# FDLED Series Luminaires
## Flameproof

*Zones 1 and 2 - 21 and 22*
*Gas (G) and Dust (D)*

## Applications

- Can be installed in hazardous areas designated as Zone 1 and 2 – 21 and 22.
- For use in locations where a high degree of corrosion resistance is required.
- For indoor/outdoor use where protection against dirt, water and moisture is necessary.
- Typical applications include:
  — Oil refineries
  — Petrochemical facilities
  — Pulp and paper, mills
  — Painting, sewage and water treatment facilities
  — Warehouses
  — Underground tunnels
  — General manufacturing facilities.

## Features

- Impact resistant borosilicate glass sealed tube.
- Easy access to LED array through gray painted aluminum threaded entry cap.
- Supplied with O-ring for improved ingress protection.
- Corrosion-resistant gray painted aluminum.
- Supplied with energy efficient electronic driver on a removable gear tray.
- Supplied with external and internal ground/earth connection.
- Fixture supplied with one M20 blanking plug.
- Easy connection to wire and disconnect with plug-in terminal blocks.

## Standard Materials

- End caps and cover: aluminum.
- Glass tube: tempered borosilicate glass.
- O-ring gasket: Nitrile (NBR).
- Internal reflector: white powder coated galvanized steel (400 lm verison) or aluminium (2400/4725 lm versions).
- Mounting accessories: several accessories in different material such as zinc plated steel, galvanized steel or 316 stainless steel.

## Options

- Diffused polycarbonate lens (2400/4725 lm versions only)
- Ta -50 °C IP66  (without gasket)
- Ta -40 °C IP66/68  (with EPDM70)

## Certifications and Compliances

### ♦ATEX/IECEx Certification

- **Certification Type: FDLED**
  — Gas: Zone 1 and 2:
    – Conforming to ATEX 94/9/CE:  ⟨Ex⟩ II 2 G
    – Type of Protection:
        Ex d IIB (4725 lm version)
        Ex d IIB+$H_2$ (2400 lm version)
        Ex d IIC (400 lm version)
    – Temperature Class: T6
  — Dust: Zone 21 and 22:
    – Conforming to ATEX 94/9/CE:  ⟨Ex⟩ II 2 D
    – Type of Protection: Ex tb IIIC
    – Surface Temperature:
        +75 °C (400 lm version)
        +80 °C (2400 and 4725 lm version)
  — Ambient Temperature: -30 °C to 60 °C
  — CE Declaration of Conformity: 50312
  — ATEX Certificate: INERIS 15 ATEX 0042X



**4725 lm (IIB)**



**2400 lm (IIB+H2)**



**400 lm (IIC)**

— IECEx Certificate: IECEx INE 15.0046X
— Index of Protection according EN/IEC 60529: IP66/68
— Impact Resistance (shock):
  IK09 (400 and 2400 lm version)
  IK08 (4725 lm version)
— Internal Volume: > 2 dm³ - 2 liters

### ♦EURASEC Certification
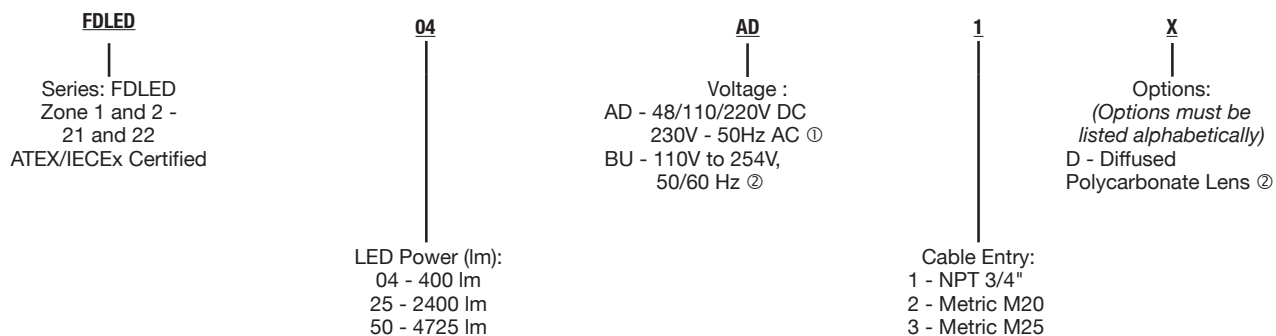— Not yet available (around Mid-2016)

### ♦Others Certification
— Not yet available (around Mid-2016)

Ⓐ **Appleton**®

# FDLED Series Luminaires
## Flameproof

*Zones 1 and 2 - 21 and 22*
*Gas (G) and Dust (D)*

---

### Catalog Numbering Guide — FD LED Series Luminaires

| FDLED | 04 | AD | 1 | X |
|---|---|---|---|---|

**FDLED** — Series: FDLED Zone 1 and 2 - 21 and 22 ATEX/IECEx Certified

**04** — LED Power (lm):
04 - 400 lm
25 - 2400 lm
50 - 4725 lm

**AD** — Voltage :
AD - 48/110/220V DC 230V - 50Hz AC ①
BU - 110V to 254V, 50/60 Hz ②

**1** — Cable Entry:
1 - NPT 3/4"
2 - Metric M20
3 - Metric M25

**X** — Options:
*(Options must be listed alphabetically)*
D - Diffused Polycarbonate Lens ②

---

### Technical Data

| Lumen Output | Type | P | Ie | Gas group | Ambient Temperature °C | Class of Temperature | Surface Temperature |
|---|---|---|---|---|---|---|---|
| 400 lm | LED | 6 W | 0.03 A | IIC | -30 °C to + 60°C | T6 | 75 °C |
| 2400 lm | LED | 23 W | 0.21 A | IIB+H2 | -30 °C to + 60°C | T6 | 80 °C |
| 4725 lm | LED | 46 W | 0.42 A | IIB | -30 °C to + 60°C | T6 | 80 °C |

| Led Power (lm) | Voltage | Cable Entry | Weight kg | Volume dm³ | Catalog Number |
|---|---|---|---|---|---|
| 400 lm | 48/110/220V DC  230V - 50Hz AC | M20 | 7.8 | 36.0 | **FDLED04AD2** |
| 2400 lm | 110V to 254V, 50/60 Hz | M20 | 8.1 | 37.1 | **FDLED25BU2** |
| 4725 lm | 110V to 254V, 50/60 Hz | M20 | 9.0 | 58.0 | **FDLED50BU2** |

① *Only 400 lm version*
② *Only 2400 and 4725 lm version*

*Shaded catalog numbers are normally stocked items. All other items are made to order.*
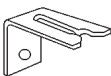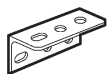
# FDLED Series Luminaires
## Flameproof

*Zones 1 and 2 - 21 and 22*
*Gas (G) and Dust (D)*

**Accessories and Replacement Parts**

| Description | Catalog Number |
|---|---|
| **Protective Guard – Zinc Plated Steel** | |
| Model 0.3 (for 400 lm) | **FDPG1Z** |
| Model 0,4 (for 2400 lm) | **FDPG5Z** |
| Model 0.6 (for 4725 lm) | **FDPG2Z** |
| **Fixing Brackets for Ease of Surface Installation – Set of Two** | |
| Zinc plated steel | **FDFBZ** |
| 316 stainless steel | **FDFBS** |
| **Surface Mounting Brackets – Set of Two** | |
| Zinc plated steel | **FDSBZ** |
| 316 stainless steel | **FDSBS** |
| **Half Clamp Brackets for Pole Mounting – Set of Two** | |
| For 42 mm to 49 mm pole (1-1/4 to 1-1/2" tube) | |
| Zinc plated steel | **FDHC49Z** |
| 316 stainless steel | **FDHC49S** |
| For 60 mm pole (2" tube) | |
| Zinc plated steel | **FDHC60Z** |
| 316 stainless steel | **FDHC60S** |
| **Fall Prevention Kit** | |
| 1.20 meter stainless steel chain | **FDSCS** |

**Dimensions in Millimeters**

12.0 mm    77.5 mm
B
15.0 mm
89.0 mm
A
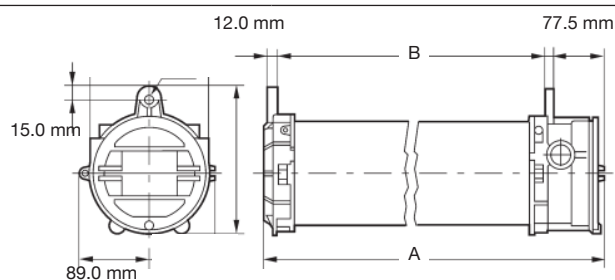
| Model | A | B |
|---|---|---|
| 0.3 (400 lm) | 430 | 335 |
| 0,4 (2400 lm) | 470 | 375 |
| 0.6 (4725 lm) | 745 | 650 |

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