

Flying Lead Sensors

Features

- Wide range of element types
- Waterproof potting option



Specification

Output types:

Thermistor	Resistive
PT100a	Resistive
PT1000a	Resistive
NI1000a	Resistive
Active	4-20mA or 0-10Vdc (selectable)

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

Probe:

Material	Acetal resin
Dimensions	25mm x 6mm dia. (not including outer heat shrink)

Protection:

Without potting	IP40
With potting	IP67

Ambient range	-10 to 60°C
Lead length	2m flying lead, screened
Country of origin	UK

Product Codes

TT-555-A	(10K3A1) Trend, Seachange, Honeywell Aquatrol
TT-555-B	(10K4A1) Andover, Delta Controls, York <40°C, Siebe
TT-555-C	(20K6A1) Honeywell
TT-555-D	(PT100a) Serck
TT-555-E	(PT1000a) Cylon
TT-555-F	(NI1000a) Sauter
TT-555-G	(Ni1000a/TCR(LAN1)) Siemens, Landis & Staefa
TT-555-H	(SAT1) Satchwell
TT-555-K	(STA1) Sauter
TT-555-L	(TAC1) TAC
TT-555-M	(2.2K3A1) Johnson Controls
TT-555-N	(3K3A1) Alerton
TT-555-P	(30K6A1) Drayton
TT-555-Q	(50K6A1) Ambiflex
TT-555-S	(SAT2) Satchwell
TT-555-T	(SAT3) Satchwell
TT-555-W	(SIE1) Siebe
TT-555-Y	(STA2) Siemens, Landis & Staefa

Active output:

TT-555-CVO	4-20mA/0-10Vdc selectable output
TT-555-CVO-C	4-20mA/0-10Vdc selectable output custom temp. scaling

Suffixes (at extra cost):

-5m	5 Meter cable length
-R	End cap potted for waterproofing

See page 2 for element type colour coding

NB The CVO transmitters are fitted into a double entry plant housing.

Technical Overview

The TT-555 range of flying lead temp. sensors are used for the detection of air temp., especially in fan-coil units etc. Units contain either a high quality thermistor, Platinum or Nickel sensing element or an active output, which are compatible with most controls manufactures equipment. The sensing element is housed in a acetal resin probe, with 2 metres of screened cable as standard.

Longer cable lengths are available to order (at extra cost) along with a potted variant for low temperature applications and water submersion.

Connections

Thermistor types:

The pre-stripped two wire connections are polarity independent and should be terminated as required. No terminal block is provided.

Platinum and Nickel types:

The pre-stripped two, three or four wire connections are polarity independent and should be terminated as required. No terminal block is provided.

4-20mA/0-10Vdc:

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

Element Type Colour Coding

Element code	Element type	Flying lead band colours
A	10K3A1	White
B	10K4A1	Green
C	20K6A1	Red/Blue
D	PT100A	Red/White
E	PT1000A	Black/Blue
F	NI1000A	Yellow/Yellow
G	NI1000A TCR (LAN1)	Yellow/Yellow
H	SAT1	White/White
K	STA1	Green/Black
L	TAC1	Blue/Yellow
M	2.2K3A1	Green/Blue
N	3K3A1	Red/Yellow
P	30K6A1	Black/Black
Q	50K6A1	Red/Green
S	SAT2	Red/Yellow
T	SAT3	White/White
W	SIE1	Green/Green
Y	STA2	Red/Yellow
Z	NTC 10	Green/Yellow
CVO	4-20mA/0-10Vdc	Red/White

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)	