

MP69 Duct Probe Unit



Features:

- Tough "Bayblend" and Polycarbonate housing
- Transparent lid allows detector to be seen
- Suitable for air speeds 1.5-25m per sec
- Range of aluminium probe tubes available for ducts up to 1500 mm wide
- Optimised response to smoke particles
- Easy access to detector for servicing
- Inlet baffle reduces smoke dilution for fast response
- Optional pocket manometer for testing

Smoke detectors are not normally mounted directly inside ducts because the airflow only allows the detector to sample air from a small section of the duct and such detectors would rapidly become dirty. Instead, ducting is protected by the use of probe units which gather air from a cross section of the duct and pass it through a smoke detector head.

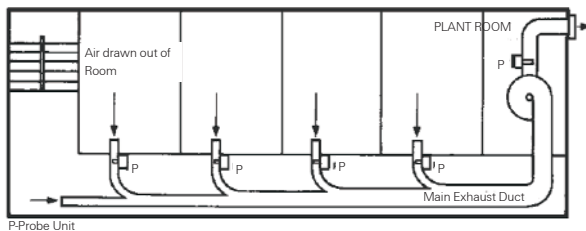
For most applications, smoke or combustion products are likely to have travelled some distance ageing the smoke prior to reaching the probe unit. It is therefore normally recommended that an optical smoke detector be fitted, and this is a requirement of UK Building regulations. The MP69 duct probe unit uses standard Tyco optical or ion-chamber smoke detectors, though for general applications optical detectors are recommended.

SPECIFICATIONS

Technical Information

A probe unit samples the air by diverting a small quantity into the probe housing. The shape of the housing then efficiently guides the air through the detector and back to the duct via the exhaust tube.

On detecting smoke or combustion products, the detector goes into alarm, the detector LED indicator illuminates which can be seen through the transparent lid of the probe unit, enabling the detector in alarm to be easily located. Remote indicators may also be fitted. A manometer kit is available to check that the pressure differential across the unit is adequate and to optimise the orientation of the sampling tubes in the duct airflow.



Operational Characteristics

(Using standard Tyco 600/900 detectors)

Environmental

Operating Temperature -20 °C to + 70 °C
Operating Humidity Up to 95% (non condensing)
Airspeed Range 1.5 m/s to 25m/s*

* The SMP69 can be mounted with inlet and outlet probes in line. However, minimum recommended airspeed is 2m/s in this application.

Sensitivity

MR601/901 (normal sensitivity)
Detector will respond $m > 0.25\text{dB/m}$
MF601/901 (normal sensitivity)
Detector will respond $\gamma > 1.2$.

Installation

The duct probe unit must be positioned correctly in the air flow, as shown. Where the probe units are sited in rectangular sectioned ducts, the probe tubes should also span the widest plane, in order to sample the greatest area. The exit probe tubes must not be mounted directly downstream from the entry tube. The duct probe unit is fixed to the duct wall, ensuring that the gasket makes an airtight seal. Check the inlet and outlet tubes are correctly orientated before clamping tight using the jubilee clips supplied. If the sampling probe tube is longer than 900mm, then a support bracket must be fitted to the far side of the duct.

Physical Characteristics Mechanical

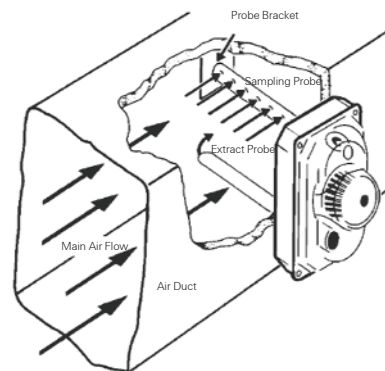
Dimensions	145 x 200 x 90mm
Weights	0.6Kg
Cable Entry	3 X M20 Gland Entry Knock Outs
Probe Tubes	20mm diameter, standard lengths from

Siting

Duct probe units should always be sited as near to the point of extraction from the room as possible and in lengthy duct work runs, at intervals along the run. Probes should be mounted at the least turbulent sections of the ducting. Avoid installation immediately behind fans, bends or work sections.

Warning

Duct probe units sited in the common duct work to several extract grills may fail to respond to smoke from any one extract due to the effect of dilution. The MP69 will not respond to airflow of less than 1.5m/sec.



Options

An M600/M900 detector base is fitted as standard in all MP69 duct probe units.

A type FC010 Pocket Manometer is available for pressure differential testing.

For full technical literature and installation instructions see O1B-06-D1 & O1B-06-I1 available via the website at www.tycofire.com.