

Thimble Temperature Sensors



Features:

- Wide range of sensing element types
- 2m Screened flying lead as standard
- Plastic, aluminium, stainless steel and brass finishes

Benefits:

- Discreet temperature measurement
- Can be mounted onto a back plate to match other electrical fittings

Technical Overview

The TT-518 range of thimble temperature sensors are used for measuring air temperature in indoor spaces. They are available in various finishes, plastic, aluminium, stainless steel and brass. Units contain either a high quality thermistor, Platinum or Nickel sensing element. Sensor types compatible with most controls manufacturers' equipment are available.

The -CVO active output option combines 4 pre-set ranges and selectable output mode, customised output range scaling enabling a choice of outputs and ranges on one unit.

Specification:

Output types:	
Passive	Resistive
Active (selectable)	Current 4-20mA or Voltage 0-10Vdc
Accuracy:	
Thermistor	±0.2°C 0 to 70°C (32 to 158°F)
PT100a	±0.2°C @ 25°C (77°F)
PT1000a	±0.2°C @ 25°C (77°F)
NI1000	±0.4°C @ 0°C (32°F)
-CVO	±0.4°C @ 25°C (77°F)
Housing dimensions:	
Plastic	45 x 27mm dia. (1.77 x 0.87")
Metal	30 x 19mm dia. (1.18 x 0.75")
Protection	IP30
Ambient range	-10 to +60°C (14 to 140°F)
Weight	80g (0.18lb)
Country of origin	UK



The TT-xxx-CVO products referred to in this data sheet meet the requirements of EU Directive 2004/108/E

Part Codes:

TT-518 Thimble sensor (ABS plastic off-white)

Sensing Element (add type to above code)

Passive output:

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

Active output:

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

Suffix (add to part code)

-AL	Aluminium thimble
-SS	Stainless steel thimble
-BR	Brass thimble
-BW	Brilliant white ABS plastic thimble
-5M	5m (16.40ft) cable length

Note. The -CVO transmitter is fitted into a double entry housing.

Installation:

1. Drill a suitable hole in the mounting surface.
2. Pass the flying lead and threaded body through the hole. Secure with the M16 fixing nut provided.
3. Make electrical connections as required.

Connections:

All connections to BEMS 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.

Passive output:

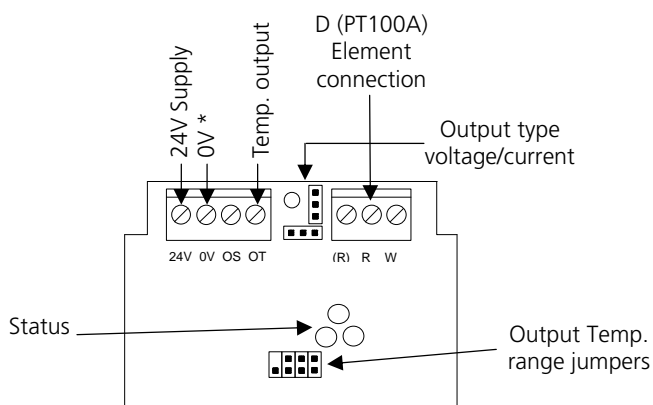
Thermistor:

The pre-stripped 2-wire connections are polarity independent and should be terminated as required. No terminal block is provided.

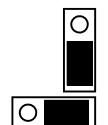
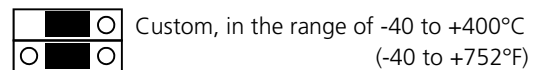
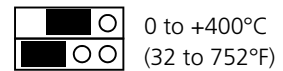
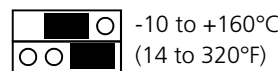
Platinum and nickel types:

The pre-stripped 2, 3 or 4-wire connections are polarity independent and should be terminated as required. No terminal block is provided.

Active output:



* Not required with 4-20mA output



0-10Vdc



4-20mA

Connections (continued):

Notes:

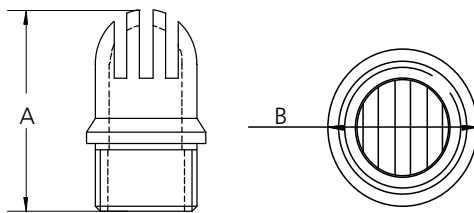
Voltage output Nominal voltage 24Vac/dc.

Current output If using in current output mode, the sensor must only be used with a 24Vdc supply. The sensor may be damaged if supplied with AC.

The selectable output temperature ranges are dependent on sensor type, ambient and application.

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

Dimensions:



A =	Plastic 45mm	Others 30mm
B =	Plastic 22mm	Others 19mm

Whilst every effort has been made to ensure the accuracy of this specification, Sontay cannot accept responsibility for damage, injury, loss or expense from errors or omissions. In the interest of technical improvement, this specification may be altered without notice.

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