

## Cirrus HYBRID Detector



The Cirrus HYBRID aspirating detector combines Scatter and Cloud Chamber detection technologies into one unit. With the ability to cover up to four pipes, this dual technology approach provides excellent sensitivity for detecting fire and smoke while significantly reducing false alarms.

### Standards / Approvals

- EN 54-17, EN 54-20
- AS 7240-20
- UKCA
- CE

### Technical Specification

	Cirrus HYBRID (Scanner)	Cirrus HYBRID (Non-Scanner)
Supply Voltage	20 - 28VDC	
Current Consumption @ 24VDC, 100% Fan 4 pipe	840mA quiescent   940mA alarm	685mA quiescent   785mA alarm
Operating Temperature Range	0°C to 45°C (32°F to 113°F)	
Temperature Range Tested to EN54-20	0°C to 55°C (32°F to 131°F)	
Application Sampled Air Temperature	-20°C to 60°C (-4°F to 140°F)	
Humidity	10 - 93%RH (no icing / non-condensing)	
IP Rating	IP30	
Cable access	10 x 20mm knock outs	
Cable Termination	Screw terminal blocks (0.2 - 2.5mm <sup>2</sup> , 30 - 12AWG)	
Pipe Outer Diameter	25mm, push to fit tapered inlet	
Alarm Indications	Pre-alarm, Fire 1, Fire 2, Fire 3	
Other Indications	Supply Healthy, General Fault, 7inch LCD colour touch Screen Display	
Fault Contact	Rated at 30VDC 1A maximum [Normally closed]	
Programmable Output Contacts	5 contacts rated 30VDC 1A [Volt-free change over contacts with 28 programming options]	
Programmable Inputs	3 monitored inputs that may be configured for Isolate, Reset, Silence, Day/Night, Battery Fault and Mains Fault	
Camera	6 Protec specified IP cameras	
Event Log / Data Retention	24,000 events stored on FIFO basis (alarms, actions, faults and data points) (Approx 30 day historical graph data)	
Variable Sensitivity Settings	7 day programmable settings with 2 time zones per day. Day-time/Night-time setting  Incipient Detection Range: 0.002micron to 1.0micron in diameter. Concentrations of 10,000 particles per cc to 10 million particles per cc.	
Sensitivity Range	Optical Detection Range: 0.01%obs/m to 20%obs/m	

## Cirrus HYBRID Detector

### Technical Specifications Continued

	Cirrus HYBRID (Scanner)	Cirrus HYBRID (Non-Scanner)
Threshold Settings recommended maximum	Class A – 11 holes per pipe @ 130CFS Class B – 22 holes per pipe @ 400CFS Class C – 44 holes per pipe @ 600CFS	Class A – 34 holes per detector @ 130CFS Class B – 44 holes per detector @ 400CFS Class C – 44 holes per detector @ 600CFS
Threshold Settings Complaint maximum EN 54-20	Class A – 11 holes per pipe @ 549CFS Class B – 22 holes per pipe @ 599CFS Class C – 44 holes per pipe @ 1000CFS	Class A – 34 holes per detector @ 130CFS Class B – 44 holes per detector @ 422CFS Class C – 44 holes per detector @ 1000CFS
Sampling Pipe Network	Number of inlet ports: Up to four Pipe Network Design Tool: ProFlow Maximum pipe length: Specific to individual design. To be compliant to local design codes, and verified by ProFlow.	
Airflow Monitoring	'High Airflow' and 'Low Airflow' fault monitoring	
Weight	3.5kg (7.7lbs)	
Dimensions (mm)	380(H) x 250(W) x 137(D)	

### Application Guide

**Class A** - High Sensitivity Applications include: - Computer rooms, Cleanrooms, Data Centres, Control Rooms, Valve Halls, Archive Storage, Anechoic Chambers, EDP areas and areas where very high sensitivity detection is critical.

**Class B - Enhanced Sensitivity Applications include:** - Historic Buildings, Museums, Hospitals, Airports, Cathedrals, Theatres, Art Galleries, General Warehouses, Atria, Indoor Stadiums, Power and Control Cabinets.

**Class C - Normal Sensitivity and Harsh Environment Applications include:** - Cold Storage Facilities, Specialist Production Facilities, Food Processing Areas, Transportation Terminals, Inaccessible Voids and General Warehousing.

### Product Codes

		HYBRID 1 Pipe	61-986-H1
HYBRID 2 Pipe Scanner	61-986-H2S	HYBRID 2 Pipe	61-986-H2
HYBRID 3 Pipe Scanner	61-986-H3S	HYBRID 3 Pipe	61-986-H3
HYBRID 4 Pipe Scanner	61-986-H4S	HYBRID 4 Pipe	61-986-H4
		HYBRID Non-display 1 Pipe	61-986-H1ND
HYBRID Non-display 2 Pipe Scanner	61-986-H2SND	HYBRID Non-display 2 Pipe	61-986-H2ND
HYBRID Non-display 3 Pipe Scanner	61-986-H23ND	HYBRID Non-display 3 Pipe	61-986-H3ND
HYBRID Non-display 4 Pipe Scanner	61-986-H24ND	HYBRID Non-display 4 Pipe	61-986-H4ND

Note: Non-scanning detectors (standard detectors) - can have up to four sampling pipes which share a common Cloud Chamber to provide fire particle detection. Each pipe inlet is provided with an individual Scatter Chamber Detector to provide optical smoke particle detection. This does not provide individual pipe identification of the Combined Fire & Smoke signals.

Scanning detectors - can have up to four sampling pipes. The air entering each pipe inlet is directed through the Cloud Chamber to provide fire particle detection and an individual Scatter Chamber Detector to provide optical smoke particle detection. This provides individual pipe identification of the Combined Fire & Smoke signals.

Data within this document are subject to change without notice.

Protec Fire and Security Group Ltd. Protec House, Churchill Way, Nelson, BB9 6RT  
www.protec.co.uk | sales@protec.co.uk | support.protec.co.uk | +44 1282 717171