



TFS

### Features

- Waterproof potting option for refrigeration use
- IP40 Housing without potting
- IP67 Housing option

### General

The **TFS** is a direct output temperature sensor used for the detection of air temperature, especially in fan-coil units, floor heating etc.

Units contain either a high quality thermistor, Nickel or Platinum sensing element, which are compatible with most controls manufacturers equipment.

The sensing element is housed in a 25mm long acetal resin probe, with 2 metres of 2-core screened cable as standard.

Longer cable lengths are available to order along with a potted variant for low temperature applications and water submersion

Accuracy		
NTC	±0,20°C	0...70°C
PT 100a	±0,35°C	0...100°C
PT 1000a	±0,35°C	0...100°C
NI 1000a	±0,35°C	0...100°C

### Technical Data

<b>Output types</b>	Thermistor Resistive
<b>Probe material</b>	Acetal Resin
<b>Probe dimensions</b>	25mm x 6mm dia.
<b>Ambient range</b>	-10°C...+60°C
<b>Connection</b>	2-wire screened cable screw terminals 0,5 till 2,5mm <sup>2</sup> 3-wire for Pt100

### Function

The sensing elements change their resistance value with respect to temperature:

PT100, PT1000, NI1000 - increasing resistance by increasing temperature.

NTC - increasing resistance by decreasing temperature.

### Ordering Codes

<b>TFSNTC</b>	Unitron, Trend, Honeywell (Aquatrol), Thorn, Elesta, Ambiflex, Seachange, AP
<b>TFSPT100</b>	Inu, Serck, IVT, Satt, Exomatic
<b>TFSPT1000</b>	Cylon, Johnson, IVT, Exomatic, Honeywell, Bastec, Diana, KTC
<b>TFSTA</b>	TAC
<b>TFSNI1000</b>	Sauter, Exomatic
<b>TFSLGNI</b>	Siemens Landis & Staefa, Exomatic QAA 23, QAD 21
<b>TFSAND</b>	Andover, York <40°C, Siebe TS series
<b>TFSSAT1</b>	Satchwell DDT, DWT, DOS vissa
<b>TFSST1</b>	Staefa T1
<b>/5</b>	Supplement per 5m cable length
<b>/10</b>	Supplement per 10m cable length
<b>/R</b>	Supplement for waterproof potted



### Installation and Connection Details

All connections to DDC controllers, data recorders etc. should be made using screened cable.

Normally, the screen should be earthed at one end only (usually the controller end) to avoid earth hum loops which can create noise.

Low voltage signal and supply cables should be routed separately from high voltage or mains cabling.

Separate conduit or cable trays should be used.

Where possible, the controller's earth should be connected to a FUNCTIONAL EARTH, rather than the mains safety earth.

This will provide better immunity to high frequency noise.

Most modern buildings have a separate earth for this purpose.

### Connection

Connections are made via a 2-way terminal block.

The connections for a thermistor or an nickel/platina element are polarity independent.

