

Dräger Flame 5000

The Dräger Flame 5000 is an explosion proof colour imaging based flame detector. Each detector operates standalone and incorporates, within a single unit, an integrated CCTV system; digital signal processing and software algorithms to process live video image and interpret the characteristics of a flame.



Simple Installation & Commissioning

Installation is simple! The detector is easily installed with a stainless steel mounting bracket; this can be rotated to ensure optimum positioning of the detector in relation to the potential fire source.

Detector Flexibility

The detector can be operated as a standalone unit providing live video images, it can also be integrated with a control system or fire panel to provide fault, and fire signalling. This is achieved using a 0 to 20 mA, or relay outputs. An In-built memory card allows the detector to record before and after every alarm.

Advance Optical Verification

The optical verification facility is designed to check the window for contamination and to ensure the detectors field of view is not compromised by an obstruction placed immediately in front of the detector. The surveillance aspect of the detector eliminates the need to dispatch operators to investigate alarms. This reduces the risk of injury and also improves response time.

Easily Visible Status LED

A tri-colour LED which is visible at the front of the detector provides a simple status indication to personnel in close proximity to the detector. Green indicates normal operation; yellow indicates a fault and red indicates the presence of radiation.

Field of View

The Dräger Flame 5000 can detect fires of 0.1 m² or greater, at 44 m within a 90° Horizontal Field of View. The detector's Field of View is a rectangular pyramid shape and represents a radial projection of the sensing element, therefore giving it the greatest coverage area of any flame detector currently available.

False Alarm Immunity

The Dräger Flame 5000's advanced image processing algorithms are so discriminating that false alarms are all but non-existent.

Worldwide Approvals

The Dräger Flame 5000 has the option of being Aluminium, or Stainless Steel. It can be used worldwide with the following approvals: ATEX, IECEx, FM and CFM.



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Explosion proof colour imaging based flame detector

TECHNICAL DATA

Dräger Flame 5000		
Type		Colour imaging based visual flame detector
Field of View		Horizontal 90°
Sensitivity		0.1 m ² gasoline fire at 44 m, (1 sq. ft fire at 144 ft)
Response Time		4 seconds, typical; configurable up to 30 seconds
Signal Output	Analogue	0 to 20mA
	or 2 Relays for Fault & Alarm	Ratings 125 VAC, 0.5 A; 30 VDC, 2A (optional)
	Standard RS 485	
Supply Voltage		18 to 30 VDC, current consumption 6 watts (typical)
Ambient Conditions	Temperature	- 60 °C to + 85°C, - 76 °F to + 185 °F
	Pressure	915 to 1055 hPa, 27.9 to 31.2 inch of Hg
	Humidity	0 to 99 %RH, non-condensing
Enclosure		IP 66, NEMA 4X
Cable Entry		M20, M25 or ¾" NPT
Dimensions (L x D, approx)		200 x 100 mm, 7.9 x 3.9 inches
Weight (approx)		2.5 kg, 5.5 lbs (2.8 kg, 6.2 lbs stainless steel)
Approvals	ATEX	II 2 G E E x d IIC T4
	IECEX	E x d IIC T4
	FM/CFM	Class I, Division 1, Groups B, C and D Class I, Zone 1, AEx d IIC; T5

ORDER INFORMATION

	Order No
Dräger Flame 5000	SC05826
Flame 5000 Simulator Test Lamp	SC05820
Dräger Flame 5000, ¾ NPT, NTSC video mode, Aluminium	SC05821
Dräger Flame 5000, ¾ NPT, Relay, NTSC video mode, Aluminium	SC05822
Dräger Flame 5000, ¾ NPT, NTSC video mode, Stainless Steel	SC05823
Dräger Flame 5000, ¾ NPT, Relay, NTSC video mode, Stainless Steel	SC05824
Dräger VTP-4 Signal Converter	



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Flame Detection Technologies Comparison Matrix



Sensitivity and Contaminants		FALSE ALARMS					OBSCURATIONS AND CONTAMINANTS					
		WELDING (ELECTRIC)	WELDING (GAS)	BLACK BODY RADIATION	REMOTE FIRE AREA	FLARE	OIL	WATER	FOG	SMOKE	BLACK BODY RADIATION	REFLECTED SUNLIGHT
DETECTION	UV	●	●	—	●	●	×	—	×	×	—	—
	UV/IR	○	●	—	●	●	×	×	×	×	—	—
	IR (Single Freq.)	○	●	●	●	●	—	×	×	—	×	—
	IR (Multi Freq.)	○	●	—	●	●	—	×	×	—	×	×
	VISUAL	—	●	—	—	—	—	—	×	—	—	—

KEY

- Very Sensitive
- Insensitive
- No Response

- × Very Sensitive
- × Insensitive
- No Response

What the operator sees

Dräger



What the detector's Algorithms sees

Dräger

