

## Spectrex SharpEye™ 20/20MI IR3 Flame Detection

The Spectrex SharpEye™ 20/20MI is a triple IR (IR3) flame detector in a rugged stainless steel housing. Due to its compact size it is very useful in applications in small and tight areas, eg. windmills or turbine enclosures.



## Benefits

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### **Always keeping an eye on things**

With its extensive optical range and high immunity to false alarms, the SharpEye™ 20/20MI IR3 compact mini flame detector provides reliable area monitoring. It is designed specifically for use in outdoor and indoor applications.

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### **Reliable protection against fire – and against false alarms**

The high immunity to false alarms of the flame detector protects against false alarms and their negative consequences. At the same time, the installed IR sensors are characterised by a fast response time – allowing the SharpEye™ 20/20MI IR3 to trigger an alarm quickly in case of fire.

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### **Full performance, yet small and compact**

Despite the lightweight, energy-conserving design, this compact version does everything you expect from a powerful IR3 flame detector: A detection distance of up to 40 metres (133 ft) and a wide field of view of 100° horizontally and 100° vertically.

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### **Available in two output versions**

The two models 20/20MI-1 and 20/20MI-3 offers two output options with a 4–20 mA current interface (stepped) and additional alarm and fault relays. Furthermore the type 20/20MI-3 is similar to the 20/20MI-1, but has lower sensitivity and is designed specifically for small areas that require fast and reliable detection. The integrated test circuit (BIT – Built-In-Test) supports both automatic and manual test runs.

## System Components



D-27777-2009

### Dräger REGARD® 3900

The Dräger REGARD® 3900 is a standalone, self contained control system for the detection of Toxic, Oxygen 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.



ST-5647-2006

### Dräger REGARD® 2400 and REGARD® 2410

Dräger REGARD® 2400 and 2410 are flexible small control units for detection of toxic gases and oxygen as well as combustible gases and vapours. Combined with the Dräger transmitters or sensing heads Dräger REGARD® 2400 or 2410 forms a low-maintenance gas detection system for reliable protection.

## Accessories



D-51319-2015

### Spectrex FS-1100

## Accessories



D-798-2016

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**Spectrex SharpEye™ 20/20 Rain Cover**



D-799-2016

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**Spectrex SharpEye™ 20/20 Tilt Mount**



D-800-2016

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**Spectrex SharpEye™ 20/20 Air Shield**

## Related Products



D-9272-2014

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### The SharpEye™ 40/40I (IR3)

Working in areas with combustible gases, vapours or materials requires fire/flame detection as a life-saving necessity. The best solutions must combine state-of-the-art technology with rugged durability and be ready to reliably work in any situation. Dräger offers a wide variety of high-quality flame-detectors that fulfil these requirements and more.



D-38290-2015

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### The SharpEye™ 20/20 MPI IR3

At airports, railway stations and shopping centres, in hospitals or offices: The SharpEye™ 20/20 MPI IR3 compact flame detector provides reliable monitoring of large indoor areas as part of a fire protection system.

## Technical Data

### SharpEye™ 20/20 MI

Type	IR flame detector for hydrocarbon-based fires and gas fires, non-Ex approved		
Spectral ranges	Three IR bands	20/20 MI-1	20/20 MI-3
Technical sensing performance	Field of view	Horizontal 100°; Vertical 100°	Horizontal 100°; Vertical 100°
	Response time	5 seconds on average	5 seconds on average
Rated range	Fuel	ft / m	ft / m
(at maximum sensitivity for fully developed fire in a 1 ft <sup>2</sup> (0.1 m <sup>2</sup> pan fire)	n-Heptane / Gasoline	133 / 40	33 / 10
	JP5 / Kerosene	100 / 30	23.1 / 7
	Diesel fuel	90 / 27	23.1 / 7
	Ethanol	100 / 30	24.8 / 7.5
	Methanol	100 / 30	24.8 / 7.5
	IPA Isopropyl Alcohol	100 / 30	24.8 / 7.5
	Methane / LPG*	40 / 12	10 / 3
	Polypropylene	16 / 5	6 / 2
	Office paper	50 / 15	13 / 4

\* Burner flame 0.5 m high, 0.2 m wide

### Electrical Data

0 – 20 mA	Source or sink configuration
Fault	0 +0.5 mA
BIT error	2 mA ±10%
Normal	5 mA ±10%
Warning	10 mA ±5%
Alarm	15 mA ±5%
Loop resistance	100 – 600 Ω

### Relay

Alarm and Fault	SPST volt-free contact rates 2A at 30 VDC or 0.5A at 250 VAC Fault relay normally closed, Alarm Relay normally open
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### Environmental conditions

Temperature	Operation -40 to +70 °C / -40 to +160 °F Storage -55 to +85 °C / -65 to +185 °F
Relative humidity	Up to 95 %

### Housing

Material	Stainless Steel 316L, electro polished
Weight	Detector 1.2 kg (2.5 lb) Mounting bracket 370 g (0.8 lb)
Detector dimensions	100 x 100 x 62 mm (4" x 4" x 2,5")
Protection class	IP66 and IP 67 according to EN 60529 NEMA 250 6P

### Approvals

FM	Project ID 3020071, 3013906
EN54-10 (VdS)	G207073
CPD	0786-CPD-20916
GOST R	POCC US.HO06.B00103
DNV	A-12318
ABS	Project No. 1627964
GOST K	KZ.7500507.01.01.00029

## Ordering Information

Flame detector 20/20 MI – 11SF – IR3 (Non-Ex)	68 13 678
Flame detector 20/20 MI – 31SF – IR3 (Non-Ex)	68 13 679
Flame detector 20/20 MI – 12SF – IR3 (Non-Ex)	68 13 680
Flame detector 20/20 MI – 32SF – IR3 (Non-Ex)	68 13 681
SharpEye™ 20/20M Air Shield Kit	68 13 682
SharpEye™ 20/20M Tilt Mount	68 13 683
Spectrex SharpEye™ 20/20 Rain Cover	on request
Flame Simulator FS1100 40/40 IR3/M	68 13 461

## Notes

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