



# Certificate of Conformity

Certificate num.	Registration date	Version	Valid until	
<b>afp - 2819</b>	26-Apr-2013	Number 1	Issue date 26-Apr-2013	30-Apr-2014

## Product designation

**Spectrex SharpEye™, 20/20M Series, mini triple infrared (IR3) flame detectors**  
(Refer to the Schedule/enclosures for further specified details)

## Agent/distributor

Fire Protection Technologies Pty Ltd  
Unit 1 / 251 Ferntree Gully Road, MT WAVERLEY, VIC, AUSTRALIA, 3149

## Registrant

Spectrex Inc.  
218 Little Falls Road, CEDAR GROVE, NJ, UNITED STATES, 07009

### Producer

Spectrex Inc.  
218 Little Falls Road, CEDAR GROVE, NJ, UNITED STATES, 07009

## Conformance criteria and evaluation

The Spectrex SharpEye™, 20/20M Series, mini triple infrared (IR3) flame detectors has been evaluated and verified as conforming with the relevant requirements of the following criteria.

1. European Standard EN 54-10:2002, 'Fire detection and fire alarm systems. Flame detectors. Point detectors'.
2. Verband der Schadenverhütung - Evaluation and approval, 'Vds approval'.
3. Technical rule VdS 2344 : 1998-12, 'Procedures for the testing, approval, certification and conformity assessment of products and systems for fire protection and safety technology'.
4. Technical rule VdS 2506 : 1996-12, 'Smoke detectors - Requirements and test methods'.

## Limitations/conditions of conformance

Limitations/conditions of conformance, where identified on this certificate, are derived from qualifications from evaluation(s) for conformity and/or other related technical documentation. All details with respect to design, assembly and installation instructions and restrictions should be checked against the producer's current technical manual/data sheets and the requirements of the Authority having Jurisdiction.

Specified limitations/conditions, determined from the evaluation for conformity, include the following.

- i. Compatibility of this fire detector and with new or existing control and indicating equipment should be verified prior to installation.

Issued by

David Whittaker  
Executive Officer – ActivFire Scheme



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## Producer's description

The Spectrex SharpEye™, 20/20M Series, mini triple infrared (IR3) flame detectors is an economical and compact flame detector with the high immunity to false alarms, in a rugged stainless steel housing.

## Technical specification

The following details are a representative extract of the technical specification for the Spectrex SharpEye™, 20/20M Series, mini triple infrared (IR3) flame detectors and may be subject to change. Complete and current details should be determined from the designated producer's technical manual/data sheets.

Model	Description
Model 20/20MI-1	Mini Triple (IR3) Flame Detector

Property/characteristic	Value(s)	
Detection range (for 0.1 m <sup>2</sup> (1 ft <sup>2</sup> ) pan fire) at highest sensitivity setting <small>* 0.5m (20") high, 0.2m (8") width plume fire</small>	Fuel	
	Distance	
	Gasoline	40 m      133 ft
	n-Heptane	40 m      133 ft
	Diesel Fuel	27 m      90 ft
	JP5	30 m      100 ft
	Kerosene	30 m      100 ft
	Alcohol (Ethanol)	30 m      100 ft
	IPA (Isopropyl Alcohol)	30 m      100 ft
	Methanol	30 m      100 ft
	Methane*	12 m      40 ft
	LPG (Propane)	12 m      40 ft
Polypropylene Pellets	5 m      16 ft	
Office Paper	15 m      50 ft	
Spectral response	Triple Spectrum Design	
Response time	Typical 5 sec.	
Adjustable time delay	Up to 30 sec.	
Sensitivity range	4 Sensitivity Ranges for 0.1m <sup>2</sup> (1 ft <sup>2</sup> ) gasoline pan fire: 10m (33 ft) – 40m (133 ft)	
Field of view	100° horizontal, 100° vertical	
Built-in-test	Manual and Automatic BIT	
Temperature range	Operating: -40°C (-40°F) to 70°C (160°F) Storage: -55°C (-65°F) to 85°C (185°F)	
Humidity	Up to 95%	
Power supply	Operating Voltage: 18-32 Vdc	
Power consumption	Max. 25 mA in stand-by Max. 50 mA in alarm	
Electrical connection	12 wires 2m (6 ft) cable (for junction box connection) Optional: 12- wires electrical connector (the suitable connector will be supplied)	
Electrical input protection	According to MIL-STD-1275B	
Electromagnetic compatibility	EMI/RFI protected CE Marked	
Relays	Alarm and Fault	
RS-485	The detector is equipped with an RS-485 communication link that can be used in installation with computerized controllers. The RS-485 is Modbus compatible	
Dimensions	100 x 100 x 62 mm (4" x 4" x 2.5")	
Weight	St.St 316L 1.2 kg (2.5lb) Tilt Mount 0.37 kg (0.8lb)	
Enclosure	Stainless Steel 316L with electro polish finish	
Environmental standards	Meets MIL-STD-810C for humidity, Salt & Fog, Vibration, Mechanical Shock, High Temp, Low Temp	
Water and Dust	IP66 and IP67 per EN60529 NEMA 250 6P	

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## Supplementary information

### Schedule of relevant articles

The following schedule is an extract of articles significant and/or related as evidence of conformity.

Reference		Title / description	Date issued <small>(or date validated)</small>	Source
Ident. type	Ident.			
Approval no.	G207073	Certificate Approval of Components and Systems IR Flame Detector Type Sharpeye 20/20 MI	1-Jun-2006	Verband der Schadenverhütung, DE
Datasheet	2020mini, Jun 2012	20/20M "Mini" Flame Detector Series	Mar-2012	Spectrex Inc., NJ, US