

# Heated Self Compensating Duct Probe

The heated Self Compensating Duct Probe (SCDP-H) has been designed for use in temperatures as low as  $-40^{\circ}\text{C}$ . When used with a GDA aspirator, it provides a complete duct sampling system capable of operating in hazardous areas. The SCDP-H allows simple, trouble free, representative sampling of duct environments.

The SCDP-H enables the drawing of a representative sample from the whole duct width regardless of flow rate or pressure in the duct. The design ensures equal sample volumes are drawn from each sampling point before combining them into the GDA aspirator.

## Benefits

- Allows duct sampling in low temperatures
- Eliminates the possibility of ice blockages
- Self regulating heating cable means no control circuitry is required
- Choice of 110 Vac or 230 Vac
- Ease of installation and maintenance

## Technical Specifications

### Certifications

- ATEX
- GOST R
- GOST K
- IECEx PTB 09.0009X

### Voltage Requirements

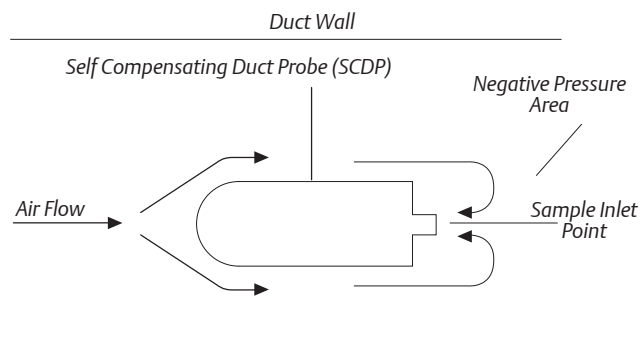
- 110 Vac / 230 Vac

### Dimensions

- Each SCDP-H is manufactured to fit exactly into a customers duct up to a maximum length of 4 meters



Diagram 1 - Cross Sectional View of SCDP in Duct



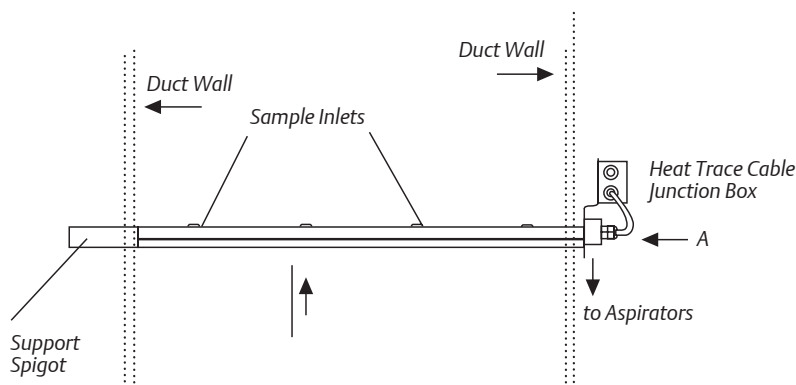
**Construction**

All external surfaces are 316 stainless steel. Internal components are constructed from either polytetrafluoroethylene (PTFE) or Delrin®, two plastics with excellent compatibility with corrosive gases. If required, neoprene sealing gaskets and Delrin® isolation sleeves can be provided to isolate the SCDP-H from duct walls.



The SCDP-H operates on the “reverse wing” principle (see diagram). The contour of the SCDP-H creates an area of



negative pressure on the opposite side to the airflow direction. The samples are drawn from this area behind the probe protecting the sample holes from becoming blocked by particulates in the air flow. Large particles are either too heavy to be drawn into the negative pressure area or impact on the SCDP-H’s face. In either case, the SCDP-H sampling holes remain unaffected.

**Diagram 2 - SCDP-H Mounted In Duct**



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