

Lighting: Emergency Lighting

FDES Series: Self-Contained Emergency Lighting Units – Flameproof



2 x 8 W Fluorescent Sustained

Compliances:

ATEX - IECEx:



Zone 1 & 2 – 21 & 22	ATEX	II 2 G / D	IECEx	CE
Ex d IIC	T6	Ex tD A21	T80°C	IP66/68 – IK08

Electrical Data:

Power & Lamp Type	Voltage	Frequency	Duration	
8 W Fluorescent (1 or 2 lamps)	110 V to 240 Vac	50/60 Hz	3 hours	

Operating Temperature:

-40°C to +55°C (Refer to (1) on page 109)

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Applications:

- Provides adequate lighting and/or visual indication of access on exit routes during an emergency evacuation in a hazardous environment.
- Can be installed in hazardous areas designated as Zone 1, 2, 21 and 22.
- Typical applications include oil refineries, petrochemical plants, pulp and paper mills.

Features:

- Power supply from 110 to 240 Vac 50/60 Hz versions.
- 3-hour duration.
- Threaded access cover with O-ring seal.
- Operates in any position.
- 8 W Fluorescent (1 or 2 lamps supplied).
- Charge indicator by 1 red LED (life time over 10 years).
- Termination 3 or 4 x 2.5 mm² terminals.
- Supplied with two fixing lugs.

Standard Material of Fixtures:

- Anti-corrosive, gray painted Zamak end caps and cover.
- Nitrile O-ring seal.
- Sealed toughened glass.

Standard Material of Accessories:

- Zinc plated steel or 316 stainless steel fixing brackets.
- White painted galvanized steel.
- Zinc plated steel guard.



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Catalog Number Logic:

FDES	X	XX	X	X
Series:	Number of Lamps:	Lamp Power (W):	Voltage:	Version:
Zone 1, 2, 21 and 22 ATEX / IEC Certified	1 2	0 8 = 8 W Fluorescent	1 = 110 Vac 50/60 Hz 2 = 127 Vac 50/60 Hz 3 = 230/240 Vac 50/60 Hz 4 = 230/240 Vac 50 Hz	N = Non-Maintained M = Maintained S = Sustained

Ordering Information:

3-hour duration – two M20 threaded cable entries with one M20 blanking plug

Type	Lumen Output	Voltage	Frequency	Weight (kg)	Volume (dm ³)	Catalog Number	Old Catalog Number	Pack
1 x 8 W Fluorescent Non-Maintained	230 lm	230/240 Vac	50/60 Hz	7.8	36	FDES1083N	094956	1
		127 Vac	50/60 Hz			FDES1082N	091957	1
		110 Vac	50/60 Hz			FDES1081N	091956	1
1 x 8 W Fluorescent Maintained	180 lm	230/240 Vac	50 Hz	7.8	36	FDES1084M	094961	1
		127 Vac	50/60 Hz			FDES1082M	091960	1
		110 Vac	50/60 Hz			FDES1081M	091961	1
2 x 8 W Fluorescent Sustained	230 lm	230/240 Vac	50 Hz	7.8	36	FDES2084S	094962	1

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Accessories:

Picture	Description	Catalog Number	Old Catalog Number
	Reflector White painted galvanized steel	FDER1G	094868
	Protective Guard Zinc plated steel	FDPG1Z	094872
	Fixing Brackets: Set of two for ease of surface installation Zinc plated steel 316 stainless steel	FDFBZ FDFBS	094897 094889
	Surface Mounting Brackets: Set of two Zinc plated steel 316 stainless steel	FDSBZ FDSBS	094898 094890
	Half Clamps: Set of two Zinc plated steel versions: 1-1/4" (dia. 42mm) to 1-1/2" (dia. 49mm) 2" (dia. 60mm) 316 stainless steel versions: 1-1/4" (dia. 42mm) to 1-1/2" (dia. 49mm) 2" (dia. 60mm)	FDHC49Z FDHC60Z FDHC49S FDHC60S	094899 094891 094892 094893
	Spare Lamps 8 W fluorescent G5	LF008G5	094990
	Fall Prevention Kit 1.20 m stainless steel chain	FDSCS	093819

Compliances:

Hazardous Area	Gas	Dust
Certification Type	FLd	
Zones	1–2	21–22
Conforming to ATEX 94/9/CE	CE 0081 ⊕ II 2 G	CE 0081 ⊕ II 2 D
Symbol of Protection ATEX	Ex d IIC	Ex tD A21
Symbol of Protection IEC		
T Rating	T6	N.A.
Surface Temperature	N.A.	T80°C
Ambient Temperature	-40°C to +55°C (1)	
CE Declaration of Conformity	50203	
ATEX Certificate	LCIE 97 ATEX 6012	
IECEx Certificate	IECEx LCI 04.0018	
Other Certifications	GOST	
Index of Protection (solid and liquid)	IP66/68	
Impact Resistance (shock)	IK08	
Internal Volume	> 2 dm ³ (2 liters)	

(1) Optimum operating temperature for battery is -5°C to +30°C

Standards:

Ex standards	EN / IEC 60079-0; 60079-1; 61241-0; 61241-1
Product standards	EN / IEC 60598-1; 60598-2-22
EMC standards	EN / IEC 55015; 61547
Other standards	EN / IEC 60529 (IP); 62262 (IK)

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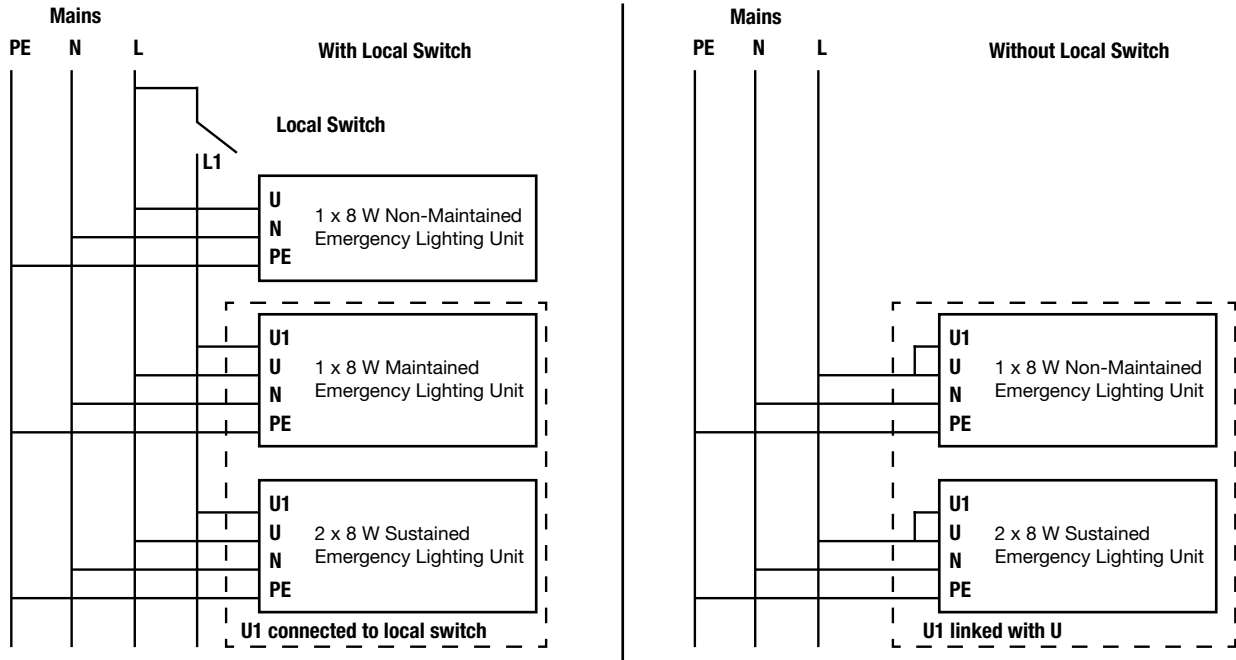
II 2 GD

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Technical Data:

Electrical Wiring Diagram



Emergency Function Diagram:

Mains	1 x 8W Non-Maintained	1 x 8 W Maintained		2 x 8 W Sustained	
		Local Switch OFF or No Link	Local Switch ON or Link Present	Local Switch OFF or No Link	Local Switch ON or Link Present
Switched ON					
Switched OFF					

Dimensions (mm):

