



Smart Information Delivery

FDF242-EX Infrared Flame detector Data Sheet

November 4, 2024

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1 | Technical data

FDF242-EX	
Electrical specifications	
Operating current max.	1 mA
Operating current (quiescent)	750 µA
Communication	FDnet-Ex/C-NET-Ex
System compatibility	FS20, FS720
Detection	
Performance classes according to EN 54-10	Class 1: High sensitivity, range up to 25 m Class 2: Normal sensitivity, range up to 17 m
Field of view	Horizontal: 90° (±45°) Vertical: 90° (±45°)
Cable connection	
Connection cable	UTP or STP cable (including for the connection of one external alarm indicator) Polyamide cable gland M20 × 1.5 / 7...13 mm
Terminals	Push-in connector
Conductor cross section	0.2...1.5 mm ²
External alarm indicator	1 external alarm indicator can be connected via an additional terminal
Ambient conditions	
Dimensions (W x H x D)	120 × 122 × 83 mm
Operating temperature	-40...+70°C
Storage temperature	-50...+70°C
Air humidity	≤96% rel. Short-term moisture condensation permitted
Protection category	IP66, IP67
Material	Housing: Aluminum Glass window: Sapphire
Color	Housing: RAL 9003 signal white Front cover: Black
Internal indicator	LED: red, green, yellow
Standards, approvals	
Ex classification IECEx	Ex ia IIC T4 Ga, Ta = -40...70 °C
Directive ATEX 2014/34/EU	II 1G Ex ia IIC T4 Ga, Ta = -40...70 °C
Standards for explosion-hazard areas	IEC 60079-0, IEC 60079-11
Standards for fire detectors	EN 54-10
Ex approvals	• EC-type examination certificate • IECEx DNV 24 ATEX 57096X IECEx DNV 24.0055X

FDF242-EX	
Approvals	
• VdS	G224027



If the device is operated below -20 °C, the line voltage must be $\geq$ DC 16 V.

Connection data

Maximum values:

Ex-related connection data, intrinsically safe	Input voltage U_i	28 V
	Input current I_i	100 mA
	Input power P_i	700 mW
	Internal inductance L_i	Negligible
	Internal capacitance C_i	0.5 nF
Line to external alarm indicator	Output voltage U_o	14.1 V
	Output current I_o	14 mA
	Output power P_o	48 mW
	External inductance L_o	150 mH
	External capacitance C_o	707 nF
	Only for connecting passive, external alarm indicator with negligibly low inductance and capacitance level.	