

# FNES LED Series Self-Contained Emergency Lighting with Self-Test System

## Zone 2 - 21 and 22

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Gas (G) and Dust (D)

### Applications

- Provides adequate lighting and/or visual indication of access and exit routes during an evacuation in a hazardous environment.
- Can be installed in hazardous areas designated as Zone 2 – 21 and 22.
- Typical applications include oil refineries, petrochemical plants, pulp, paper mills and silos.

### Features

- Power supply 230 Vac, 50/60 Hz.
- 1 hour duration (emergency).
- Non-maintained.
- Operates in any position.
- Battery pack.
  - Escape route lighting: 2.4 V - 1.5 Ah (2 cells - Nicd).
  - Space lighting: 7.2 V - 2.2 Ah (6 cells - NiMh) - Flameproof.
- Open and close using an Allen key (size 10) or a 6 mm flat screwdriver.
- Connection to plug-in terminal block via 2 x 5 x 2.5 mm<sup>2</sup> terminals.
- Two M20 clearance holes supplied with one cable gland — diameter 6.5 to 14.5 mm one blanking plug and two locknuts.
- Charge indicator by green LED (lifetime over 10 years).
- Automatic built-in self-test system (SATI) with memorization of tests indicated by LEDs .
- Using a microprocessor and an internal clock, the unit will carry out automatic tests.
- Weekly test: Lamp check duration 6 seconds.
- Quarterly test: Emergency operation and lamp check for 1 hour.
- Can be remotely controlled and checked without switching the mains off with remote control unit from Legrand (Catalog Number 03901) or URA (Catalog Number 095448 and 095450) manufacturers.
- The remote control unit installed in a safe area or inside a flameproof box allows manual ignition of all the units (max. 300 units) for visual inspection of their operation.
- Escape route lighting: 55 lumens, 0.50 wattage.
- Space lighting: 540 lumens, 0.95 wattage.

### Standard Materials

- Body: fiberglass reinforced polyester
- Diffuser (hinged to body): polycarbonate
- Gasket: elastomer
- Fixing brackets: zinc plated steel, gray painted aluminum or 316 stainless steel
- Cable gland and blanking plug: polyamide
- Locknut: nickel-plated brass

### Options

- Addressable versions:
  - Operates without additional control lines. Communication between units and the control system is realized via mains borne signals that utilize the existing electrical wiring.
  - Standard control system capacity: one control system for up to 200 emergency lighting units.



FNES LED

- Optional increased control system capacity: booster (repeater unit) is used to increase the length of the network allowing up to 1000 emergency lighting units to be on one control system. This allows for the use of a single computer to centralize the management of the facilities emergency lighting system. For more information, please contact your local sales representative.
- Addressable monitoring software is available, please consult your local sales representative.
- Low temperature application, please consult your local sales representative.

### Certifications and Compliances

#### ◆ATEX or ATEX/IECEx Certification

- **Certification Type: FLn**
  - Gas: Zone 2
    - Conforming to ATEX 94/9/CE: Ⓢ II 3 G
    - Type of Protection 'nA' : Ex nA IIC T6 Gc
    - Type of Protection 'nR' : Ex nR IIC T4 Gc
    - Temperature class: T6 (nA) or T4 (nR)
    - Ambient Temperature: -20 °C to +55 °C ①
  - Dust: Zone 21
    - Conforming to ATEX 94/9/CE: Ⓢ II 2 D
    - Type of Protection: Ex tD A21
    - Surface Temperature: T75 °C
    - Ambient Temperature: -40 °C to +55 °C ①
  - Dust: Zone 22
    - Conforming to ATEX 94/9/CE: Ⓢ II 3 D
    - Type of Protection: Ex t IIIIC Dc
    - Surface Temperature: T75 °C
    - Ambient Temperature: -20 °C to +55 °C ①
  - CE Declaration of Conformity: 50212
  - ATEX Certificate:
    - Zone 2-22: LCIE 03 ATEX 6072
    - Zone 21: LCIE 02 ATEX 6067
  - IECEx Certificate:
    - Zone 2-22: IECEx LCI 04.0021
  - Index of Protection according EN/IEC 60529: IP66/67
  - Impact Resistance (shock): IK10
  - Conforming to NF AEAS

#### ◆EURASEC Certification

- EURASEC N° TC RU C-FR.Г505.B.00912

#### ◆Others Certification

- INMETRO Certificate: BVC11.0815 ②

### Related Products

- For labels see *Labels for Emergency Lighting Units, ATX Self-Adhesive Signaling Labels for Emergency Lighting Units.*

① Optimum operating temperature for battery is -5 °C to +30 °C

② Inmetro certification available on special request only. Contact your local sales for more information

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### Catalog Numbering Guide

**FNES**  
Series:  
FNES - FNES Series  
Zone 2 and 22: ATEX/IECEX  
Certified  
Zone 21: ATEX Certified

**LED**  
Lamp Type:  
LED

**SL**  
SL - Space Lighting  
E - Escape Route Lighting






**U**  
Cable Entry:  
A - Armored M20  
U - Unarmored M20  
N - Unarmored M25

**A**  
Options:  
A - Addressable  
W - With Switch  
(Automatic mains cut-off)

### Unswitched Version – 1 hour duration - Non-maintained - Two Unarmored M20 clearance entries

Type	Lamp Type	Lumen Output	Weight kg	Volume dm <sup>3</sup>	Catalog Number
Space Lighting	LED Array	540 lm	7.2	32.3	<b>FNESLEDSL</b>
Escape Route Lighting		55 lm	7.2	32.3	<b>FNESLEDEU</b>

### Accessories

	Description	Catalog Number
	<b>Half Clamps Brackets - Set of Two</b>	
	For 42 mm to 49 mm pole (1-1/4 to 1-1/2" tube)	
	Zinc plated steel	<b>FEHC49Z</b>
	316 stainless steel	<b>FEHC49S</b>
	For 60 mm pole (2" tube)	
	Zinc plated steel	<b>FEHC60Z</b>
	316 stainless steel	<b>FEHC60S</b>
	<b>M8 Ring Bolts - Set of Two</b>	Zinc plated steel
	<b>Hinged Brackets - Set of two brackets for adjusting luminaire when wall-mounted</b>	
	Aluminium (gray painted)	<b>FEHBA</b>
	316 stainless steel	<b>FEHBS</b>
	<b>Brackets for Surface Mounting - Set of two</b>	
	Aluminium (gray painted)	<b>FESBA</b>
	316 stainless steel	<b>FESBS</b>
	<b>Fixing Brackets - Set of two brackets for ease of surface installation</b>	
	Zinc plated steel	<b>FEFBZ</b>
	316 stainless steel	<b>FEFBS</b>

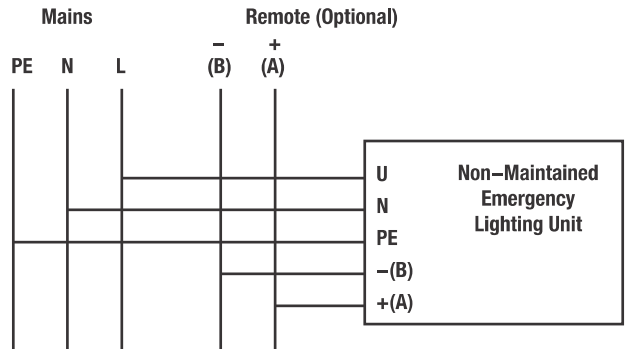
Shaded catalog numbers are normally stocked items. All other items are made to order.

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### Electrical Wiring Diagram



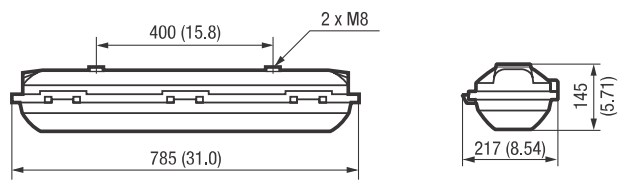
### LED Indicator

Main Status	Non Maintained		Battery not Connected or Faulty	Main Power ON
	Space Lighting	Escape Route Lighting		
Switched On	☀ ● ● ● ● ● ● ☀	● ✕ ✕ ✕ ✕ ✕ ●	SATI	△ ● ● ● ● ● ● ● ●
Switched Off	● ☀ ☀ ☀ ☀ ☀ ●	● ☀ ☀ ☀ ☀ ☀ ●	Addressable	△ ● ● ● ● ● ● ● ●

● OFF	● OFF
☀ ON (high lighting power)	△ ON — Flashing — White LED
✕ ON (low lighting power)	△ ON — Flashing — Amber LED

### Dimensions in Millimeters (Inches)



# Self-Adhesive Signaling Labels for Emergency Lighting Units







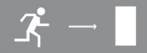









For use on Appleton/ATX emergency lighting luminaires: FDBAES, FDES and FNES Series

## Features

- Select styles available in French, English, Spanish, Portuguese and version which conform to Directive CEE 77-576.

## Standard Materials

- Plastic coated
- White lettering.
- Green background.

	Length mm	Width mm	Units per Pack	Catalog Number
<b>French</b>				
	237	53	10	094904
	237	53	10	094905
	237	109	10	094906
	172 + 57	57	10	094907
	237	109	5	094908
	237	109	5	094909
	237	109	5	094910
<b>English</b>				
	230	45	5	094915
	230	90	5	094916
	230	45)	5	094917
<b>Spanish</b>				
	237	109	5	094919
	175 + 57	57	5	094918
<b>Portuguese</b>				
	237	109	5	094913
	175 + 57	57	5	094914
<b>Conforming to Directive CEE 77-576</b>				
	237	109	5	094911
	237	109	5	094912