



LITHIUM FX EMERGENCY LIGHTING TECHNOLOGY

Lithium FX overview

As the market swings to Lithium batteries our Lithium FX Technology comprises a range of self-contained emergency luminaires and control gear using Lithium-ion, (specifically LiFePO₄), battery technology. This technology can also be incorporated into most of our standard range fittings along with our bespoke led solutions. Our lithium range can be offered in Manual or Self-test options to best suit the client's requirements and with our FXARC optional remote-control testing and maintenance can be simplified.

Lithium-Ion battery technology

LiFePO₄ is the greenest battery option for emergency lighting with lithium the lightest of all metals, offering several advantages over NiCd and NiMH. Firstly, its high specific energy and load capabilities allows a more compact unit. This combined with an extended shelf life & its low self-discharge make it an attractive alternative.

LiFePO₄ batteries offer life up to double that of NiCd and NiMH batteries.

Microprocessor controlled pulse charging means that battery temperature is reduced by around 5°C when compared to traditional constant charging systems, further extending not only battery life, but also the life of all other electronic components.

Unlike NiCd and NiMH cells which can be damaged by excessive charging/discharging, LiFePO₄ batteries benefit from being cycled and don't suffer from 'memory effect' in the same way that NiCd or NiMH do.

Why change to Lithium Ion technology?

- Reduction in energy consumption, typically £5.00 per annum for each luminaire
- Higher energy density = more compact unit
- Increased number of charge/discharge cycles, typically 7-10 years service life
- Better resilience to high/low temperatures
- Excellent reliability resulting in reduced maintenance costs
- Five-year warranty on batteries and components

Lithium FX testing protocols

Within our Lithium FX emergency range we have three types of testing protocols available, Standard test, Manual Test with the benefit of remote control testing & Self test.

Standard manual test

Tested in the traditional way, by interrupting the mains feed. This is usually accomplished by use of an installed test key switch.

MT manual test

These can be tested in the traditional way and can also be tested using the FXARC (optional remote control). This includes routine and full discharge tests.

Standard features include:

- No need for test key-switches when used with optional FXARC remote control
- By testing user selected luminaires disruption can be kept to a minimum, no need to switch off whole circuits

AST advanced self-test

Testing is carried out in the background, all that is required is a visual check of the Indicator in place of the routine checks. This can save a great amount of time and labour charges. The FXARC can be used with AST luminaires and can also switch them into MT mode if required. The FXARC can also indicate the battery condition.

Standard features include.

- All testing carried out automatically, no need for test key-switches or full discharge test.
- Battery condition can be checked using the optional FXARC remote control
- Can be switched to MT manual mode with FXARC if required (e.g. hotel bedrooms)