

ATX™ HBDC Series Cylindrical Bulkhead Luminaires

Flameproof. Incandescent, Fluorescent, High Pressure Sodium

ATEX/IECEX:
Zone 1 and 2 – 21 and 22
Ⓜ II 2 GD
IP66/68 (10M) – IK08



THORNE &
DERRICK
INTERNATIONAL

Thorne & Derrick
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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:
 - ATEX/IEC: 230/240 V, 50 Hz
- Connection to plug-in terminal block via 2 x 3 terminals 2.5 mm² (0.004 in²).
- Operates in any position.
- Threaded access cover with O-ring seal.
- Two integrated mounting lugs.
- 1 external earth via 4 mm² (0.006 in²) bracket.
- 2 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.

ATEX/IECEX Certifications and Compliances

- 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 *T Rating (Gas) and Surface Temperature (Dust) Table*
 - Dust: Zone 21 - 22
 - Conforming to ATEX 94/9/CE: Ⓜ II 2 D
 - Type of Protection: Ex tD A21
 - Surface Temperature: See *T Rating (Gas) and Surface Temperature (Dust) Table*
- Ambient Temperature: -20 °C ≤ Ta ≤ +50 °C (-4 °F ≤ Ta ≤ +122 °F); for 70 W HPS: -40 °C ≤ Ta ≤ +50 °C (-40 °F ≤ Ta ≤ +122 °F)
- 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 (122 in³) – 2 liters



70 W High Pressure Sodium Version



Compact Fluorescent Version

EURASEC Certification

- EURASEC N° TC RU C-FR.Г505.B.00912

Other 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 representative for more information.

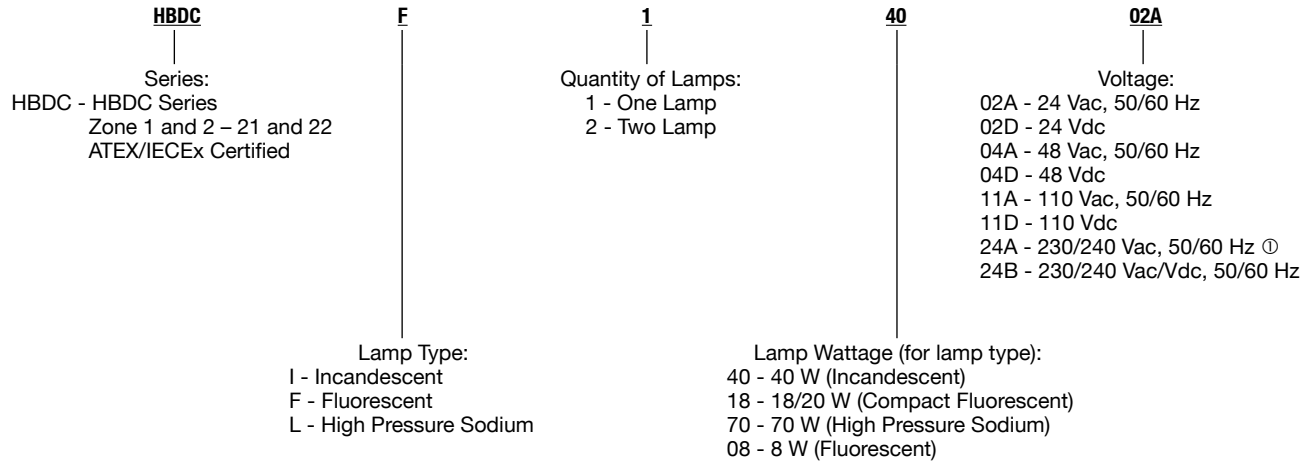
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Order using catalog numbering guide below to decipher the catalog number logic on the following page.

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 (+104 °F)	Ta = +55 °C (+131 °F)	Ta = +40 °C (+104 °F)	Ta = +55 °C (+131 °F)	°C (°F)	°C (°F)
Incandescent lamp (2 x 40 W) ②	T5	T5	T5	T5	+95 (+203)	+95 (+203)
Compact Fluorescent lamp (20 W max)	T6	T5	T5	T4	+95 (+203)	+130 (+266)
Fluorescent (8 W - G5 lampholder)	T6	T5	T5	T4	+95 (+203)	+130 (+266)
High Pressure Sodium Lamp (70 W ovoid) ②	T4 for Ta = +50 °C (+122 °F)		–	–	+122 (+252)	–

① 50 Hz only for the 70 W HPS Version.

② Lamp not supplied.

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Lamp	Lampholder	Voltage	Weight kgs (lb)	Volume dm ³ (in ³)	Catalog Number
2x40 W Incandescent ①	E27	—	7.1 (16)	31 (1892)	HBDCI240
70 W High Pressure Sodium ①	E27	230/240 Vac, 50 Hz	7.1 (16)	33 (2014)	HBDCI17024A
		220 V, 60 Hz			—
1 x 8 W Fluorescent	G5	24 Vdc	8.3 (18)	31 (1892)	HBDCF10802D
1 x 8 W Fluorescent	G5	48 Vdc	8.3 (18)	31 (1892)	HBDCF10804D
1 x 8 W Fluorescent	G5	110 Vdc	8.3 (18)	31 (1892)	HBDCF10811D
1 x 8 W Fluorescent	G5	230/240 Vac, 50/60 Hz 198/254 Vdc	8.3 (18)	31 (1892)	HBDCF10824B
2 x 8 W Fluorescent	G5	230/240 Vac, 50/60 Hz 198/254 Vdc	8.3 (18)	31 (1892)	HBDCF20824B
1 x 18/20 W Compact Fluorescent ①	E27	—	7.1 (16)	33 (2014)	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 (1.93 in) diameter] or for 1-1/4" tube tube [42 mm (1.65 in) diameter]	FDHC49Z
	Fixing unit in 316 stainless steel for 1-1/2" tube [49 mm (1.93 in) diameter] or for 1-1/4" tube tube [42 mm (1.65 in) diameter]	FDHC49S
	Fixing unit in zinc plated steel for 2" tube [60 mm (2.36 in) diameter]	FDHC60Z
	Fixing unit in stainless steel for 2" tube [60 mm (2.36 in) diameter]	FDHC60S
	Fall prevention fixing kit in stainless steel [1.2 m (0.05 in) chain]	FDSCS

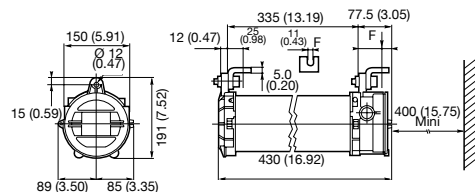
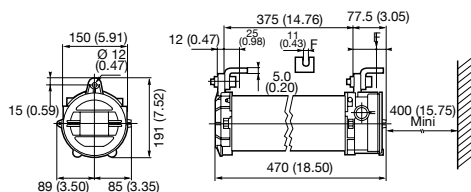
① Lamp not supplied.

Appleton

INCANDESCENT/AREA: ATEX/IECEx FLAMEPROOF

Photometric Data

HBDC and HBDCF



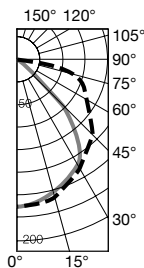
Polar curves for a 1000 lm flux, according to NF C 71-120.
Luminaire symbol according to NF C 71-121.

--- Longitudinal
— Transverse

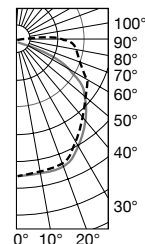
2x40 W Incandescent
Efficiency: 75.6%
NFC 71-121: 0.74G + 0.02T

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



	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



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