



## Dräger Flame 2570 (UFI) Flame Detection

Extreme short response time and high reliablility against false alarms characterise the Dräger Flame 2570. The ultra fast triple IR flame detector detects hydrocarbon based fire to distance of up to 90 metres.



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### **Benefits**

#### Very fast and safe detection

The Flame 2570 has a very short response time. It can detect fire flashes and explosions in less than 50 milliseconds. The detector warns of petrol fires  $0.1 \text{ m}^2$  in size from a distance of 90 meters in less than 2 seconds. Three infrared sensors make this fast and reliable flame detection possible. The device software processes the measured results digitally. This way the typical dynamic characteristics of a fire (e.g. flickering) are registered. This degree of reliability complies with the IEC 61508 safety integrity requirements of SIL2.

Moreover, the flame detector has HART® and RS-485 Modbus interfaces and requires very little power.

#### Less false alarms

The Flame 2570 is immune to sources of interference. This prevents false alarms. Sources that often cause false alarms, such as welding work or hot  $CO_2$  emissions, no longer pose a problem. Moreover, the sensitive detection ensures that the detector does not falsely set off an alarm for fires emanating from other areas.

#### **Robust and durable**

The housing is very robust and weather proof. The window is heated to protect against icing or condensation. You can operate the Flame 2570 reliably under various environmental conditions.

#### **Easy inspection**

The Built-in-Test (BIT) automatically checks the electronics and optics of the Flame 2570. You can also trigger the test manually. With the tri-coloured LED at the front of the detector, it is easy for you to identify the device's status quickly. Green stands for normal operation, yellow indicates a fault and red signals a fire alarm.

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## System Components



#### Dräger REGARD<sup>®</sup> 7000

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



#### Dräger REGARD<sup>®</sup> 3900 Series

The devices of the Dräger REGARD<sup>®</sup> 3900 series can be used as standalone controllers. You can configure up to 16 measuring channels. In addition, the modular setup enables you to customise the control units to the demands of your plant. You can also embed further features to existing alarms.

### Accessories



#### Flame Simulator

The Flame Simulator emits radiation in a unique sequential pattern corresponding to and recognizable by the detector as fire. This allows the detectors to be tested under simulated fire conditions without the associated risks of an open flame.

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### Accessories



#### Weather Cover

The Weather Cover protects the detector from different weather conditions, such as snow or rain.

#### Laser Pointer



Does the detector cover the area that needs protection? Is it located correctly and does the detector's cone of vision cover the most dangerous spot? This accessory enables the installer to optimise detector location and its actual detection area coverage.



#### **Air Shield**

The Air Shield allows the installation of detectors of the Dräger Flame 2000 series under tough environmental conditions where they may be exposed to oil vapors, sand, dust and other particulate matter.



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## **Related Products**



#### Dräger Flame 2000 (IR)

With its highly sensitive IR sensor the Dräger Flame 2000 detects hydrocarbon-based fires. It offers high reliability against false alarms.

#### Dräger Flame 2100 (UV)

A short response time and high reliability against false alarms are the features of the Dräger Flame 2100. Its UV sensor is quick to detect hydrocarbon- or hydrogen-based fires.



#### Dräger Flame 2350 (UV&IR)

The Dräger Flame 2350 combines UV and IR sensors for the detection of hydrocarbon-based fires. This combination of sensors offers you more security and fewer false alarms.



#### Dräger Flame 2370 (UV&IR)

An extremely short response time and very high reliability against false alarms are the features of the Dräger Flame 2370. It is quick and reliable in detecting hydrocarbon- and hydrogen-based fires, as well as hydroxyl flames, and fires resulting from metallic or inorganic materials. The Flame 2370 can detect a fire flash in less than 20 milliseconds.

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### **Related Products**



#### Dräger Flame 2500 (IR3)

With its triple IR sensor The Dräger Flame 2500 detects hydrocarbonbased fires even over greater distances. Moreover, it offers a high reliability against false alarms.

#### Dräger Flame 2700 (Multi-IR)

With its multichannel IR sensor the Dräger Flame 2700 detects hydrocarbon- and hydrogen-based fires. Thereby it offers a high reliability against false alarms.





## Technical Data

Туре	Explosion proof IR	Explosion proof IR flame detector for hydrocarbon based fires		
Spectral response	Three IR Bands 4 t	Three IR Bands 4 to 5 μm		
Measuring Performance	Field of view	Hori	izontal 90°; Vertical 90°	
	Response Time	Турі	Typically 2 seconds	
	Sensitivity Ranges		4 Sensitive ranges for 1 ft <sup>2</sup> (0.1 m <sup>2</sup> )	
		n-he	ptane pan fire from 66 ft (20 m)	
		to 3	00 ft (90 m)	
Detection Range	Fuel	ft /	m	
at highest Sensitivity Setting			/ 90	
1 ft <sup>2</sup> (0.1 m <sup>2</sup> ) pan fire)	Diesel Fuel / JP5 /	Kerosene 205	/ 62	
	Ethanol 95 %	185	/ 55	
	Methanol		/ 48	
	IPA (Isopropyl Alco	bhol) 185	/ 55	
	Methane / LPG*		/ 62	
	Polypropylene Pell	ets 160	/ 48	
	Office Paper	115	/ 34	
* 30" (0.75 m) high, 10" (0.2	5 m) width plume fire			
Electrical Data				
Output Signals		0 – 20 mA (stepped), HART®		
Fault Signal		0 +1 mA		
BIT Fault Signal		2 mA ±10 %		
Normal Signal		4 mA ±10 %		
Warning Signal		16 mA ±5 %		
Alarm Signal		20 mA ±5 %		
Relays		Alarm, Fault and Auxiliary		
		SPST volt-free contacts rated 2 A at 30 VDC		
RS485		Modbus compatible communication link		
Power supply		24 VDC nominal (18 – 32 VDC)		
Power Consumption		Standby: Max. 90 mA (110 mA with heated window)		
		Alarm: Max. 130 mA (160 mA with heated window)		
Ambient Conditions				
Temperature		-55 to +75 °C / -67 to +167 °F (operating)		
		-55 to +85 °C / -67 to +185 °F (option and storage)		
Humidity		Up to 95 % non-condensing		
		(withstands up to 100 % RH for short periods)		
Enclosure				
Material		Stainless steel SS 316L		
Material option		heavy duty copper free aluminum, red epoxy enamel finish		
(only available with ATEX app	oved versions)			
Connecting thread		2 x 3/4" – 14 NPT or 2 x M25 x 1.5 mm		
Weight		Detector SS 316L 2.8 kg / aluminum 1.3 kg		
		Tilt mount 1.0 kg		
Dimensions Detector		101.6 x 117 x 157 mm		
Ingress Protection		IP66 and IP67, NEMA 250	10r	
Approvals				
ATEX and IECEx	Ex II 2 G D			
	Ex db eb op is IIC T4 Gb	Ex db eb op is IIC T4 Gb	Ex db eb mb op is IIC T4 Gb	
	Ex tb op is IIIC T 96 °C Db	Ex tb op is IIIC T 106 °C D	Ex tb op is IIIC T 98 °C Db	
	(Ta -55 °C to +75 °C)	(Ta -55 °C to +85 °C)	(Ta -55 ℃ to +75 ℃)	

FM/FMC/CSA	Class I Div. 1, Groups B, C & D	
	Class II/III Div. 1, Groups E, F & G	
Safety Integrity Level	SIL2 certified by TÜV (EN 61508)	
Performance Approval	EN 54-10 (VdS)	
	FM 3260	
CE marking	EMI/RFI protected to EN 61326-3 and EN 61000-6-3	

## **Ordering Information**

Dräger Flame 2570 (UFI-212SF)	68 14 009	
Dräger Flame 2570 (UFI-211SC)	68 14 010	
Dräger Flame 2570 (UFI-212SC)	68 14 011	
Further variants on request		
Accessories		
Dräger Flame Simulator FS-1100 (IR3)	68 13 973	
Dräger Flame 2xx0 Air Shield	68 13 977	
Dräger Flame 2xx0 Duct Mount	68 13 978	
Tilt Mount Dräger Flame	68 13 979	
Weather cover Dräger Flame (SS)	68 13 189	
Weather cover Dräger Flame (ABS)	68 13 190	
Dräger Flame 2xx0 Laser Pointer	68 13 890	
Dräger Flame Pole Mount 3"	68 13 323	
Dräger Flame Pole Mount 2"	68 13 322	
Dräger Flame USB RS-485 Kit	68 13 994	
Battery Pack for Dräger Flame Simulator FS-1x00	68 13 889	
HART <sup>®</sup> is a registered trademark of the HART <sup>®</sup> Communica	ation Foundation	







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