

Space Sensors



Features

- Designed to be aesthetically pleasing
- Blends into the fabric of any building
- Wide range of elements available

Specification

Output types:

Thermistor	Resistive
PT100a	Resistive
PT1000a	Resistive
NI1000a	Resistive
Set point	Resistive 1-11kΩ
Fan speed	Resistive (see page 3)
Mom. switch	N/O push button

Accuracy:

Thermistor	±0.2°C (0 to 70°C)
PT100a	±0.2°C @ 25°C
PT1000a	±0.2°C @ 25°C
NI1000a	±0.4°C @ 0°C

Housing:

Material	ABS (flame retardant)
Colour	polished white finish

Dimensions	115 x 85 x 28mm
Ambient range	-10 to 60°C
Country of origin	UK

Product Codes

TT-1000-A	(10K3A1) Trend, Seachange, Cylon
TT-1000-B	(10K4A1) Andover, Delta Controls
TT-1000-C	(20K6A1) Honeywell
TT-1000-D	(PT100a) Serck
TT-1000-E	(PT1000a) Cylon
TT-1000-F	(NI1000a) Sauter
TT-1000-G	(Ni1000a/TCR(LAN1)) Siemens, Landis & Staefa
TT-1000-H	(SAT1) Satchwell
TT-1000-K	(STA1) Landis & Staefa
TT-1000-L	(TAC1) TAC
TT-1000-M	(2.2K3A1) Johnson Controls
TT-1000-N	(3K3A1) Alerton
TT-1000-P	(30K6A1) Drayton
TT-1000-Q	(50K6A1) Ambiflex
TT-1000-S	(SAT2) Satchwell
TT-1000-T	(SAT3) Satchwell
TT-1000-W	(SIE1) Siebe
TT-1000-Y	(STA2) Landis & Staefa
TT-1000-Z	(NTC 10K) Carel Distech

Interface Options (add to above part codes)

-SP	2-Wire set point 1-11kΩ
-FS3	2-Wire resistive 3-position fan speed
-FS4	2-Wire resistive 4-position fan speed
-FS5	2-Wire resistive 5-position fan speed
-MS	Momentary switch

Technical Overview

The TT-1000 range of wall mounting temperature sensors can be fitted with a high quality thermistor, Nickel or Platinum PTC sensing elements. This flexibility ensures compatibility with a vast majority of controllers. The TT-1000 can be configured with a variety of user interface options including, set point control, fan speed switching (resistive) and momentary switches.

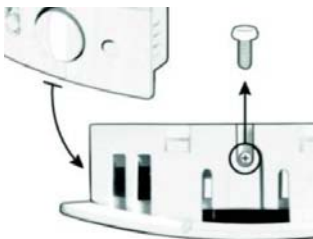
Pad Printing

Sensors are supplied with the Sontay logo as standard. Custom pad printing is available please contact sales for details.

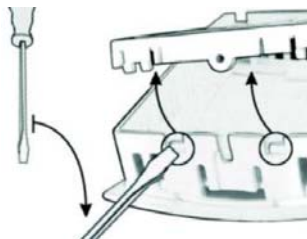
Installation

1. Select a location on a wall of the controlled space which will give a representative sample of the prevailing room condition. Avoid sitting the sensor in direct sunlight, on an outside wall or near heat sources. An idea mounting height is 1.5m from the floor.

2. Undo the tamperproof screw at the bottom of the housing.



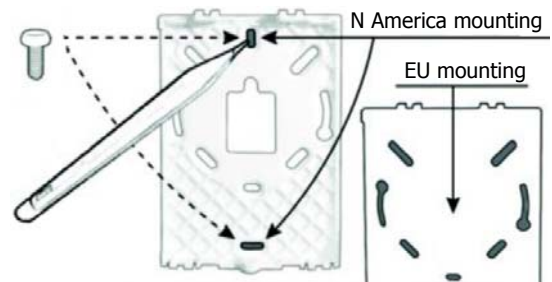
3. To remove the front panel from the base, twist a screwdriver as below and pull gently the front panel from the base.



4. Using the base as a template mark the hole centres and fix to the wall with suitable screws. Alternatively the base plate can be mounted on to a conduit box or standard recessed back box.

The base plate is suitable for EU & North America fixings.

Installation (continued)



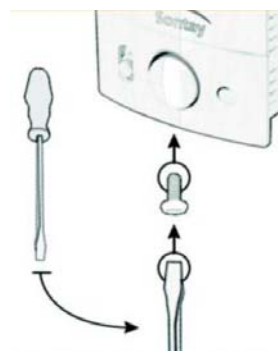
5. Feed cable through the hole in the base plate of the housing and terminate the cores at the terminal block as required. Leaving some slack inside the unit.



6. Replace the housing to the base plate.



7. Fit the tamperproof screw (if required) through the lug at the bottom of the base plate.



Fan speed switch

The position of the fan speed selector switch will cause the resistance between the terminals to alter as shown below.

Switch position	Output
Auto	Open circuit
3	22.7KΩ
2	26KΩ
1	29.3KΩ
Off	32.6KΩ

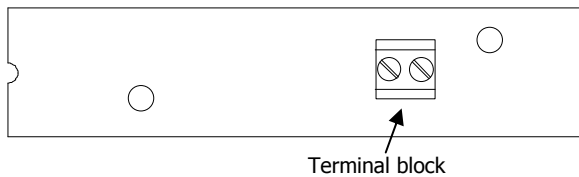
Momentary Switch

The momentary push button is rated at 24Vac/dc @ 500mA max.

Connections

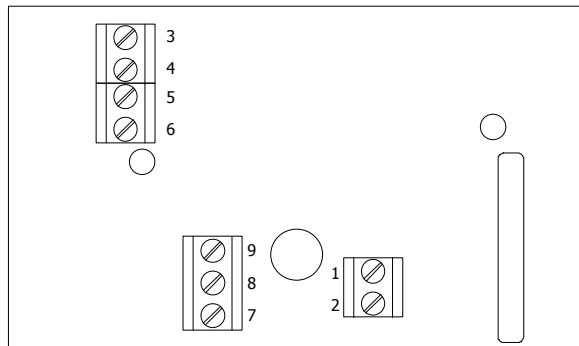
Temperature only:

The connections for a thermistor or an RTD element are polarity independent.



Temperature and options:

All connections are polarity independent.



1 & 2 Temperature

3 & 4 Fan speed, see above for resistive values

5 & 6 Momentary switch

7 & 8 Set point , resistive 1-11KΩ

Trend Scaling

IQ1xx and early IQ2x series (without type 5, characterise)
Thermistor A (10K3A1 TYPE 2 linearise thermistor volts)

(-10 to +40°)

Brange	-10
Trange	40
F	8.47
G	7.42
H	6.11
I	4.73
J	3.48

Q2xx and early IQ3 series (with type 5, characterise)

(-10 to +40°C)

	Resistance input	Temp. Output
1	5.32	40.0
2	5.89	37.5
3	6.53	35.0
4	7.24	32.5
5	8.05	30.0
6	8.96	27.5
7	10.00	25.0
8	11.16	22.5
9	12.49	20.0
10	14.00	17.5
11	15.71	15.0
12	17.67	12.5
13	19.90	10.0
14	22.47	7.5
15	25.40	5.0
16	28.79	2.5
17	32.66	0.0
18	37.18	-2.5
19	42.35	-5.0
20	55.30	-10.0

Upper	40.0
Lower	-10.0
Exp	3
Points used	20
Input type	3(kohms)