

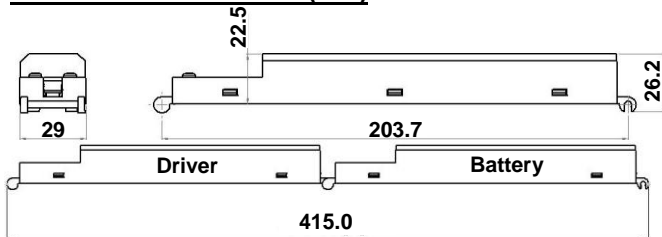
## INSTALLATION INSTRUCTIONS XY-Fi – DRIVER AND BATTERY PACK

Refer to website [www.mackwell.com](http://www.mackwell.com) for specific data

### DESCRIPTION

A non-maintained class II emergency LED driver complete with battery pack in an articulated plastic housing designed for use with the Mackwell XYFI/LPHD LED lamphead. The driver has stabilised output current and reinforced insulation (SELV) between the supply and the battery circuit, and a battery charger with short circuit protection that will continue to operate when the short is removed.

### LUMINAIRE DIMENSIONS (mm)



### SPECIFICATION

|                           |                          |
|---------------------------|--------------------------|
| Supply voltage            | 230Vac                   |
| Supply frequency          | 50/60 Hz                 |
| Supply current            | 30mA maximum             |
| Battery charge current    | 200 to 250mA             |
| Battery charge voltage    | 3.0 to 4.6V              |
| Battery discharge current | 0.25 to 0.45A            |
| Battery discharge voltage | 2.4 to 4.4V              |
| Rated duration            | 3 hours                  |
| Ambient temperature (ta)  | 0°C to +45°C             |
| Max case temp (tc)        | 70°C                     |
| Conductor size            | 0.5 – 1.5mm <sup>2</sup> |
| Weight of control gear    | 240g (incl. battery)     |
| Weight of lamphead        | 20g                      |

### BATTERIES

The driver includes a rechargeable 3.6V 2.2Ah NiMH battery pack for 3-hour operation. When the driver no longer meets 3 hours duration replace the batteries, observing the battery polarity, as **permanent damage to the control gear will occur if they are reversed.**

### RELEVANT STANDARDS

EN 61347-2-7 Lamp control gear  
EN 61347-2-13 LED control gear  
EN 60598-2-22 Luminaire  
BS5266-1:2005/IEC62034 Automatic testing

### ELECTRICAL INSTALLATION

The driver must be installed by a qualified person in accordance with the current building and wiring regulations.

Drivers comply with the EMC directive in both modes of operation, mains and emergency. The battery lead should be connected only at the time of commissioning. Remove end cover, to attach mains supply & data cables (if applicable).

**When the mains supply and battery leads are connected, both white covers should be screwed into place to protect from electric shock.**

### OPERATION (XY-Fi /D1 DRIVER ONLY)

The driver automatically tests the performance of the emergency luminaire in accordance with BS5266-1:2005 and IEC62034.

#### **Automatic Operation - Commissioning Test**

Connection of the mains supply will initiate commissioning where the battery will remain on charge for an uninterrupted 24 hours. An interruption of the mains supply will reset the counter to zero. After 24 hours the luminaire will be put into a duration test for the rated period, immediately followed by another 24hr charge period.

If the mains supply is to be interrupted for more than 7 days, then the battery **MUST** be disconnected.

#### **Automatic Operation - Functional Test**

A 30 second functional test is carried out at 30 day intervals. This test can also be initiated manually by switching the mains supply OFF/ON twice within 5 seconds.

#### **Automatic Operation - Duration Test**

A full rated duration test is carried out automatically at yearly intervals.

### LED Indicator

A bi-colour LED indicates the status of the module as follows:

|       |                   |  |
|-------|-------------------|--|
| Green | 10 second 'pulse' | Normal standby mode                          |
|       | Slow flash        | Commission mode or Duration Test in progress |
|       | Fast flash        | Functional Test in progress                  |
| Red   | Slow flash        | Charging or battery fault                    |
|       | Fast flash        | Lamp fault                                   |

Note: Slow flash = 0.5Hz, Fast flash = 2.5Hz

### AUDIBLE ALARM

An audible alarm will sound if a fault is found during test and will continue to give 3 beeps every 35 minutes until the fault is rectified and the unit is reset.

Note that start times of the tests are set automatically to ensure random testing of the units. As a consequence, tests may occur at any time and caution should be exercised in situations where this may be inconvenient, such as hotels and hospitals.

### USER RESET FACILITY

A recorded fault condition may be cleared by switching the permanent supply OFF/ON twice within 5 seconds. A Functional Test is then carried out automatically to verify correct system operation.

### CONNECT A DALI SYSTEM (XY-Fi /D1 DRIVER ONLY)

This allows two wire communication between the module and a central monitoring or control system designed to meet the requirements of DALI standard IEC 62386. For a full explanation see "Mackwell Emergency Modules with DALI Interface – Description and Operating Notes", part number 39795.

### IMPORTANT

NC terminals are not SELV rated and must not be connected to SELV circuits. Wiring to the "NC" terminals must be in accordance with mains wiring and isolation requirements.

## **INSTALLATION INSTRUCTIONS** **XYFI/LPHD**

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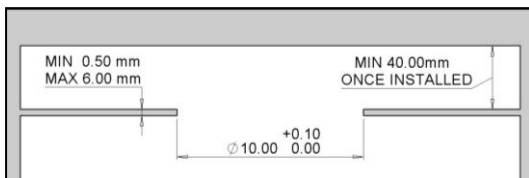
### **DESCRIPTION**

The XYFI/LPHD LED lamphead comprises a 3W LED, bi-colour status indication LED and wiring loom.

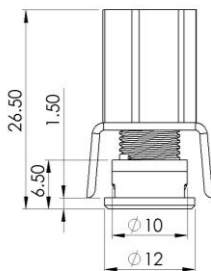
### **WIRE CONFIGURATION**

|             | <b>D1 VARIANT</b> | <b>NON-AUTOTEST VARIANT</b> |
|-------------|-------------------|-----------------------------|
| <b>LED+</b> | RED               | RED                         |
| <b>LED-</b> | BLACK             | BLACK                       |
| <b>IND+</b> | BROWN             | BLUE                        |
| <b>IND-</b> | BLUE              | BROWN                       |

### **MOUNTING REQUIREMENTS**



### **LAMPHEAD DIMENSIONS (mm)**



### **WARRANTY**

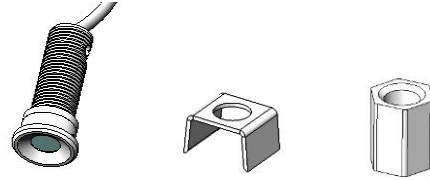
This product is guaranteed for three years and covers faulty workmanship and materials.

The guarantee on NiMH batteries is one year. This "Return to Base" warranty requires that the product is used within the terms and conditions in our literature and on our website.

Products returned to us under warranty must be carriage paid. Mackwell Electronics Ltd. accept no liability for costs incurred.

Refer to product literature at [www.mackwell.com](http://www.mackwell.com) or contact our technical department for more details.

## **PARTS LIST**



## **ASSEMBLY**

