

# ATX™ FD Series Cylindrical Fluorescent Luminaires

## Standard and Emergency Battery Back-Up. Flameproof

ATEX/IECEX:  
Zone 1 and 2 - 21 and 22  
Ⓜ II 2 GD  
IP66/68

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

### Applications

- Can be installed in hazardous areas designated as Zone 1 and 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
  - Painting, sewage and water treatment facilities
  - Warehouses
  - Underground tunnels
  - General manufacturing facilities

### Features

- Impact resistant borosilicate glass sealed tube.
- Easy access to lamps through gray painted Zamak threaded entry cap.
- Supplied with O-ring for improved ingress protection.
- Corrosion-resistant gray painted Zamak.
- Supplied with energy efficient and self induction ferromagnetic ballast on a removable gear tray.
- Quick and easy installation of fluorescent lighting fixtures with 2G11 and G13 lamp holders.
- Supplied with external and internal ground/earth connection.
- Fixture supplied with one M20 blanking plug.
- Easy connection to wire and disconnect with plug-in terminal blocks.
- Bi-pin (G13) 18 and 36 W magnetic ballast versions operate at 70 °C (158°F) ambient temperature with T4 rating.
- Magnetic ballast versions 230 V 50 Hz or 240 V 50 Hz or 220 V 60 Hz or 230 V 60 Hz.
- Electronic ballast versions 110 to 254 Vac/Vdc, 50/60 Hz.
- 3 hour emergency version with automatic self test every month
- Plug in battery pack (6 V 4 Ah) is easy to remove for maintenance.

### Standard Materials

- End caps and cover: aluminum
- Glass tube: tempered borosilicate glass (18 W), or borosilicate glass (36 W and 58 W)
- Internal reflector: white powder coated galvanized steel
- Mounting accessories: several accessories in different material such as zinc plated steel, galvanized steel or 316 stainless steel

### Options

- 3 lamp versions.
- 8 W fluorescent (Bi-pin G5) available, see section HBDC series.



2 x 58 W



2 x 36 W



2 x 18 W

### ATEX/IECEX Certifications and Compliances

- Certification Type: FLd
  - Gas: Zone 1 and 2:
    - Conforming to ATEX 94/9/CE: Ⓜ II 2 G
    - Type of Protection: Ex d IIB, Ex d IIB+H<sub>2</sub>, Ex d IIC
    - T-Rating: See Table on following page
  - Dust: Zone 21 and 22:
    - Conforming to ATEX 94/9/CE: Ⓜ II 2 D
    - Type of Protection: Ex tD A21
    - Surface Temperature: See Table on following page
- Ambient Temperature: -20 °C to +55 °C (-4 °F to +131 °F)
- CE Declaration of Conformity: 50203
- ATEX Certificate: LCIE 97 ATEX 6012
- IECEx Certificate: IECEx LCI 04.0018
- Index of Protection according EN/IEC 60529: IP66/68
- Impact Resistance (shock): IK08
- Internal Volume: > 2 dm<sup>3</sup> (122 in<sup>3</sup>) - 2 liters

### EURASEC Certification

- EURASEC N° TC RU C-FR.ГБ05.В.00910

### Other Certification

- INMETRO Certificate: BVC11.0492 ①

### Related Products

- For labels see *Labels for Emergency Lighting Units, ATX Self-Adhesive Signaling Labels for Emergency Lighting Units.*

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

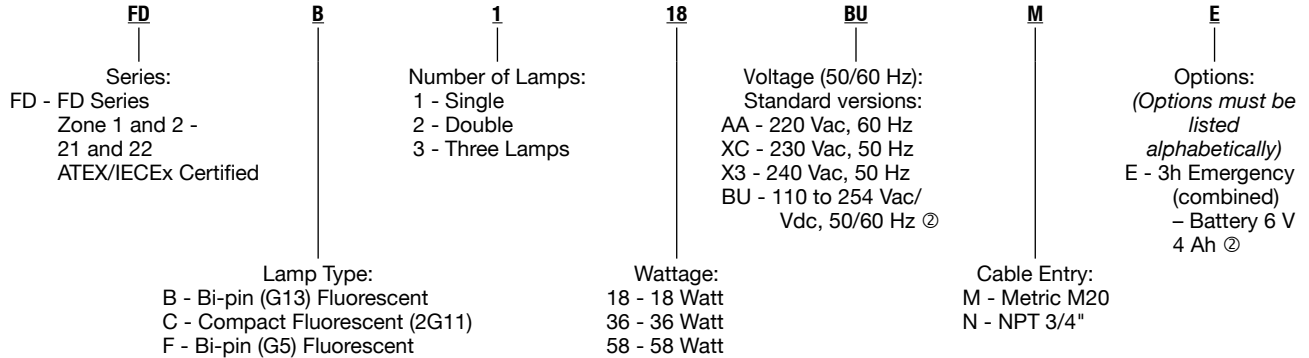
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Order using catalog numbering guide below or select catalog number from tables on following pages.

### Catalog Numbering Guide – FD Series Cylindrical Fluorescent Luminaires



T Rating (Gas) and Surface Temperature (Dust) Table

Model	Lamp Type	Gas – T Rating					Dust – Surface Temperature	
		Without External Reflector			With External Reflector		Without External Reflector	With External Reflector
		Ta = 40 °C (104 °F)	Ta = 55 °C (131 °F)	Ta = 70 °C (158 °F)	Ta = 40 °C (104 °F)	Ta = 55 °C (131 °F)		
0.3	Compact Fluorescent 2G11 18 W max.	T6	T5	N.A.	T5	T4	95 °C (203 °F)	130 °C (266 °F)
	a) Fluorescent G13 Magnetic Ballast 1 x 18 W/2 x 18 W	T6	T5	T4	T6	T5	97 °C (207 °F)	95 °C (203 °F)
0.6	b) Fluorescent G13 Electronic Ballast 1 x 18 W/2 x 18 W/3 x 18 W	T6	T6	N.A.	T6	T5	78 °C (172 °F)	95 °C (203 °F)
	c) Compact Fluorescent 2G11 1 x 36 W 2 x 36 W	T6	T5	N.A.	T6 T5	T4	95 °C (203 °F)	130 °C (266 °F)
1.2	a) Fluorescent G13 Magnetic Ballast 1 x 36 W/2 x 36 W/3 x 36 W	T6	T5	T4	T6	T5	110 °C (230 °F)	95 °C (203 °F)
	b) Fluorescent G13 Electronic Ballast 1 x 36 W/2 x 36 W/3 x 36 W	T6	T6	N.A.	T6	T6	78 °C (172 °F)	80 °C (176 °F)
1.5	a) Fluorescent G13 Magnetic Ballast 1 x 58 W/2 x 58 W	T6	T6	N.A.	T6	T5	80 °C (176 °F)	95 °C (203 °F)
	b) Fluorescent G13 Electronic Ballast 1 x 58 W/2 x 58 W/3 x 58 W	T6	T5	N.A.	T6	T5	84 °C (183 °F)	95 °C (203 °F)

② The 3 hour emergency version is only available on fluorescent, 2 lamp fixtures with BU voltage - 110 to 254 Vac/Vdc, 50/60 Hz.

# ATX™ FD Series Cylindrical Fluorescent Luminaires

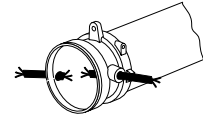
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FLUORESCENT/AREA: ATEX/IECEX STANDARD AND EMERGENCY BACK-UP

## Ordering Information – Standard Versions

Two M20 threaded entries, supplied with one M20 aluminum blanking plug.  
 Connection via 1 x 3 double deck terminals.  
 Capacity (flexible/solid): 0.75 mm<sup>2</sup> to 2.5 mm<sup>2</sup> (0.001 in<sup>2</sup> to 0.004 in<sup>2</sup>).



For Bi-pin (G13) Fluorescent Lamps - T8, 26 mm (1.02 in) or T12, 38 mm (1.50 in)  
 230 V - 50 Hz – Magnetic Ballast – Starter Ignition  
 Compensated power supply – power factor > 0.9

Wattage (W)	No. of Lamps	Gas Group	Model	Weight kg (lb)	Volume dm <sup>3</sup> (in <sup>3</sup> )	Catalog Number
18	1	IIC	0.6	9.0 (19.8)	58 (3539.38)	FDB118XCM
	2	IIC	0.6	9.7 (21.38)	58 (3539.38)	FDB218XCM
36	1	IIB+H <sub>2</sub>	1.2	14.7 (32.41)	99 (6041.35)	FDB136XCM
	2	IIB+H <sub>2</sub>	1.2	15.3 (33.73)	99 (6041.35)	FDB236XCM
58	1	IIB	1.5	17.0 (37.48)	119 (7261.83)	FDB158XCM
	2	IIB	1.5	18.2 (40.12)	119 (7261.83)	FDB258XCM

## 240 V - 50 Hz – Magnetic Ballast – Starter Ignition

Compensated power supply – power factor > 0.9

18	1	IIC	0.6	9.0 (19.8)	58 (3539.38)	FDB118X3M
	2	IIC	0.6	9.7 (21.38)	58 (3539.38)	FDB218X3M
36	1	IIB+H <sub>2</sub>	1.2	14.7 (32.41)	99 (6041.35)	FDB136X3M
	2	IIB+H <sub>2</sub>	1.2	15.3 (33.73)	99 (6041.35)	FDB236X3M
58	1	IIB	1.5	17.0 (37.48)	119 (7261.83)	FDB158X3M
	2	IIB	1.5	18.2 (40.12)	119 (7261.83)	FDB258X3M

## 220 V - 60 Hz – Magnetic Ballast – Starter Ignition

Compensated power supply – power factor > 0.9

18	2	IIC	0.6	9.7 (21.38)	58 (3539.38)	FDB218AAM
36	2	IIB+H <sub>2</sub>	1.2	15.3 (33.73)	99 (6041.35)	FDB236AAM
58	2	IIB	1.5	18.2 (40.12)	119 (7261.83)	FDB258AAM

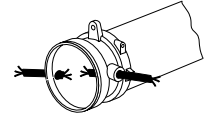
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### Ordering Information – Standard Versions – Continued

Two M20 threaded entries, supplied with one M20 aluminum blanking plug.  
 Connection via 1 x 3 double deck terminals.  
 Capacity (flexible/solid): 0.75 mm<sup>2</sup> to 2.5 mm<sup>2</sup> (0.001 in<sup>2</sup> to 0.004 in<sup>2</sup>).



For Bi-pin (G13) Fluorescent Lamps - T8, 26 mm (1.02 in) or T12, 38 mm (1.50 in)  
 110 to 254 Vac/Vdc, 50/60 Hz – Electronic Ballast  
 Power factor > 0.95

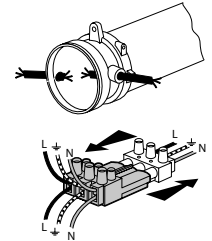
Wattage (W)	No. of Lamps	Gas Group	Model	Weight kg (lb)	Volume dm <sup>3</sup> (in <sup>3</sup> )	Catalog Number
18	2	IIC	0.6	9.7 (21.38)	58 (3539.38)	FDB218BUM
36	2	IIB	1.2	15.3 (33.73)	99 (6041.35)	FDB236BUM
	3	IIB	1.2	16.3 (35.94)	99 (6041.35)	FDB336BUM
58	1	IIB	1.5	17.0 (37.48)	119 (7261.83)	FDB158BUM
	2	IIB	1.5	18.2 (40.12)	119 (7261.83)	FDB258BUM
	3	IIB	1.5	19.2 (42.33)	119 (7261.83)	FDB358BUM

For 2G11 Compact Fluorescent Lamps – TC-L  
 230 V - 50 Hz – Magnetic Ballast – Starter Ignition  
 Compensated power supply – power factor > 0.9 – Lamps supplied

18	1	IIC	0.3	9.0 (19.8)	58 (3539.38)	FDC118XCM
	2	IIC	0.3	9.7 (21.38)	58 (3539.38)	FDC218XCM
36	1	IIB+H <sub>2</sub>	0.6	14.7 (32.41)	99 (6041.35)	FDC136XCM
	2	IIB+H <sub>2</sub>	0.6	15.3 (33.73)	99 (6041.35)	FDC236XCM

### Emergency Versions

Two M20 threaded entries, supplied with one M20 aluminum blanking plug.  
 Connection via 1 x 4 double deck terminals.  
 Capacity (flexible/solid): 0.75 mm<sup>2</sup> to 2.5 mm<sup>2</sup> (0.001 in<sup>2</sup> to 0.004 in<sup>2</sup>).



For Bi-pin (G13) Fluorescent Lamps – T8, 26 mm (1.02 in) or T12, 38 mm (1.50 in)  
 110 to 254 Vac/Vdc, 50/60 Hz – Electronic Ballast  
 3 hour duration - battery pack 6 V 4 Ah - Power factor > 0.95 -  
 Self test every month.

Wattage (W)	No. of Lamps	Gas Group	Model	Line Output	Weight kg (lb)	Volume dm <sup>3</sup> (in <sup>3</sup> )	Catalog Number
18	2	IIC	0.6	29%	11.6 (25.57)	58 (3539.38)	FDB218BUME
36	2	IIB	1.2	16%	17.2 (37.92)	99 (6041.35)	FDB236BUME
58	2	IIB	1.5	11%	20.2 (44.53)	119 (7261.83)	FDB258BUME



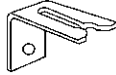
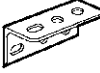
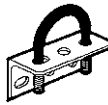
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### Accessories and Replacement Parts

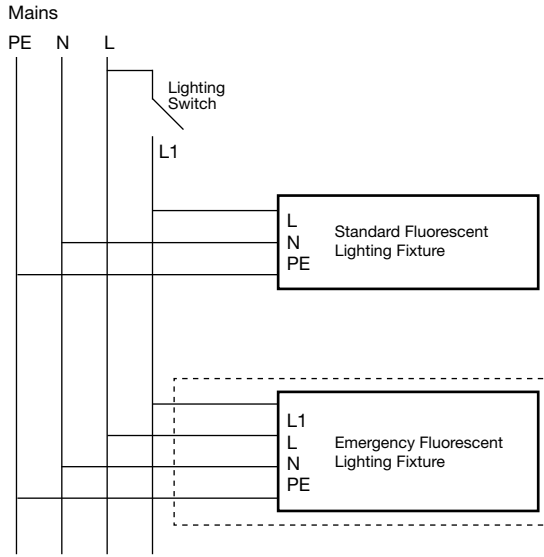
	Description	Catalog Number
<b>External Reflector – White Painted Galvanized Steel</b>		
	Model 0.3	<b>FDER1G</b>
	Model 0.6	<b>FDER2G</b>
	Model 1.2	<b>FDER3G</b>
	Model 1.5	<b>FDER4G</b>
<b>Protective Guard – Zinc Plated Steel</b>		
	Model 0.3	<b>FDPG1Z</b>
	Model 0.6	<b>FDPG2Z</b>
	Model 1.2	<b>FDPG3Z</b>
	Model 1.5	<b>FDPG4Z</b>
<b>Fixing Brackets for Ease of Surface Installation – Set of Two</b>		
	Zinc plated steel	<b>FDFBZ</b>
	316 stainless steel	<b>FDFBS</b>
<b>Surface Mounting Brackets – Set of Two</b>		
	Zinc plated steel	<b>FDSBZ</b>
	316 stainless steel	<b>FDSBS</b>
<b>Half Clamp Brackets for Pole Mounting – Set of Two</b>		
	Pole diameter 42 to 49 mm (1.65 to 1.93 in) Tube diameter 31.8 to 38.1 mm (1.25 to 1.5 in)	
	Zinc plated steel	<b>FDHC49Z</b>
	316 stainless steel	<b>FDHC49S</b>
	Pole diameter 60 mm (2.36 in) Tube diameter 50.8 mm (2 in)	
	Zinc plated steel	<b>FDHC60Z</b>
	316 stainless steel	<b>FDHC60S</b>
<b>Fall Prevention Kit</b>		
	1.20 meter (3.94 foot) stainless steel chain	<b>FDSCS</b>

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### Wiring Diagram



### Emergency Function Diagram

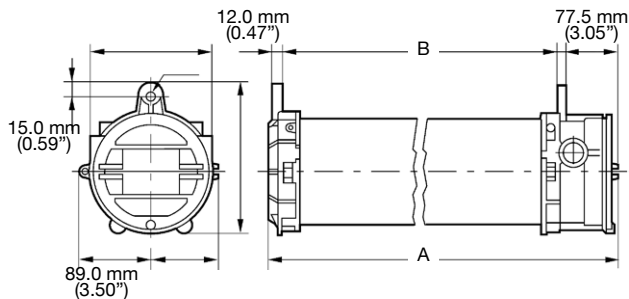
#### Two Lamp Version

Mains	Lighting Switch ON	Lighting Switch OFF
ON		
OFF		

### LED Status

Color	Indication	Function
Green	Blinking 1:1	Mains good, battery quick charging
	ON	Mains good, battery trickle charging
Red	Blinking 1:1	No battery connected or something is defective
	Flashing 1:1	Mains faulty, battery empty or lamp defective
	ON	Mains faulty, output ON
Yellow	OFF	No mains, battery completely empty
	Blinking 1:1	Mains good, performing self test
	ON	Result of self test was not good

### Dimensions in Millimeters (Inches)



Model	A	B
0.3	430 (16.93)	335 (13.19)
0.6	745 (29.33)	650 (25.59)
1.2	1365 (53.74)	1260 (49.61)
1.5	1655 (65.16)	1560 (61.42)

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

Appleton

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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

### Bi-pin (G13) Fluorescent

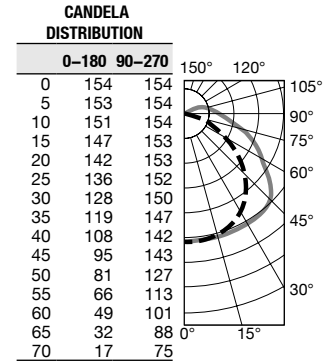
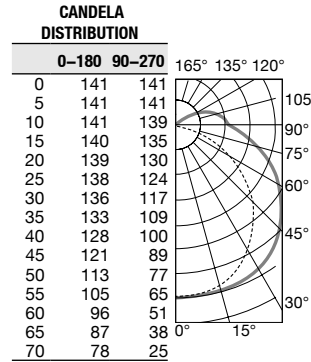
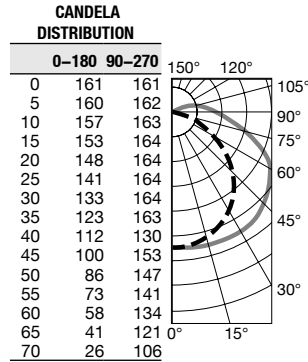
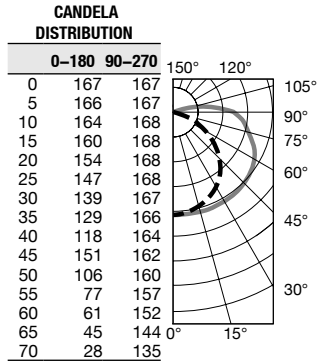
### 2G11 Compact Fluorescent

**1 x 18 W**  
Efficiency 75.3%  
NF C 71-121/0: 0.69 H + 0.06 T

**2 x 18 W**  
Efficiency 68.1%  
NF C 71-121: 0.63 G + 0.06 T

**3 x 18 W**  
Efficiency 57%  
NF C 71-121: 0.50 G + 0.07 T

**2 x 18 W**  
Efficiency 56.2%  
NF C 71-121: 0.52 G + 0.04 T

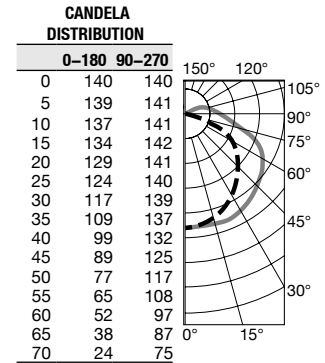
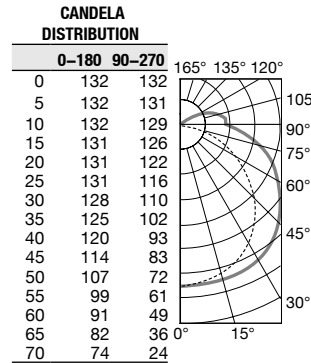
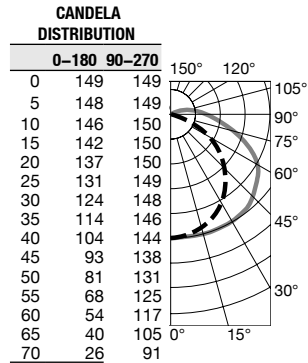
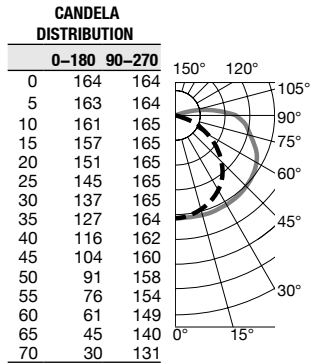


**1 x 36 W**  
Efficiency 74.3%  
NF C 71-121/0: 0.69 H + 0.05 T

**2 x 36 W**  
Efficiency 61.5%  
NF C 71-121: 0.57 G + 0.04 T

**3 x 36 W**  
Efficiency 53.3%  
NF C 71-121: 0.47 G + 0.06 T

**2 x 36 W**  
Efficiency 53.6%  
NF C 71-121: 0.50 G + 0.04 T



**1 x 58 W**  
Efficiency 74.5%  
NF C 71-121/0: 0.70 H + 0.05 T

**2 x 36 W**  
Efficiency 61.5%  
NF C 71-121: 0.57 G + 0.04 T

**3 x 36 W**  
Efficiency 53.3%  
NF C 71-121: 0.47 G + 0.06 T

