Dräger Flame 1500 (IR3)
Flame Detection

The Dräger Flame 1500 flame detector uses its triple IR sensor to detect hydrocarbon fires even at great distances. It provides excellent false alarm immunity as approved by FM while maintaining a response time of under 4 seconds.

Mounting bracket

3 IR sensors

D-1599-2021

Optical Verification Test

Two M25 or 3/4" NPT ports

Three-color LED for status display

Detector housing made of powder-coated stainless steel or aluminium

Dräger. Technology for Life ®

Benefits

Fast and reliable flame detection

The Dräger Flame 1500 is equipped with three infrared sensors. They enable it to detect hydrocarbon-based fires even at a great distance. This reliability allows it to meet IEC 61508 requirements for safety integrity according to SIL2. The flame detector also has a HART® interfaces via which it can be connected directly to the fire alarm system, for example. In addition, the Flame 1500 has a low power consumption.

Prevention of false alarms

The Flame 1500 measures infrared radiation in three different wavelengths and compares them with the reference value of CO_2, which is produced during the combustion of hydrocarbons. In combination with the analysis of the flame's flickering, the complex algorithm identifies a fire and excludes sources of interference. In this way, the Flame 1500 reliably prevents false alarms caused by possible fault sources such as welding work or black body radiation.

Robust and resistant

The powder-coated housing made of stainless steel or aluminum is very robust and weatherproof. The viewing window is heated to protect against icing and fogging. This allows you to operate the Flame 1500 reliably under a wide range of environmental conditions.

Simple check

The Optical Verification Test (OVT) automatically checks the electronics and optics of the Flame 1500 without affecting the field of view. It does not require a reflective bridge for the OVT which reduces the failure rate caused by dirt and insect build up. The three-color LED on the front lets you quickly see the status of the unit. Green stands for normal operation, yellow indicates a fault and red signals a fire alarm.

Accessories

ST-8006-2008

Dräger FS-5000

The Dräger FS-5000 flame simulator is used to simulate the presence of fire or flames to test the correct operation of the Dräger Flame 5000 or the Dräger Flame 3000. It can test Dräger Flame Detectors at distances up to 8 meters (26 ft). With reduced need for scaffold or ladders to access the detector, maintenance costs can be decreased.

Related Products

D-49077-2012

Dräger Flame 5000

In today's industrial workplaces, flame detection is essential for protecting both people and facilities. The Dräger Flame 5000 is an explosion-proof flame detector based on advanced color imaging technology. Each detector operates as a standalone unit and incorporates an integrated closed circuit television (CCTV) system, digital signal processing, and software algorithms to process live video images and interpret the characteristics of a flame.

D-49075-2012

Dräger Flame 3000

The Dräger Flame 3000 is an imaging based explosion proof flame detector. This visual flame detection system uses digital image processing and advanced algorithms to process and interpret flame characteristics. This principle offers an extended field of view and fewer false alarms.

Technical Data

Dräger Flame 1500

Type	Explosion-proof multi-spectrum (triple) IR flame detector	
Spectral range	Three wavelengths in the range from 3 µm to 8 µm	
Field of view	Horizontal 90°, vertical 90°	
Response time	4 seconds (typical)	
Sensitivity settings	Low 15 m, Medium 30 m (standard) and High 60 m	
Measuring range*	n-Heptane/gasoline	60 m (200 ft)
	Methanol	42 m (136 ft)
	Methane	50 m (165 ft)

*Fire pan 0.1 m^2(1ft^2), flaring fire 0.6 m (3 ft)

Electrical data

Relay	Alarm and fault
Signal output	0 to 20 mA
Communication	RS485, HART® 7
Supply voltage	24 VDC nominal (18 to 32 VDC)
Power consumption	Minimum 3 W / maximum 12 W with heating

Housing

Material	Aluminum or stainless steel, powder-coated
Cable gland	Dual M25 or ¾"NPT
Weight	2.5 kg (5.5 lbs.) Aluminum or 6 kg (13.2 lbs.) stainless steel
Protection class	IP66, NEMA 4X

Environmental conditions

Temperature	-60 to +85 ℃ (-76 to +185 ℉)

Approvals

ATEX	Ex II 2 G Ex db IIC T4 Gb IP66, EN54-10 Class 1
IECEx	Ex II 2 G Ex db IIC T4 Gb IP66, FME 07.0002
FM/FMC	FM 3260 performance approval
	Class 1 Zone 1 AEx db IIC T4
	Class 1 Div. 1, Groups B, C, D T4
EAC TR CU	Pending
CCCF	Pending
INMETRO, PESO, etc.	Pending
Functional Safety	SIL2 certified
DNV-GL Marine.	Pending

Ordering Information

Dräger Flame 1500 (includes standard mounting bracket, no blind plugs)	Order number
Dräger Flame 1500, Aluminum, 2 x M25	37 21 519
Dräger Flame 1500, Aluminum, 2 x ¾" NPT	37 21 517
Dräger Flame 1500, Stainless Steel, 2 x M25	37 21 518
Dräger Flame 1500, Stainless Steel, 2 x ¾" NPT	37 21 516

Accessories	Order number
Dräger FS-5000 Flame Simulator	42 09 307
Bracket Marine – 316 stainless steel	37 01 298
Sunshield – Flame 1x00/3x00/5x00	37 01 299
Mount Kit – 2" pole	37 01 300
Mount Kit – 3" pole	37 01 301
Mount Kit – 4" pole	37 01 302

Notes

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