

Lighting: Incandescent & HID Lighting

HBD Series: Bulkhead – Flameproof



HBDR
Round Bulkhead



HBDO
Oval Bulkhead

Compliance Data:

ATEX – IEC:

HBDR Series:



Zone 1 & 2 – 21 & 22	ATEX	II 2 GD	IEC	CE
Ex d IIC	T6 to T3	Ex tD A21	T60°C to T149°C	IP66 – IK08

HBDO Series:

Zone 1 & 2 – 21 & 22	ATEX	II 2 GD	CEI	CE
Ex d IIB	T6 or T4	Ex tD A21	T76°C to T119°C	IP66 – IK08

Lamp Type and Power:

Incandescent	Compact Fluorescent	Mixed		
60 W to 200 W	7 W to 23 W	160 W		

Operating Temperature:

HBDR: -40°C to +55°C
HBDO: -20°C to +40°C

Lighting: Incandescent & HID Lighting

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Zone 1, 2, 21 & 22

II 2 GD

ATEX / IEC

IP66 - IK08

Applications:

For illumination of:

- Stairways
- Small areas
- Emergency exit

Features:

HBD Series:

- Lamps (not supplied):
 - Incandescent 200 W maximum
 - Compact Fluorescent 23 W maximum
 - Mixed 160 W maximum
- E27 lampholder.
- Threaded flameproof joint.
- Operates on ceiling and wall.
- Fixing by two integrated brackets.
- Connection to lampholder via two terminals 2.5 mm².
- Internal earth two terminals 2.5 mm².
- External earth one 4 mm².
- 3 x M20 threaded entries in “T” formation.
- Supplied with two blanking plugs M20.

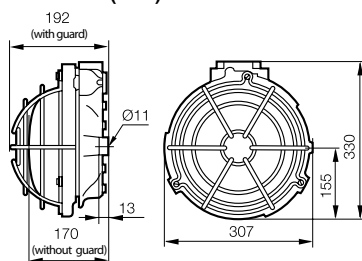
Standard Materials:

- Gray painted aluminum body and bezel.
- Sealed toughened lamp glass.

Standard Materials of Accessories:

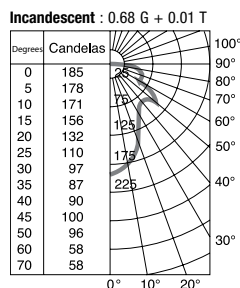
- Zinc plated steel protective guard.

Dimensions (mm):



Photometric Data:

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



Ordering Information:



Weight (kg)	Volume (dm ³)	Catalog Number	Old Catalog Number	Pack
7.5	23.4	HBDR	094754	1

Accessories:

Protective guard	HBDRPGZ	095091	1
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Compliances:

Hazardous Area	Gas	Dust
Certified Type	HBRd	
Zones	1 – 2	21 – 22
Conforming to ATEX 94/9/CE	CE 0081 II 2 G	CE 0081 II 2 D
Symbol of Protection ATEX	Ex d IIC	Ex tD A21
Symbol of Protection IEC		
T Rating	See Table 1	N.A.
Surface Temperature	N.A.	See Table 2
Ambient Temperature	-40°C to +55°C	
CE Declaration of Conformity	50242	
ATEX Certificate	LCIE 02 ATEX 6163	
IEC Certificate	LCIE Ex 02.014	
Other Certifications	GOST	
Index of Protection (solid & liquid)	IP66	
Impact Resistance (shock)	IK08	
Internal Volume	> 2 dm ³ (2 liters)	

Table 1: T-Rating for Gas

Power and Type	Ambient Temperature		Operating Positions					
			Ceiling			Wall		
	40°C	50°C	55°C	40°C	50°C	55°C		
8 W Compact Fluor.	T Rating		T6					
15 W Compact Fluor.	T Rating		T6					
23 W Compact Fluor.	T Rating		T6		T5			T4
100 W Incandescent	T Rating		T5	T4	T5	T4		
200 W Incandescent	T Rating		T4					
	T° at cable entry		-	84°C	89°C	-	84°C	89°C
100 W Mixed	T Rating		T4					
160 W Mixed	T Rating		T3					
	T° at cable entry		-	87°C	92°C	-	87°C	92°C

Table 2: Surface Temperature for Dust

Power and Type	Operating Positions			
	Ceiling		Wall	
	Surface T° for Ta = +55°C	T° at Cable Entry Ta = 55°C	Surface T° for Ta = +55°C	T° at Cable Entry Ta = 55°C
8 W Compact Fluor.	60°C	-	70°C	-
15 W Compact Fluor.	64°C	-	76°C	-
23 W Compact Fluor.	69°C	-	96°C	-
100 W Incandescent	105°C	-	105°C	-
200 W Incandescent	130°C	89°C	130°C	89°C
100 W Mixed	130°C	-	130°C	-
160 W Mixed	149°C	92°C	149°C	92°C

No need for high temperature cable for cable entry temperature less than +80°C.

Standards:

Ex Standards	EN / IEC 60079-0; 60079-1; 61241-0; 61241-1
Product Standards	EN / IEC 60598-1
EMC Standards	-
Other Standards	EN / IEC 60529 (IP); 62262 (IK)

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Zone 1, 2, 21 & 22

Ex II 2 GD

ATEX / IEC

IP66 - IK08

Applications:

For illumination of:

- Stairways
- Small areas
- Emergency exit

Features:

HBD Series:

- Lamps (not supplied):
 - Incandescent 60 W to 100 W maximum
 - Compact fluorescent 15 W maximum
- E27 lampholder.
- Operates in any position.
- Fixing by two integrated brackets.
- For incandescent 60 W & 100 W a high temperature cable 106°C is required.
- Connection to lampholder via two terminals 2.5 mm².
- Internal earth two terminals 2.5 mm².
- External earth one 4 mm².
- 2 x M20 threaded entries through feed.
- Supplied with one blanking plug M20.

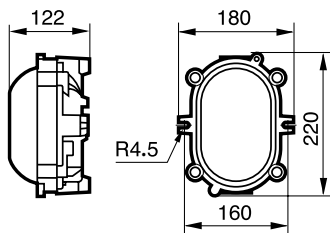
Standard Materials:

- Gray painted aluminum body and bezel.
- Sealed toughened lamp glass.

Standard Materials of Accessories:

- Zinc plated steel protective guard.

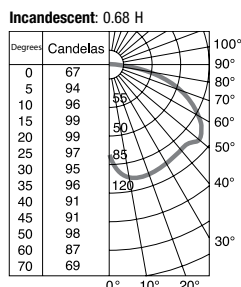
Dimensions (mm):



Photometric Data:

Polar curves for a 1000 lm output according to NF C 71-120

Luminaire symbol according to NF C 71-121



Ordering Information:



Weight (kg)	Volume (dm ³)	Catalog Number	Old Catalog Number	Pack
3	9	HBD0	094709	1

Accessories:

Type	Catalog Number	Old Catalog Number	Pack
Protective guard	HBDOPGZ	094770	1
Terminal block for through wiring 2 x 2.5 mm ² with high temperature sleeve	094784	094784	1

Compliances:

Hazardous Area	Gas	Dust
Certified Type	HBD0d	
Zones	1 – 2	21 – 22
Conforming to ATEX 94/9/CE	CE 0081 Ex II 2 G	CE 0081 Ex II 2 D
Symbol of Protection ATEX	Ex d IIB	Ex tD A21
Symbol of Protection IEC		
T Rating	See Table 1	N.A.
Surface Temperature	N.A.	See Table 2
Ambient Temperature	-20°C to +40°C	
CE Declaration of Conformity	50234	
ATEX Certificate	LCIE 02 ATEX 6162	
IEC Certificate	LCIE Ex 02.013	
Other Certifications	GOST	
Index of Protection (solid & liquid)	IP66	
Impact Resistance (shock)	IK08	
Internal Volume	> 2 dm ³ (2 liters)	

Table 1: Gas

Power and Type	Temperature class for Ta = +40°C	T° at cable input for Ta = +40°C
7 W Compact Fluor.	T6	–
11 W Compact Fluor.		–
15 W Compact Fluor.		–
60 W Incandescent	T4	106°C
100 W Incandescent		106°C

Table 2: Dust

Power and Type	Temperature class for Ta = +40°C	T° at cable input for Ta = +40°C
7 W Compact Fluor.	76°C	–
11 W Compact Fluor.		–
15 W Compact Fluor.		–
60 W Incandescent	119°C	106°C
100 W Incandescent		106°C

No need for high temperature cable for cable entry temperature less than +80°C.

Standards:

Ex Standards	EN / IEC 60079-0; 60079-1; 61241-0; 61241-1
Product Standards	EN / IEC 60598-1
EMC Standards	–
Other Standards	EN / IEC 60529 (IP); 62262 (IK)