

# 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

## 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
  - Hydrogen and Biofuels plants
  - LNG (Liquid Natural Gas) plants

## 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<sup>2</sup> (0.003 x 0.008 x 0.004 in<sup>2</sup>) terminals.
  - Supplied with two fixing lugs.
  - Reported L70 is >330 000 hours at +25 °C.
  - 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.
  - Correlated Color Temperature: 5700K.
  - 5 year standard warranty.
- 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, contact your local sales representative.*



FDBAESLEDEM

## Options

- Addressable monitoring software, *contact your local sales representative.*
- Low temperature application, *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

## ATEX/IECEx Certifications and Compliances

- Certification Type: FLd
  - Gas: Zone 1 - 2
    - Conforming to ATEX 2014/34/UE: Ⓢ II 2 G
    - Type of Protection: Ex db IIC Gb
    - Temperature class: T6
  - Dust: Zone 21 - 22
    - Conforming to ATEX 2014/34/UE: Ⓢ II 2 D
    - Type of Protection: Ex tb IIIC Db
    - Surface Temperature: T80 °C (T176 °F)
- Ambient Temperature: - 20 °C to +40 °C (- 4 °F C to +104 °F) ①
- ATEX Certificate: INERIS 15ATEX0056X
- UKEX: CML 21UKEX1155X
- IECEx Certificate: IECEx INE 15.0052X
- Index of Protection according EN/IEC 60529: IP66/68
- Impact Resistance (shock): IK08
- Internal Volume: > 2 dm<sup>3</sup> (122 in<sup>3</sup>) - 2 liters
- Conforming to NF AEAS

## Other Certifications

- INMETRO Certificate: BVC 17.5709-X ②

① Optimum operating temperature for battery is -5 °C to +30 °C (+23 °F to +86 °F).

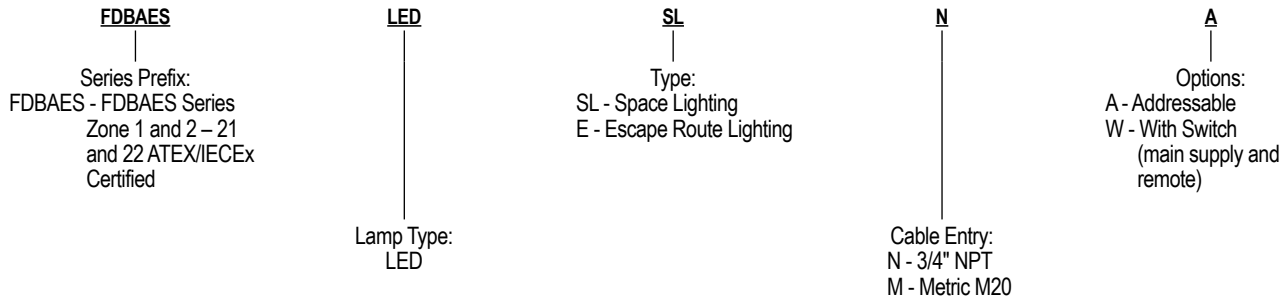
② Inmetro certification available on special request only. Contact your local sales representative for more information.

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## Order Using Catalog Numbering Guide — FDBAES LED Series Luminaires



### Lumen Output (Efficacy) ①

| Model                        | Equivalency         | CCT<br>(Correlated Color Temperature) | CRI<br>(Color Rendering Index) | Lumen Output | Efficacy (lm/W) |
|------------------------------|---------------------|---------------------------------------|--------------------------------|--------------|-----------------|
| <b>Space Lighting</b>        |                     |                                       |                                |              |                 |
| FDBAESLEDSL*                 | 1 X 8W Fluorescent  | 5650K                                 | >80                            | 540 ③        | 107             |
| <b>Escape Route Lighting</b> |                     |                                       |                                |              |                 |
| FDBAESLEDE*                  | 2 X 3W Incandescent | 5650K                                 | >80                            | 55 ④         | 107             |

### Electrical Specifications ②

| Model                        | Voltage           | Input Power (Watts) | Input Current (Amps) | Power Factor (PF) | Total Harmonic Distortion (THD) |
|------------------------------|-------------------|---------------------|----------------------|-------------------|---------------------------------|
| <b>Space Lighting</b>        |                   |                     |                      |                   |                                 |
| FDBAESLEDSL*                 | 230 Vac, 50/60 Hz | 2.6                 | 0.02                 | >0.5              | <20%                            |
| <b>Escape Route Lighting</b> |                   |                     |                      |                   |                                 |
| FDBAESLEDE*                  | 230 Vac, 50/60 Hz | 1.1                 | 0.01                 | >0.45             | <20%                            |

### Temperature Codes

| Model Type              | Gas IIC — T Rating    |                       |                       | Dust — Surface T°     |                       |                       |
|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
|                         | Ta = +40 °C (+104 °F) | Ta = +50 °C (+122 °F) | Ta = +55 °C (+131 °F) | Ta = +40 °C (+104 °F) | Ta = +50 °C (+122 °F) | Ta = +55 °C (+131 °F) |
| <b>Standard Models</b>  |                       |                       |                       |                       |                       |                       |
| FDBAESLEDSL*            | T6                    | T6                    | T6                    | +80 °C (+176 °F)      | +80 °C (+176 °F)      | +80 °C (+176 °F)      |
| <b>Emergency Models</b> |                       |                       |                       |                       |                       |                       |
| FDBAESLEDE*             | T6                    | T6                    | T6                    | +80 °C (+176 °F)      | +80 °C (+176 °F)      | +80 °C (+176 °F)      |

### “T” Numbers Represent the Maximum Temperature

| “T” #               | T1                             | T2                             | T3                             | T4                             | T5                            | T6            |
|---------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|-------------------------------|---------------|
| Temp. Range °C (°F) | +301 to +450<br>(+547 to +842) | +201 to +300<br>(+394 to +572) | +136 to +200<br>(+277 to +392) | +101 to +135<br>(+214 to +275) | +86 to +100<br>(+187 to +212) | +85<br>(+185) |

① All lumen values are typical (tolerance +/- 10%).

② All values are typical (tolerance +/-10%). Same electrical ratings apply to each luminaire with different LED position, mounting versions and cable entries.

③ Value measured after 1 hour duration - required value by standard is 400 lm.

④ Value measured after 1 hour duration - required value by standard is 45 lm.

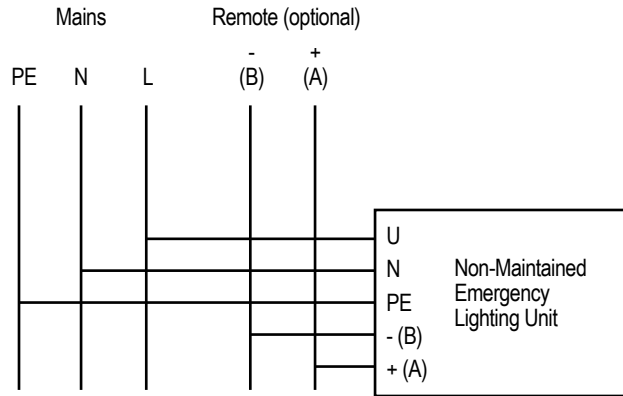


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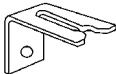
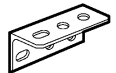

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## Electrical Wiring Diagram



## Accessories and Replacement Parts

|   | Description   | Weight in kg (lb) | Catalog Number |
|---|---|-------------------|----------------|
| <b>Reflector</b>  |   |                   |                |
|  | White painted galvanized steel                                      | 1.02 (2.25)       | <b>FDER5G</b>  |
| <b>Protective Guard</b>   |   |                   |                |
|  | Zinc Plated Steel   | 0.42 (0.92)       | <b>FDPG5Z</b>  |
| <b>Fixing Brackets for Ease of Surface Installation — Set of Two</b>                |   |                   |                |
|  | Zinc plated steel   | 0.2 (0.44)        | <b>FDFBZ</b>   |
|   | 316 stainless steel   | 0.27(0.60)        | <b>FDFBS</b>   |
| <b>Surface Mounting Brackets — Set of Two</b>                                       |   |                   |                |
|  | Zinc plated steel   | 0.54 (1.20)       | <b>FDSBZ</b>   |
|   | 316 stainless steel   | 0.45 (1.00)       | <b>FDSBS</b>   |
| <b>Half Clamp Brackets for Pole Mounting — Set of Two</b>                           |   |                   |                |
|  | Diameter for 1-1/4" to 1-1/2" pole: 42 mm to 49 mm (1.65" to 1.93") |                   |                |
|   | • Zinc plated steel   | 0.55 (1.21)       | <b>FDHC49Z</b> |
|   | • 316 stainless steel   | 0.51 (1.12)       | <b>FDHC49S</b> |
|   | Diameter for 2" pole: 60 mm (2.3")                                  |                   |                |
|   | • Zinc plated steel   | 0.55 (1.21)       | <b>FDHC60Z</b> |
|   | • 316 stainless steel   | 0.51 (1.12)       | <b>FDHC60S</b> |
| <b>Fall Prevention Kit</b>  |   |                   |                |
|   | 1.20 meter (3.93 feet) stainless steel chain                        | 0.15 (0.33)       | <b>FDSCS</b>   |

LED Luminaire | Emergency Egress | Hazardous Location | ATEX / IECEX

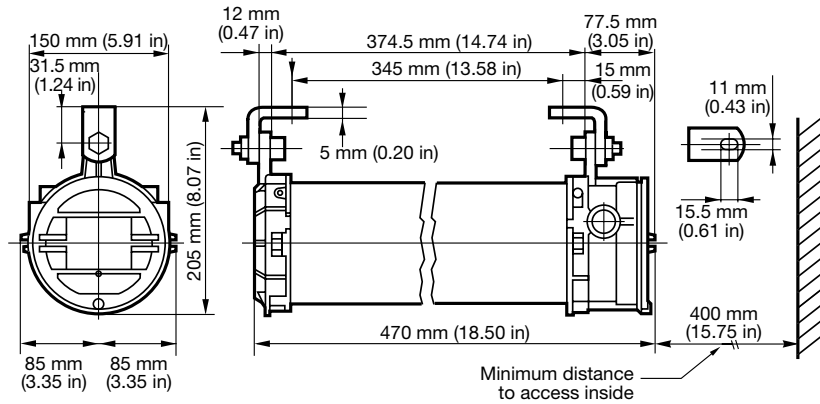
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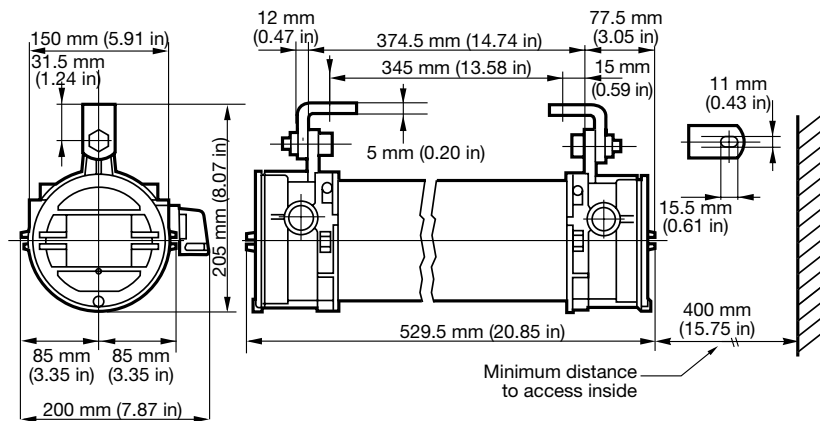
ATEX/IECEx: Zone 1 and 2 - 21 and 22 | Ⓢ II 2 GD | IP66/68 | IK08

## Dimensions in Millimeters (Inches)

### Unswitched Versions



### Switched Versions



## Luminaire Specifications

| Model   | Weight in kg (lb) | Volume in dm <sup>3</sup> (in <sup>3</sup> ) |
|---|-------------------|--|
| <b>Addressable and Unswitched Versions — 1 hour duration — Non-maintained — Two threaded cable entries with one blanking plug</b> |                   |  |
| FDBAESLED*A   | 8.1 (17.9)        | 37.1 (2264.0)                                |
| FDBAESLED*W   |                   |  |
| <b>Addressable and Switched Versions — 1 hour duration — Non-maintained — One threaded cable entry</b>                            |                   |  |
| FDBAESLED*A   | 10.0 (22.0)       | 40.4 (2465.4)                                |
| FDBAESLED*W   |                   |  |
| <b>Unswitched Version — 1 hour duration — Non-maintained — Two threaded cable entries with one blanking plug</b>                  |                   |  |
| FDBAESLED*A   | 8.1 (17.9)        | 37.1 (2264.0)                                |
| <b>Switched Version — 1 hour duration — Non-maintained — One threaded cable entry</b>   |                   |  |
| FDBAESLED*W   | 10.0 (22.0)       | 40.4 (2465.4)                                |

LED Luminaires | Emergency Egress | Hazardous Location | ATEX / IECEx

# Signaling Labels

For Use with ATX™ FDBAES LED Series Self-Contained Emergency Lighting Units

## Standard Materials

- Plastic coating
- White inscriptions
- Green background

## Compliances



- These signaling labels are compliant with:
  - ERP security regulations (Article C0 42: clearing markings)
  - The order of November 4, 1993 (Signage of workplace safety)
  - Standard NF X 08-003: July 2006 (Colors and safety signs)
  - EN 1838 European Standard, visible labels at a distance of 20 m
  - EN ISO 7010 (2013)



BAESLABEL200



BAESLABEL201

| Description  |   | Size in Millimeters (Inches) | Catalog Number |
|--|---|------------------------------|----------------|
|   | Warning label, straight arrow      Adhesive and divisible | 327 x 109 (12.87 x 4.29)     | BAESLABEL200   |
|  | Warning label, inclined arrow      Adhesive and divisible | 327 x 109 (12.87 x 4.29)     | BAESLABEL201   |

LED Luminaire | Emergency Egress | Hazardous Location | ATEX | IECEx