery discharge current <b>LD22CO50K</b> and <b>LD9CO100K</b>	500mA at 6.0V
	<b>LD16CO100K</b> , <b>LD32CO50K</b> and <b>LD64CO22K</b>	1000mA at 6.0V
	<b>LD8CO300K</b>	1000mA at 7.2V
	Module output current <b>LD64CO22K</b>	22mA
	<b>LD22CO50K</b> and <b>LD32CO50K</b>	50mA
	<b>LD16CO100K</b> and <b>LD9CO100K</b>	100mA
	<b>LD8CO300K</b>	300mA
	Module output voltage <b>LD8CO300K</b>	11.5V to <23.5V
<b>LD9CO100K</b>	9V to <33V	
<b>LD16CO100K</b>	33V to <56V	
<b>LD22CO50K</b>	33V to <56V	
<b>LD32CO50K</b>	56V to <90V	
<b>LD64CO22K</b>	90V to <200V	
BLF/EBLF — dependant on LED module type	0.12 to 0.25	
<b>Mechanical</b>	Outside dimensions	(L)178mm x (W)30mm x (H)21mm
	Fixing centres	174mm
	Electrical connections	Push wire terminals
<b>Standards compliance</b>	EN61347-1, EN61347-2-7 and EN61347-2-13	Yes
	EN62384	Yes
	EN55015	Yes
	EN61547	Yes
	Marks CE	Yes

**Note:** Values are subject to change.

All details and specifications shown in this document are deemed correct at time of publication. The right to modify equipment, change specifications and instructions without notice, is reserved as part of the Emergency Lighting Products Limited policy of continuous development and improvement. We endeavour to keep all our customers informed of any alterations as and when they occur.

### Emergency Lighting Products Limited

Parbrook House, Gillmans Industrial Estate, Natts Lane Billingshurst, West Sussex RH14 9EZ

Telephone: +44 (0) 1403 786601 Fax: +44 (0) 1403 786602 e-mail:sales@elp.uk.com [www.elp.uk.com](http://www.elp.uk.com)

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