ATX™ FDBAES LED Series Self–Contained Emergency Lighting Units

Flameproof

ATEX/IECEx:
Zone 1 and 2 - 21 and 22
Ⓔx II 2 GD
IP66/68 - IK08

Applications

- Provides adequate lighting and/or visual indication of access on exit routes during an evacuation in a hazardous environment.
- Can be installed in hazardous areas designated as Zone 1 and 2 – 21 and 22.
- Typical applications include oil refineries, petrochemical plants, pulp and paper mills.

Features

All versions:

- Power supply 230 Vac, 50/60 Hz.
- 1 hour duration (emergency).
- Threaded access cover with O-ring seal.
- Can be maintained in hazardous areas as an internal switch cuts off battery supply automatically once the cover is unscrewed and opened.
- 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
- Padlockable switch is available on switched models which individually cuts off power supply and remote control.
- Charge indicator by 1 green LED (life time over 10 years).
- Operates in any position.
- Connection to plug-in terminal block via 2 x 5 x 2.5 mm^2 (0.003 x 0.008 x 0.004 in^2) terminals.
- Supplied with two fixing lugs.
- 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 during 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 (maximum 300 units) for visual inspection of their operation.
- Escape route lighting: 55 lumens, 0.50 wattage.
  Space lighting: 540 lumens, 0.95 wattage.

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.
- 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.

Standard Materials

- End caps and cover: aluminum
- O-ring seal: Nitrile
- Lens: tempered borosilicate glass
- Fixing brackets: zinc plated steel or 316 stainless steel
- Accessories: white painted galvanized steel
- Guard: zinc plated steel

FDBAESLEDEM

Options

- Addressable monitoring software, please consult your local sales representative.
- Low temperature application, please consult your local sales representative.

ATEX/IECEx Certifications and Compliances

- Certification Type: FLd
  - Gas: Zone 1 - 2
    - Conforming to ATEX 94/9/CE: Ⓔx II 2 G
    - Type of Protection: Ex d IIC
    - Temperature class: T6
  - Dust: Zone 21 - 22
    - Conforming to ATEX 94/9/CE: Ⓔx II 2 D
    - Type of Protection: Ex tD A21
    - Surface Temperature: T80 °C (T176 °F)
- Ambient Temperature: -40 °C to +55 °C (-40 °F to +131 °F) ①
- CE Declaration of Conformity: 50203
- ATEX Certificate: LCIE 97/ ATEX 6012
- IECEx Certificate: IECEx LCI 04.0018
- Index of Protection according EN/IEC 60529: IP66/68
- Impact Resistance (shock): IK08
- Internal Volume: > 2 dm^3 (122 in^3) - 2 liters
- Conforming to NF AEAS

EURASEC Certification

- EURASEC N° TC RU C-FR.ГБ05.B.00912

Other Certification

- INMETRO Certificate: BVC 11.0492 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 (+23 °F to +86 °F)
② Inmetro certification available on special request only. Contact your local sales representative for more information.

© June 2017

ATX™ FDBAES LED Series Self–Contained Emergency Lighting Units

Flameproof

ATEX/IECEx:
Zone 1 and 2 - 21 and 22
Ex II 2 GD
IP66/68 - IK08

Catalog Numbering Guide

FDBAES
Series:
FDBAES - FDBAES Series
Zone 1 and 2 – 21 and 22
ATEX/IECEx Certified

LED
Lamp Type:
LED

SL
SL - Space Lighting
E - Escape Route Lighting

N
Cable Entry:
N - 3/4" NPT
M - Metric M20

A
Options:
A - Addressable
W - With Switch (main supply and remote)

Type	Lamp	Lumen Output	Cable Entries	Weight kg (lb)	Volume dm^3 (in^3)	Catalog Number
Unswitched Version — 1 hour duration — Non-maintained — Two threaded cable entries with one blanking plug						
Space Lighting	LED Array	540 lm ①	3/4" NPT	8.1 (0.32)	37.1 (2264.0)	**FDBAESLEDSLN**
			M20			**FDBAESLEDSLM**
Escape Route Lighting	LED Array	55 lm ②	3/4" NPT	8.1 (0.32)	37.1 (2264.0)	**FDBAESLEDEN**
			M20			**FDBAESLEDEM**
Switched Version — 1 hour duration — Non-maintained — One threaded cable entry						
Space Lighting	LED Array	540 lm	3/4" NPT	10.0 (0.39)	40.4 (2465.4)	**FDBAESLEDSLNW**
			M20			**FDBAESLEDSLMW**
Escape Route Lighting	LED Array	55 lm	3/4" NPT	10.0 (0.39)	40.4 (2465.4)	**FDBAESLEDENW**
			M20			**FDBAESLEDEMW**
Addressable and Unswitched Version — 1 hour duration — Non-maintained — Two threaded cable entries with one blanking plug						
Space Lighting	LED Array	540 lm	3/4" NPT	8.1 (0.32)	37.1 (2264.0)	**FDBAESLEDSLNA**
			M20			**FDBAESLEDSLMA**
Escape Route Lighting	LED Array	55 lm	3/4" NPT	8.1 (0.32)	37.1 (2264.0)	**FDBAESLEDENA**
			M20			**FDBAESLEDEMA**
Addressable and Switched Version — 1 hour duration — Non-maintained — One threaded cable entry						
Space Lighting	LED Array	540 lm	M20	10.0 (0.39)	40.4 (2465.4)	**FDBAESLEDSLMAW**
Escape Route Lighting	LED Array	55 lm	M20	10.0 (0.39)	40.4 (2465.4)	**FDBAESLEDEMAW**

① Value measured after 1 hour duration - required value by standard is 400 lm.
② Value measured after 1 hour duration - required value by standard is 45 lm.

Visit our website at **www.emerson.com** or contact us at **(800) 621-1506**.
© June 2017
EMERSON

ATX™ FDBAES LED Series Self–Contained Emergency Lighting Units
Flameproof

ATEX/IECEx:
Zone 1 and 2 - 21 and 22
II 2 GD
IP66/68 - IK08

Accessories

	Description	Catalog Number
	Reflector	
	White painted galvanized steel	**FDER5G**
	Protective Guard	
	Zinc plated steel	**FDPG5Z**
	Fixing Brackets – set of two brackets for ease of surface installation	
	Zinc plated steel	**FDFBZ**
	316 stainless steel	**FDFBS**
	Surface Mounting Brackets – set of two brackets for ease of installation	
	Zinc plated steel	**FDSBZ**
	316 stainless steel	**FDSBS**
	Half Clamps – set of two	
	Zinc plated steel versions:	
	Diameter for 1-1/4 to 1-1/2" pole: 42 mm (16.65 in) to 49 mm (1.93 in)	**FDHC49Z**
	Diameter for 2" pole: 60 mm (2.36 in)	**FDHC60Z**
	316 stainless steel versions:	
	Diameter for 1-1/4 to 1-1/2" pole: 42 mm (16.65 in) to 49 mm (1.93 in)	
	Diameter for 2" pole: 60 mm (2.36 in)	**FDHC49S**
	Fall Prevention Kit	**FDHC60S**
	1.20 m (3.94 ft) stainless steel chain	**FDSCS**

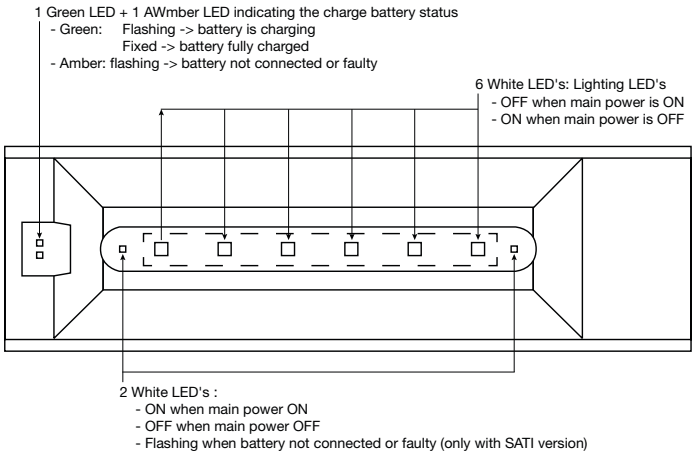
© June 2017

ATX™ FDBAES LED Series Self–Contained Emergency Lighting Units
Flameproof

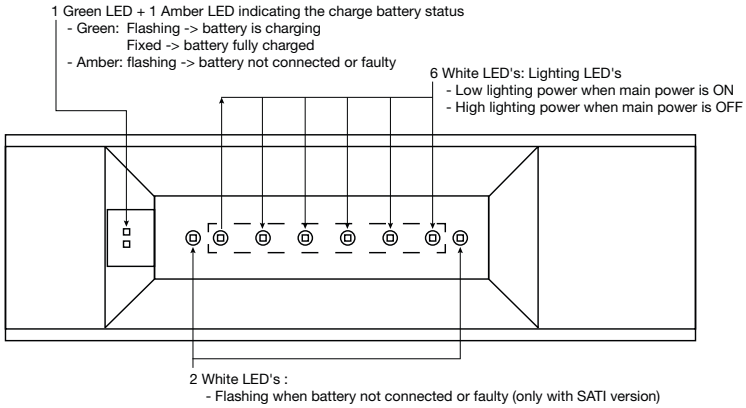
ATEX/IECEx:
Zone 1 and 2 - 21 and 22
II 2 GD
IP66/68 - IK08

LED Indicator

Space Lighting — Replaces Fluorescent Version



Escape Lighting — Replaces Incandescent Version



Main Status	Non Maintained	
	Space Lighting	Escape Route Lighting
Switched On	☼ ● ● ● ● ● ● ☼	● ☼ ☼ ☼ ☼ ☼ ☼ ●
Switched Off	● ☼ ☼ ☼ ☼ ☼ ☼ ●	● ☼ ☼ ☼ ☼ ☼ ☼ ●

● OFF
☼ ON (high lighting power)
☼ ON (low lighting power)

Battery not Connected or Faulty	Main Power ON
	Space or Escape Route Lighting
SATI	● ● ● ● ● ● ● ●
Addressable	● ● ● ● ● ● ● ●

● OFF
ON — Flashing — White LED
ON — Flashing — Amber LED

Visit our website at **www.emerson.com** or contact us at **(800) 621-1506**.
© June 2017

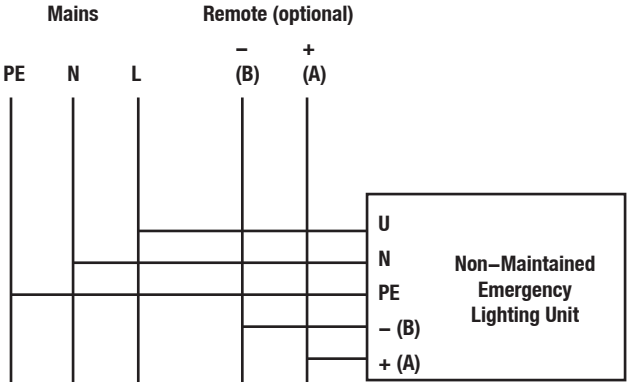
EMERSON

ATX™ FDBAES LED Series Self–Contained Emergency Lighting Units

Flameproof

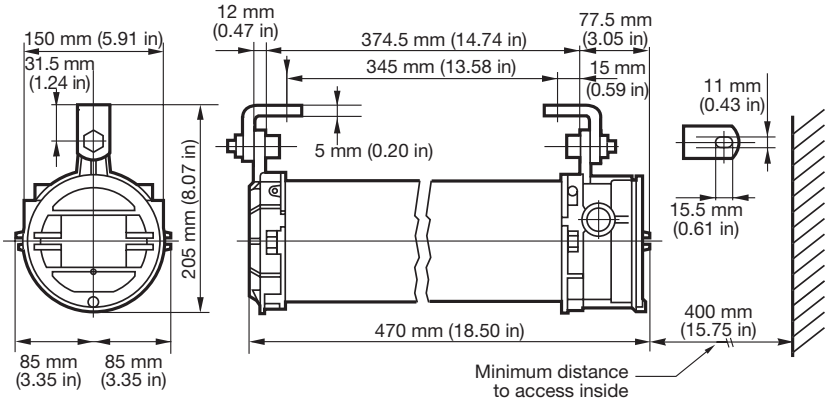
ATEX/IECEx:
Zone 1 and 2 - 21 and 22
II 2 GD
IP66/68 - IK08

Electrical Wiring Diagram

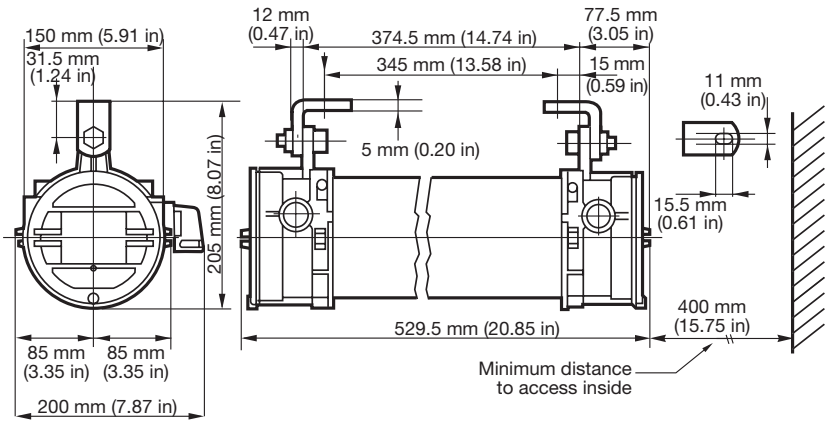


Dimensions in Millimeters (Inches)

Unswitched Versions



Switched Versions



© June 2017