

T H E R M O M E T R I C S
A COMMITMENT TO EXCELLENCE

Cable Probe Temperature Sensors



Thermometrics range of Thermometrics Cable Probe Temperature Sensors are designed for industrial HVACR applications. The sensors consist of resin potted NTC thermistors encapsulated within metal housings, extension cables and connector systems.

Applications

- Water heating
- Refrigeration
- Air conditioning systems

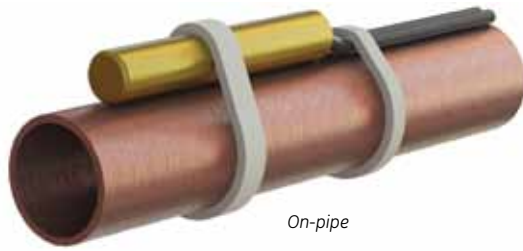
The sensors are usually strapped directly to the measurement surface or positioned in a 'dry well' and a grommet or cable tie is used to secure the sensor in position, as depicted on page 2.

Features

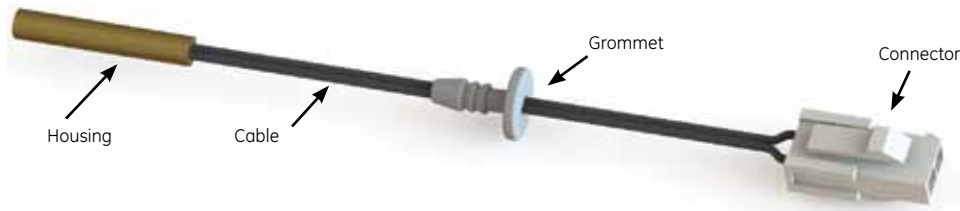
- IP66 rated
- Long-term stability
- Multiple connectors available
- Good thermal response time
- Various cable lengths
- Aluminum, Brass, Copper and PVC sleeve housing options
- Maximum temperature to +105°C

Amphenol
Advanced Sensors

Product Applications



Product Design and Specifications



Part Number	Housing Material	Housing Dimensions /mm	Resistance at (T ref) /Ω	B (25/85) / K	Cable description	Cable length /mm
JS4710	Brass	5x30	12,000 (25) 950 (100) ±5%	3740 ±1%	PVC (single ins)	300
JS6234	Brass	5x30	12,000 (25) 950 (100) ±5%	3740 ±1%	PVC (single ins)	1500
JS6957	Brass	5x30	12,000 (25) 950 (100) ±5%	3740 ±1%	PVC (single ins)	135
JS8042	Brass	5x30	12,000 (25) 950 (100) ±5%	3740 ±1%	PVC (single ins)	300
JS4833	Brass	5x30	10,000 (25) ±1%	3977 ±0.75%	PVC (single ins)	1485
JS4832	Brass	5x30	10,000 (25) ±1%	3977 ±0.75%	PVC (single ins)	1235
JS5514	Brass	5x30	10,000 (25) ±3%	3977 ±0.75%	PVC (single ins)	840
JS5515	Brass	5x30	10,000 (25) ±3%	3977 ±0.75%	PVC (single ins)	840
JS4676	Aluminium	5.8x26	10,000 (25) 2,500 (60) ±3%	3960 ±1%	PVC (single ins)	300
JS3686	PVC Sleeve	-	10,000 (25) 2,500 (60) ±3%	3960 ±1%	PVC (single ins)	700
JS5446	Aluminium	5.8x26	10,000 (25) 2,500 (60) ±3%	3960 ±1%	PVC (single ins)	800
JS7231	Copper	6.5x32	10,000 (25) ±3%	3977±0.75%	PVC (Double ins)	1000 & 2000

Part Number	Connector system	Grommet	Series Resistor / Ω	Max Temp / °C	V(ac) strength/ V (1mA)	IP Rating
JS4710	Molex 5559	Yes	No	105	750	IP66
JS6234	Molex 5559	Yes	No	105	750	IP66
JS6957	Molex 5559	Yes	No	105	750	IP66
JS8042	Molex 5559	No	No	105	750	IP66
JS4833	Polehousing CTH1300/2	Yes	No	105	1500	IP66
JS4832	Polehousing CTH1300/2	Yes	No	105	1500	IP66
JS5514	Polehousing CTH1300/2	Yes	330	105	1500	IP66
JS5515	Polehousing CTH1300/2	Yes	470	105	1500	IP66
JS4676	Molex 5559	No	No	105	750	IP66
JS3686	Molex 5559	No	No	105	750	IP66
JS5446	Molex 5559	No	No	105	750	IP66
JS7231	-	No	No	105	750	IP66

Thermal Equilibrium Temperature vs. Resistance Tables

JS5514 and JS5515							
Temp °C	R nom /Ω	R min /Ω	R max /Ω	R Tol /- %	R Tol /+ %	T Tol /+ °C	T Tol /- °C
0	32640	31288	34019	-4.14	4.23	0.81	-0.83
5	25391	24400	26397	-3.90	3.96	0.79	-0.80
10	19902	19172	20640	-3.67	3.71	0.76	-0.77
15	15713	15173	16258	-3.44	3.47	0.74	-0.74
20	12493	12092	12897	-3.22	3.23	0.71	-0.71
25	10000	9700.0	10300	-3.00	3.00	0.68	-0.68
30	8055.9	7797.4	8315.6	-3.21	3.22	0.75	-0.76
35	6530.0	6307.2	6754.6	-3.41	3.44	0.82	-0.83
40	5324.6	5132.4	5519.0	-3.61	3.65	0.90	-0.91
45	4366.5	4200.6	4535.0	-3.80	3.86	0.97	-0.99
50	3600.5	3457.0	3746.6	-3.99	4.06	1.05	-1.07
55	2984.6	2860.3	3111.5	-4.17	4.25	1.13	-1.15
60	2486.6	2378.6	2597.1	-4.34	4.44	1.21	-1.23
65	2081.8	1987.9	2178.1	-4.51	4.63	1.29	-1.32
70	1751.1	1669.2	1835.3	-4.68	4.81	1.37	-1.41
75	1479.6	1408.0	1553.3	-4.84	4.99	1.45	-1.50
80	1255.6	1192.9	1320.4	-4.99	5.16	1.54	-1.59
85	1070.0	1015.0	1127.0	-5.14	5.33	1.63	-1.69
90	915.55	867.10	965.83	-5.29	5.49	1.72	-1.78
95	786.43	743.69	830.89	-5.44	5.65	1.81	-1.88
100	678.07	640.26	717.46	-5.58	5.81	1.90	-1.98

JS4833 and JS4832							
Temp °C	R nom /Ω	R min /Ω	R max /Ω	R Tol /- %	R Tol /+ %	T Tol /+ °C	T Tol /- °C
0	32640	32028	33260	-1.87	1.90	0.37	-0.37
5	25391	24962	25824	-1.69	1.71	0.34	-0.35
10	19902	19601	20205	-1.51	1.52	0.31	-0.32
15	15713	15504	15924	-1.33	1.34	0.29	-0.29
20	12493	12348	12639	-1.17	1.17	0.26	-0.26
25	10000	9900.0	10100	-1.00	1.00	0.23	-0.23
30	8055.9	7962.4	8149.7	-1.16	1.16	0.27	-0.27
35	6530.0	6444.1	6616.4	-1.32	1.32	0.32	-0.32
40	5324.6	5246.5	5403.3	-1.47	1.48	0.36	-0.37
45	4366.5	4296.1	4437.7	-1.61	1.63	0.41	-0.42
50	3600.5	3537.3	3664.5	-1.76	1.78	0.46	-0.47
55	2984.6	2928.1	3041.9	-1.89	1.92	0.51	-0.52
60	2486.6	2436.1	2537.8	-2.03	2.06	0.56	-0.57
65	2081.8	2036.8	2127.5	-2.16	2.20	0.62	-0.63
70	1751.1	1711.0	1791.8	-2.29	2.33	0.67	-0.68
75	1479.6	1443.9	1515.9	-2.41	2.46	0.72	-0.74
80	1255.6	1223.8	1288.0	-2.53	2.58	0.78	-0.80
85	1070.0	1041.7	1099.0	-2.65	2.71	0.84	-0.86
90	915.5	890.28	941.43	-2.76	2.83	0.90	-0.92
95	786.4	763.86	809.59	-2.87	2.94	0.96	-0.98
100	678.07	657.87	698.81	-2.98	3.06	1.02	-1.04

JS4676, JS3686 and JS5446

Temp °C	R nom /Ω	R min /Ω	R max /Ω	R Tol /- %	R Tol /+ %	T Tol /+ °C	T Tol /- °C
0	32816	31023	34682	-5.47	5.69	1.07	-1.11
5	25528	24193	26912	-5.23	5.42	1.06	-1.10
10	20009	19009	21043	-5.00	5.16	1.04	-1.08
15	15798	15044	16575	-4.77	4.92	1.03	-1.06
20	12561	11989	13148	-4.55	4.68	1.01	-1.03
25	10054	9617.6	10501	-4.34	4.44	0.99	-1.01
30	8099.4	7764.6	8441.1	-4.13	4.22	0.97	-0.99
35	6565.3	6307.1	6827.8	-3.93	4.00	0.95	-0.97
40	5353.4	5153.4	5556.1	-3.74	3.79	0.93	-0.94
45	4390.1	4234.5	4547.4	-3.54	3.58	0.91	-0.92
50	3620.0	3498.4	3742.4	-3.36	3.38	0.88	-0.89
55	3000.7	2905.4	3096.4	-3.18	3.19	0.86	-0.86
60	2500.0	2425.0	2575.0	-3.00	3.00	0.83	-0.83
65	2093.0	2026.6	2159.6	-3.17	3.18	0.90	-0.91
70	1760.5	1701.7	1819.7	-3.34	3.36	0.98	-0.98
75	1487.6	1435.5	1540.2	-3.50	3.54	1.05	-1.06
80	1262.4	1216.2	1309.2	-3.66	3.71	1.13	-1.14
85	1075.8	1034.8	1117.5	-3.81	3.87	1.21	-1.23
90	920.49	884.00	957.63	-3.96	4.03	1.29	-1.31
95	790.68	758.18	823.83	-4.11	4.19	1.37	-1.40
100	681.73	652.74	711.37	-4.25	4.35	1.45	-1.48

JS4710, JS6234, JS6957 and JS8042

Temp °C	R nom /Ω	R min /Ω	R max /Ω	R Tol /- %	R Tol /+ %	T Tol /+ °C	T Tol /- °C
0	36269	33223	39495	-8.40	8.89	1.75	-1.86
5	28652	26308	31127	-8.18	8.64	1.76	-1.86
10	22797	20980	24710	-7.97	8.39	1.77	-1.86
15	18263	16845	19752	-7.77	8.15	1.78	-1.87
20	14728	13613	15894	-7.57	7.92	1.79	-1.87
25	11951	11070	12871	-7.38	7.69	1.79	-1.87
30	9756.5	9055.3	10486	-7.19	7.47	1.80	-1.87
35	8010.9	7449.8	8592.7	-7.00	7.26	1.80	-1.87
40	6614.0	6162.5	7080.7	-6.83	7.06	1.81	-1.87
45	5489.6	5124.4	5866.1	-6.65	6.86	1.81	-1.87
50	4579.6	4282.7	4884.8	-6.48	6.66	1.81	-1.86
55	3839.1	3596.6	4087.8	-6.32	6.48	1.82	-1.86
60	3233.5	3034.4	3437.0	-6.16	6.29	1.82	-1.86
65	2735.7	2571.6	2903.0	-6.00	6.12	1.82	-1.85
70	2324.6	2188.7	2462.7	-5.85	5.94	1.82	-1.85
75	1983.5	1870.5	2098.0	-5.70	5.78	1.82	-1.84
80	1699.2	1604.9	1794.6	-5.55	5.61	1.82	-1.84
85	1461.4	1382.3	1541.0	-5.41	5.45	1.82	-1.83
90	1261.5	1195.0	1328.3	-5.27	5.30	1.81	-1.82
95	1092.8	1036.7	1149.1	-5.13	5.15	1.81	-1.82
100	950.00	902.50	997.50	-5.00	5.00	1.81	-1.81

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