Installation & Wiring Instructions

NLP/2/TP40-R - High Output Two Part Remote Conversion Kit



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

Description:

The Liteplan range of NLP/2/TP40-R modules are designed to convert a wide range of LED types with two versions. The NLP/2/ TP40-R is the popular choice for converting most standard LED luminaires and arrays between 10 and 60 Volts, whilst the NLP/2/80/TP40-R extends the range by converting loads between 10 and 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 battery is fitted with a PCM to protect the supply voltage against reverse polarity.

Specification:

| Input Voltage | 230-240 Volts AC 50/60 Hz | | | | | | | |
|-------------------------------------|--------------------------------|--|--|--|--|--|--|--|
| Power Rating (Charging) | $3.8W - 23mA - \lambda = 0.69$ | | | | | | | |
| Power Rating (Standby) | $1.3W - 13mA - \lambda = 0.43$ | | | | | | | |
| Insulation between supply & battery | Double Reinforced | | | | | | | |
| Duration | 3-hours | | | | | | | |
| Ambient Temp. Ta | 0°C to + 50°C | | | | | | | |
| Max Case Temp. Tc | 70°C | | | | | | | |
| Max Battery Temperature | 55°C | | | | | | | |
| Recharge Period | 24-Hours | | | | | | | |
| Battery Type | 6.4V 3.8Ah LiFePO4 | | | | | | | |
| Charge Current | 225mA Nominal | | | | | | | |
| Discharge Current | 900mA nominal | | | | | | | |
| Discharge Voltage Limit | 5.0 Volts | | | | | | | |
| Ingress Protection | IP20 | | | | | | | |
| Recharge Period | 24-Hours | | | | | | | |
| Module Size $(L \times W \times H)$ | 231mm x 33.6mm x 22.5mm | | | | | | | |
| Module Fixing Centers | 224mm | | | | | | | |
| Module Weight | 0.21Kg | | | | | | | |
| Battery Details (mm) | | | | | | | | |

Stick 157mm x 28mm diameter FC = 150mm Remote 160mm x 34.5mm Diameter

0.24Kg

22.5mm 231mm 33.6mm

Fixing Centres 224mm

NLP/2/TP40-R

Prated - 4.8W Irated - 460 - 86mA Voltage Range 10 - 55 Volts

Open Circuit Voltage (U-OUT) = 60 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.
- Ensure that the interconnecting loom is kept as short as possible.
- Ensure that the Permanent Live & Switched Live feeds are connected
- Arrange the wiring to avoid running the 240 Volt cables next to the modules output to the LED to obtain the best EMC results.
- Requirements for 'F' markings must be observed.
- Identify clearly the NEW Un-switched supply.
- Ensure the LED Charge Indicator is clearly visible in every day use.
- If fitted within a metal enclosure, connect earth terminal to metal gear tray for improved EMC
- This module is not intended for use in luminaires for high-risk task area
- 10. This module is protected against battery polarity reversal.

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Battery Weight

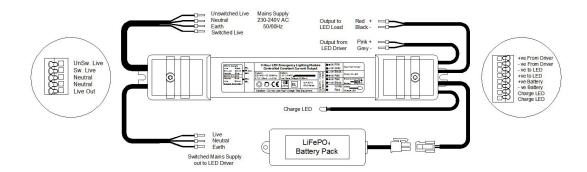
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Two Part Remote Conversion Kit



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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

| Luminaire Ref/Location | | In Case | In Case of difficulty, contact the Installation Engineers:- | | | | | | | | |
|-----------------------------|--------|---------|---|------------------|------------|--------|-----------------|--------|--------|--------|--|
| | | | | | | | | | | | |
| Full Recharge Time 24 Hours | | | | Duration 3 Hours | | | Lamp Type - LED | | | | |
| | | | | ROUTINE | TEST RECOR | RD | • | | | | |
| | Year 1 | | Year | Year 2 | | Year 3 | | Year 4 | | Year 5 | |
| Monthly Test | Signed | Date | Signed | Date | Signed | Date | Signed | Date | Signed | Date | |
| Functional | | | | | | | | | | | |
| Functional | | | | | | | | | | | |
| Functional | | | | | | | | | | | |
| Functional | | | | | | | | | | | |
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| Functional | | | | | | | | | | | |
| Functional | | | | | | | | | | | |
| Three Hour | | | | | | | | | | | |

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