Installation & Wiring Instructions
NLP/2/SP85-R - High Output
Remote Conversion Kit

PLEASE READ THESE INSTRUCTIONS BEFORE COMMENCING INSTALLATION & LEAVE WITH END USER

Description:

The Liteplan range of NLP/2/SP85-R modules are designed to convert a wide range of LED types with two versions. The NLP/2/SP85-R is the popular choice for converting most standard LED luminaires and arrays between 10 and 60 Volts, whilst the NLP/2/80/SP85-R extends the range by converting from 10 to 80 Volts.

The modules are designed to be installed by breaking into the low voltage connection between the mains driver and the LEDs and allows the LEDs to be operated as normal under mains healthy conditions and operated at reduced light output in an emergency.

The modules automatically adjusts the output LED current to provide the best match between the battery and the load, providing maximum illumination whilst ensuring full battery duration and are compatible with a wide range of lighting.

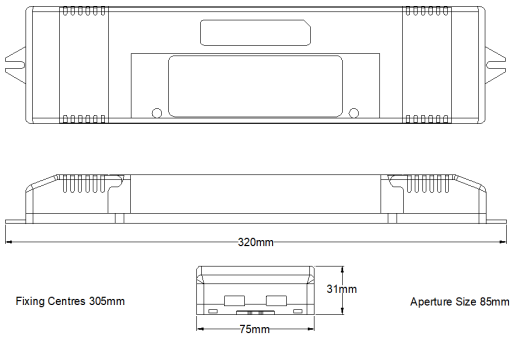
The unit will recharge the batteries after the test of clause 22.3 of BS EN 61347-2-7:2012.

The product features battery temperature protection in accordance with IEC 61347-2-7: 2012+A12:2022.

Specification:

Input Voltage	230-240 Volts AC 50/60 Hz
Power Rating (Charging) *	3.8W - 23mA - λ = 0.69
Power Rating (Standby) *	1.3W - 13mA - λ = 0.43
Insulation between supply & battery	Double Reinforced
Duration	3-hours
Maximum Module Tc	70°C
Minimum Battery Tc	0°C
Maximum Battery Tc	55°C
Recharge Period	24-Hours
Battery Type	6.4V 3.8Ah LiFePO4
Charge Current	225mA Nominal
Discharge Current	900mA nominal
Charge Voltage Limit	7.0 Volts
Discharge Voltage Limit	5.0 Volts
Ingress Protection	IP20
Recharge Period	24-Hours
Module Size (L x W x H)	320mm x 75mm x 31mm
Module Fixing Centers	305mm
Remote Weight	0.9Kg

* Following its initial charge, the NLP/2/SP85-R will spend 90% of its operational life in standby mode



NLP/2/SP85-R

*P*rated - 4.8W
*I*rated - 460-86mA
Voltage Range 10 - 55 Volts
Open Circuit Voltage (U-OUT) = 60 Volts

NLP/2/80/SP85-R

*P*rated - 4.8W
*I*rated - 420-58mA
Voltage Range 10 - 80 Volts
Open Circuit Voltage (U-OUT) = 90 Volts

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

Important

It is recommended that the module is installed by a competent person ensuring the installation complies with the necessary standards. Liteplan 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 if the unit is being used for maintained operation.

ISOLATE BOTH MAINS SUPPLIES AND DISCONNECT THE BATTERY BEFORE INSTALLATION OR MAINTENANCE.

Installation

When converting a luminaire observe the following points:-

1. Ensure that the module and battery pack will operate within their temperature ratings at their chosen loaction.
2. Ensure that the interconnecting loom is kept as short as possible.
3. Ensure that the Permanent Live & Switched Live feeds are connected correctly.
4. Arrange the wiring to avoid running the 240 Volt cables next to the modules output to the LED to obtain the best EMC results.
5. Requirements for 'F' markings must be observed.
6. Identify clearly the NEW Un-switched supply.
7. Ensure the LED Charge Indicator is clearly visible in every day use.
8. Connect the battery connector that can be found under the inspection cover.
9. This module is not intended for use in luminaires for high-risk task area lighting.
10. This module is protected against battery polarity reversal.

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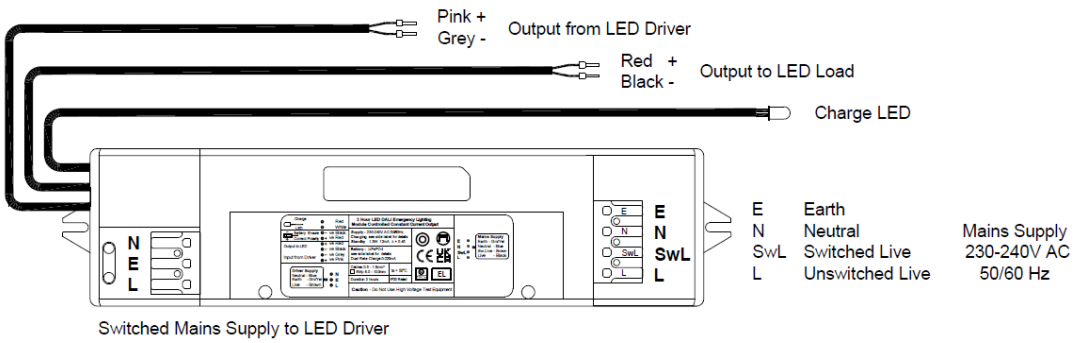
Typical
Conversion
Wiring Diagram



Testing/Commisioning:

- Ensure the load is connected.
- Connect the battery.
- Switch on the Unswitched Supply - Check the Charge LED illuminates.
- Switch on the Maintained Supply - Check the LED illuminates as normal.
- Switch off the Maintained Supply.
- Switch off the Unswitched Supply - Check the Charge LED extinguishes and the load LED illuminates at a reduced output.
- Enter the commissioning date on the Battery Pack. Switch on the Unswitched Supply
- If the battery case temperature falls below 0°C or goes above 55°C the charger will cut-off and the charge LED will go out.

Luminaire Ref/Location	**In Case of difficulty, contact the Installation Engineers:-** ..... Tel:.....	
Full Recharge Time 24 Hours	Duration 3 Hours	Lamp Type - LED

ROUTINE TEST RECORD

	Year 1		Year 2		Year 3		Year 4		Year 5	
Monthly Test	Signed	Date	Signed	Date	Signed	Date	Signed	Date	Signed	Date
Functional										
Functional										
Functional										
Functional										
Functional										
Functional										
Functional										
Functional										
Functional										
Functional										
Functional										
Three Hour										