

Space Sensors

Features



- Wide range of elements available
- Wide range of switch/setpoint options

Specification

Output types:

Thermistor	Resistive
NI1000a	Resistive
Active	4-20mA or 0-10Vdc (selectable)

Accuracy:

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

Housing Material ABS (flame retardant)

Dimensions 85 x 85 x 23mm

Ambient range -10 to 60°C

Country of origin UK

Product Codes

TT-911-A	(10K3A1) Trend, Seachange, Cylon
TT-911-B	(10K4A1) Andover, Delta Controls
TT-911-C	(20K6A1) Honeywell
TT-911-G	(Ni1000a/TCR(LAN1)) Siemens, Landis & Staefa
TT-911-H	(SAT1) Satchwell
TT-911-L	(TAC1) TAC
TT-911-N	(3K3A1) Alerton
TT-911-P	(30K6A1) Drayton
TT-911-Z	(NTC 10K) Carel, Distech

Interface Options:

-SP	2 Wire 1-11KΩ set point
-FS3	3 Position fan speed switch
-FS4	4 Position fan speed switch
-FS5	5 Position fan speed switch
-LS	Latching switch (SPDT)
-MS	Momentary switch (SPDT, N/O)

Active output:

TT-911-CVO	4-20mA/0-10Vdc selectable output
TT-911-CVO-SP	4-20mA/0-10Vdc selectable output and set point
TT-911-CVO-C	4-20mA/0-10Vdc selectable output custom temp. scaling
TT-911-CVO-SP-C	4-20mA/0-10Vdc selectable output custom temp. scaling and set point

Technical Overview

The TT-911 range of wall mounting temperature sensors can be fitted with a high quality thermistor, Nickel or an active output. This flexibility ensures compatibility with a vast majority of controllers.

The TT-911 can be configured with a variety of user interface options including, set point control, fan speed switching (resistive) and latching or momentary switches.

Fan speed switch

The position of the fan speed selector switch will cause the resistance between terminals 1 and 2 to alter as shown below.

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

Switches

Both the momentary push button and the latching switch are rated at 24Vac/dc @ 500mA max.

Restrictions

No further options are available other than a set point if a 4-20mA, 0-10Vdc output temperature transmitter is fitted.

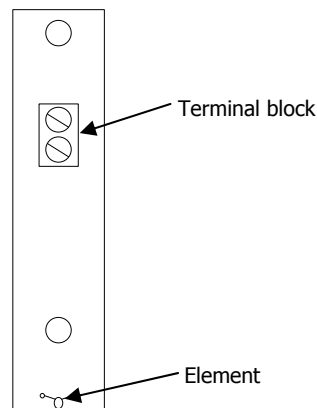
Installation

1. Undo the tamperproof screw at the bottom of the housing and gently pull the front panel from the base.
2. 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 a standard recessed back box.
3. Feed cable through the 22mm knockout in the base of the housing and terminate the cores at the terminal block as required. Leaving some slack inside the unit.
4. Replace the housing to the base plate.
5. Fit the tamperproof screw (if required) through the lug at the bottom of the base plate.

Connections

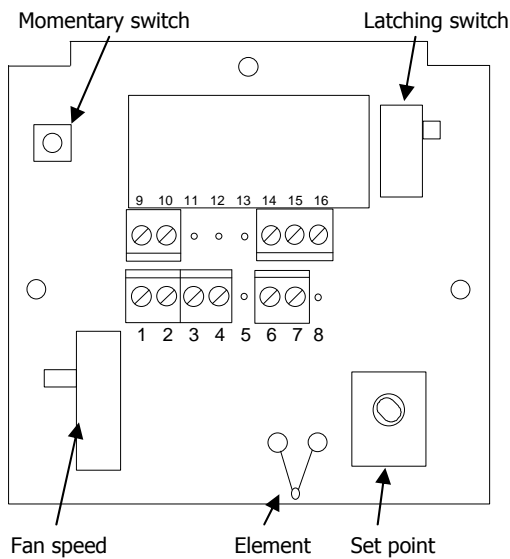
Passive output:

Connections for a passive temperature output are made via a 2-way terminal block. The connections for a thermistor or an RTD element are polarity independent.



When options are selected, connections are made using terminals on the PCB as shown on next page.

Connections



- 1 Fan speed
- 2 switch (resistive)
- 3 Passive
- 4 temperature
- 6 Setpoint (1-11KΩ)
- 7 Setpoint (1-11KΩ)
- 9 Momentary
- 10 switch
- 14 Common
- 15 Latching
- 16 Switch

4-20mA/0-10Vdc:

For full connection and specification please refer to the TT-CVO datasheet.

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)