

FN Series Heavy Duty Non-Metallic Fluorescent Luminaires

Standard and Emergency Back-Up. Zone 2 - 21 & 22

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

Applications

- Can be installed in hazardous areas designated as Zone 2, 21 and 22.
- For use in locations where a high degree of corrosion resistance is required.
- For indoor/outdoor use where protection against dirt, water and moisture is necessary.
- Typical applications include oil refineries, petrochemical facilities, pulp and paper mills, food processing plants, warehouses, underground tunnels and general manufacturing facilities.

Features

- Corrosion-resistant fiberglass reinforced polyester body and hinged polycarbonate lens.
- High impact resistance housing (20 Joules - IK10) from -40°C to +55 °C ambient temperature and wind profile for use in extreme offshore and onshore environments.
- Latch assembly and elastomer gasket seals against water and dust ingress, IP66/67.
- Easily accessed for maintenance using Allen key or straight blade screw driver.
- Central opening with unique patented release system to prevent damage.
- Hinged parabolic reflector for high lumen output efficiency.
- Vibration resistant spring loaded lampholders for Bi-pin (G13) or mono-pin (Fa6) versions.
- Electronic multi-tap ballast 110 to 254 Vac/Vdc +/- 10% 50/60 Hz, for global applications. High power factor electronic ballast (>0.95). EOL (End Of Life) protection in accordance to the latest EN/IEC 60079-7 standard.
- Also available with electronic ballast 220/240 Vac/Vdc +/- 10% 50/60 Hz. High power factor electronic ballast (>0.95). EOL.
- Available in 3 hours emergency version, including multi-tap ballast with built-in monthly self test. Test results through multi-color LED.

Standard Material

- Fiberglass reinforced polyester housing
- Polycarbonate lens
- Elastomer gasket
- Highly reflective white polycarbonate internal reflector
- Mounting accessories available in different materials such as gray painted aluminum, zinc plated steel, galvanized steel or 316L stainless steel

Options

- Silicone coating for added protection in H₂S hydrogen sulfide environments.
- Without safety switch.
- Level gauge light fitting.
- 316L stainless steel fixing inserts.



2 x 58 W



2 x 36 W



2 x 18 W

Certifications and Compliances

◆ ATEX or ATEX/IECEx Certification

• Certification Type: FLn

- Gas: Zone 2
 - Conforming to ATEX 94/9/CE: Ⓢ II 3 G
 - Type of Protection 'nA': Ex nA IIC T6 Gc
 - Type of Protection 'nR': Ex nR IIC T4 Gc
 - Temperature class: T6 (nA) or T4 (nR)
 - Ambient Temperature: -20 °C to +55 °C
- Dust: Zone 21
 - Conforming to ATEX 94/9/CE: Ⓢ II 2 D
 - Type of Protection: Ex tD A21
 - Surface Temperature: T75 °C
 - Ambient Temperature: -40 °C to +55 °C ①
- Dust: Zone 22
 - Conforming to ATEX 94/9/CE: Ⓢ II 3 D
 - Type of Protection: Ex t III C Dc
 - Surface Temperature: T75 °C
 - Ambient Temperature: -20 °C to +55 °C ①
- CE Declaration of Conformity: 50212
- ATEX Certificate:
 - Zone 2-22: LCIE 03 ATEX 6072
 - Zone 21: LCIE 02 ATEX 6067
- IECEx Certificate:
 - Zone 2-22: IECEx LCI 04.0021
- Index of Protection according EN/IEC 60529: IP66/67
- Impact Resistance (shock): IK10

◆ EURASEC Certification

- EURASEC N° TC RU C-FR.Г505.B.00912

◆ Others Certification

- INMETRO Certificate: BVC11.0815 ①

① Inmetro certification available on special request only. Contact your local sales for more information

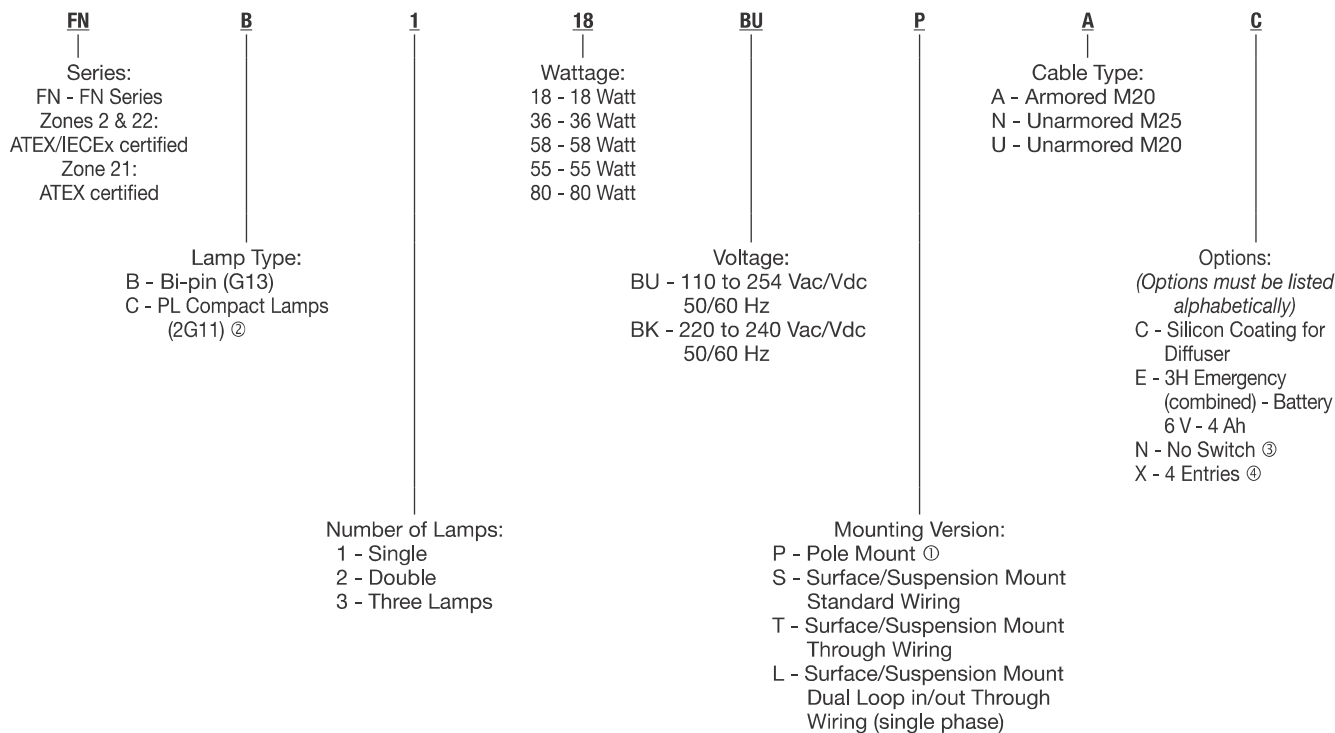
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Standard and Emergency Back-Up. Zone 2 - 21 & 22

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

Order using catalog numbering guide below or select catalog number from tables on following pages.

Catalog Numbering Guide For FN Non-Metallic Fluorescent Lighting Fixtures



① Only 2 x 18 W and 2 x 36 W with M25 entry versions.

② Only 55 W and 80 W standard versions.

③ Only for standard versions.

④ Only for S, T and L mounting versions.

FN Series Heavy Duty Non-Metallic Fluorescent Luminaires

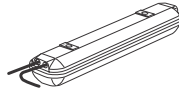
Standard and Emergency Back-Up. Zone 2 - 21 & 22

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Standard Version

Surface/Suspension Mounting and Standard Wiring Version

Connection via 1 x 6 terminals.
Capacity (flexible/solid): 4 mm²/6 mm².



Unarmored Version - Bi-pin (G13)

Three M25 threaded entries, two at one end and one at opposite end, supplied with one M25 polyamide cable gland (dia. 8 to 18.5 mm) and two M25 polyamide blanking plugs.

Number of Lamps	Power (W)	Lamp Type	Voltage (V)	Weight kg (lb)	Volume dm ³	Catalog Number
2	18	G13	220/240	5.5	32.3	FNB218BKSNN
2	18	G13	110/254	5.5	32.3	FNB218BUSNN
2	36	G13	220/240	7.9	54.2	FNB236BKSNN
2	36	G13	110/254	7.9	54.2	FNB236BUSNN
2	58	G13	220/240	9	65	FNB258BKSNN
2	58	G13	110/254	11	65	FNB258BUSNN

Armored Version - Bi-pin (G13)

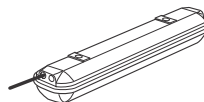
Two M20 threaded entries with brass earth continuity plate at one end and one M20 plugged clearance entry, supplied with two M20 polyamide plugs.

Number of Lamps	Power (W)	Lamp Type	Voltage (V)	Weight kg	Volume dm ³	Catalog Number
2	18	G13	220/240	5.5	32.3	FNB218BKSAN
2	18	G13	110/254	5.5	32.3	FNB218BUSAN
2	36	G13	220/240	7.9	54.2	FNB236BKSAN
2	36	G13	110/254	7.9	54.2	FNB236BUSAN
2	58	G13	220/240	9	65	FNB258BKSAN
2	58	G13	110/254	11	65	FNB258BUSAN

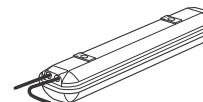
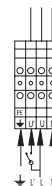
Emergency Version

Surface/Suspension Mounting and Standard Wiring

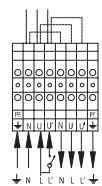
Connection via 1 x 4 terminals for 18 W version.
Connection via 1 x 8 terminals for 36 W & 58 W versions.
Capacity (flexible/solid): 4 mm²/6 mm².



18 W



36/58 W



Unarmored Version - Bi-pin (G13)

Three M25 entries, two at one end and one at opposite end, supplied with one M25 polyamide cable gland (dia. 8 to 18.5 mm) and two M25 polyamide blanking plugs.

Number of Lamps	Power (W)	Lamp Type	Voltage (V)	Weight kg	Volume dm ³	Duration (Hours)	Battery Capacity	Catalog Number
2	18	G13	110/254	7.3	32.3	3 H	4 Ah	FNB218BUSNEN
2	36	G13	110/254	9.6	54.2	3 H	4 Ah	FNB236BUSNEN
2	58	G13	110/254	10.7	65	3 H	4 Ah	FNB258BUSNEN

Armored Version - Bi-pin (G13)

Two M20 threaded entries with brass earth continuity plate at one end and one M20 plugged clearance entry, supplied with two M20 polyamide plugs.


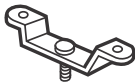


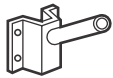

Number of Lamps	Power (W)	Lamp Type	Voltage (V)	Weight kg	Volume dm ³	Duration (Hours)	Battery Capacity	Catalog Number
2	18	G13	110/254	7.3	32.3	3 H	4 Ah	FNB218BUSAEN
2	36	G13	110/254	9.6	54.2	3 H	4 Ah	FNB236BUSAEN
2	58	G13	110/254	10.7	65	3 H	4 Ah	FNB258BUSAEN

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

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Accessories and Replacement Parts		
	Description	Catalog Number
Fixing Brackets		
	Set of two brackets for surface installation	
	Zinc plated steel	FEFBZ
	316 stainless steel	FEFBS
Brackets for Surface Mounting		
	Set of two	
	Aluminium (gray painted)	FESBA
	316 stainless steel	FESBS
M8 Ring Bolts		
	Set of two	
	Zinc plated steel	FERBM8Z
Half Clamps Brackets for Pole Mounting		
	Set of two	
	For 42 mm to 49 mm pole (1-1/4 to 1-1/2" tube)	
	Zinc plated steel	FEHC49Z
	316 stainless steel	FEHC49S
	For 60 mm pole (2" tube)	
	Zinc plated steel	FEHC60Z
	316 stainless steel	FEHC60S
Wall Mounting Adaptor		
	For pole mounting version	
	Diameter 42mm	
	Galvanized steel	FEWMG
Hinged Brackets		
	Set of two brackets for adjusting luminaire	
	Aluminium	FEHBA
	316 stainless steel	FEHBS
Fall Prevention Kit		
	Safety chain retains fixture temporarily to ease installation	
	For M25 cable entry	FESCM25
	For M20 cable entry	FESCM20

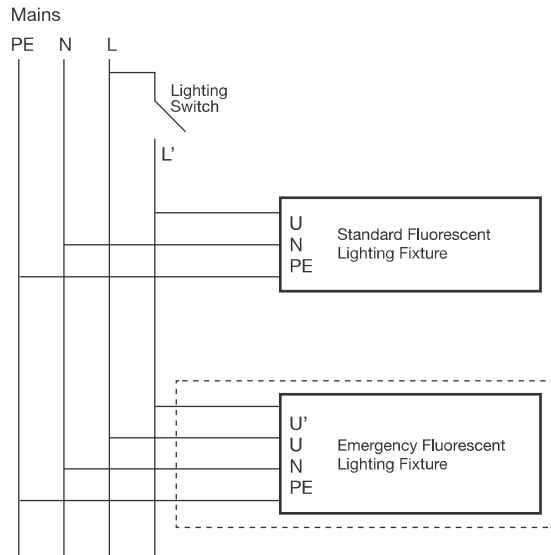
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Wiring Diagram



Emergency Function Diagram

Two Lamp Version

Mains	Lighting Switch ON	Lighting Switch OFF
ON		
OFF		

Three Lamp Version

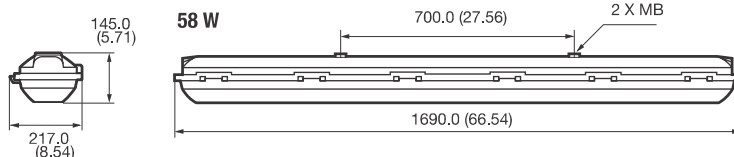
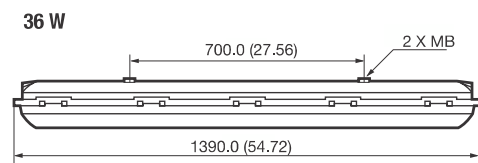
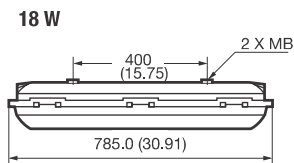
Mains	Lighting Switch ON	Lighting Switch OFF
ON		
OFF		

LED Status

Color	Indication	Function
Green	LED Blinking 1:1	Mains ok, Batteries are iconnected, charging
	LED ON	Mains ok, Batteries are charged
Red	LED Blinking 1:1	Batteries are not connected or defective
	LED Flash	Batteries are charging and discharging during automatic cycle
	LED ON	Mains faulty - Output ON
	No Light emitted	No mains, Battery empty
Yellow	LED Blinking 1:1	Mains ok, Performing Self test
	LED ON	Self test was not ok

Dimensions in Millimeters (Inches)

Surface/Suspension Mounting



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Photometric Data

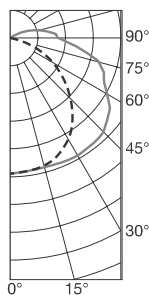
Polar curves for a 1000 lm flux, according to NF C 71-120
Luminaire symbol according to NF C 71-121

--- Longitudinal
— Transverse

2 x 18 W
Efficiency 85.1%
NF C 71-121: 0.78 H + 0.08 T

CANDELA DISTRIBUTION

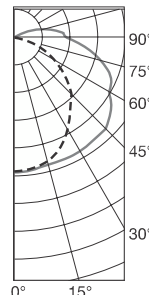
	0-180	90-270
0	195	195
5	195	194
10	192	192
15	187	192
20	181	193
25	173	194
30	163	194
35	152	193
40	138	192
45	124	191
50	108	182
55	91	176
60	73	163
65	55	150
70	37	145



2 x 36 W
Efficiency 80.5%
NF C 71-121: 0.73 H + 0.07 T

CANDELA DISTRIBUTION

	0-180	90-270
0	185	185
5	185	184
10	182	182
15	178	181
20	172	183
25	164	183
30	154	183
35	143	183
40	131	183
45	117	179
50	102	173
55	85	166
60	68	155
65	51	145
70	35	141



2 x 58 W
Efficiency 76.9%
NF C 71-121: 0.70 H + 0.07 T

CANDELA DISTRIBUTION

	0-180	90-270
0	173	173
5	172	173
10	170	171
15	166	169
20	161	172
25	154	172
30	145	172
35	135	171
40	123	172
45	111	170
50	97	165
55	82	157
60	66	148
65	50	139
70	34	133

