

Dräger Flame 3000 Flame Detection

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.



Benefits

Superior False Alarm Immunity

The unique software algorithm of the Dräger Flame 3000 is capable of discriminating between genuine fire conditions and other radiant sources that may cause conventional detectors to become desensitized or produce unwanted alarms. The detector is immune to common sources of unwanted alarms such as welding work, hot CO₂ emissions and flare reflections. This makes it a great partner on your oil rig or industry plant.

Enlarged Field of View

The Dräger Flame 3000 can detect n-heptane fires of 0.1 m² or greater at a distance of 60 m (200 ft) within a 120° horizontal and 80° vertical field of view. The detector's field of view is a rectangular pyramid shape. This gives it one of the greatest standard coverage area and range of any flame detector currently available.

Flexible operation

The Dräger Flame 3000 operates as a stand-alone unit or can be connected to a control system or a fire panel to provide fault and fire signaling. This is achieved using a 0 to 20 mA signal or relay outputs.

Depending on the environmental conditions you can choose between an aluminum or a stainless steel housing.

Functional testing

The Dräger FS-5000 flame simulator tests 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.

Easy to install and use

The detector is very easy to install using a mounting bracket of stainless steel. The swiveling mounting bracket ensures that the device is optimally aimed towards potential sources of fire. The device status is displayed to nearby workers by tri-colored LED light.

System Components



D-36235-2021

Dräger REGARD® 7000F

A truly integrated, performance-approved NFPA 72 fire signaling & gas detection system with all the functionality of both traditional fire panels & process safety PLCs.



D-27777-2009

Dräger REGARD 3900

The Dräger REGARD 3900 is a standalone control system for the detection of toxic gases, oxygen levels, and Ex hazards. The control system is fully configurable between 1 and 16 channels, depending upon the type and quantity of input/output boards installed.

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-14889-2010

Dräger Polytron® 8700 IR

Explosion-proof transmitter with optional relays and bus communication uses a high performance Dräger PIR 7000 IR sensor.



D-20267-2020

Dräger Polytron Pulsar 7000

The Dräger Pulsar 7000 Series are stationary open path gas detectors.



D-7343-2019

MetCam Gas Camera

A new detector for monitoring large areas for fugitive emissions and dangerous leaks of methane / natural gas.

Technical Data

Detector Characteristics

Type	Explosion proof visual flame detector	
Spectral range	Near Infrared	
Field of view	Horizontal 120°, vertical 80°	
Response Time	4 seconds (typical)	
Detection range (Pan fire 0.1 m ² /1 ft ²)	Methane	26 m (85 ft)*
	Ethanol	30 m (100 ft)
	n-heptane/petrol	60 m (200 ft)
	JP4	90 m (300 ft)**
	Diesel	50 m (165 ft)
	Ethylene glycol	20 m (65 ft)
	Crude oil	50 m (165 ft)***

* Plume fire 0.9 m (3 ft), ** Pan fire 0.4 m² (4 ft²), *** Pan fire 0.25 m² (2.7 ft²)

Ambient Conditions

Temperature	-60 to +85 °C (-76 to +185 °F)
Pressure	915 to 1,055 hPa
Humidity	0 to 95 % RH, non-condensing

Electrical Data

Relay	Alarm and fault	
Signal Output	0 to 20 mA	
	Fault	0 mA
	Optical Fault	2 mA
	Operating mode	4 mA
	Alarm	18 mA
Supply Voltage	24 VDC nominal (18 to 32 VDC)	
Power Input	2.8 W (typical)	

Housing

Material	Aluminum or Stainless Steel
Cable Gland	¾" NPT
Weight	2.5 kg (5.5 lbs) Aluminum or 6 kg (13.2 lbs) Stainless Steel
Dimensions (D x L)	200 x 100 mm (7.9 x 3.9 inch)
Protecting Class	IP66, NEMA 4X

Approvals

ATEX	II 2 G Ex d IIC T4
IECEX	Ex d IIC T4
FM/CFM	Class 1 Division 1 Groups B, C and D T4 Class 1 Zone 1 AEx/Ex d IIC T4
Declaration of Conformity of Performance	FM3260 (Radiant Energy-Sensing Fire Detectors for Automatic Fire Alarm Signaling), FM3600, FM3615, FM3810, ANSI/NFPA 72

Ordering Information

Dräger Flame 3000 ¾" NPT Aluminium	42 09 464
Dräger Flame 3000 ¾" NPT Stainless Steel	42 09 477
Dräger FS-5000	42 09 307

Notes

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