

Fire detection and evacuation solutions that save lives.

Orbis Intrinsically Safe - Heat Detector

Features

- Can be used for applications where smoke detectors are unsuitable
- Ideal in environments that are dirty or smoky under normal conditions
- Red flashing LED at StartUp confirms the device is operating
- SensAlert, yellow flashing LED, indicates faulty operation
- FasTest takes just four seconds to test and confirm detectors are functioning correctly

Description

The Orbis Intrinsically Safe Heat Detector monitors temperature by using a single thermistor which provides a voltage output proportional to the external air temperature. Heat detectors are used in applications where smoke detectors are unsuitable.

The Orbis range incorporates seven heat detector classes to suit a wide variety of operating conditions. All heat detectors in the Orbis range are tested as static or rate-of-rise detectors and are classified as A1R, A1S, A2S, BR,BS, CR and CS.

Orbis heat detectors have an open web casing that allows air to flow freely across a thermistor which measures the air temperature every 2 seconds. A microprocessor stores the temperatures and compares them with pre-set values to determine whether a fixed upper limit, the alarm level, has been reached. In the case of rate-of-rise detectors the microprocessor uses algorithms to determine how fast the temperature is increasing.

Static heat detectors respond only when a fixed temperature has been reached. Rate-of-rise detectors also have a fixed upper limit but they also measure the rate of increase in temperature. A fire might thus be detected at an earlier stage than with a static detector so that a rate-of-rise detector is to be preferred to a static heat detector unless sharp increases of heat are part of the normal environment in the area protected by the heat detector.

Classification

II 1G Ex ia IIC $-40^{\circ}\text{C} < T_a < +40^{\circ}\text{C} (\text{T5})$
 $-40^{\circ}\text{C} < T_a < +60^{\circ}\text{C} (\text{T4})$

BASEEFA Certificate Number

ATEX - Baseefa 06 ATEX 0007X

IECEX - IECEx BAS 06.0002X



I.S. Heat Detector

Item Numbers

ORB-HT-51145-APO	Orbis I.S. A1R Heat Detector Rate of Rise
ORB-HT-51157-APO	Orbis I.S. A1S Heat Detector Static
ORB-HT-51147-APO	Orbis I.S. A2S Heat Detector Static
ORB-HT-51149-APO	Orbis I.S. BR Heat Detector Rate of Rise
ORB-HT-51151-APO	Orbis I.S. BS Heat Detector Static
ORB-HT-51153-APO	Orbis I.S. CR Heat Detector Rate of Rise
ORB-HT-51155-APO	Orbis I.S. CS Heat Detector Static

Specifications

Operating Voltage	14 to 28V DC
Quiescent Current	80µA at 24V DC
Dimensions	100mm Dia x 50mm H inc base
	-40°C to $+70^{\circ}\text{C}$ (no icing)
Operating Temperature	Class T5: -40°C to $+40^{\circ}\text{C}$ Class T4: -40°C to $+60^{\circ}\text{C}$
Relative Humidity.	0 to 98% (non condensing)
IP rating	IP23D (indoor use)
Weight	70 grams (140g inc base)
Approvals	EN54-5

For further information refer respective Product Guide MAN3041

Fire detection and evacuation solutions that save lives.

Top Description

Specifications		
Cabinet Size	SP1X	SP8X/SP16X
Power Supply	5A	5A / 14A / 22A
Input Voltage	195 - 264VAC	195 - 264VAC
Output Current	5.6Amps	5.6A / 14A / 22A
Charger Current	1.25A	1.25A / 3A / 3A
Power Supply Output Voltage:	27.5VDC +/- 0.1VDC	
Power Supply Ripple Voltage:	200mV	
Power Supply Fault - Volts High (room temperature) Volts Low	28VDC 26.5VDC	
Charger Output Voltage:	27.5 +/- 0.1VDC	
Battery Type:	2 x 12V Sealed Lead Acid	
Maximum Battery Capacity:	18Ahr (SP1X),40Ahr (SP8X)	
Discharge Cut-off voltage:	21VDC	
Panel Quiescent Current		
1 Loop	220mA	
Additional Loops (even)	+40mA for each Loop	
Additional Loops (odd)	+75mA for each Loop	
Loop Capacity	500mA max per Loop	
Max No of Devices per Loop	126	
Cabling Requirements	2 core 1.5 to 2.5mm ²	
Fault supervision	O/C, S/C, Over current	
Number of Zones	2500	
Outputs: (Programmable)	4 x 24VDC @ 1A Max, 10K EOL	
Relay outputs (Programmable)	5 x Voltage Free - 24VDC@1A	
Auxiliary Power Outputs	2 x 24VDC @ 2A	
Inputs (Programmable)	4 x O/C, S/C, 10K EOL	
Comms External to FACP	RS485	
Comms Printer port	RS232 or Parallel	
Comms PC Interface	RS232 or USB 2.0	
Temperature	-5°C to + 40°C	
Humidity	0% to 95% (non-condensing)	
Mechanical		
Material	1.2mm Mild Steel	
Colour/Finish	Surf Mist Ripple (Dulux)	
Dimensions (mm)		
SP1X	500H x 405W x 150D	
SP8X	845H x 518.5W x 173D	
SP16X	1200H x 625X x 240D	
IP Rating	IP30 (Indoor Use Only)	

Item Numbers	
Panels	
8651-0110	FireFinder ^{PLUS} 1Loop 5A SP1X
8651-0110-1100	FireFinder ^{PLUS} 1Loop OWS25 5A SP1
8651-0110-1200	FireFinder ^{PLUS} 1 Loop OWS50 5A SP1
8651-0113	FireFinder ^{PLUS} 1 Loop 5A SP8X
8651-0513	FireFinder ^{PLUS} 5 Loop 5A SP8X
Panel Extras	
4210-0042	SP1X/M Cabinet Flush Surround
4210-0044	SP8X Cabinet Flush Surround
4210-0040	SP1X/M Batter Cabinet
4210-0041	SP8X Battery Cabinet
Panel Add-ons (Refer to individual Datasheets for specifications)	
8610-0001	Slave CPU Board (Loop Activation)
8610-0002	Dual Loop Termination Board
4210-0006	2 Wire Network Interface Board
4310-0021	Fire Fan Module
4310-0071	Fire Fan Module (Loop Driven)
4310-0030	8-Way Switch and Indicator Module
4310-0040	16-Way Input Board
4310-0050	8-Way Relay Board
4310-0060	8-Way Sounder Board
4310-0080	HLI Expander Board
4310-0082	8 Zone Conventional Board
4310-0011	Agent Release Module
4310-0086	32Z Alarm Indicator Module
4310-0087	Zone Disable & Indicator Module
159-0110	Printer
Repeater Panels (Refer to individual Datasheets for specifications)	
4350-0004	SmartTerminal ABS
4350-0005	SmartTerminal inc PSU ABS
4350-0006	SmartTerminal Slimline ABS

Note - Other panel options and accessories available. Contact your local Ampac Customer Service Office for details.