



Heat Detector

Conventional – Devices

Part No. 55000-122APO | 55000-127APO | 55000-132APO | 55000-137APO

www.illuminoignis.co.uk

Product Details

The Series 65 Heat Detectors monitor temperature by using either a dual thermistor network or a single thermistor network (CS versions) which provides a voltage output proportional to the external air temperature.

Note: * Not all detectors have all approvals. Refer to the product pages at www.apollo-fire.co.uk

Key Features

- Ideal for environments that are dirty or smoky under normal circumstances
- Can be used for applications where smoke detectors are unsuitable
- Wide operating voltage



Technical Specifications

All data is supplied subject to change without notice. Specifications are typical at 24V, 25°C and 50% RH unless otherwise stated.

Supply Wiring	Two wire monitored supply, polarity insensitive	
Terminal functions	L1 IN and L2	Supply in connections
	L1 OUT and L2	Supply out connections
	-R	Remote indicator negative connection
Supply voltage	9 V to 33 V	
Ripple voltage	2 V peak to peak maximum at 0.1 Hz to 100 kHz	
Quiescent current	See Table 1	
Power-up surge current	as per Quiescent current	
Alarm voltage	6 V to 28 V dc	
Alarm current	See Table 1	
Alarm indicator	Red light emitting diode	
Design alarm load	420 Ω in series with a 2 V drop	
Holding voltage	6 V	
Holding current	10 mA	
Minimum voltage required to light alarm indicator	12 V	
Remote output characteristics	Remote is a current sink to the negative line limited to 17 mA	

Storage temperature	-30°C to 120°C
Operating temperature	-20°C to +90°C
Humidity (no condensation or icing)	0% to 95% RH
Effect of atmospheric pressure	None
Designed to IP Rating	IP54
Standards and approvals	CPR, LPCB, VdS, VNIPO, SBSC, FG, BOMBA
Dimensions	100mm diameter x 42 mm height
Weight	80 g
Materials	Housing: White flame retardant polycarbonate Terminals: Nickel plated stainless steel

All information in this document is given in good faith but Apollo Fire Detectors Ltd cannot be held responsible for any omissions or errors. The company reserves the right to change the specifications of products at any time and without prior notice.



Illumino Ignis Ltd
LIGHTING & FIRE DESIGN, SUPPLY & SUPPORT

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Operation

The Series 65 Heat Detector has a moulded self-extinguishing white polycarbonate case. Inside the case a printed circuit board (PCB) holds the signal processing electronics.

In the AIR, BR and CR variants a pair of matched negative temperature co-efficient (NTC) thermistors are mounted on the PCB in such a way that one thermistor is exposed to give good thermal contact with the surrounding air while the other thermistor is thermally insulated.

Under stable conditions both thermistors are in thermal equilibrium and have the same value of resistance. If air temperature increases rapidly the resistance of the exposed thermistor becomes less than that of the insulated thermistor. The ratio of the resistance of the thermistors is monitored electronically and an alarm is initiated if the ratio exceeds a factory pre-set level. This feature determines the 'rate of rise' response of the detector.

CS variants use a single NTC thermistor network which as in dual versions provides a voltage output proportional to the external air temperature.

EMC Directive 2014/30/EU

The Series 65 Heat Detector complies with the essential requirements of the EMC Directive 2014/30/EU, provided that it is used as described in this data sheet.

A copy of the Declaration of Conformity is available from Apollo upon request.

Conformity of the Series 65 Heat Detector with the EMC Directive, does not confer compliance with the directive on any apparatus or systems connected to them.

Construction Products Regulation 305/2011/EU

The Series 65 Heat Detector complies with the essential requirements of the Construction Products Regulation 305/2011/EU.

A copy of the Declaration of Performance is available from Apollo upon request

Table 1: Series 65 Heat Detector typical current against voltage characteristics for quiescent and alarm state

Supply voltage (V)	AIR Standard		AIR flashing LED		AIR flashing LED/magnetic test switch	
	Quiescent	Alarm	Quiescent	Alarm	Quiescent	Alarm
24	45 μ A	52 mA	55 μ A	52 mA	55 μ A	52 mA
9	40 μ A	17 mA	50 μ A	17 mA	50 μ A	17 mA

Series 65 Heat Detector temperatures and part numbers

Class	Max application temperature OC	Max static response temperature OC	Part Number
			Standard
AIR	50	65	55000-122
BR	65	85	55000-127
CR	80	100	55000-132
CS	80	100	55000-137


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Choosing the correct heat detector

