

**SPECTREX INC.**



**SharpEye™**

# FLAME DETECTOR "MINI" SERIES Model 20/20MPI

Finally...

...a Low Cost,  
High Performance,  
High Reliability,  
Long Distance...

**NEW IR3 Flame Detector  
for INDOOR applications!!!**

The 20/20MPI is a low cost, high performance, compact Triple IR (IR3) Flame Detector in a lightweight polycarbonate housing. It retains all the benefits of IR3 technology - long distance detection (up to 140ft / 43m) along with the highest immunity to false alarms.

The IR3 detector, with its lightweight housing and low power consumption, is especially suited to indoor applications, such as airport terminals, train stations, storage areas, public buildings and many more.

## MAIN FEATURES

Long distance Flame Detection (up to 140ft / 43m)

Large Field of View (100° horizontal / 90° vertical)

Highest immunity to false alarms

Output options (two models):

- Alarm and Fault relay outputs (4 wire) or
- Stepped mA output (3 wire source)

RS-485 Modbus Compatible

Automatic and Manual Built-In-Test (BIT)

3 Year Warranty

## APPLICATIONS

- Airport terminals • Train stations and terminals • Storage areas • Archives • Malls • Hospitals • Car parking towers and garages • Public buildings • Banks • Historical Sites • Offices

**SPECTREX INC.**

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## GENERAL SPECIFICATIONS

<b>Spectral Response</b>	Three IR Bands				
<b>Detection Range</b>	n-Heptane	140 ft (43m)	:	Methanol	100 ft (30m)
*Highest sensitivity setting for 1 ft <sup>2</sup> (0.1m <sup>2</sup> ) pan fire	Gasoline	140 ft (43m)	:	IPA (Isopropyl Alcohol)	115 ft (35m)
	Diesel Fuel	100 ft (30m)	:	Methane*	40 ft (12m)
	JP5	100 ft (30m)	:	LPG (Propane)*	40 ft (12m)
	Kerosene	100 ft (30m)	:	Polypropylene Pellets	50 ft (15m)
	Alcohol (Ethanol)	100 ft (30m)	:	Office Paper	50 ft (15m)
					*20" (0.5m) long 8" (0.2m) width plume fire
<b>Response Time</b>	Typically 5 sec.				
<b>Adjustable Time Delay</b>	Up to 30 seconds				
<b>Sensitivity Range</b>	4 sensitivity ranges for 1 ft <sup>2</sup> (0.1m <sup>2</sup> ) gasoline pan fire: 35 ft (11m) up to 140 ft (43m)				
<b>Field of View</b>	100° horizontal, 90° vertical				
<b>Built-in-Test</b>	Manual and Automatic BIT				
<b>Temperature Range</b>	Operating: -40°F (-40°C) to +160°F (+70°C)		:	Storage: -40°F (-40°C) to +160°F (+70°C)	
<b>Humidity</b>	Up to 95%				

## ELECTRICAL SPECIFICATIONS

<b>Power Supply</b>	Operating Voltage: 18-32 VDC			
<b>Power Consumption</b>	20/20MPI-R at 24V DC:	Max. 15mA at Normal Max. 25mA at Alarm	20/20MPI-M at 24V DC:	Max. 16mA at Normal Max. 36mA at Alarm
<b>Electrical Connection</b>	M20 Gland Connection			
<b>Electrical Input Protection</b>	Per EN54-10			
<b>Electromagnetic Compatibility</b>	EMI/RFI protected CE Marked per EN50130-4			

## OUTPUTS

<b>20/20MPI-R</b>	Relays	:	Alarm and Fault SPST volt-free contacts rated 2A at 30 VDC or 0.5A at 250 VAC Alarm Relay normally open		
<b>20/20MPI-M</b>	0-20mA	:	Source configuration	:	
		:	Fault: 0 +0.5mA	:	Warning: 16mA ±5%
		:	BIT Fault: 2mA ±10%	:	Alarm: 20mA ±5%
		:	Normal: 4mA ±10%	:	Resistance Loop: 100-600 Ω

## MECHANICAL SPECIFICATIONS

<b>Dimensions</b>	4.7" dia x 2.9" (119mm x 74mm)
<b>Weight</b>	10.6 oz (300g)
<b>Tilt Mount Weight</b>	2.5 oz (70g)
<b>Enclosure and Tilt Mount</b>	Polycarbonate
<b>Water and Dust</b>	IP55

## PERFORMANCE APPROVALS

<b>FM3260</b>	Approved
<b>EN54-10 (CPD)</b>	Pending

## ACCESSORIES

<b>Tilt Mount</b>	768004 (included with each new detector)
<b>Protective Cover</b>	768005 (included with each new detector)
<b>Fire Simulator</b>	20/20-310