

### Specification

Body material : Marine grade copper-free aluminium alloy with polyester powder coated, RAL 7032 (grey)  
 Lens : Heat and impact resistant clear glass  
 Bolts : Stainless steel, SUS 304  
 Sealing gasket : Silicone  
 Bracket : Hot-dip gvanized steel  
 Guard : Stainless steel

### LED System

Luminous efficient : 100 lm/W  
 Colour temperature : 5700 K (cool white)  
 Color Rendering Index (Ra) : >70  
 Chip : CREE  
 Beam angle : 80°, 100°

### Option (specify)

Body : Offshore painting (Acrylic polyurethane coating)  
 Bolts : Stainless steel, SUS 316  
 Bracket : Stainless steel, SUS 316  
 Chip : Lumileds, Bridgelux, Nichia  
 Colour temperature : 3000K, 3500K, 4000K, 4500K, 5000K, 6500K or others  
 Color Rendering Index (Ra) : >80  
 Others beam angle of lens

### Technical Data

<b>Hazardous Area</b>	<b>Gas</b>	<b>Dust</b>
<b>Zones</b>	2	21 & 22
<b>Equipment Group/Category</b>	Ex II 3G	Ex II 2D
<b>Symbol of Protection</b>	Ex nR IIC T6 Gc	Ex tb IIIC T85°C Db IP66
<b>Certificate</b>	TÜV CY 16 ATEX 0205812 X	
<b>Conformity to standards</b>	EN 60079-0:2012+A11:2013, EN 60079-15:2010, EN 60079-31:2014, EN 60598-1:2015	
<b>Ambient Temperature</b>	-20°C to +55°C	
<b>Index of Protection</b>	IP66	
<b>Entries</b>	1-hole standard (M20x1.5, M25x1.5 or Ø3/4" NPT), 2-holes are optional	
<b>Mounting</b>	Ceiling, Wall, Pendant or Stanchion mounting	
<b>Connection</b>	L, N and E ; for 1-4mm. <sup>2</sup> cable (Through wiring system with an extra terminal block for cable connection at both ends.)	
<b>Rated Voltage</b>	110-240V.ac 50/60Hz., THDi < 20%, P.F. ≥ 0.95	

### Catalogue Number Logic

NFDR - ■ ■ ■ ■ □ - □ - □

Series	LED Power	Mounting		Entries	Accessories				
	(see ordering requirement table below)	C	Ceiling	S30	Stanchion, 30 degree Angle	M1	M20x1.5	G	Guard
		C1	Steel Bracket			M2	M25x1.5		
		P	Pendant	S90	Stanchion, 90 degree Angle	N2	Ø3/4" NPT		
		W	Wall						



### 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

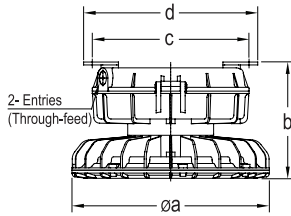
Restricted Breathing and Dust protection by enclosure

Zone 2 – 21 & 22



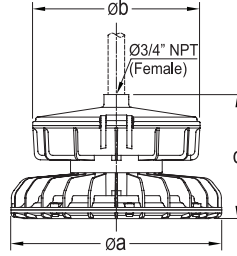
## Dimension

### Ceiling Mounting



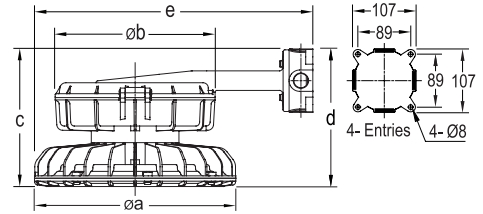
Cat. No.	Dimension in mm.				Approx. Weight (kgs.)
	Øa	b	c	d	
NFDR-40C to 80C	235	221	190	210	7.0
NFDR-100C to 150C	340	200	270	300	8.3

### Pendant Mounting



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

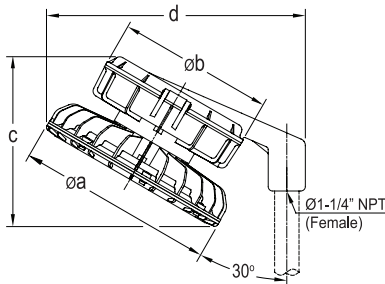
### Wall Mounting



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

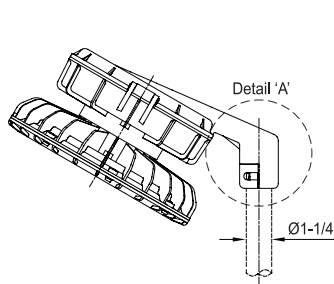
### Stanchion Mounting ; 30 degree angle

#### Conduit type (standard)

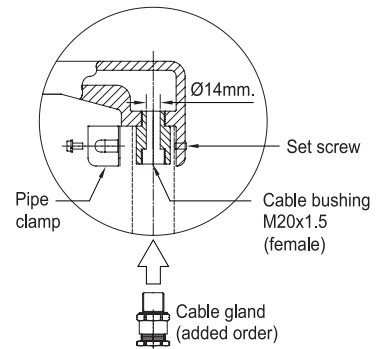


Cat. No.	Dimension in mm.				Approx. Weight (kgs.)	
	Conduit type	Cable type	Øa	Øb		
NFDR-40S30 to 80S30	NFDR-40S301 to 80S301	235	190	265	377	7.0
NFDR-100S30 to 150S30	NFDR-100S301 to 150S301	340	270	292	446	8.3

#### Cable type (Pipe clamp)

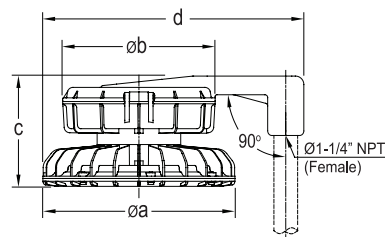


#### Detail 'A'



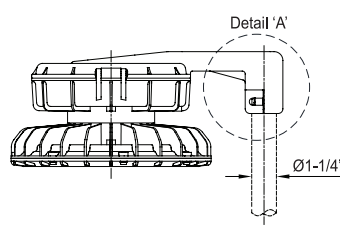
### Stanchion Mounting ; 90 degree angle

#### Conduit type (standard)

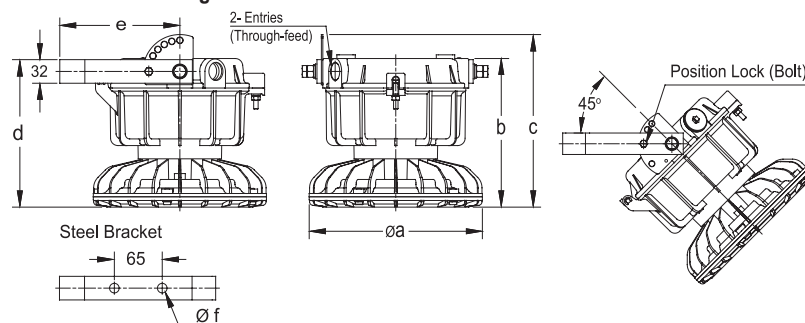


Cat. No.	Dimension in mm.				Approx. Weight (kgs.)	
	Conduit type	Cable type	Øa	Øb		
NFDR-40S90 to 80S90	NFDR-40S901 to 80S901	235	190	217	367	7.0
NFDR-100S90 to 150S90	NFDR-100S901 to 150S901	340	270	195	462	8.3

#### Cable type (Pipe clamp)



### 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

A  
B  
C  
D  
E  
F  
G  
H