

The detection of smoke and products of combustion travelling through the ducting of air conditioning systems, can be an important factor in detecting a fire in its incipient stages. Effective smoke detection in extracts presents a range of problems. Point type detectors are unsuitable for direct installation inside ducting, due to high air velocities, dirt often associated with the extraction process and the lack of accessibility to the detectors for maintenance.

The ZDP4 duct probe unit enables a standard smoke detector to monitor the contents of extract ducting, be unaffected by dust and dirt in the air flow and be accessible for maintenance and service.

The duct probe unit consists of a grey plastic moulding, enclosing a standard, point type smoke detector and base, which fixes externally to the vertical wall of the duct. Two tubular sampling probes penetrate horizontally through holes cut in the ducting side and are positioned directly in the airflow.

Air is drawn into the sampling enclosure through one probe and is exhausted back into the air flow by the other. The units enclosure and sampling probes are hermetically sealed, creating a difference in pressure between the intake and exhaust, thereby maintaining an air flow through the unit.

Care should be taken when selecting the most effective location for the unit. To perform correctly the probe should be positioned in a straight run of ducting, at least 6 times the duct width from any bend or branch. Where branch ducts from separate rooms run into a single extract, probe units should always be located on each of the branches in order to avoid smoke from one branch being diluted with clean air from other branches.

Connected to the zone wiring in the normal way, detectors are fitted into the unit by twist and lock bases and a red LED indicator is positioned prominently on the units housing to confirm when the detector is in alarm.

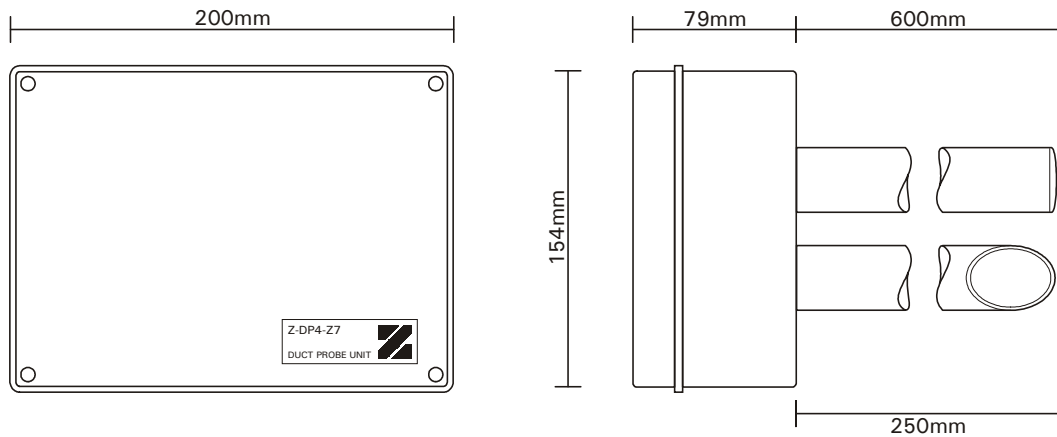


ZDP4

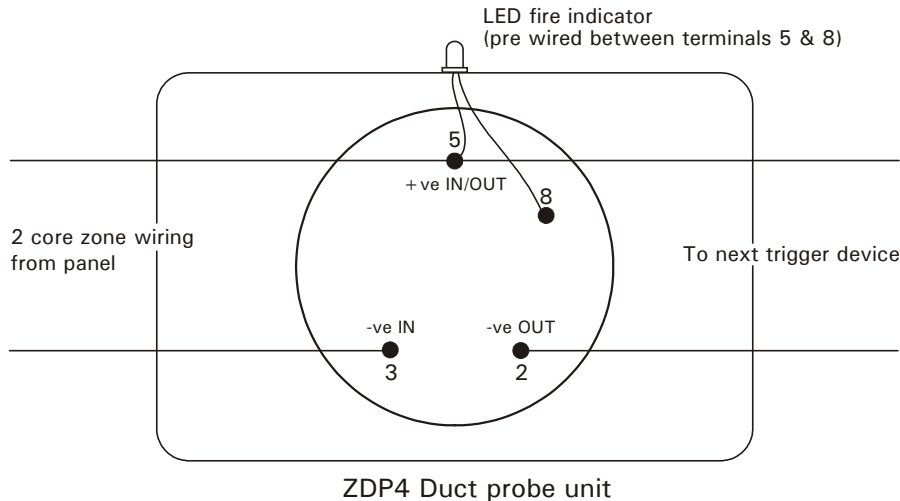
Duct Probe Unit

- **Effective duct monitoring**
- **Uses standard point type detector**
- **Red alarm LED indicator**
- **Easy to maintain and service**

Dimensions



Wiring Schematic



Specifications

Model No.	Part No.	Description	Detection Principle
ZDP4-Z6BS1 - with Z6BS1 base	599BA - with Z6BS1 base	Duct probe detector housing	Subject to detector type
ZDP4-Z6BS5 - with Z6BS5 base	599DA - with Z6BS5 base		

Compatibility	All ZC conventional systems	Environmental:	
Mounting	Screws to duct wall	Temp range	-20°C to +70°C
Wiring	2 wire	Humidity range	20% to 95% RH (non condensing)
Monitoring:		Construction:	
	Open and short circuit fault (Z6BS1 base)	Material	Enclosure box - plastic
	Open and short circuit fault, head out (Z6BS5 base)	Dimensions	Sampling probes - perspex
Indication	Alarm LED (red)		200mm (W) x 154mm (D) x 79 (H) (unit)
Operating voltage	24 volts DC		600mm (inlet probe)
Current	Subject to detector type		250mm (exhaust probe)
Environmental:		Colour	Enclosure box - grey
Application	Indoors	Weight	940g (unit and probes)
EN60529 rating	IP42		

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