

Instructions for ZF60 range of Detectors



Heat detectors



Optical or Ionisation Smoke Detector

Variants

The variants detailed in this leaflet are:

ZF61	- Ionisation Smoke Detector
ZF60	- Optical Smoke Detector
ZF62	- Fixed Temperature Heat Detector (58°C)
ZF64	- Rate Of Rise Heat Detector
ZF67	- Base (including diode)
ZF65	- Low profile base (with diode)
ZF66	- Low profile base (without diode)
ZF68	- Remote LED and Module

General

This leaflet provides installation information for the automatic heat and smoke conventional 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 : 1988. 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 or heaters or 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.

Specification

Operating voltage	8.0V to 28.0V	
Radioactive source (Ionisation detector only)	Americium Am241 Activity: <15kBq	
Quiescent current (Maximum)	Ionisation	15µA @ 28V
	Optical Smoke	60µA @ 28V
	Fixed Temperature (58°C)	30µA @ 28V
	Rate of rise	30µA @ 28V
Alarm current	26 - 34mA	
Weight	Ionisation	0.11kg
	Optical smoke	0.11kg
	Fixed temperature	0.07kg
	Rate of rise	0.07kg
Diameter	104mm	
Height	50mm (not including base) 73mm (with base) 65mm (with low profile base)	
Colour	White (comparable to RAL 9010)	
Working 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 ² maximum	

Fixing

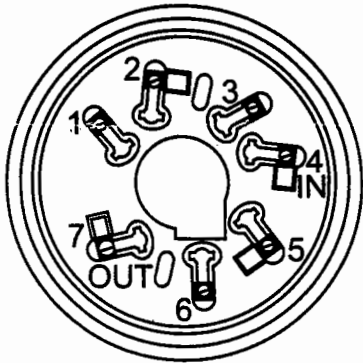
Each Detector is fitted to a base. The base can be fixed to a 2 3/4 inch square box, for example the MK891, or a 2 inch BESA box, or a metric box with 60mm fixing centres, or as an alternative, directly to any flat surface.

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.

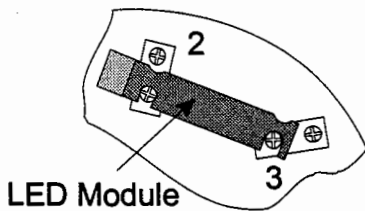
Instructions for ZF range of Detectors

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

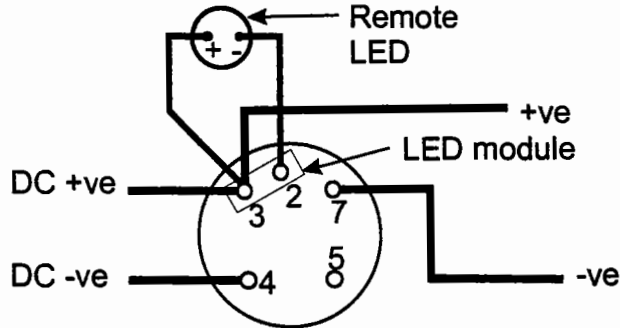
⚠ It is important that the LED module is fitted when a remote LED is used to maintain system integrity under fault conditions.



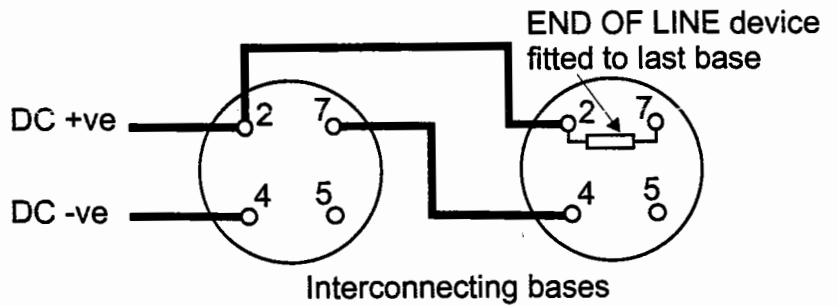
Terminal positions on base



Base showing how LED module is connected



Connecting LED to base with LED Module fitted



Interconnecting bases

Wiring

The base wiring details are shown above and include, where appropriate, details of connections to an external LED 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 a clockwise direction until it is securely fitted to the base.

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

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.

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.

CAUTION: The **IONISATION SMOKE DETECTOR** must be returned to the suppliers for disposal.