

EMERGENCY Downlighter



Product information

The Emergency Downlighter consists of an LED lamphead with integrated battery, status indicator LED and an emergency lighting unit to operate the single LED in maintained and non-maintained mode. The optically efficient lenses ensure optimum performance for corridor or open area applications. The safety-compliant downlight emergency lighting is for recessed mounting and ensures emergency escape route lighting in buildings. The integrated selftest function corresponds the European standard.

Features

- Low and High lumen output version (110/165lm), energy efficient
- No pollution for the environment, RoHS compliant, Mercury free, no IR or UV radiation
- The downlight has two lens variants (see photometry below):
 - Open Area Lens version evenly distributes the light in all directions.
 - Corridor Lens distributes the light in only two directions.
- Ambient temperature 5°C - 50°C
- Normal operating voltage min. 12 V / max. 55 V
- Switchover time mains - emergency <0,5s
- Available non-maintained / self test and maintained DALI versions
- Non-maintained mode / Maintained mode in combination with an LED-driver
- 3 h operating time
- Battery charging time 24 h
- Selftest as per IEC 62034
- Status display LED
- Easy 3-pole terminal connector (L,N,PE)
- Different lenses for emergency escape route lighting (elliptical)
- Simple recessed mounting of preinstalled luminaire and driver (ceiling min 5mm, max 20mm)
- Strain relief

Benefits

- Constant power output in emergency mode
- Ground connection for LED-driver and LED module on mains terminal
- Long lifetime, 5yrs warranty on fixture and 3yrs warranty on battery
- Deep discharge protection
- **Premium Lithium batteries (LiFePO4)** - compared to lead acid batteries - offer significant advantages:
 - **Safety and stability:** In case of hazardous events, such as collision or short-circuiting, this type of batteries doesn't explode or catch fire, significantly reducing any chance of harm. It can reach 350°C to 500°C
 - **Environmental Impact:** The batteries are non-toxic, non-contaminating and contain no rare earth metals, making them an environmentally conscious choice. Lead acid and nickel oxide lithium batteries, by comparison, carry significant environmental risk.
 - **Light weight:** The size of a battery of the same size is a 2/3 of the size of a lead acid battery, and a third of the weight of a lead acid battery.
 - **Performance:** The batteries perform well in several areas, especially life span. Service life usually at five to six years. Energy density is typically lower than certain counterparts, such as cobalt and nickel oxide. Battery charging time is also considerably reduced, another convenient performance perk.
 - **Improved discharge efficiency:** Ability to deep cycle while maintaining performance. The minimal maintenance and infrequent replacement makes lithium a worthwhile investment and smart long-term solution

Batteries

- High-temperature cells 5° C – 50°C
- LiFePO4-batteries 3.2V-4.5Ah,
Normal lumen output: 3.2V-1.5Ah, 1x1865-cell
High lumen output: 3.2V-3Ah, 2x1865-cells
- Weight:
Normal lumen output: 45g
High lumen output battery: 90g
- Charging time 24 h
- >6 years expected life duration
- 3 years warranty
- Battery regeneration for capacity optimisation

Structures and materials

Polycarbonate white color case, white color head

Application areas



General lighting



Office



Education



Healthcare



Retail

Specification summary

Product Code	Product Description	Wattage (W) - emergency mode*	Lumen (lm)	Efficiency (lm/W)	CCT (K)	IP rating	Beam angle	Control	Operating Voltage	Ambient Temperature	Weight (kg)
93100233	Emergency Downlight G1 TU 3 HL C Li D	3	165	55	6000	IP20	110°	Dali	220-240V	+5°C to +50°C	0.233
93100229	Emergency Downlight G1 TU 3 HL C Li N	3	165	55	6000	IP20	110°	static	220-240V	+5°C to +50°C	0.233
93100231	Emergency Downlight G1 TU 3 HL C Li S	3	165	55	6000	IP20	110°	static	220-240V	+5°C to +50°C	0.233
93100232	Emergency Downlight G1 TU 3 HL O Li D	3	165	55	6000	IP20	100°	Dali	220-240V	+5°C to +50°C	0.233
93100228	Emergency Downlight G1 TU 3 HL O Li N	3	165	55	6000	IP20	100°	static	220-240V	+5°C to +50°C	0.233
93100230	Emergency Downlight G1 TU 3 HL O Li S	3	165	55	6000	IP20	100°	static	220-240V	+5°C to +50°C	0.233

* Standard power consumption max.:2.4W

Order logic

Internal Code	Generation	Brand	Operation Hours	Output options	Lens type	Battery type	Options
Emergency Downlight	G1 - Generation 1	TU - Tungsram	3 - 3h Operation	HL - High Lumen Output NL - Normal Lumen Output	O - Open Area C - Corridor	Li - LiFePO4	N - Normal S - Selftest D - Dali

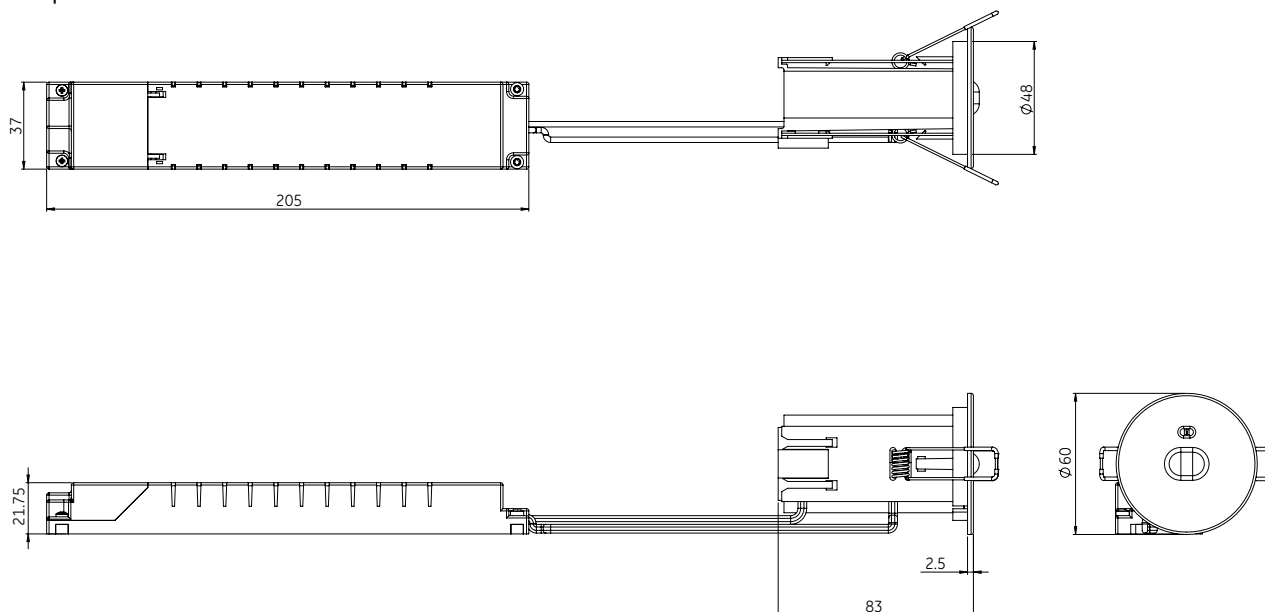
Example: Emergency Downlight G1 TU 3 HL C Li S

Emergency Downlight with 3 hours LiFePO4 battery, high (165lm) lumen output, corridor lens and selftest function

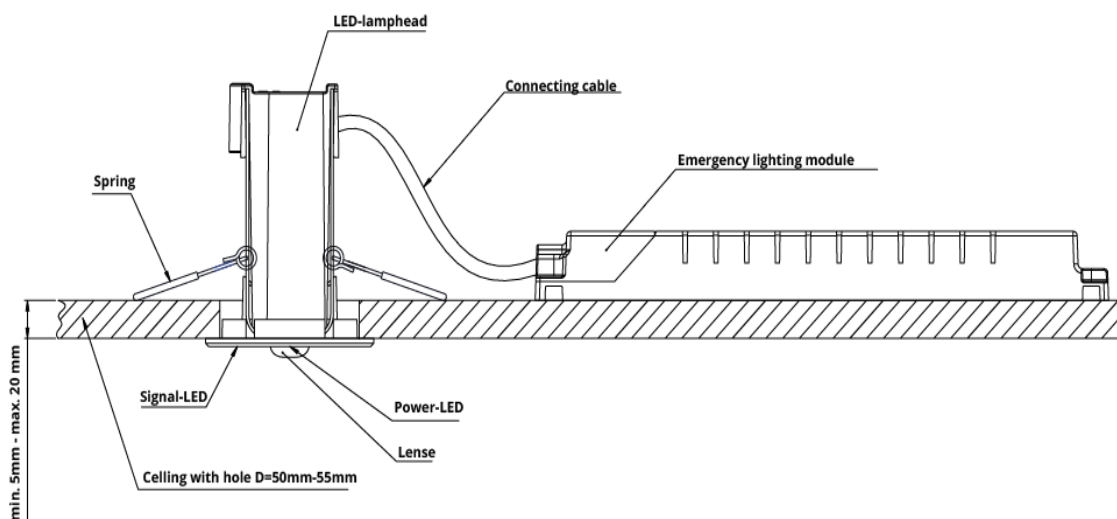
Dimensions (mm)

Y-case: L205 x W37 x H21,75 mm

Lamphead: Ø60 x 83 mm with 48 mm cut out



Mounting (recessed)



Regulatory and standards

Regulatory mark: CE

Regulations: 2014/35/EU, 2014/30/EU, 2011/65/EU, (framework 2009/125/EC) EU/1194/2012 amended by EU 2015/1428, (framework 2010/30/EC)






Harmonised standards: EN 60598, EN 62493, EN 61547, EN55015, EN 61000, refer to CE Declaration of Conformity and Technical File for details

*not on DOC

Selftest mode

- Selftest as per IEC 62034
- Two-coloured status display LED
- Status of battery
- Status of LED module

Visual status indication

	permanent green = no fault
	intermittently flashing green = test phase
	continuously flashing red = faulty battery
	intermittently flashing red = faulty lamp
	dark = faulty unit

LED green: no fault / normal state

LED intermittently flashing green: The unit is in the test phase. The unit will carry out several full discharge cycles during the first 8 days.

LED continuously flashing red: battery fault by either insufficient battery capacity of interrupted connection. The alarm is reset once the fault is cleared.

LED intermittently flashing red: lamp fault. Please note that the fault is not indicated (or reset) immediately when it occurs (or is cleared), but after the next selftest.

LED dark (LED off): if the LED is still off for more than 5 minutes after switching on the mains, then the mains or the unit is faulty.

Photometric data

