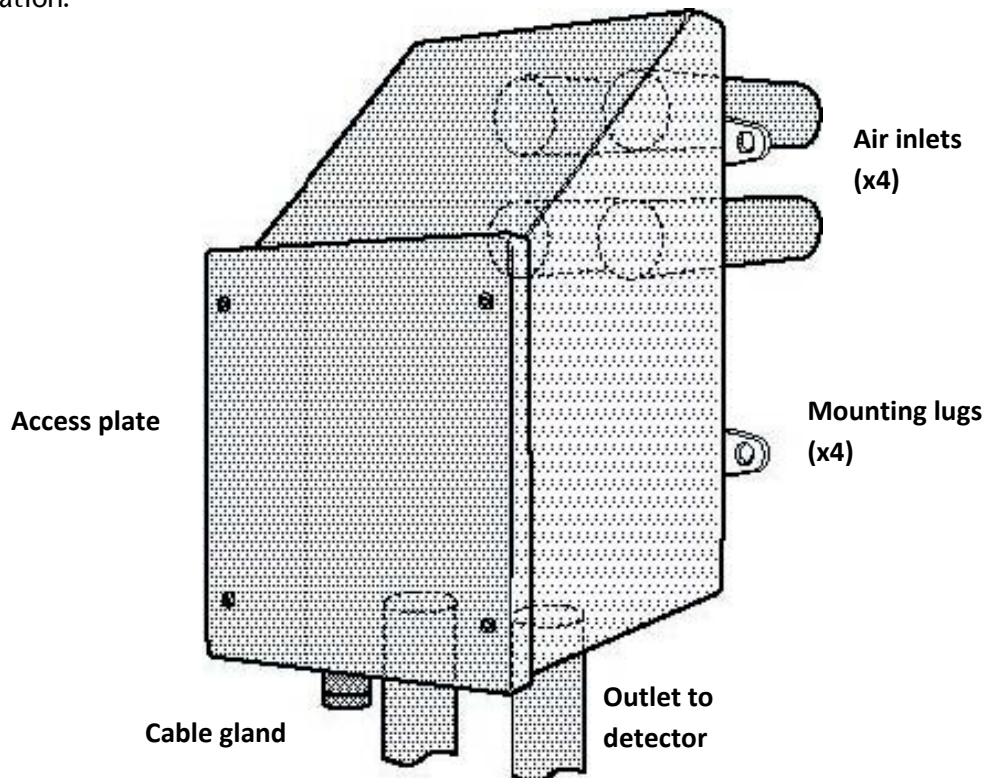


## Air Heater Box for Low Temperature Applications

### Overview

The Stratos™ range of High Sensitivity Aspirating Smoke Detectors are suitable for installation within an area only if the ambient temperature is expected to be above 0°C (the minimum operating temperature of a Stratos™ detector is typically -10°C: check the specification of the particular detector in question). Where the air temperature in the protected area is consistently below this temperature, it is imperative that the detector is mounted outside the protected area, in an environment where the temperature meets that specified for the detector. However, the sampled air from the protected area must be conditioned before it is passed into the detector.

The Air Heater Box is designed to raise the temperature of the air drawn from a very cold environment by passing it across a heating element before it passes into the detector. In this manner, the problem of condensation on sampling pipework external to the protected area is minimised. Warming the air sample will also ensure the components of the detector operate within the specified temperature tolerances, and it reduces the possibility of surface condensation.



- Inlets: - 4 x ¾ inch male ABS tank connectors (25mm optional). If metal sampling pipe is to be used, these can be changed to the appropriate connectors.
- Outlets:- 2 x ¾ inch male ABS tank connectors

## Installation

- Ensure the temperature of the selected location for the detector is within the specified limits (typically -10 to 60°C. Check the specification of the particular detector in question)
- The heater box should ideally be mounted approximately 300mm above the detector. To simplify interconnection, threaded socket unions should be used.
- Once the position of the heater box has been determined, access between the Heater Box sampling pipe inlets and the sampling pipes inside the protected area should be prepared. This penetration should be no more than 105 x 105mm. Care must be taken to restore any intumescent sealing, thermal insulation and air path sealing.
- If the mounting surface is corrugated or uneven, fix a suitable metal mounting plate.
- Offer the unit up to the opening and mark the position of the four fixing holes, using the mounting lugs as drill position guides.
- Connect ABS sampling pipes to the inlets, using joining sockets (when using sampling pipes in other materials, it may be necessary to fit stubs prior to fitting the heater box).
- Cap or plug and unused inlets and outlets, ensuring that an airtight seal is achieved.
- Fix the unit to the selected location with appropriate fasteners.
- Connect the Heater Box to a suitable electrical supply using insulated cable with a temperature rating of 105°C or better. Ensure that the individual wires are not under stress, and make sure that the cable is securely fixed in the cable gland with an airtight seal.
- The electrical supply should be from a 230V.AC unswitched spur fused at 3A.
- The heater box must be earthed.