Dräger Flame 1350 (UV/IR) Flame Detector

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The Dräger Flame 1350 combines UV and IR sensors to detect hydrocarbon-based fires. These powerful sensors and complex algorithms provide increased safety and fewer false alarms.

Dräger

Technology for Life

Benefits

Fast and safe detection

The Dräger Flame 1350 combines a UV and an IR sensor to safely and reliably detect hydrocarbon-based fires. Due to its reliability and performance, it meets IEC 61508 safety integrity requirements according to SIL2, as well as the high performance requirements of EN54-10 and FM3260.The flame detector also features HART® and RS-485 interfaces and has low power consumption.

Prevention of false alarms

With its two sensors, the Flame 1350 detects electromagnetic radiation in the short-wave UV range and in the IR spectrum. Frequency, intensity and duration of the measuring signals are analysed. An alarm is only triggered if the response criteria of both sensors are met. In this way, the Flame 1350 avoids false alarms. In addition, the sensitive detection ensures that the detector does not falsely report fire from other zones.

Robust and durable

The housing is very robust and weatherproof. The window can be heated automatically to protect it from icing and fogging. This allows you to operate the Flame 1350 reliably even under extreme environmental conditions, e.g. in temperatures from -60 °C to +85 °C.

Simple verification

The built-in self-test "Advanced Optical Verification" (AOV) automatically checks the electronics and optics of the Flame 1350. The three-colour LED on the front allows you to quickly recognise the device status. Green stands for normal operation, yellow indicates a fault and red signals a fire alarm.

Maximum flexibility

If required, the Dräger Flame 1350 can be used as a combined UV/IR detector, as a single IR detector or as a single UV detector, e.g. to detect metal fires, as these are only visible in the UV spectrum. The individual sensors can be easily switched on or off using the software supplied.

System Components

D-6806-2016

Dräger REGARD® 7000

The Dräger REGARD® 7000 is a modular and therefore highly expandable control system for monitoring various gases and vapours. Suitable for gas warning systems with various levels of complexity and numbers of transmitters, the Dräger REGARD® 7000 also features exceptional reliability and efficiency. An additional benefit is the backward compatibility with the REGARD®.

D-39957-2021

Dräger REGARD® 3000

Monitor various gases and vapours with the modular Dräger REGARD® 3000 control system. Its multi-coloured status light signals the status of your gas detection system. The controller allows you to combine three different modules: Input, Relay and Gateway module. You can connect up to four analogue transmitters and eight relays in combination.

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, 3000, 1750, 1500 or 1350.

Related Products

D-1599-2021

Dräger Flame 1500 (IR3)

The Dräger Flame 1500 flame detector uses its triple IR sensor to detect hydrocarbon fires even at great distances. It offers you high reliability against false alarms.

D-6475-2022

Dräger Flame 1750 H2 (IR3)

With its triple IR sensor, the Dräger Flame 1750 H_2 detects hydrogen-based fires. It offers you high reliability against false alarms and its good measurement performance remains even at extreme temperatures.

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.

D-6469-2022

Dräger Flame 5000

The Dräger Flame 5000 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. Each detector is equipped with a colour CCTV camera.

Technical Data

Dräger Flame 1350

Type	Explosion-proof UV/IR flame detector
Spectral range	0.18 to 0.2 µm and 3 to 5 µm
Field of view	Horizontal 90°, vertical 90°
Response time	5 seconds (typical)
Sensitivity settings	Low (10 m), Standard (20 m) and High (30 m)
Measuring range*	n-Heptane/Petrol 30 m (100 ft)

*Fire pan 0.1 m² (1ft²), flare 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	Aluminium or stainless steel, powder-coated
Cable gland	Dual M25 or ¾"NPT
Weight	2.5 kg (5.5 lbs.) aluminium or 6 kg (13.2 lbs.) stainless steel
Protection class	IP66, NEMA 4X

Environmental conditions

Temperature	-60 to +85 °C (-76 to +185 °F)

Approvals

ATEX	Ex II 2 G Ex db IIC T4 Gb IP66
IECEx	Ex II 2 G Ex db IIC T4 Gb IP66
FM/FMC	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.	On request
Functional Safety	SIL2 (IEC 61508-1-3)
Certificate of conformity of the measuring functionality	EN 54-10 (VdS)

Ordering Information

Dräger Flame 1350

Dräger Flame 1350, Stainless Steel, 2 x ¾? NPT	37 24 440
Dräger Flame 1350, Aluminum, 2 x ¾? NPT	37 24 441
Dräger Flame 1350, Stainless Steel, 2 x M25	37 24 442
Dräger Flame 1350, Aluminum, 2 x M25	37 24 443

Accessories

Dräger FS-5000	42 09 307
Bracket Standard– 316 Stainless Steel	37 18 732
Bracket Marine– 316 Stainless Steel	37 01 298
Sealing Kit Detector– metric	37 01 303
Sunshield– Flame 1x00/3x00/5x00	37 01 299
Mounting Kit– 2" pole	37 01 300
Mounting Kit– 3" pole	37 01 301
Mounting Kit– 4" pole	37 01 302
Air Shield– Flame stainless steel (grey)	37 24 460
Air Shield– Flame aluminium (red)	37 24 461
Duct Mount– Flame stainless steel	37 24 462
Adaptor Bracket– Flame stainless steel	37 24 463
Modem– USB HART Flame	37 24 464
Charger– Flame Simulator FS-5000	37 24 465
Converter– USB to RS485 Flame	37 24 466

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