

HBDC Series Cylindrical Bulkhead Luminaires

Flameproof. Incandescent, Fluorescent, High Pressure Sodium

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

Applications

- For illumination of:
 - Stairways
 - Small areas
 - Emergency exit

Features

- For lamps:
 - 70 W high pressure sodium (ovoid type E27 lampholder)
 - 18/20 W compact fluorescent lamp (E27 lampholder)
 - 2 x 40 W incandescent lamp (E27 lampholder)
 - 8 W fluorescent bulb (G5 lampholder) (lamp supplied)
- HPS version: compensated power supply (+/-10%) with power factor 0.9:
 - 230/240 V, 50 Hz
- Connection to plug-in terminal block via 2 x 3 terminals 2.5 mm²
- Operates in any position.
- Threaded access cover with O-ring seal.
- Two integrated mounting lugs.
- 1 external earth via 4 mm² bracket.
- 2 x M20 threaded cable entries.
- Supplied with 1 plug M20 (cable gland not supplied).

Standard Materials

- End cap and cover: Zamak, anticorrosion treated and painted gray
- Sealed tube: toughened glass
- External reflector: galvanized steel painted white
- Protective guard: zinc plated steel
- Lamps are not supplied except for 8 W fluorescent bulb

Options

- Fixing accessories available in 316 stainless steel or zinc plated steel.
- Fall prevention fixing kit in stainless steel.

Certifications and Compliances

◆ATEX/IECEx Certification

- Certification Type: FLd**
 - Gas: Zone 1 - 2
 - Conforming to ATEX 94/9/CE: Ⓢ II 2 G
 - Type of Protection: Ex d IIB/IIC
 - Temperature Class: See Table on following page
 - Dust: Zone 21 - 22
 - Conforming to ATEX 94/9/CE: Ⓢ II 2 D
 - Type of Protection: Ex tD A21
 - Surface Temperature: See Table on following page
- Ambient Temperature: -20 °C ≤ Ta ≤ +50 °C ;
for 70 W HPS: -40 °C ≤ Ta ≤ +50 °C
- 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 (10 m)
- Impact Resistance (shock): IK08
- Internal Volume: > 2 dm³ - 2 liters



70 W High Pressure Sodium Version



Compact Fluorescent Version

◆EURASEC Certification

- EURASEC N° TC RU C-FR.Г605.B.00912

◆Others Certification

- INMETRO Certificate: BVC11.0492 ①

Related Products

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

① Inmetro certification available on special request only. Contact your local sales for more information

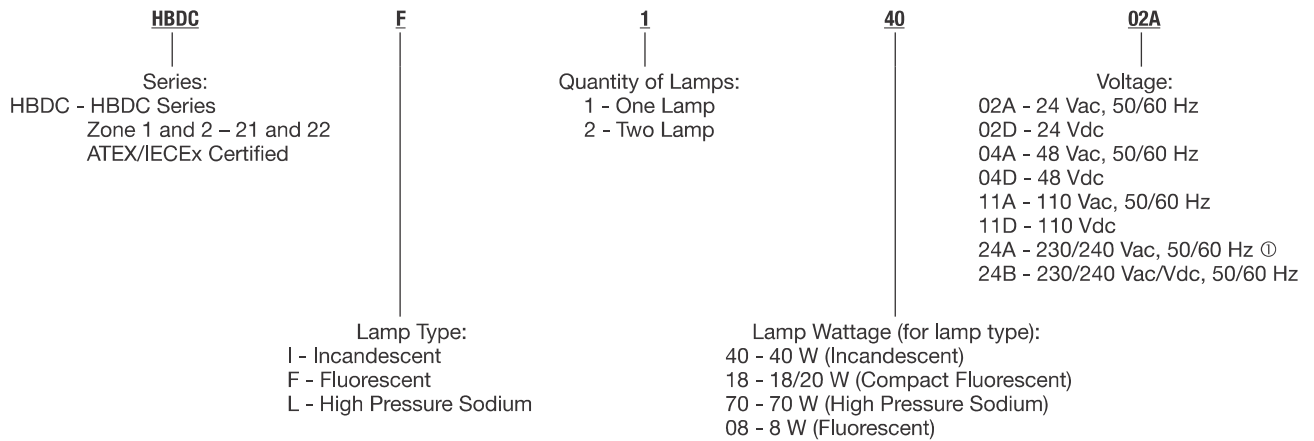
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Order using catalog numbering guide below to decipher the catalog number logic on the following page.

Catalog Numbering Guide – HBDC Series Cylindrical Bulkhead Luminaires



T Rating (Gas) and Surface Temperature (Dust) Table

| Versions | Gas T Rating | | | | Dust Surface Temperature | |
|---|-------------------------------|-------------|----------------------------|-------------|-------------------------------|----------------------------|
| | Without External Reflector | | With External Reflector | | Without External Reflector | With External Reflector |
| | Ta = +40 °C | Ta = +55 °C | Ta = +40 °C | Ta = +55 °C | °C | °C |
| Incandescent lamp (2 x 40 W) ② | T5 | T5 | T5 | T5 | +95°C | +95°C |
| Compact Fluorescent lamp (20 W max) | T6 | T5 | T5 | T4 | +95°C | +130°C |
| Fluorescent (8 W - G5 lampholder) | T6 | T5 | T5 | T4 | +95°C | +130°C |
| High Pressure Sodium Lamp (70 W ovoid) ② | T4 for Ta = +50 °C | | - | - | +122°C | - |







① 50 Hz only for the 70 W HPS Version.
② Lamp not supplied.

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| Lamp | Lampholder | Voltage | Weight kgs | Volume dm ³ | Catalog Number |
|-----------------------------------|------------|--------------------------------------|---------------|---------------------------|----------------|
| 2x40 W Incandescent ① | E27 | — | 7.1 | 31 | HBDCI240 |
| 70 W High Pressure Sodium ① | E27 | 230/240 Vac, 50 Hz | 7.1 | 33 | HBDCI17024A |
| 1 x 8 W Fluorescent | G5 | 24 Vdc | 8.3 | 31 | HBDCF10802D |
| 1 x 8 W Fluorescent | G5 | 48 Vdc | 8.3 | 31 | HBDCF10804D |
| 1 x 8 W Fluorescent | G5 | 110 Vdc | 8.3 | 31 | HBDCF10811D |
| 1 x 8 W Fluorescent | G5 | 230/240 Vac, 50/60 Hz 198/254 Vdc | 8.3 | 31 | HBDCF10824B |
| 2 x 8 W Fluorescent | G5 | 230/240 Vac, 50/60 Hz 198/254 Vdc | 8.3 | 31 | HBDCF20824B |
| 1 x 18/20 W Compact Fluorescent ① | E27 | — | 7.1 | 33 | HBDCF118 |

| | Description | Catalog Number |
|---|---|----------------|
|  | External reflector in galvanized steel (painted white) (not compatible with 70 W HPS version) | FDER1G |
|  | Protective guard in zinc plated steel | FDPG1Z |
| | Protective guard in zinc plated steel for 70 W HPS version | FDPG5Z |
|  | Quick one-hand fixing (Set of 2 brackets) in zinc plated steel | FDFBZ |
| | Quick one-hand fixing (Set of 2 brackets) in 316 stainless steel | FDFBS |
|  | Fixing unit on flat surface (Set of 2 brackets) in zinc plated steel | FDSBZ |
| | Fixing unit on flat surface (Set of 2 brackets) in 316 stainless steel | FDSBS |
|  | Fixing unit in zinc plated steel for 1-1/2" tube [49 mm diameter] or for 1-1/4" tube [42 mm diameter] | FDHC49Z |
| | Fixing unit in 316 stainless steel for 1-1/2" tube [49 mm diameter] or for 1-1/4" tube [42 mm diameter] | FDHC49S |
|  | Fixing unit in zinc plated steel for 2" tube [60 mm diameter] | FDHC60Z |
| | Fixing unit in stainless steel for 2" tube [60 mm diameter] | FDHC60S |
| | Fall prevention fixing kit in stainless steel [1.2 m chain] | FDSCS |

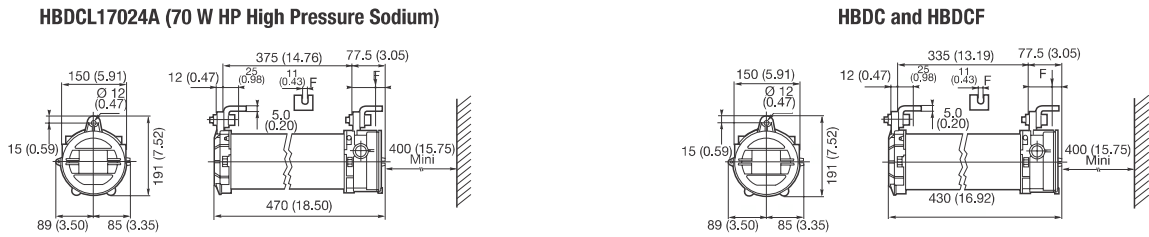
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Dimensions in Millimeters (Inches)



Photometric Data

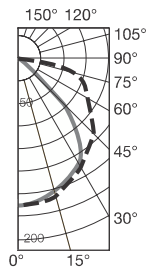
Polar curves for a 1000 lm flux, according to NF C 71-120.
Luminaire symbol according to NF C 71-121.

--- Longitudinal
— Transverse

70 W HP High Pressure Sodium
Efficiency 59.4%
NF C 71-121: 0.56G + 0.04T

CANDELA DISTRIBUTION

| | 0-180 | 90-270 |
|----|-------|--------|
| 0 | 166 | 166 |
| 5 | 167 | 165 |
| 10 | 164 | 162 |
| 15 | 162 | 156 |
| 20 | 158 | 151 |
| 25 | 155 | 143 |
| 30 | 151 | 133 |
| 35 | 146 | 122 |
| 40 | 141 | 110 |
| 45 | 135 | 95 |
| 50 | 128 | 81 |
| 55 | 120 | 66 |
| 60 | 111 | 52 |
| 65 | 101 | 39 |
| 70 | 90 | 27 |



2x40 W Incandescent
Efficiency: 75.6%
NFC 71-121: 0.74G + 0.02T

CANDELA DISTRIBUTION

| | 0-180 | 90-270 |
|----|-------|--------|
| 0 | 196 | 196 |
| 5 | 197 | 198 |
| 10 | 196 | 196 |
| 15 | 193 | 194 |
| 20 | 189 | 190 |
| 25 | 181 | 185 |
| 30 | 176 | 179 |
| 35 | 170 | 172 |
| 40 | 163 | 164 |
| 45 | 155 | 153 |
| 50 | 145 | 128 |
| 60 | 123 | 91 |
| 70 | 99 | 43 |

