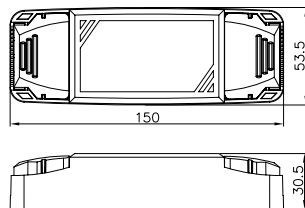
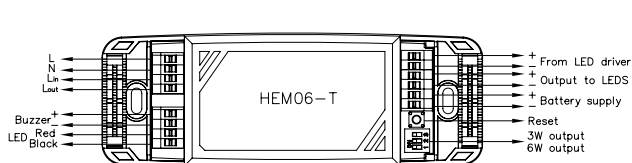


INSTRUCTION MANUAL FOR EMERGENCY LED DRIVER MODEL NO. : HEM06-T



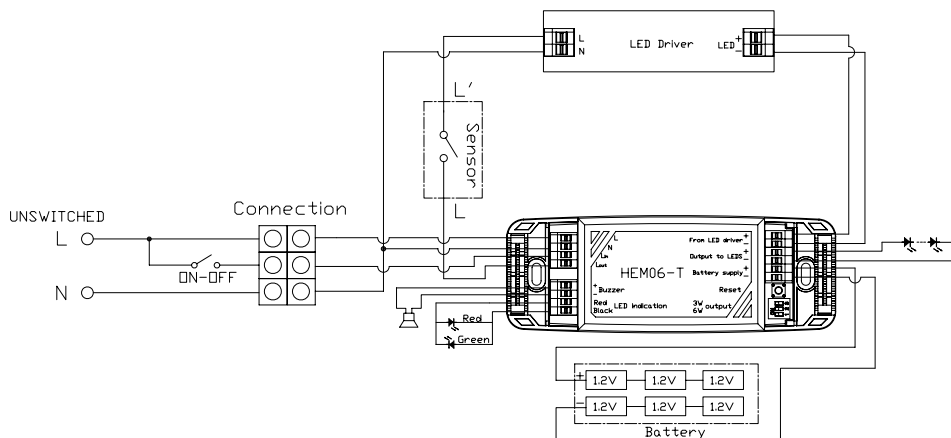
DESCRIPTION

This emergency lighting module is designed to convert a wide range of LED types, and is an ideal choice for converting most standard LED luminaires and arrays containing from 4 to 22 (70V) LEDs in series.

This unit is designed to utilize the existing LED driver and panel layout (no need to break into the LED circuit) to be dimmed to 3W/6W in case of emergency.

The driver can automatically adjust the output LED current to provide the optimum match between the battery and the load, which enables maximum illumination whilst ensuring full battery duration. The driver is compatible with a wide range of LEDs such as Philips Fortimo DLM, SLM and LLM ranges, Bridgelux LS/ES/RS ranges, Citizen 4-41W ranges, GE Infusion, Xicato and many others.

WIRING DIAGRAM



- Note:
1. Charge new battery 24h before use.
 2. High temp. battery pack. 75 degree for NiCd, and 55 degree for NiMH.
 3. In compliance with IEC61951-1 (NiCd type), IEC61951-2 (NiMH type).

Ballast Lumen Factor % (for reference only):

@3W	Luminaire Power	5W	7W	10W	12W	15W	20W	25W	30W	35W	40W	45W	50W
		60%	43%	30%	25%	20%	15%	12%	10%	9%	8%	7%	6%

@6W	Luminaire Power	7W	10W	12W	15W	20W	25W	30W	35W	40W	45W	50W	60W
		85%	60%	50%	40%	30%	24%	20%	18%	16%	14%	12%	10%

Self-testing feature

Hytronik advanced LED emergency control model HEM06-T has a internal clock, programmed to interrupt the permanent mains supply at pre-determined intervals to perform the requested routine testing: 3min. functional test every month, and 1h (3W) & 20min (6W) function test every 6 months, and 3h (3W) & 1h (6W) function test every 12 months.

- Self-test starts after the luminaire are connected to mains for continued 48 hours.
- Auto-commissioning, saves manpower and maintenance.
- Permanently monitors battery and charge condition
- Dual failure indication: failures are clearly identified on the luminaire by red LED and buzzer.
- MCU programmed test schedule: 3min @ every month; 1h (3W) & 20min (6W) @ 6 months; 3h (3W) & 1h (6W) @ 12months.
- Automatic delayed test in case of power failure at programmed testing period.

Status	Buzzer beep & LED flash mode
Battery failure	Red LED slowly flashes once in 3 seconds; buzzer beeps 10 seconds every hour
LED lamp failure	Red LED rapidly flashes twice in 3 seconds; buzzer beeps 10 seconds every hour
Emergency LED driver failure	Red LED rapidly flashes 3 times in 3 seconds; buzzer beeps 10 seconds every hour
Healthy condition	Green LED is constantly on
Battery charge	Green LED slowly flashes once every second
Battery discharge	/
Monthly test	Green LED slowly flashes once in 3 seconds
6 month test	Green LED flashes twice in 3 seconds
12 month test	Green LED quickly flashes 3 times in 3 seconds

Reset Function

There is a RESET button on HEM06-T which is designed to randomly initiate the self-testing program after commissioning. It can also remove "failure indication" after replacing the failed component. Three ways to achieve:

- * Short push (<2s): goes to monthly test mode and can clear all failure indications, except the one caused by low battery.
- * Long push (<5s): buzzer beeps twice and battery start charging for 48h, then goes to 12-month test mode. All indications are cleared after test.
- * Long push (>10s): buzzer beeps three times, then goes to 12-month test mode. All indications are cleared after test.

IMPORTANT

It is recommended that the module is installed by a competent person ensuring the installation complies with the necessary standards. Hytronik accept no responsibility for injury, damage or loss, which may arise as a result of incorrect installation, operation or maintenance. The conversion requires an unswitched supply for charging the battery and a switched supply for a maintained conversion.

Warning

**Avoid running the LED mains driver and Emergency pack without the load connected.
Failure to do so may result in damage to the LED array.**

CAUTIONS IN EMERGENCY BATTERY USAGE

STORAGE CONDITIONS

1. Temperature range for storage (Humidity: Max. 85%)
0 ~ +35 °C, one year storage
(Storage time will be shortened if out of this temp. range)
2. Storage duration before use: Less than 6 months from batteries received to start with charging.

Note 1: For Ni-Cd battery, we recommend batteries are charged and discharged at least once every 6 months.

Note 2: For Ni-MH battery, we recommend batteries are charged and discharged at least once every 3 months.

Note 3: Never over discharge the battery.

WARNING

1. Avoid direct soldering onto cells.
2. Use only within the specified working temperature range.
3. Do not subject batteries to mechanical shock.

DANGER!

1. Avoid throwing cells into a fire or attempting to disassemble them. As the electrolyte inside is strong alkaline and can damage skin and clothes.
2. Avoid short circuiting. It may be leakage.

SPECIFICATION

Mains voltage	220-240V/AC 50/60Hz
Mains current	13mA - 16mA
Mains power	3.5W
Output voltage (U-out Max.)	75VDC
Power factor	0.75
Operation temperature	0 ~ +50 °C
Battery charge voltage	6V ~ 8.5V
Battery charge current	200mA (Max.)
Charge period	24 hours
Max. case temp.	+75 °C
Battery duration	1 hour @ 6W; 3 hours @ 3W
Mains switch-over voltage range	150VAC ~ 180VAC
Output LED current	3W: 260mA ~ 40mA (12V ~ 70V); 6W: 350mA ~ 80mA (12V ~ 70V)
Over-heat protection	Over-heat protection with auto-reset.
EMC standard	EN55015, EN61547
Safety standard	EN50172, EN61347-2-7, EN61347-2-13, IEC62034, BS5266
Certification	Semko, CE, EMC
Dielectric strength	Input → output: 3750VAC
IP grade	IP20