

LXD—RECESSED EMERGENCY DOWNLIGHT



The LXD Emergency Downlight consists of an LED lamp head with integrated battery, status display LED and an emergency lighting unit to operate the single LED in maintained and non-maintained mode. The safety-compliant downlight emergency lighting is for recessed mounting and ensures emergency escape route and anti-panic lighting in buildings. The integrated self-test function corresponds the European standard.

KEY FEATURES AND BENEFITS

- > Basic, Self-test and DALI communication options
- > Suitable for emergency escape lighting and open area lighting
- > 3-hour emergency operating time (variant upon request)
- > Constant power output in emergency mode
- > Specific charging regime for LiFePO4 battery technology
- > Deep discharge protection
- > 5-year warranty on Self-Test and DALI products

TECHNICAL SPECIFICATIONS

Input	220V-240V _{AC}
Mains input frequency	50-60Hz
Power consumption / power input standby	Max. 5W / 7VA
Power output in emergency mode	3W
Switchover time mains – emergency (DALI only)	<0.5s
Ambient temperature range <i>t_a</i>	5°C to +50°C
Unit max. case temperature <i>t_c</i>	50°C
Safety class	II
Ingress protection class	IP20
Battery recharge period for rated duration	24 Hours
Emergency duration	3 Hours
Functionality test	Weekly 2 min. (random – 10-93-0110 Self-Testing Information)
Duration test	Annually
LED colour	6000K
CRI (Ra)	80
Weight	0.25Kg
Hole cut-out diameter	50mm
Enclosure material	Self-Extinguishing Polycarbonate

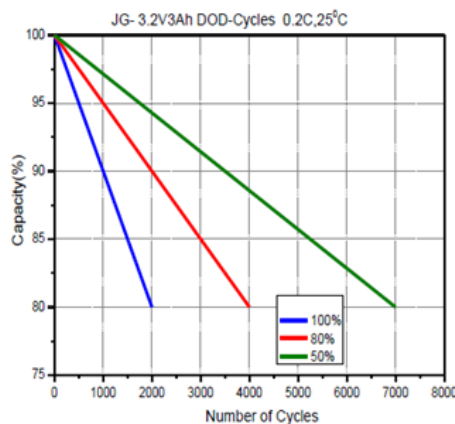
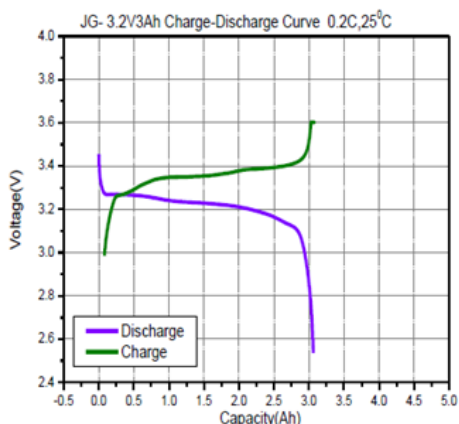
TECHNICAL DATA

Luminaire Type	Part No.	Description	Emergency Duration	P emergency (W)	Lumen output in emergency mode	Total Circuit Power (Max)	Compatible Batteries
BASIC	LXD-2-3-C-NM	LXD DOWNLIGHT 2 CELL 3 HOUR CORRIDOR NON-MAINTAINED	3Hr	3.0W	150Lm	5.0W	14-12-0002
	LXD-2-3-C-NM-BK	LXD DOWNLIGHT 2 CELL 3 HOUR CORRIDOR NON-MAINTAINED—BLACK	3Hr	3.0W	150Lm	5.0W	14-12-0002
	LXD-2-3-O-NM	LXD DOWNLIGHT 2 CELL 3 HOUR OPEN AREA NON-MAINTAINED	3Hr	3.0W	150Lm	5.0W	14-12-0002
	LXD-2-3-O-NM-BK	LXD DOWNLIGHT 2 CELL 3 HOUR OPEN AREA NON-MAINTAINED—BLACK	3Hr	3.0W	150Lm	5.0W	14-12-0002
DALI	LXD-DALI-2-3-C-M	LXD DOWNLIGHT 2 CELL 3 HOUR CORRIDOR MAINTAINED DALI	3Hr	3.0W	150Lm	5.0W	14-12-0002
	LXD-DALI-2-3-C-M-BK	LXD DOWNLIGHT 2 CELL 3 HOUR CORRIDOR MAINTAINED DALI—BLACK	3Hr	3.0W	150Lm	5.0W	14-12-0002
	LXD-DALI-2-3-O-M	LXD DOWNLIGHT 2 CELL 3 HOUR OPEN AREA MAINTAINED DALI	3Hr	3.0W	150Lm	5.0W	14-12-0002
SELF-TEST	LXD-DALI-2-3-O-M-BK	LXD DOWNLIGHT 2 CELL 3 HOUR OPEN AREA MAINTAINED DALI—BLACK	3Hr	3.0W	150Lm	5.0W	14-12-0002
	LXD-ST-2-3-C-NM	LXD DOWNLIGHT 2 CELL 3 HOUR CORRIDOR NON-MAINTAINED SELF-TEST	3Hr	3.0W	150Lm	5.0W	14-12-0002
	LXD-ST-2-3-C-NM-BK	LXD DOWNLIGHT 2 CELL 3 HOUR CORRIDOR NON-MAINTAINED SELF-TEST—BLACK	3Hr	3.0W	150Lm	5.0W	14-12-0002
	LXD-ST-2-3-O-NM	LXD DOWNLIGHT 2 CELL 3 HOUR OPEN AREA NON-MAINTAINED SELF-TEST	3Hr	3.0W	150Lm	5.0W	14-12-0002
	LXD-ST-2-3-O-NM-BK	LXD DOWNLIGHT 2 CELL 3 HOUR OPEN AREA NON-MAINTAINED SELF-TEST—BLACK	3Hr	3.0W	150Lm	5.0W	14-12-0002

BATTERIES TECHNICAL DATA

Part No.	Chemistry	No. of Cells and Format	Cell Type	Nominal Voltage	Capacity	Min/Max battery current at rated d.c. voltage range	Battery charge rating	Deep discharge Protection Cut Off
14-12-0002	LiFePO ₄	2-Cell Pack	18650	3.2V	3.0Ah	5mA / 755mA	130–200mA / 3.1–3.5V	2.3–2.5V

Charging regime CC-CV	Constant current (CI) up to 3.6V then constant voltage (CV) between 3.4V and 3.6V						
LiFePO₄ Cell Type	2x18650 Li Cells						
Charging Current	<table border="1"> <tr> <td>Initial charge</td> <td>350mA until battery voltage reaches 3.6V—then 0mA</td> </tr> <tr> <td>Fast recharge</td> <td>N/A</td> </tr> <tr> <td>Trickle charge</td> <td>350mA when the battery rises from 3.4V to 3.6V</td> </tr> </table>	Initial charge	350mA until battery voltage reaches 3.6V—then 0mA	Fast recharge	N/A	Trickle charge	350mA when the battery rises from 3.4V to 3.6V
Initial charge	350mA until battery voltage reaches 3.6V—then 0mA						
Fast recharge	N/A						
Trickle charge	350mA when the battery rises from 3.4V to 3.6V						
Discharge current	1.5A +/- 100mA						
Charge voltage range	Max 3.6V						
Discharge voltage range	Min 2.1V						
Alternating Internal Resistance	≤80 mΩ						
Dimensions	19mm x 37mm x 68mm						
Lifetime to 75% capacity (0°-50°C amb.)	Cycle life >2000. (Charging with standard charge, leaving 0.5-1h; then discharging with standard discharge, leaving 0.5-1h, counting as 1 cycle) or 4 years (Reference only)						









STANDARDS AND APPROVALS

- > BS EN 55015
- > BS EN 61000-3-2
- > BS EN 61000-3-3
- > BS EN 61347-1
- > BS EN 61347-2-7
- > BS EN 61347-2-13
- > BS EN 61547
- > BS EN 62034
- > BS EN 62384











STATUS INDICATOR

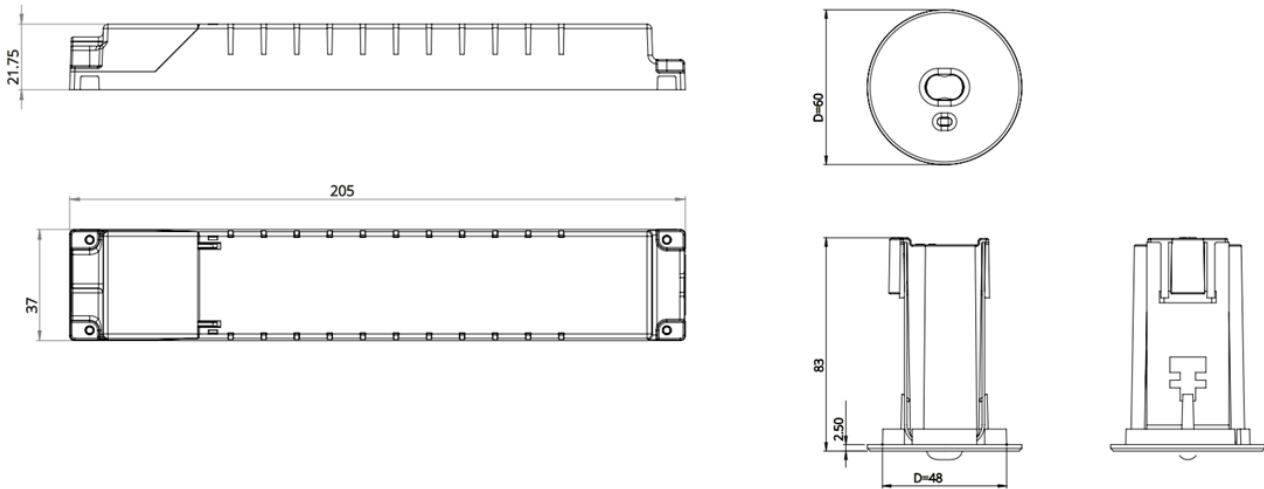
Visual status indicator for DALI models

- 
LED Intermittently Flashing Green: commissioning/battery regeneration after initial connection.
- 
LED Green: No fault / normal state.
- 
LED Continuous Flashing Red: battery fault—either insufficient battery capacity or interrupted connection. The fault indication is reset once the fault is cleared.
- 
LED Intermittently Flashing Red: Luminaire fault
- 
LED Flashing Green / Momentary Red: Duration test interrupted, postponed or self- testing failure.
- 
LED Extinguished: If the LED is still off after more than 5 minutes of switching on the mains, then the mains or the unit is faulty

Visual status indicator for DALI models

- 
LED Intermittently Flashing Green: commissioning/battery regeneration after initial connection. Function test (fast flash 100ms on/off) or duration test (slow flash 1s on/off)
- 
LED Regularly Flashing Green: inhibit
- 
LED Green: No fault / normal state.
- 
LED Continuous Flashing Red: battery fault (fast flash 100ms on/off) or test failed (slow flash 1s on/off). The fault indication is reset once the fault is cleared.
- 
LED Red: Luminaire fault
- 
LED Flashing Green / Momentary Red: Duration test interrupted, postponed or self- testing failure.
- 
LED Alternating Flashing Red/Green* : Identification switched on to locate individual unit address (DALI only)
- 
LED Extinguished: If the LED is still off after more than 5 minutes of switching on the mains, then the mains or the unit is faulty

DIMENSIONS



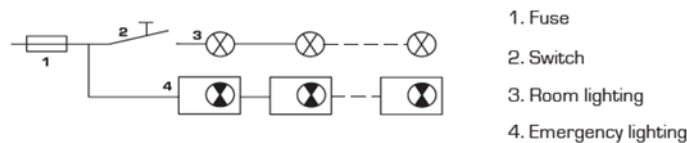
INSTALLATION

Mounting

- > The emergency lighting units must be mounted in a suitable position within the luminaire (fixing-hole diameter 4mm).
- > The emergency lighting units rely upon the luminaire enclosure for protection against accidental contact with live parts.
- > To fulfil EMC-requirements, it is recommended to use wires as short as possible between the mains input terminal and the emergency lighting unit.
- > Mount the battery in the coolest location available inside the luminaire for maximum capacity and life. The ambient temperature around the battery must not exceed 50°C
- > Emergency lighting units must not be in contact with materials which could ignite, melt, or otherwise change at 60°C

Electrical Installation

- > The emergency lights must be installed according to locally applicable rules and regulations for electrical installations.
- > The installation of emergency lighting units and luminaires must be carried out by qualified personnel only.
- > All covers must be in place before applying mains to the emergency lighting system.
- > Emergency lighting units must be connected as shown in the circuits diagram on the unit.
- > The terminals are suitable for connecting one wire of 0.5 to 1.5mm² (with 7-7.5mm insulation removed).
- > After connecting the emergency luminaire to the lighting circuit, the line is monitored, and the batteries are continuously charged.
- > This line must be connected to the same circuit breaker / fuse as the normal room lighting (see diagram).



Electrical Installation

- > Local legislation and regulations for maintenance and inspection of emergency lighting must be considered.
- > Before doing and maintenance work, carry out the following procedure:
 - > Disconnect mains of the emergency lighting.
 - > Remove covers.
 - > Disconnect the battery from emergency lighting unit (plug).
 - > Emergency lighting units must undergo a visual inspection at regular intervals and at least annually.

CONTACT US

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