

HRD Series Tank Inspection Lights

Flameproof. Incandescent, Halogen

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

Applications

- Designed to illuminate the interiors of boilers, tanks, bunkers, silos, mixers, separators, pipelines and other vessels or reactors that are normally closed.
- For use in hazardous areas where ignitable vapors, gases or highly combustible dusts are present.
- For installation in chemical and petrochemical plants, refineries and other process industries.

Features

- Type IIB version:
 - 40 W to 100 W incandescent or 50 W halogen lamp (lamp not supplied).
 - Internal aluminum reflector.
 - Operates in any position.
 - E27 lampholder.
 - Terminals: 2.5 mm².
 - Internal and external earth: 2.5 mm².
 - High temperature cable to be used.
 - Fixing by three integrated lugs.
 - One M20 threaded cable entry.
- Type IIC version:
 - 20 W to 50 W halogen lamp (lamp supplied).
 - Internal aluminum reflector.
 - Operates in any position.
 - G4 lampholder for 20 W and BA 15d for 50 W.
 - Power supply: 230 V 50/60 Hz.
 - Fitted with transformer 230/12 V for 12 V halogen lamp.
 - Terminals: 2.5 mm² terminals.
 - Internal earth: 2.5 mm².
 - External earth: 4 mm².
 - Supplied with a set of rocker hinges for mounting with DN 50 to DN 150 sightglass fittings (according to DIN 28 120).
 - One M20 threaded cable entry (via increased safety "e" box).

Standard Materials

- Body and bezel: gray painted marine grade aluminum alloy
- Lens: toughened sealed lamp glass
- Reflector: internal aluminum

Certifications and Compliances

◆ ATEX Certification

• IIB Version - Certification Type: HRCd

- Gas: Zone 1 and 2
 - Conforming to ATEX 94/9/CE: Ⓜ II 2 G
 - Type of Protection: Ex d IIB
 - Temperature class: T4 to T3
- Dust: Zone 21 and 22
 - Conforming to ATEX 94/9/CE: Ⓜ II 2 D
 - Type of Protection: Ex tD A21
 - Surface Temperature: T130 °C to T195 °C
 - Ambient Temperature: -40 °C to +40 °C
 - CE Declaration of Conformity: 50241
 - ATEX Certificate: LCIE 02 ATEX 6232
 - Index of Protection according EN/IEC 60529: IP66
 - Impact Resistance (shock): IK08
 - Internal Volume: > 2 dm³ -2 liters



IIB Version



IIC Version (50 W)



IIC Version (20 W)



IIB Version Fitted with
DN Model Sightglass Fitting

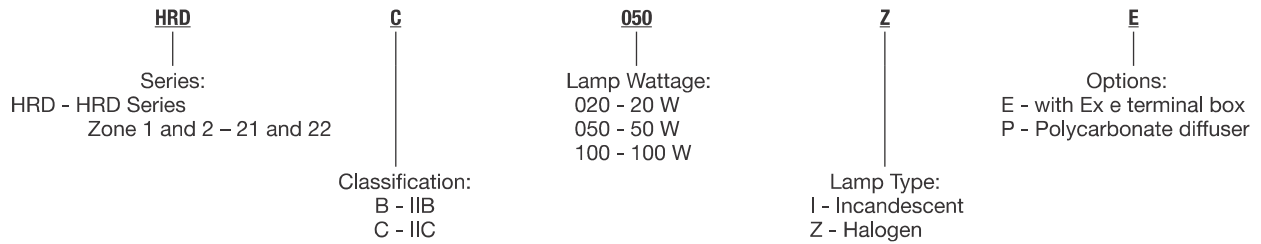
- IIC Version - Certification Type: HRC 20WH (20W), HRC 50 (50W)
 - Zone 1 and 2
 - Conforming to ATEX 94/9/CE: Ⓜ II 2 G
 - Type of Protection: Ex d IIC
 - Temperature class: T4 (20W), T3 (50W)
 - Zone 21 and 22
 - Conforming to ATEX 94/9/CE: Ⓜ II 2 D
 - Type of Protection: Ex tD A21
 - Surface Temperature: 20 W: T130 °C, 50 W: T195 °C
 - Ambient Temperature: -20 °C to +40 °C
 - CE Declaration of Conformity: 50260 (20W), 50661 (50W)
 - ATEX Certificate: LCIE 03 ATEX 6110 (20W), LCIE 03 ATEX 6109 (50W)
 - Index of Protection according EN/IEC 60529: IP65

HRD Series Tank Inspection Lights

Flameproof. Incandescent, Halogen

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

Order using catalog numbering guide below or select catalog number from table below
Catalog Numbering Guide — HRD Series Tank Inspection Lights



Description	Type	Weight kg	Volume dm ³	Catalog Number
40 W to 100 W incandescent or 50 W halogen ①	IIB	2.90	8.10	HRDB100I
20 W halogen ② 230 V, 50/60 Hz	IIC	2.30	3.00	HRDC020ZE
50 W halogen ② 230 V, 50/60 Hz	IIC	4.00	3.60	HRDC050ZE

Technical Data

Catalog Number	Version	Lamp Type and Wattage	T Rating	Ambient Temperature = +40 °C	
				Gas Cable Temperature	Dust Surface Temperature
HRDB100I (lamp not supplied)	IIB	40 W Incandescent	T4	N.A.	+130 °C
		60 W Incandescent	T3	+87 °C	+137 °C
		100 W Incandescent	T3	+107 °C	+195 °C
		50 W Halogen	T3	+82 °C	+149 °C

① Can also be used with compact fluorescent lamp.

② Lamp supplied.

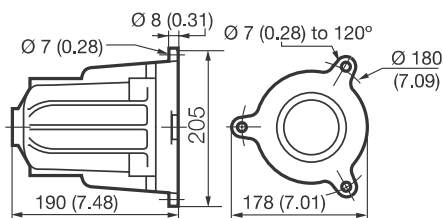
Shaded catalog numbers are normally stocked items. All other items are made to order.

HRD Series Tank Inspection Lights

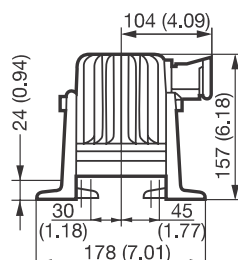
Flameproof. Incandescent, Halogen

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

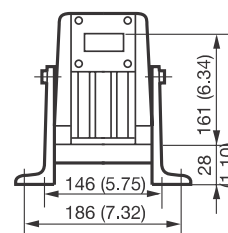
Dimensions in Millimeters (Inches)



HRDB100I



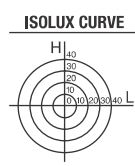
HRDC020ZE



HRDC050ZE

Photometric Data

IIC Versions



20 W Version		Illuminance E (lux)					
Height (m)	Position	Distance (cm)	0	10	20	30	40
1	L		3000	1000	125	–	–
	H		3000	900	75	–	–
2	L		1150	750	300	100	50
	H		1150	750	300	100	50

50 W Version		Illuminance E (lux)					
Height (m)	Position	Distance (cm)	0	10	20	30	40
1	L		12000	2300	375	50	–
	H		12000	2700	250	50	–
2	L		2550	1550	600	200	–
	H		2550	1800	800	200	–

IIB Versions

Polar curves for a lumen output of 1000 lm flux,
according to NF C 71–120
Luminaire symbol as per NF C 71–121

100 W Incandescent

CANDELA DISTRIBUTION

Degree	Candelas
0	155
5	145
10	136
15	135
20	133
25	127
30	112
35	90
40	66
45	54
50	46
60	29
70	11

