



Heat Detectors



Optical Smoke Detector

### Approval



LPCB approved fire detectors:

Product No.	LPCB reference
17840-01	042az/01
17850-01	042ay/01
17860-01	042ay/02

The products 17870-01, 17899-44 and 17899-01 are not subject to LPCB approval.

### Variants

- 17840-01- Optical Smoke Detector
- 17850-01- Fixed Temperature Heat Detector 58°C
- 17860-01- Rate Of Rise Heat Detector
- 17870-01- High Temperature Heat Detector
- 17800-01- Base (without diode)
- 17801-01- Base (including diode)
- 17800-02- Low profile base (without diode)
- 17801-02- Low profile base (with diode)
- 17890-02- Detector Dust Cover
- 17899-44- Relay module
- 17918-30- Removal tool
- 17899-01- LED Module

### General

This leaflet provides installation information for the automatic heat and smoke detectors.

### Location

It is important that each Detector assembly is correctly located and for information on correct siting of detectors see the relevant Code of Practice stated in BS 5839 : Part 1 : 2002. In general the following must be taken into consideration:

**DO NOT** locate smoke detectors where products of combustion may be present such as in kitchens, garages, furnace rooms, welding shops etc.

**DO NOT** locate heat detectors above boilers, heaters and where the temperature is normally very high or is liable to sudden fluctuations.

**DO NOT** locate smoke or heat detectors:-

- In dusty or dirty environments
- Near heating or air conditioning grilles.
- Outdoors in stables, sheds etc.
- In excessively damp areas.
- In dead air spaces at the junctions of ceilings and walls.
- At ceiling locations where a 'thermal barrier' may exist.

### Fixing

Each Detector is fitted to a base. The base can be fixed to a 2 3/4 inch square box, for example the MK891, or a 2 inch BESA box, or a metric box with 60mm fixing centres, or as an alternative, directly to any flat surface.

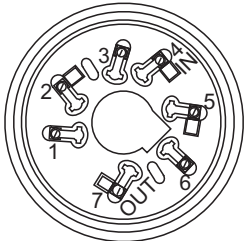
Where surface wiring may be required there are side 'cut-out' sections on the standard base assembly (not low profile) and the appropriate 'cut-out' must be removed to allow cable entry directly into the base.

### Technical data

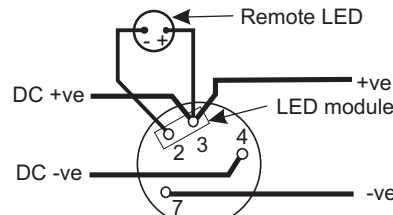
Standards	EN54-7 Smoke detectors EN54-5 Heat detectors	
Operating voltage	8.0V to 28.0V	
Quiescent current	Optical Smoke	60µA @ 28V
(Maximum)	Heat-Fixed Temp. (58°C)	30µA @ 28V
	Heat-Rate of rise	30µA @ 28V
	Heat-High Temp. (85°C)	30µA @ 28V
Alarm current	26 - 34mA	
Weight	Optical detector	0.11kg
	Heat detector	0.07kg
Dimension	104mm diameter	
	Height	50mm (not including base)
		73mm (with base)
	65mm (with low profile base)	
Colour	White (comparable to RAL 9010)	
Ambient temperature	0°C to +50°C (Heat 0°C to +45°C)	
Storage temperature	-25°C to +75°C	
Relative humidity	93% +/- 2% non condensing	
Wire size	1.5mm <sup>2</sup> maximum	

**!** The connections shown here are applicable for **Conventional systems only.**

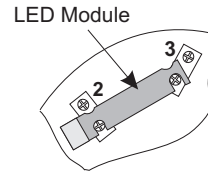
**!** It is important that the LED module is fitted when a remote LED is used to maintain system integrity under fault conditions.



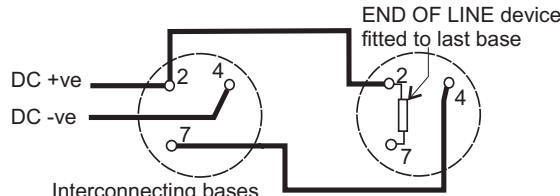
Terminal positions on base



Connecting LED to base with LED Module fitted

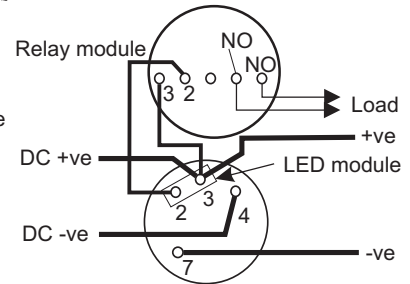


Base showing how LED module is connected



Interconnecting bases

**NOTE:** Method of interconnection is identical for both with and without diode fitted to the bases.



Connecting Relay Module to base with LED module fitted

Relay module	Dimension 67mm diameter by 25mm deep Max. voltage 30VDC between NO terminals Maximum current 0.25A into a resistive load Storage temperature -20°C to +70°C Working temperature 0°C to +50°C Relative humidity 70% ±2%
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**Testing**

**!** It is important that you **DO NOT** undertake a high voltage insulation tests of wiring with the wires connected into their intended terminals. Such a test may damage the electronic components in the **CONTROL UNIT, detector-BASE, and the END-OF-LINE Unit.**

**Wiring**

The base wiring details are shown above and include, where appropriate, details of connections to an external LED, Relay module and End-of-Line device used in a 2-wire open circuit type system.

**DO NOT Spur wire from the initiating (zone) circuits. IMPORTANT: Ensure all unused terminal screws are tightened after each BASE installation is complete.**

All wiring and terminal connections should be checked and tested before the detectors are plugged into the bases.

**Detector-Base Assembly**

To fit the Detector head into a base, align the Detector to the base, push together and twist the Detector in clockwise direction until it is securely fitted to the base.

**!** Under **NO CIRCUMSTANCES** MUST any detector and base be **PAINTED**. Paint may affect the operational characteristics of the detector.

**WEEE Directive:**  
At the end of their useful life, the packaging, product and batteries should be disposed of via a suitable recycling centre.  
Do not dispose of with your normal household waste. Do not burn.

At the end of their useful life, the packaging, product and batteries should be disposed of via a suitable recycling centre and in accordance with national or local legislation.

**!** When testing detectors with artificial smoke from an aerosol, we recommend the use of a non-silicon based smoke such as No Climb. In all cases **DO NOT** spray directly into the detector chamber as this could leave a residue on the chamber components which could impair the operation of the detector.

**Commissioning**

During commissioning of a Fire System EVERY detector must be checked for correct operation using an appropriate Heat or Smoke test.

**Maintenance**

To ensure continued and trouble free protection it is important that regular maintenance is undertaken and that the detectors and all associated equipment are checked at least annually. The servicing organisation should be contacted to ensure that a contract is drawn up for the maintenance of the system.

Gent by Honeywell reserves the right to revise this publication from time to time and make changes to the content hereof without obligation to notify any person of such revisions of changes.

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