

# Application

The body and probe tubes are manufactured from stainless steel 316. The SMP69 is designed to withstand the salty environments of the offshore oil and gas industries.

For installations where smoke or combustion products are likely to travel some distance before reaching the probe unit, it is recommended that an optical smoke detector is used in the SMP69. The SMP69 will accept tyco 600 and 900 Series optical and ion-chamber smoke detectors though for general applications optical detectors are recommended. For hazardous areas the Intrinsically Safe M300/500 Ex detectors must be used with an SMP35 Duct Probe Unit.

## Technical Information

### General

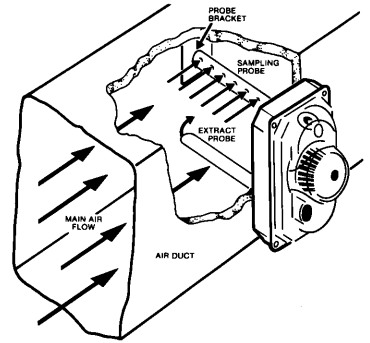
A duct probe unit monitors the moving air in a duct by diverting a small part of the airflow into the duct probe housing. The shape of the housing then efficiently guides the sampled air through the smoke detector and back into the duct via the exhaust tube.

On detecting smoke or combustion products, the detector goes into alarm. The LED indicator on the detector will illuminate and this 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.

## Installation

To avoid one tube being "shadowed" in airflow by the other it is recommended that the tubes be mounted side by side across the airflow as per sketch. If space does not permit this and the tubes have to be mounted in line with the airflow then the short exhaust tube should be mounted upstream.\* Where the probe units are sited in rectangular sectioned ducts the probe tubes should span the widest plane.

Screw the duct probe unit to the outside duct wall, ensuring that the duct probe gasket makes an airtight seal to the duct. Check the inlet and outlet tubes are correctly oriented with the inlet tube holes aligned into the airflow and the exhaust tube end cut away facing downstream. Then clamp 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 to support the tube.

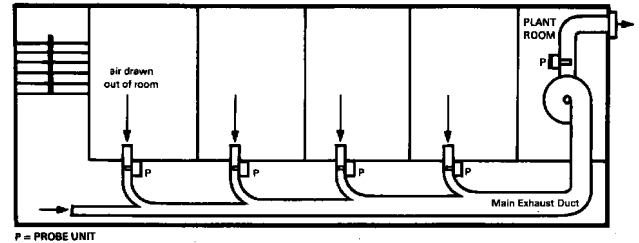


### Siting

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 SMP69 will not respond to airflow of less than 1.5m/sec.



## Physical Characteristics

### Mechanical

|              |   |
|--------------|---|
| Dimensions:  | 225 x 150 x 90mm  |
| Weight:      | 1.2kg (Housing only)  |
| Cable Entry: | 3 x M20 Gland Entries   |
| Probe Tubes: | 20mm diameter. Standard lengths available 525, 675, 825, 975, 1275, 1575mm. |

Note: The MR600T/900T versions must not be used with this Duct Probe.

## Operational Characteristics

### Environmental

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

\*if the SMP69 has to be mounted with the inlet and outlet tubes in line then the minimum recommended air speed is 2m/s.

## Options

Type FC010 Pocket Manometer for pressure differential testing. This purpose made meter allows the differential pressure across the tubes to be measured and the sampling tubes rotated to give optimum performance. It also allows the site engineer to check there is adequate pressure differential across the duct probe unit to give fast detection in the different operating modes of the ventilation system and in situations where the airflow cannot be easily measured.

For full technical literature and instruction see 01B-06-D1 & 01B-06-I1 available via the website at [www.tycofire.com](http://www.tycofire.com)

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**MINERVA**

**SMP69**

**DUCT PROBE UNIT  
STAINLESS STEEL**



**Fire systems**

**Features**

- Stainless steel 316 body and probe tubes
- Transparent lid for detector visibility
- Suitable for air speeds of 1.5-25m/sec.
- Optimised response to smoke particles
- Easy access for detector servicing
- Inlet baffle reduces smoke dilution for fast response
- For use with M600 and M900 series detectors
- Pocket manometer for testing