



# Product Overview

The AX-TS-FS-x Frost protection Thermostat are a range of units for frost protection in the fresh air intake in air conditioning systems. These units provide a switched output based on the average temperature detected along a six metre capillary sensor. The unit is fixed across a duct, using capillary clips, downstream of the pre-heater or frost coil and is used to prevent the icing up of filters, fans and coils.

## Features

- Auto and Manual Reset Versions
- 6 Metre capillary
- Product Specifications

- 24A @230Vac Switch Rating
- Easy adjustment of setpoint

| Control Range:          | -10 to $+25$ deg C                                |  |  |
|-------------------------|---|--|--|
| Operating Voltage:      | 240Vac @ 50/60Hz                                  |  |  |
| Switch Type:            | SDPT Volt Free Contacts                           |  |  |
| Switch Rating:          | 24A(10) @ 230Vac                                  |  |  |
| Switching Differential: | 1.5 deg C (approx)                                |  |  |
| Capillary:              | 6 metres of 2mm diam copper                       |  |  |
| Ambient range:          |   |  |  |
| Housing                 | -50 to $+70$ degC                                 |  |  |
| Capillary               | -50  to + 150  deg C                              |  |  |
| Dimensions:             | 93 x 85 x 40mm (max)                              |  |  |
| Protection:             | IP44 as standard (IP65 option at additional cost) |  |  |
| Weight:                 | 580gms  |  |  |
| Country of Origin:      | EU  |  |  |
|                         |   |  |  |

# Order Codes

| AX-TS-FS-A    | - | Frost Protection Thermostat- Auto Reset   |
|---------------|---|---|
| AX-TS-FS-M    | - | Frost Protection Thermostat- Manual Reset |
| AX-TS-FS-FC   | - | Capillary Fixing Clips (pack of 5)        |
| AX-TS-FS-IP65 | - | IP65 Case for Frost Thermostat            |
| AX-TS-FS-H24  | - | 24Vac Heater                              |
| AX-TS-FS-H230 | - | 230Vac Heater                             |

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# AX-TS-FS-x Frost Protection Capillary Thermostats

# A**X**IO

### Dimensions



# Installation

The AX-TS-FS Frost protection thermostats should be installed by a suitably qualified technician only. The unit operates at mains voltage and should be installed in accordance with all prevailing regulations.

If the frost coil fails to operate, the thermostat switching can be used to close down the frsh air damper or supply fan. Not more than 100mm of the capillary should be located outside the control temperature. The unit will trip when 300mm of capillary falls below the setpoint temperature.

### **Contact function**

Thermostat contacts TS1 are labelled 1-2-4 where '1' refers to the common pole, '2' refers to the lower setpoint and '4' refers to the upper setpoint.

The contact function for automatic and manual reset versions is as described below.

### Automatic reset

On temperature rise above the upper setpoint, contacts 1-2 open and contacts 1-4 close. On decreasing temperature lower setpoint contacts 1-4 open and contacts 1-2 close.



Automatic reset contact function

### Manual reset low temperature

On decreasing temperature below the lower setpoint, contacts 1-4 open, contacts 1-2 close and latch. Only on pressure rise above upper setpoint and after pressing the manual reset button contacts 1-2 will open and contacts 1-4 will close again.



### Manual reset low pressure contact function

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