

# ESFL/NSFL Stainless Steel Ex-Fluorescent Zone1/Zone2

## Product Introduction

ESFL/NSFL Stainless Steel Ex-Fluorescents are designed for hazardous location by the presence of flammable vapors, gases or combustible dusts. With its excellent corrosion-resistance capability, it is the best choice for Marine and Offshore platforms under extreme corrosive environments.

- ESFL- Zone 1/Zone2, Zone 21/Zone 22
- NSFL- Zone Zone2, Zone 21/Zone 22



## Product Features

### Robust Construction:

- Equipped with stainless steel housing and PC lens. Highly impact-resistance, corrosion-proof and, UV resistant to ensure product durability and long life
- IP66, ideally design to ensures continuous watertight proof
- Highly vibration resistant to comply with IEC60068-2-6 vessel vibration requirements

### Superb Safety & Reliability:

- Individually certified Ex electronic ballast with Low harmonic content
- Wide range of ambient temperature: -20~+45°C/20~+40°C (Emergency)
- Ballast with “End of Life Protection (EOL)” protection
- Ex lamp holder with vibration resistance design, suitable for strong wind or high vibration environments

### High Efficiency & Energy Saving:

- Electronic ballast with high efficiency and low power consumption. 15% increase of illuminating efficiency, and 25% energy saving compared with magnetic ballast. Input power of 2X18W/2X36W fixture is only 36W/66W

### Convenient Installation & Maintenance:

- Uniquely designed latches on both sides of the fixture thus to ensure reliable watertight proof and easy maintenance
- Lens chain design prevents lens from falling during installation and maintenance
- Reflector can be easily remove for easy wiring
- Fixture is composed with SS316 safety chain thus to ensure easy maintenance
- With advance internal wiring and terminals available on one or both ends that creates time and cost saving and easy installation for customers.
- Optional mounting brackets are also available for wide range of mounting requirements

### Applications

- Outdoors and high humidity environment, and areas occupied with explosive gas or dusty exists
- Marine, offshore platform, or ship dock
- Other highly corrosive environments

### Emergency Lighting

In the case of power supply failure, emergency operation will be initiated automatically with 1-lamp to be set on site for 120 mins. The battery will initiate charging when power supply returns to normal while the built-in single green LED on reflector continuously indicates the charging status.



- LED light will remain at the “On” status when battery is under normal operation condition.
- Green LED will begin to flash indicating when the battery is being discharged.
- LED will shut down when problem occurs in the main power or, when the battery cannot be charged or, when the charging process is complete.

# ESFL Stainless Steel Ex-Fluorescent Zone1/Zone21

## Material

Housing	SS316 SS304 with electrostatic powder coating Steel with electrostatic powder coating
Lens	3mm thick clear PC
Reflector	Steel, with electrostatic white polyester powder coating
Gasket	Silicone

## Technical Data

<b>Marking to ATEX</b>	ESFL:  II2 G Ex e q IIC T4 Gb / II2 D Ex tb IIIC T80°C Db IP66 (Non Emergency) ESFL N:  II2 G Ex e ib q IIC T4 Gb / II2 D Ex tb IIIC T80°C Db IP66 (Emergency)
<b>Marking to IECEx</b>	ESFL: Ex e q IIC T4 Gb / Ex tb IIIC T80°C Db IP66 (Non Emergency) ESFL N: Ex e ib q IIC T4 Gb / Ex tb IIIC T80°C Db IP66 (Emergency)
<b>Marking to GB</b>	ESFL: Ex e q IIC T4 Gb / DIP A21 T <sub>A</sub> T6 IP66 (Non Emergency) ESFL N: Ex e ib q IIC T4 Gb / DIP A21 T <sub>A</sub> T6 IP66
<b>Ambient Temp</b>	-20~+45°C/-20~+40°C(Emergency)
<b>Rated voltage</b>	220V~240V, 50/60 Hz
<b>Suitable voltage</b>	AC 187V~264V DC 198V~242V (NA on Emergency fixture)
<b>Power factor</b>	0.96
<b>Ingress protection</b>	IP66
<b>Connecting terminals</b>	L1, L2, L3, L, N, PE; Max. 2 x 6mm <sup>2</sup> single wire per terminal
<b>Cable entries</b>	2XM25X1.5, or 2XM20X1.5, w/ 1 Ex e plastic cable gland and 1 Ex-plug 4XM25X1.5, or 4XM20X1.5, w/ 2 Ex e plastic cable gland and 2 Ex-plug
<b>Lamps</b>	F18T8/F36T8, Bin-Pin G13
<b>Weight</b>	2X18W: 13kg, 2X18W Emergency: 14kg 2X36W: 17kg, 2X36W Emergency: 18kg
<b>Battery operation Temp</b>	Charge : 0°C~+60°C / Discharge: -20°C~+70°C
<b>Battery</b>	4Ah 6V, Ni-Cd
<b>Em'cy lighting</b>	Single tube, 2 hours, 18W: 270 Lumen (20%) 36W: 1350 Lumen (20%)
<b>Charging time</b>	>16 hours, 20±5°C

## Ordering Logic

ESFL	/S16	/236	/N	/1-2x25
<b>ESFL-</b>	<b>Housing Material</b>	<b>Lamps</b>	<b>Emergency Battery</b>	<b>Cable Entries</b>
Zone 1 Exe Steel	S16-SS316	236- 2X36W	N- Emergency	1-2x25: single ended, 2xM25x1.5
Fluorescent	S04-SS304, with electrostatic powder coating	218- 2X18W	O-Non Emergency	2TW-2x25: double ended through-wiring, 2xM25x1.5
	S00- Steel, with electrostatic powder coating			1-2x20: single ended, 2xM20x1.5
				2TW-2x20: double ended through-wiring, 2xM20x1.5

# NSFL Stainless Steel Ex-Fluorescent Zone2/Zone21

## Material

Housing	SS316 SS304 with electrostatic powder coating Steel with electrostatic powder coating
Lens	3mm thick clear PC
Reflector	Steel, with electrostatic white polyester powder coating
Gasket	Silicone

## Technical Data

<b>Marking to ATEX</b>	Ⓔ II3 G Ex nR IIC T6 Gc / II2 D Ex tb IIIC T80°C Db IP66
<b>Marking to IECEx</b>	Ex nR IIC T6 Gc / Ex tb IIIC T80°C Db IP66
<b>Marking to GB</b>	Ex nR IIC T6 Gc / DIP A21 T <sub>A</sub> T6 IP66
<b>Ambient temp</b>	-20~+45°C/20~+40°C(Emergency)
<b>Rated voltage</b>	110V~240V, 50/60 Hz
<b>Suitable voltage</b>	AC 99V~264V
<b>Power factor</b>	0.96
<b>Ingress protection</b>	IP66
<b>Connecting terminals</b>	L1, L2, L3, L, N, PE; Max. 2 x 6mm <sup>2</sup> single wire per terminal
<b>Cable entries</b>	2XM25X1.5, or 2XM20X1.5, w/ 1 Ex e plastic cable gland and 1 Ex-plug 4XM25X1.5, or 4XM20X1.5, w/ 2 Ex e plastic cable gland and 2 Ex-plug
<b>Lamps</b>	F18T8/F36T8, Bin-Pin G13
<b>Weight</b>	2X18W: 13kg, 2X18W Emergency: 14kg 2X36W: 17kg, 2X36W Emergency: 18kg
<b>Battery ambient temp</b>	Charge: 0°C~+60°C Discharge: -20°C~+70°C
<b>Battery</b>	18W: 2.5Ah 6V, Ni-Cd; 36W: 4Ah 6V, Ni-Cd
<b>Em'cy lighting</b>	Single Tube, 2hours, 18W: 270 Lumen (20%) 36W: 1350 Lumen (20%)
<b>Battery charge</b>	24hours, 20±5°C

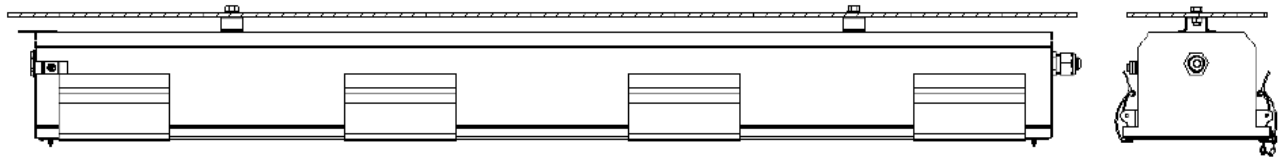
## Ordering Logic

NSFL	/S16	/236	/N	/1-2x25
<b>NSFL-</b> Zone2 Exe Steel Fluorescent	<b>Housing Material</b> S16- SS316 S04- SS304, with electrostatic powder coating S00- Steel, with electrostatic powder coating	<b>Lamps</b> 236- 2X36W 218- 2X18W	<b>Emergency Battery</b> N-Emergency Battery O-No Emergency Battery	<b>Cable Entries</b> 1-2x25: Single ended, 2xM25x1.5 2TW-2x25: Double ended through wiring, 2xM25x1.5 1-2x20: Single ended, 2xM20x1.5 2TW-2x20: Double ended through wiring, 2xM20x1.5

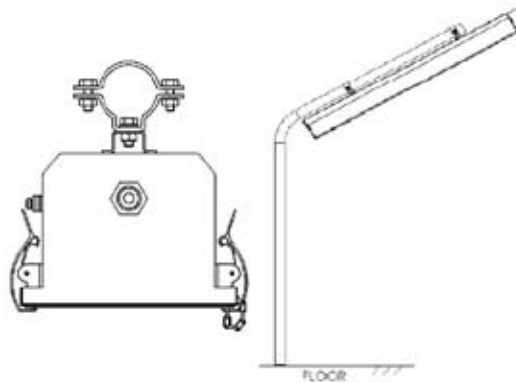
# NSFL Stainless Steel Ex-Fluorescent Zone2/Zone21

## Mounting Method

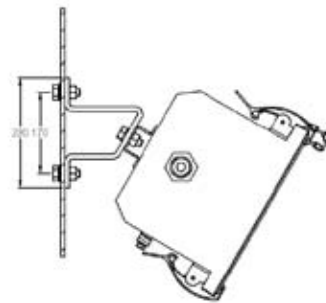
Conventional mounting



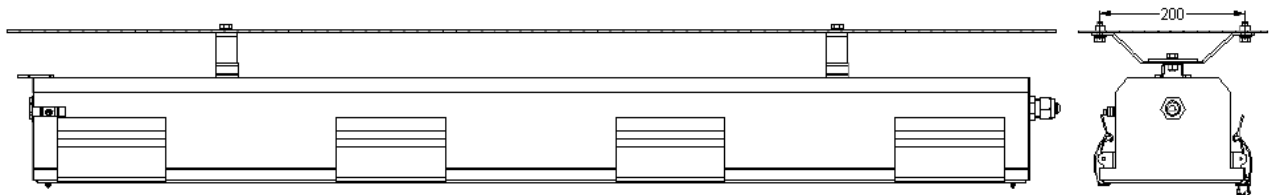
Pipe mounting



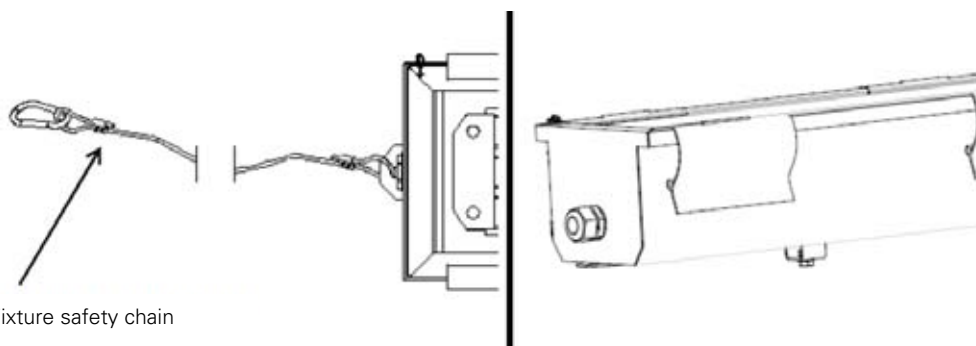
Wall mounting



Ceiling mounting

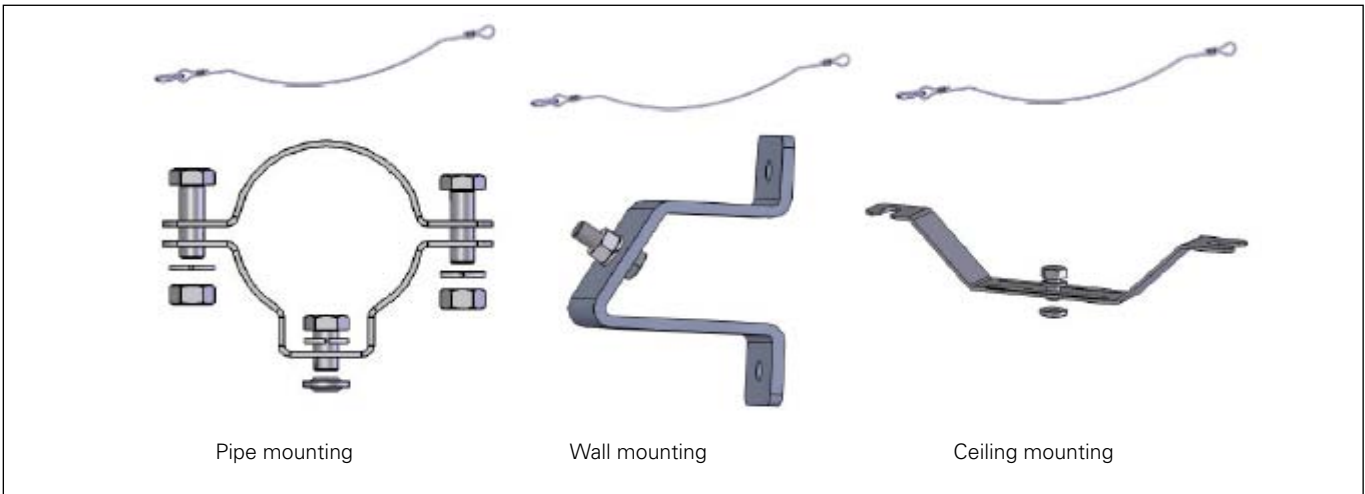


Fixture safety chain



# NSFL Stainless Steel Ex-Fluorescent Zone2/Zone21

## Mounting Bracket



## Pipe Mounting

Part No	Description	Qty
CHR5218	Pipe Clamp Assy D42 316S/S	2
CHR5219	Pipe Clamp Assy D42 304S/S	2
CHR5220	Pipe Clamp Assy D42 plating	2
CHR5221	Pipe Clamp Assy D51 316S/S	2
CHR5222	Pipe Clamp Assy D51 304S/S	2
CHR5223	Pipe Clamp Assy D51 plating	2
CHR7005	Safety Chain Outside	1

## Wall Mounting

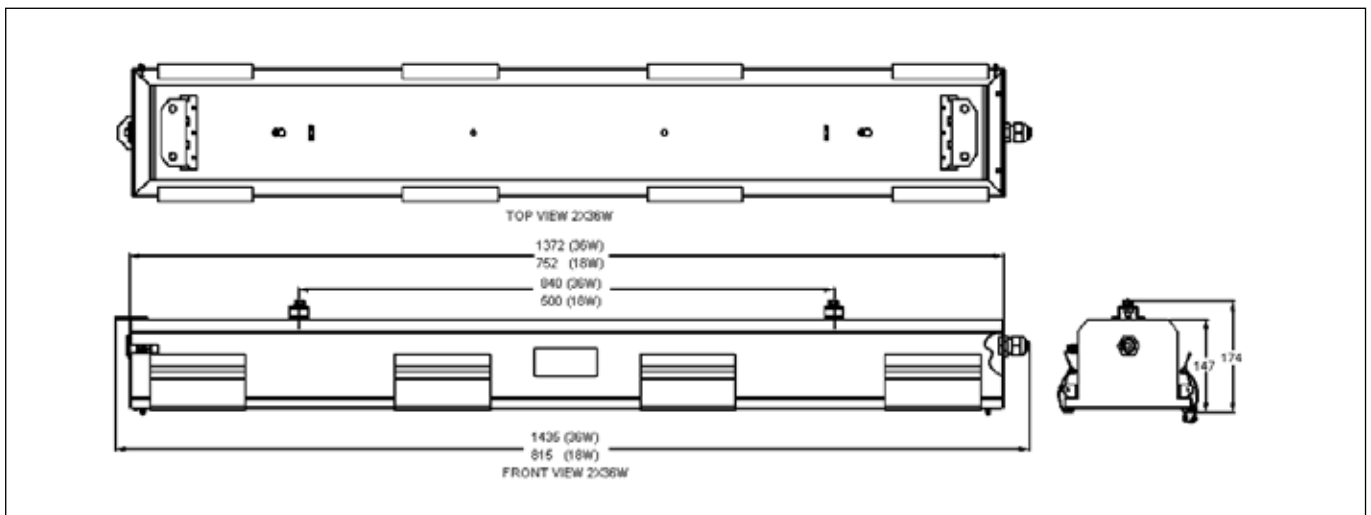
Part No	Description	Qty
CHR5248	Wall Suspension 316S/S	2
CHR5249	Wall Suspension 304S/S	2
CHR5250	Wall Suspension Plating	2
CHR7005	Safety Chain Outside	1

## Ceiling Mounting

Part No	Description	Qty
CHR5245	Ceiling Mounting BKT 316S/S	2
CHR5246	Ceiling Mounting BKT 304S/S	2
CHR5247	Ceiling Mounting BKT Plating	2
CHR7005	Safety Chain Outside	1

# NSFL Stainless Steel Ex-Fluorescent Zone2/Zone21

## Size



## Polar Curves

