

ATX™ FN Series Heavy Duty Nonmetallic Fluorescent Luminaires

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

ATEX/IECEX:
Zone 2 - 21 and 22
II 3 GD and II 2 D
IP66/67 - IK10

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 (-40° F to +131 °F) 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 316 stainless steel

Options

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



2 x 58 W



2 x 36 W



2 x 18 W

ATEX/IECEX Certifications and Compliances

- 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
 - T-Rating: T6 (nA) or T4 (nR)
 - Ambient Temperature: -20 °C to +55 °C (-4 °F to +131 °F) ①
 - Dust: Zone 21
 - Conforming to ATEX 94/9/CE: Ⓢ II 2 D
 - Type of Protection: Ex tD A21
 - Surface Temperature: T75 °C (T167 °F)
 - Ambient Temperature: -40 °C to +55 °C (-40 °F to +131 °F) ①
 - Dust: Zone 22
 - Conforming to ATEX 94/9/CE: II 3 D
 - Type of Protection: Ex t IIC Dc
 - Surface Temperature: T75 °C (T167 °F)
- Ambient Temperature: -20 °C to +55 °C (-40 °F to +131 °F) ①
- CE Declaration of Conformity: 50212
- ATEX Certificate Zone 2-22: LCIE 03 ATEX 6072
- ATEX Certificate 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

Other Certification

- INMETRO Certificate: BVC11.0815 ①

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FLUORESCENT/AREA: ATEX/IECEX STANDARD AND EMERGENCY BACK-UP

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

FN	B	1	18	BU	P	A	C
Series: FN - FN Series Zones 2 and 22: ATEX/IECEX certified Zone 21: ATEX certified	Lamp Type: B - Bi-pin (G13) C - PL Compact Lamps (2G11) ②	Number of Lamps: 1 - Single 2 - Double 3 - Three Lamps	Wattage: 18 - 18 Watt 36 - 36 Watt 58 - 58 Watt 55 - 55 Watt 80 - 80 Watt	Voltage: BU - 110 to 254 Vac/Vdc 50/60 Hz BK - 220 to 240 Vac/Vdc 50/60 Hz	Mounting Version: P - Pole Mount ① S - Surface/Suspension Mount Standard Wiring T - Surface/Suspension Mount Through Wiring L - Surface/Suspension Mount Dual Loop in/out Through Wiring (single phase)	Cable Type: A - Armored M20 N - Unarmored M25 U - Unarmored M20	Options: (Options must be listed alphabetically) C - Silicon Coating for Diffuser E - 3H Emergency (combined) - Battery 6 V - 4 Ah N - No Switch ③ X - 4 Entries ④



THORNE &
DERRICK
INTERNATIONAL

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+44 (0) 191 410 4292
www.heatingandprocess.com

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.

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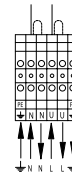
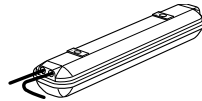
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Standard Version

Surface/Suspension Mounting and Standard Wiring Version

Connection via 1 x 6 terminals.

Capacity (flexible/solid): 4 mm²/6 mm² (0.006 in²/0.009 in²).



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 (0.31 to 0.73 in)) and two M25 polyamide blanking plugs.

Number of Lamps	Power (W)	Lamp Type	Voltage (V)	Weight kg (lb)	Volume dm ³ (in ³)	Catalog Number
2	18	G13	220/240	5.5 (12.13)	32.3 (1971.07)	FNB218BKSNN
2	18	G13	110/254	5.5 (12.13)	32.3 (1971.07)	FNB218BUSNN
2	36	G13	220/240	7.9 (17.42)	54.2 (3307.49)	FNB236BKSNN
2	36	G13	110/254	7.9 (17.42)	54.2 (3307.49)	FNB236BUSNN
2	58	G13	220/240	9 (19.84)	65 (3966.54)	FNB258BKSNN
2	58	G13	110/254	11 (24.25)	65 (3966.54)	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 (lb)	Volume dm ³ (in ³)	Catalog Number
2	18	G13	220/240	5.5 (12.13)	32.3 (1971.07)	FNB218BKSAN
2	18	G13	110/254	5.5 (12.13)	32.3 (1971.07)	FNB218BUSAN
2	36	G13	220/240	7.9 (17.42)	54.2 (3307.49)	FNB236BKSAN
2	36	G13	110/254	7.9 (17.42)	54.2 (3307.49)	FNB236BUSAN
2	58	G13	220/240	9 (19.84)	65 (3966.54)	FNB258BKSAN
2	58	G13	110/254	11 (24.25)	65 (3966.54)	FNB258BUSAN

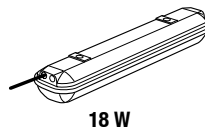
Emergency Version

Surface/Suspension Mounting and Standard Wiring

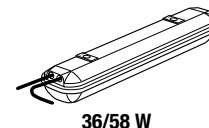
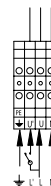
Connection via 1 x 4 terminals for 18 W version.

Connection via 1 x 8 terminals for 36 W and 58 W versions.

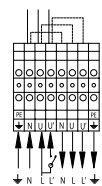
Capacity (flexible/solid): 4 mm²/6 mm².



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 (0.31 to 0.73 in)) and two M25 polyamide blanking plugs.

Number of Lamps	Power (W)	Lamp Type	Voltage (V)	Weight kg (lb)	Volume dm ³ (in ³)	Duration (Hours)	Battery Capacity	Catalog Number
2	18	G13	110/254	7.3 (16.09)	32.3 (1971.07)	3 H	4 Ah	FNB218BUSNEN
2	36	G13	110/254	9.6 (21.16)	54.2 (3307.49)	3 H	4 Ah	FNB236BUSNEN
2	58	G13	110/254	10.7 (23.59)	65 (3966.54)	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 (lb)	Volume dm ³ (in ³)	Duration (Hours)	Battery Capacity	Catalog Number
2	18	G13	110/254	7.3 (16.09)	32.3 (1971.07)	3 H	4 Ah	FNB218BUSAEN
2	36	G13	110/254	9.6 (21.16)	54.2 (3307.49)	3 H	4 Ah	FNB236BUSAEN
2	58	G13	110/254	10.7 (23.59)	65 (3966.54)	3 H	4 Ah	FNB258BUSAEN


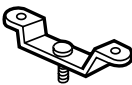


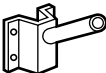

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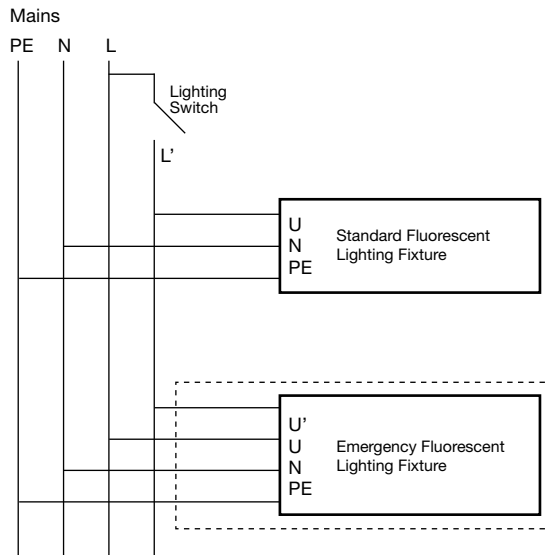
	Description	Pack	Catalog Number
Fixing Brackets			
	Set of two brackets for surface installation		
	Zinc plated steel	1	FEFBZ
	316 stainless steel	1	FEFBS
Brackets for Surface Mounting			
	Set of two		
	Aluminum (gray painted)	1	FESBA
	316 stainless steel	1	FESBS
M8 Ring Bolts			
	Set of two		
	Zinc plated steel	1	FERBM8Z
Half Clamps Brackets for Pole Mounting			
	Set of two		
	Dia. 42 to 49 mm (1.65 to 1.93") pole [31.8 to 38.1 mm (1.25 to 1.5 in) tube]		
	Zinc plated steel	1	FEHC49Z
	316 stainless steel	1	FEHC49S
	Dia. 2.36"/60 mm pole (50.8mm (2 in) tube)		
	Zinc plated steel	1	FEHC60Z
	316 stainless steel	1	FEHC60S
Wall Mounting Adaptor			
	For pole mounting version (dia. 42 mm (1.65 in)		
	Galvanized steel	1	FEWMG
Hinged Brackets			
	Set of two brackets for adjusting luminaire		
	Aluminum	1	FEHBA
	316 stainless steel	1	FEHBS

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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		

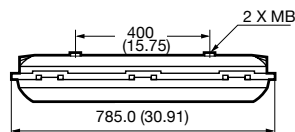
LED Status

Color	Indication	Function
Green	LED glows	Batteries are connected
	LED blinks	Batteries are charged
Red	LED blinks	Batteries are not connected or defect
Yellow	LED blinks	Batteries are charging and discharging during automatic cycle

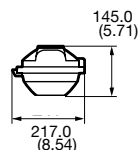
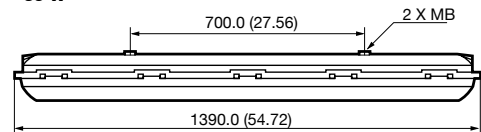
Dimensions in Millimeters (Inches)

Surface/Suspension Mounting

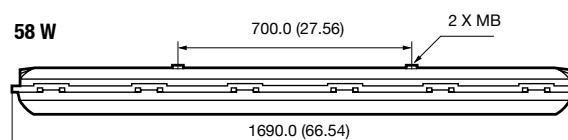
18 W



36 W



58 W



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Photometric Data

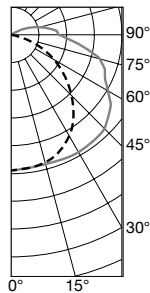
Polar curves for a 1000 lm flux, according to NF C 71-120
 Luminaire symbol according to NF C 71-121

--- Longitudinal
 — Transverse

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

CANDELA DISTRIBUTION

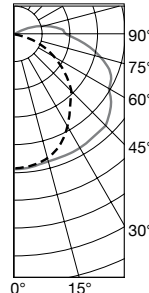
	0-180	90-270
0	195	195
5	195	194
10	192	192
15	187	192
20	181	193
25	173	194
30	163	194
35	152	193
40	138	192
45	124	191
50	108	182
55	91	176
60	73	163
65	55	150
70	37	145



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

CANDELA DISTRIBUTION

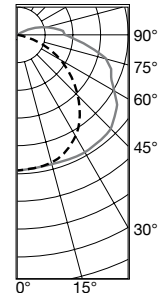
	0-180	90-270
0	185	185
5	185	184
10	182	182
15	178	181
20	172	183
25	164	183
30	154	183
35	143	183
40	131	183
45	117	179
50	102	173
55	85	166
60	68	155
65	51	145
70	35	141



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



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