

Specification

- Body material** : Marine grade copper-free aluminium alloy with polyester powder coated, RAL 7032 (grey)
 (optional offshore painting-acrylic polyurethane coating)
- Lens** : Heat and high impact resistant clear glass (4J impact)
- Bolts** : Stainless steel, SUS 304 (optional SUS 316)
- Bracket** : Hot-dip galvanized steel (optional SUS 304 or SUS 316)
- Sealing (O-ring)** : Silicone

LED System

- Luminous efficient** : 120 lm/W
- Colour temperature** : Standard 5700 K (daylight)
 (optional 3000K, 3500K, 4000K, 4500K, 5000K, 6500K etc.)
- Color Rendering Index (Ra)** : ≥ 80
- Chip** : LUXEON 5050 - LumiLEDs (optional Cree, Bridgelux, Nichia)
- Beam angle** : Average 100° without lens with lens
 40-80W.; 90°
 100-150W.; 30°, 60°, 90°
 (other beam angle, please specify)
- Lifespan** : >50,000 Hrs.
 (70% lumen maintenance)



Technical Data

Hazardous Area	Gas	Dust
Zones	2	21 & 22
Equipment Group/Category	Ex II 3G	Ex II 2D
Symbol of Protection	Ex nR IIC T6 Gc	Ex tb IIIC T85°C Db
Certificate No.	TÜV CY 16 ATEX 0205812X	
Conformity to standards	EN 60079-0:2012/A11:2013, EN 60079-15:2010, EN 60079-31:2014, EN 60598-1:2015	
Ambient Temperature	-20°C to +55°C	
Index of Protection	IP66/ IK08	

Entries	Ceiling; 2-M20x1.5, 2- M25x1.5, 2- 1/2" NPT or 2- 3/4" NPT Bracket; 2-M20x1.5, 2- M25x1.5, 2- 1/2" NPT or 2- 3/4" NPT Wall; 4-M20x1.5, 4- M25x1.5, 4- 1/2" NPT or 4- 3/4" NPT Pendant; 1- 1/2" NPT or 1- 3/4" NPT Stanchion; 1-1/4" NPT
Mounting	Ceiling, Wall, Pendant or Stanchion mounting
Connection	L, N and PE ; for 1-4mm. ² cable (Through wiring system with an extra terminal block for cable connection at both ends.)
Rated Voltage	110-240V.ac 50/60Hz., THDi < 20%, P.F. ≥ 0.95

Catalogue Number Logic

NFDR - ■ ■ ■ ■ □ - □ □ □ ○

Series	LED Power (see ordering requirement table below)	Mounting	Entries	Accessories
C	Ceiling	S30	M1 M20x1.5	G Guard
C1	Steel Bracket		M2 M25x1.5	
P	Pendant	S90	N1 1/2" NPT	
W	Wall		N2 3/4" NPT	

Ordering Requirements

Cat. No.	LED Power	Voltage	Temp. Class (for zone 2)		Max. Surface Temp.* (for zone 21 & 22)	
			Ta 40°C	Ta 55°C	Ta 40°C	Ta 55°C
NFDR-40 □ - □ □ □ ○	40W.	110-240V.ac	T6	T6	T85°C	T85°C
NFDR-60 □ - □ □ □ ○	60W.	50/60Hz.				
NFDR-80 □ - □ □ □ ○	80W.					
NFDR-100 □ - □ □ □ ○	100W.					
NFDR-120 □ - □ □ □ ○	120W.					
NFDR-150 □ - □ □ □ ○	150W.					

Ceiling Mounting



Steel Bracket Mounting (U-shaped)



Pendant Mounting



Wall Mounting



Stanchion Mounting ; 30 degree angle



Stanchion Mounting ; 90 degree angle



Remark * : The maximum surface temperatures are specified for dust free condition. The dust layer which may cover around the lighting fixture will cause to higher surface temperature.

Lighting: LED Lighting Fixture, NFDR Series

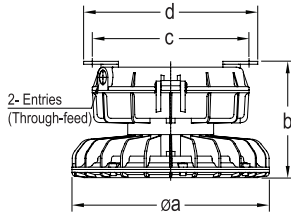
Restricted Breathing and Dust protection by enclosure

Zone 2 – 21 & 22



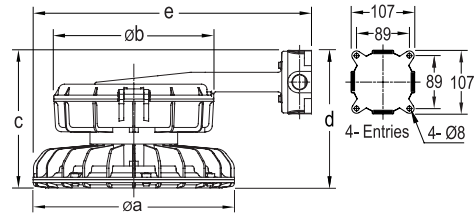
Dimension

Ceiling Mounting



Cat. No.	Dimension in mm.				Approx. Weight (kgs.)
	Øa	b	c	d	
NFDR-40C-□□○ to 80C-□□○	235	221	190	210	7.0
NFDR-100C-□□○ to 150C-□□○	340	201	270	300	8.3

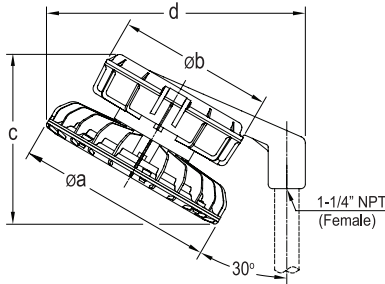
Wall Mounting



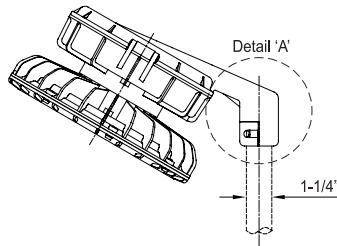
Cat. No.	Dimension in mm.					Approx. Weight (kgs.)
	Øa	Øb	c	d	e	
NFDR-40W-□□○ to 80W-□□○	235	190	217	254	378	7.0
NFDR-100W-□□○ to 150W-□□○	340	270	195	232	470	8.3

Stanchion Mounting ; 30 degree angle

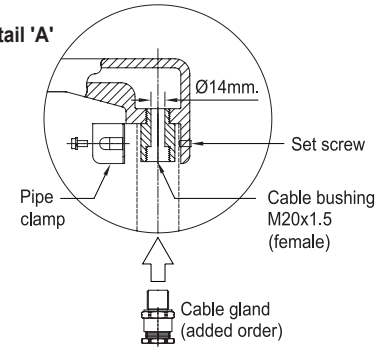
Conduit type (standard)



Cable type (Pipe clamp)

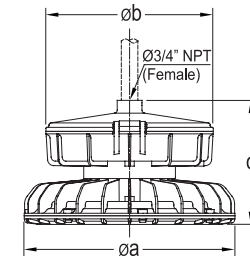


Detail 'A'



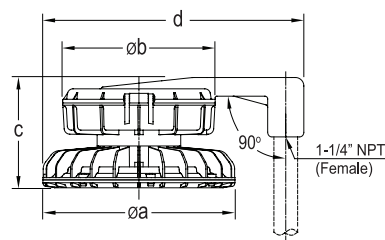
Cat. No.	Dimension in mm.				Approx. Weight (kgs.)		
	Conduit type		Cable type				
NFDR-40S30-○ to 80S30-○	NFDR-40S301-○	to 80S301-○	235	190	265	377	7.0
NFDR-100S30-○ to 150S30-○	NFDR-100S301-○	to 150S301-○	340	270	292	446	8.3

Pendant Mounting

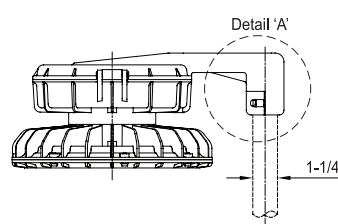


Stanchion Mounting ; 90 degree angle

Conduit type (standard)



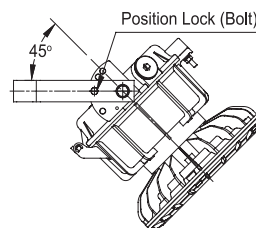
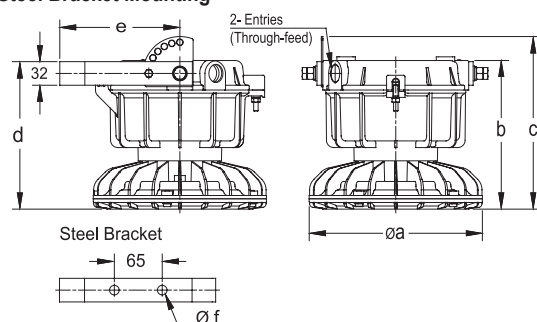
Cable type (Pipe clamp)



Cat. No.	Dimension in mm.			Approx. Weight (kgs.)
	Øa	Øb	c	
NFDR-40P-N2 ○ to 80P-N2 ○	235	190	222	7.0
NFDR-100P-N2 ○ to 150P-N2 ○	340	270	200	8.3

Cat. No.	Dimension in mm.				Approx. Weight (kgs.)		
	Conduit type		Cable type				
NFDR-40S90-○ to 80S90-○	NFDR-40S901-○	to 80S901-○	235	190	217	367	7.0
NFDR-100S90-○ to 150S90-○	NFDR-100S901-○	to 150S901-○	340	270	195	462	8.3

Steel Bracket Mounting



Cat. No.	Dimension in mm.					
	Øa	b	c	d	e	Øf
NFDR-40C1-□□○ to 80C1-□□○	235	202	234	200	163	2- Ø13
NFDR-100C1-□□○ to 150C1-□□○	340	195	223	189	193	3- Ø13