Series 65
Heat Detector



Product overview

Product	**Heat Detector A1R standard**
Part No.	**55000-122**
Product	**Heat Detector A1R with flashing LED**
Part No.	**55000-121**
Product	**Heat Detector BR standard**
Part No.	**55000-127**
Product	**Heat Detector BR with flashing LED**
Part No.	**55000-126**
Product	**Heat Detector CR standard**
Part No.	**55000-132**
Product	**Heat Detector CR with flashing LED**
Part No.	**55000-131**
Product	**Heat Detector CS standard**
Part No.	**55000-137**
Product	**Heat Detector CS with flashing LED**
Part No.	**55000-136**

Note:* *Not all detectors have all approvals. Refer to the product pages*

Technical data

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 Table1*	
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 +80°C*	
Operating temperature	*A1R: -20°C to +50°C* *BR: -20°C to +65°C* *CS/CR: -20°C to +80°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, FG, BOSEC*	
Dimensions	*100mm diameter x 42 mm height*	
Weight	*80 g*	
Materials	*Housing: White flame retardant polycarbonate* *Terminals: Nickel plated stainless steel*	

Product information

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.

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

All information in this document is given in good faith but Apollo Fire Detectors Ltd cannot be held responsible for any omissions

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 A1R, 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)	A1R Standard		A1R flashing LED		A1R flashing LED/magnetic test switch	
	Quiescent	Alarm	Quiescent	Alarm	Quiescent	Alarm
24	45 µA	52 mA	55 µA	52 mA	55 µA	52 mA
9	40 µA	17 mA	50 µA	17 mA	50 µA	17 mA

Series 65 Heat Detector temperatures and part numbers

Class	Max application temperature °C	Max static response temperature °C	Part Number	
			Standard	Flashing LED
A1R	50	65	55000-122	55000-121
BR	65	85	55000-127	55000-126
CR	80	100	55000-132	55000-131
CS	80	100	55000-137	55000-136

Choosing the correct heat detector

