

T H E R M O M E T R I C S
A C O M M I T M E N T T O E X C E L L E N C E

Self-Adhering Surface Temperature Sensors



Thermometrics range of Self-Adhering Surface Temperature Sensors are designed for industrial HVACR applications, typically for placement on the external wall of a water tank or boiler reservoirs. They are also suitable for reservoir tanks working in conjunction with solar panel water heating systems. This range of adhesive pad sensors detect over-temperature resulting from a malfunction or a dry-fire.

Pressure sensitive adhesive tapes loaded with ceramic powders provide high thermal conductivity and thus excellent heat transfer from the heat source to a NTC thermistor while maintaining appropriate levels of dielectric strength. An adhesive lined foam backing tape provides air and moisture resistance with optional WRC (5470) water safety and DIN 4102 part 1 (B3) fire safety approvals.

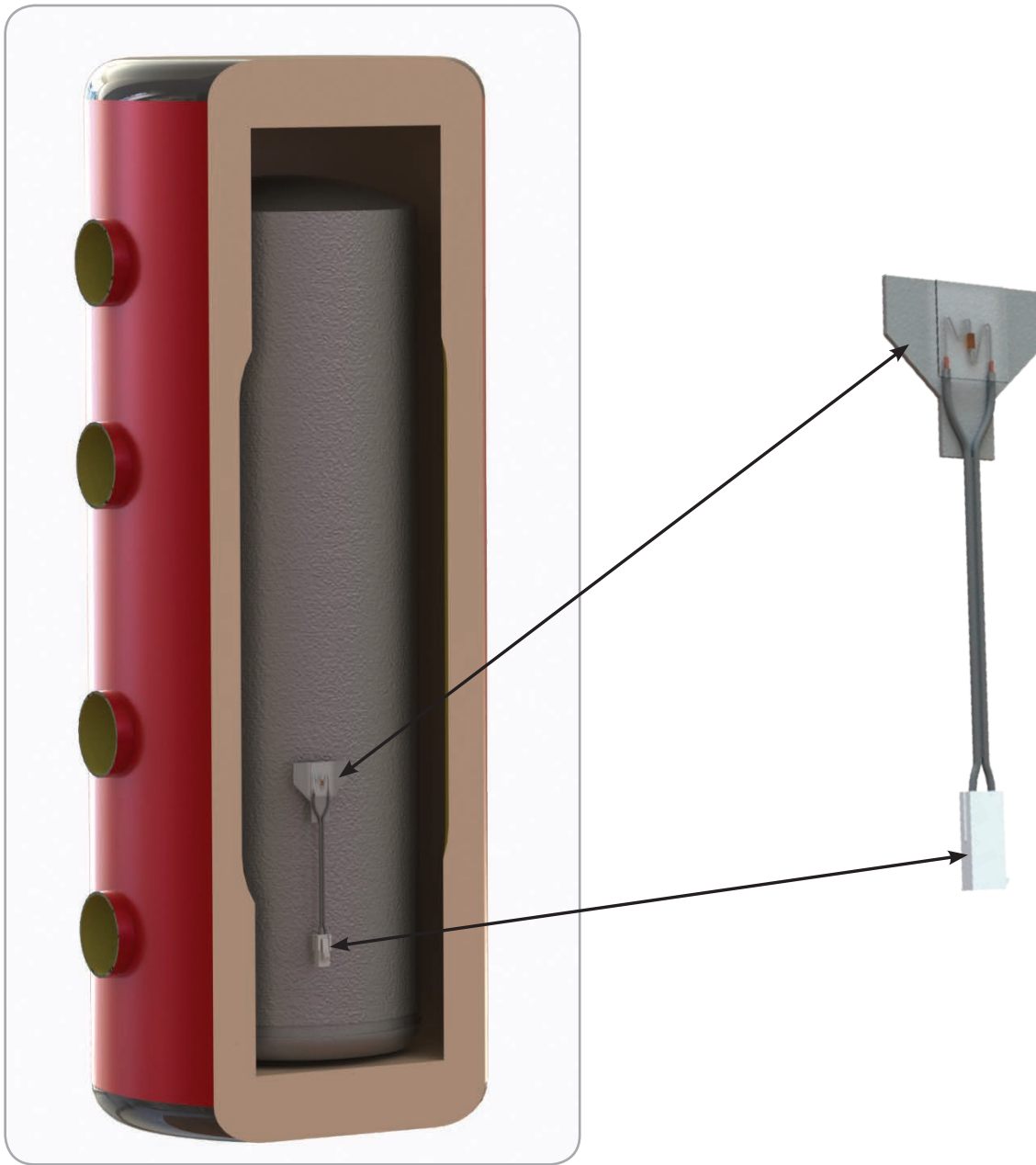
Features

- Excellent heat transfer
- Long-term stability
- Multiple adhesive tape sizes and shapes available
- Various lengths
- Temperature ranges from -30°C to $+70^{\circ}\text{C}$.
- PVC single insulated lead wire, 3x1.5mm cross-sectional profile.
- Voltage withstand: 750 Vac between the terminals of the connector and the contact tape, for a broadly sinusoidal wave form at 50Hz, where the max permissible current is 1mA.

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Product Applications

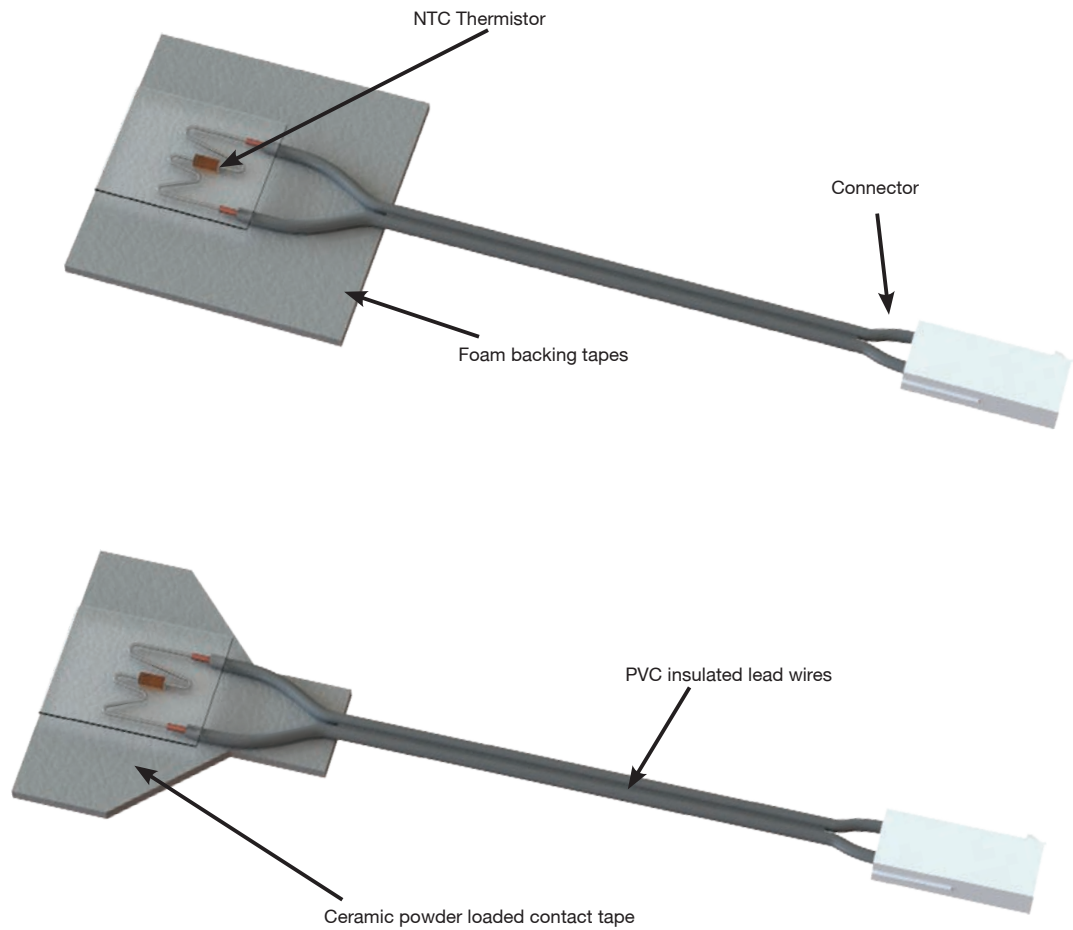


Placement on Water Heater Tank

The sensors are designed to work in predominantly dry environments and are particularly suited for domestic applications where they can be positioned between the water tank and an insulating jacket as shown. The sensors should NOT be used externally where they can be subjected to wind, rain and direct sun.

Residual oil on the surface of a metallic tank, resulting from a drawing process, can cause a loss of adhesion. Oil residuals should be cleaned away before the application of the sensor.

Product Design



Specifications

Part number	Foam backing size / mm	Full length / mm	Connector type
JS4298	45x45, square	700	Molex 5559-02P1
JS5698	45x45, square	750	Molex 5559-02P1
JS6670	45x45, square	280	Molex 5559-02P1
JS6862	45x45, square	650	Molex 5559-02P1
JS6744	45x45, square	320	Molex 5559-02P1
JS6812	45x45, square	420	Molex 5559-02P1
JS5539	30 wide x 70 long, rectangular	125	Molex 5559-02P1
JS7289	45 wide x15 long & 15 wide x 15 long, tapered	320	Molex 5559-02P1
JS7290	45 wide x15 long & 15 wide x 15 long, tapered	420	Molex 5559-02P1
JS7352	45 wide x15 long & 15 wide x 15 long, tapered	160	Molex 5559-02P1

Thermal Equilibrium Resistance vs. Temperature Table

Temp °C	Nom R (Ω)	R min (Ω)	R max (Ω)	R Tolerance $\pm\%$	Temperature tolerance °C
-30	174167	161575	186759	7.23	1.17
-25	128518	119615	137422	6.93	1.16
-20	95795	89439	102151	6.64	1.15
-15	72093	67513	76673	6.35	1.14
-10	54755	51427	58083	6.08	1.13
-5	41952	39513	44391	5.81	1.11
0	32412	30611	34213	5.56	1.10
5	25242	23902	26582	5.31	1.08
10	19808	18805	20812	5.07	1.06
15	15658	14902	16415	4.83	1.04
20	12464	11890	13038	4.60	1.03
25	9988	9550	10426	4.38	1.01
30	8055	7720	8391	4.17	0.98
35	6537	6278	6795	3.96	0.96
40	5335	5135	5536	3.76	0.94
45	4380	4224	4535	3.56	0.91
50	3614	3493	3736	3.37	0.89
55	2999	2903	3094	3.18	0.86
60	2500	2425	2575	3.00	0.84
65	2095	2028	2161	3.18	0.91
70	1763	1704	1822	3.35	0.98

Specifications :

B25/85 : 3960K +/- 1%

R25 (nom) : 10K Ohm

Accuracy @ 63°C : +/- 0.88°C

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