



EMERGENCY LIGHTING LITHIUM BATTERY



Up to **50% savings** on running costs v NiCd Double the operational life, so **half the cost** to maintain No toxic substances used in manufacture

Can be **recycled**

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The Complete Electrical Wholesaler



NVC ARLINGTON

Versatile LED exit sign with drop blade with multitude of fixing options, for 3 hour maintained operation

Application	Options
Corridors	LEGENDS Alternative legends available as listed - to be ordered as
Exits	separate items. For "man running through door", use suffix V2, as listed. FIXING ATTACHMENTS Optional fixing attachments to allow: • Recessed fixing • Wire Suspension • Side wall mounting
Escape routes	
	SELF-TEST option available (suffix ST)giving built in self test regime of monthly functional test & annual 3-hour full duration test. Visual indicators if there is an issue with the product.



Product Codes	Description
2704113	ARLINGTON 2W LED EM BLADE EXIT SIGN V2 LEGEND ARROW DOWN LITHIUM
2704114	ARLINGTON 2W LED EM BLADE EXIT SIGN V2 LEGEND ARROW RIGHT LITHIUM
2704115	ARLINGTON 2W LED EM BLADE EXIT SIGN V2 LEGEND ARROW LEFT LITHIUM
2704116	ARLINGTON RECESSED MOUNTING KIT
2704117	ARLINGTON SIDE WALL MOUNTING KIT
2704118	ARLINGTON WIRE SUSPENSION KIT

NVC LEXINGTON AND LEXINGTON SLIM



Description LEXINGTON	
LEXINGTON LED EXIT BOX 3W MAINTAINED V2 LEGEND ARROW DOWN LITHIUM	
LEXINGTON LED EXIT BOX 3W MAINTAINED V2 LEGEND ARROW RIGHT LITHIUM	
LEXINGTON LED EXIT BOX 3W MAINTAINED V2 LEGEND ARROW LEFT LITHIUM	
Product Codes Description EXINGTON SI IM	
Description LEXINGTON SLIM	
LEXINGTON SLIM LED EXIT BOX 3W MAINTAINED V2 LEGEND	
ARROW DOWN LITHIUM	
ARROW DOWN LITHIUM LEXINGTON SLIM LED EXIT BOX 3W MAINTAINED V2 LEGEND ARROW RIGHT LITHIUM	

EMERGENCY LIGHTING



NVC NEBRASKA LITHIUM

IP65 LED slim emergency bulkhead with a range of attachments.

Technical Details

175 lm on mains
133 lm on battery supply
1.9W
3 hours operation on battery power after mains failure
Can be installed as maintained or non-maintained













Description
NEBRASKA 2W LED IP65 MAINTAINED 3HR LITHIUM
Nebraska V3 Recessed Mounting Kit

NVC KANSAS IP20

Twinspot LED IP20 fittings

Technical Details

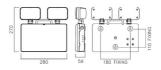
3-hour Non-Maintained
2 x 3W combined body & heads for use from 0°C - +25°C
300 lumens total output



 Product Codes
 Description

 2704004
 KANSAS LED TWINSPOT IP20 2X3W 300 LUMEN NON MAINTAINED





EMERGENCY LIGHTING

NVC KANSAS IP65

Twinspot LED IP65 with Self Test.

Application

Suitable for general industrial use,

Construction

Injection moulded ABS body Polycarbonate heads, including lens

Lithium Iron Phosphate (LiFePO4) 3.2V 5500mAh battery

Suitable for mounting in any orientation

Heads can be rotated & tilted

Piano key terminal block for ease of installation

IP 65

380 total lumen output

Technical Details

3-hour Non-Maintained 2 x 3W body & heads

Self-Testing compliant with BS5266 comprising of a monthly functional test & an annual 3-hour duration test

LED indicators show the status of the Luminaire

CHANGING TO LITHIUM IN 2021 Description

Product Codes 2704003

KANSAS 2X3W TWINSPOT IP65

NVC SENECA RECESSED

Dedicated LED emergency fittings for recessed mounting.

Application

Construction

3000mAh battery (not suitable for use below OoC)

Technical Details

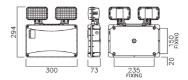
190 lumens	
Non-maintained operation	
Choice of two lenses for different light distributions: • Wide, giving a circular distribution • Oval, giving an oval light distribution. (supplied losse in the box).	
Momentary manual test button fitted	
Self-test version, compliant with BS5266	



Product Codes	Description
2704401	SENECA 3W 190 LUMEN RECESSED LED NON MAINTAINED
2704408	SENECA 3W 190 LUMEN SURFACE OPEN PLAN LED NON MAINTAINED

EMERGENCY LIGHTING







BENEFITS OF LITHIUM TECHNOLOGY IN EMERGENCY LIGHTING

ARE LITHIUM IRON PHOSPHATE (LFP) BATTERIES SUITABLE FOR EMERGENCY LIGHTING?

Lithium iron phosphate (LiFePO4, or LFP) are very well suited for use in emergency lighting. When compared with alternatives such as nickel cadmium (NiCd) and nickel metal hydride (NiMH), lithium iron phosphate (LFP) batteries have several advantages:

ENERGY EFFICIENCY. LFP is more efficient than NiCd in two ways.

- Self Discharge. All rechargeable batteries lose charge over time, but with LFP the rate is only 3-5% per month. NiCd can lose 15% in the first 24 hours, falling to 10-20% per month (depending on temperature) after that. The result of this is that the charger in an emergency fitting with NiCd or NiMH batteries is working almost continually, whereas the charger in an LFP circuit is working at low current in short and infrequent bursts.
- **Charge Efficiency.** Energy is lost in the form of heat during the charging process of any battery. With LFP the charge efficiency is very high, about 95%. With NiCd the charge efficiency is also very high, but only in the earlier stages of charging.

LONG LIFE

- LFP batteries have little memory effect so their performance remains almost constant till they reach end of life, usually defined as 70% of rated capacity. Typically, an LFP battery will have a life of 8-10 years.
- The performance (power storage) of NiCd and NiMH declines rapidly with every charge/ discharge cycle, so they typically need to be changed after 3 or 4 years. The routine testing of emergency lighting required by BS 5266 contributes to shortening the life of NiCd batteries. It is also common for NiCd batteries in new-build projects to fail in their first year of life if they have been fully installed in the construction phase when the mains power would normally be switched off completely overnight. The resulting nightly discharge and daily re-charge degrades the NiCd batteries to the point that they can be due for replacement withing the first year of occupation.

EXTREME TEMPERATURE PERFORMANCE

- **High Temperatures**, LFP is unharmed by ambient temperatures up to 60°C, whereas NiCd and NiMH can only tolerate 55°C and 50°C respectively.
- Low Temperatures, LFP performs well down to -20 $^{\circ}$ C, but NiCd and NiMH will not deliver the charge needed to run emergency lighting below 0 $^{\circ}$

ENVIRONMENT

Cadmium is banned under the RoHS Directive because it is a dangerous pollutant.

- Cadmium is highly toxic.
- Cadmium has a limited future use.
- Lithium has a long future ahead.

EMERGENCY LIGHTING

LED is now the preferred light source for all emergency lighting

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LOWER MAINTENANCE COSTS

With old fluorescent and incandescent technologies lamps had to be changed regularly. The long life of LEDs means that this is no longer necessary, so maintenance cost are greatly reduced.

RELIABILITY

Fluorescent lamps were never ideally suited to being run on batteries, so blackened lamp ends were a common problem indicating that a lamp was nearing the end of its life. LEDs are well suited to running on battery power and are therefore much more reliable.



BETTER LIGHT DISTRIBUTION

Fitted with a lens, LEDs can give the precise light distribution needed for corridors.

Better light distribution means improved uniformity, better spacing and fewer fittings required to give an installation that conforms to standards.



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