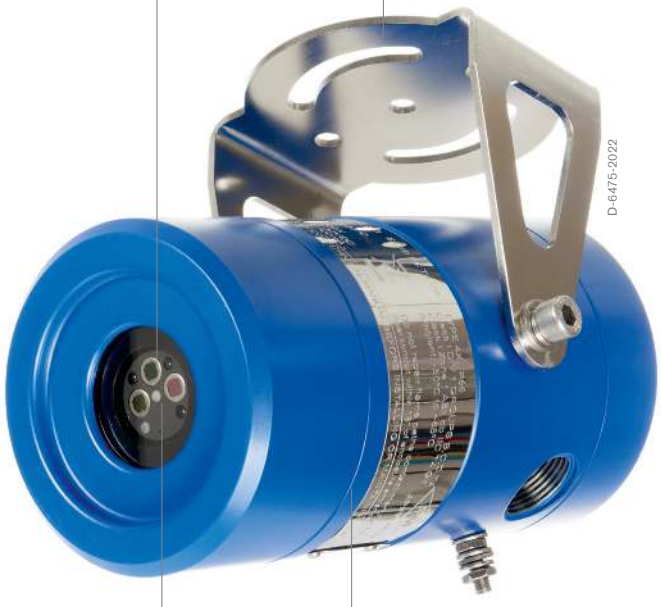
Dräger Flame 1750 H2 (IR3)
Flame Detector

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.



Mounting bracket

3 IR sensors

Three-colour LED for status display

Detector housing made of powder-coated stainless steel or aluminium

Dräger. Technology for Life®

Benefits

Fast and safe detection

The Dräger Flame 1750 H_2 is a triple IR flame detector. It detects hydrogen-based fires even at a greater distance. In just five seconds, it notifies you of a hydrogen fire (1-metre flame) at a distance of up to 40 metres. Due to its certified reliability, the Flame 1750 H_2 meets the IEC 61508 requirements for safety integrity according to SIL 2.

The flame detector also has HART® and RS-485 interfaces and has low energy consumption.

Developed for hydrogen

The Dräger Flame 1750 H_2 was specially developed for the detection of hydrogen fires. Its three IR sensors measure only in the 2 to 4 µm range relevant to hydrogen flames, guaranteeing high performance and a low false alarm rate. Common sources of false alarms, such as hot CO_2 or welding work, are no longer a problem for you.

Robust and durable

The housing is very robust and weatherproof. To protect against icing and fogging, the window can be heated automatically. This allows you to operate the Flame 1750 H_2 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 1750 H_2. The three-colour LED on the front allows you to quickly see the device status. Green stands for normal operation, yellow indicates an error and red signals a fire alarm.

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-6462-2022

Dräger Flame 1350 (UV/IR)

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.

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-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-49077-2012

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 1750 H_2		
Type	Explosion-proof IR flame detector	
Spectral range	Three wavelengths in the range from 2 µm to 4 µm	
Field of view	Horizontal 90°, vertical 90°	
Response time	4 seconds (typical)	
Sensitivity settings	Standard (30 m) and High (40 m)	
Measuring range*	Hydrogen	40 m (131 ft)
	n-Heptane	12 m (30 ft)
	Methane	30 m (100 ft)
*Fire pan 0.1 m^2 ($1ft^2$), 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	Requested
CCCF	Requested
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 1750 H_2	**Order number**
Dräger Flame 1750 H_2, Aluminium, 2 x M25	37 24 447
Dräger Flame 1750 H_2, Aluminium, 2 x ¾" NPT	37 24 445
Dräger Flame 1750 H_2, Stainless steel, 2 x M25	37 24 446
Dräger Flame 1750 H_2, Stainless steel, 2 x ¾" NPT	37 24 444

Accessories	**Order number**
Dräger FS-5000	42 09 307
Standard Swivel Mount – 316 Stainless Steel	37 18 732

Ordering Information

Swivel Mount Marine – 316 Stainless Steel	37 01 298
Density Set Detector – metric	37 01 303
Sun protection – Flame 1x00/3x00/5x00	37 01 299
Mounting clamp – 2" pole	37 01 300
Mounting clamp – 3" pole	37 01 301
Mounting clamp – 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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