

# TPE OM Probe with SS Housing Ø 6 x 50mm



- Double insulated TPE overmolded probe with the addition of stainless steel housing
- Ideal for refrigeration and HVAC applications
- 24 AWG double insulated cable
- IP 68 Rated
- Mounting clip available to aid installation
- Available in a variety of connector types
- RoHS Compliant

## DESCRIPTION

This assembly consists of a NTC thermistor soldered to a TPE extension cable. The sensor and the extension cable are moulded together as one hot vulcanised unit to give a high degree of protection against water/moisture ingress. The sensor is protected from mechanical damage by the stainless steel housing.

## FEATURES

- 24AWG double insulated TPE cable
- IP 68 Rated
- Insulation Resistance 100MΩ @ 500VDC
- Available in a variety of connector types
- Customized tolerances and resistances available on request
- Temperature range -40°C to +125°C

## APPLICATIONS

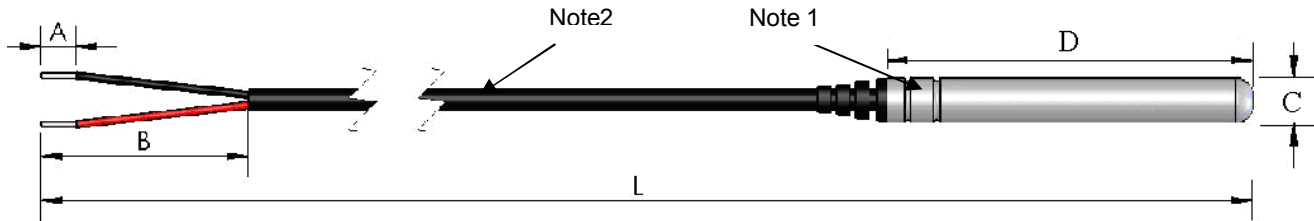
- Refrigeration and HVAC applications
- Industrial Process Control
- Immersion Applications

## PERFORMANCE SPECS

Parameters	Units	Value
Nominal Resistance at +25°C	Ohms	10000
Tolerance at +25°C	%	± 1
Beta Value <sub>25/85</sub>	K	3435
Tolerance on Beta Value	%	± 2
Time Response (+75°C to +25°C Water Bath)	Seconds	~24
Di-electric Strength (Core wires-cap 60Sec)	Vac	>2750
Dissipation Constant (Probe in still air)	mW/°C	4

# TPE OM Probe with SS Housing Ø 6 x 50mm

## MECHANICAL DETAILS



	Dimension			
	A	B	C	D
	5 ± 1mm	35 ± 3mm	Ø 6mm	50 ± 1mm
Note 1	Stainless Steel Housing			
Note 2	24AWG (7/32) Tin plated copper cable with Black TPE jacket (Temp. Rating +125°C)			

Figure 1: TPE Overmoulded Probe with SS Housing Ø 6 x 50mm

## RESISTANCE V TEMPERATURE TABLE

Temp. °C	K Ohms	Temp. °C	K Ohms	Temp. °C	K Ohms	Temp. °C	K Ohms
-40	197.734	-17	59.506	6	21.204	29	8.622
-39	186.893	-16	56.714	7	20.339	30	8.313
-38	176.719	-15	54.070	8	19.514	31	8.016
-37	167.167	-14	51.565	9	18.727	32	7.731
-36	158.196	-13	49.191	10	17.976	33	7.458
-35	149.765	-12	46.940	11	17.259	34	7.196
-34	141.840	-11	44.806	12	16.575	35	6.944
-33	134.386	-10	42.782	13	15.922	36	6.703
-32	127.373	-9	40.861	14	15.298	37	6.471
-31	120.771	-8	39.038	15	14.702	38	6.248
-30	114.555	-7	37.306	16	14.132	39	6.035
-29	108.698	-6	35.662	17	13.587	40	5.829
-28	103.179	-5	34.099	18	13.067	41	5.631
-27	97.975	-4	32.615	19	12.569	42	5.442
-26	93.067	-3	31.203	20	12.092	43	5.259
-25	88.435	-2	29.860	21	11.636	44	5.084
-24	84.064	-1	28.583	22	11.200	45	4.915
-23	79.935	0	27.368	23	10.783	46	4.753
-22	76.036	1	26.212	24	10.383	47	4.596
-21	72.351	2	25.111	25	10.000	48	4.446
-20	68.867	3	24.062	26	9.633	49	4.302
-19	65.573	4	23.063	27	9.282	50	4.162
-18	62.456	5	22.111	28	8.945	51	4.028

# TPE OM Probe with SS Housing Ø 6 x 50mm

52	3.899	71	2.164	90	1.266	109	0.775
53	3.775	72	2.102	91	1.233	110	0.757
54	3.655	73	2.041	92	1.200	111	0.738
55	3.539	74	1.982	93	1.169	112	0.720
56	3.428	75	1.925	94	1.138	113	0.703
57	3.321	76	1.871	95	1.108	114	0.686
58	3.218	77	1.818	96	1.080	115	0.670
59	3.118	78	1.766	97	1.052	116	0.654
60	3.022	79	1.717	98	1.025	117	0.639
61	2.930	80	1.669	99	0.999	118	0.624
62	2.840	81	1.622	100	0.973	119	0.609
63	2.754	82	1.578	101	0.948	120	0.595
64	2.671	83	1.534	102	0.924	121	0.581
65	2.591	84	1.492	103	0.901	122	0.567
66	2.513	85	1.451	104	0.879	123	0.554
67	2.439	86	1.412	105	0.857	124	0.542
68	2.366	87	1.374	106	0.836	125	0.529
69	2.297	88	1.337	107	0.815		
70	2.229	89	1.301	108	0.795		

## ORDERING INFORMATION

Part Number	Description	Ω @25°C	MOQ
<b>10K3435DMS010</b>	TPE OMP with SS Housing Ø6 x 50mm Length 1 meter	10000	1000*
<b>10K3435DMS020</b>	TPE OMP with SS Housing Ø6 x 50mm Length 2 meters	10000	1000*
<b>10K3435DMS030</b>	TPE OMP with SS Housing Ø6 x 50mm Length 3 meters	10000	1000*

\* For quantities less than Minimum Order Quantity – contact distribution

### NORTH AMERICA

Measurement Specialties, Inc.  
910 Turnpike Road  
Shrewsbury, MA 01545  
Tel: 1-508-842-0516  
Fax: 1-508-842-0342  
Sales:  
[temperature.cs.amer@meas-spec.com](mailto:temperature.cs.amer@meas-spec.com)

### EUROPE

Measurement Specialties, Inc  
Ballybrit Business Park  
Galway Ireland  
Tel: +353-91-753238  
Fax: +353-91-770789  
Sales:  
[temperature.cs.emea@meas-spec.com](mailto:temperature.cs.emea@meas-spec.com)

### ASIA

Measurement Specialties (China) Ltd.  
No. 26, Langshan Road,  
Shenzhen High-tech Park (North)  
Nanshan District, Shenzhen,  
China 518057  
Sales:  
[temperature.cs.asia@meas-spec.com](mailto:temperature.cs.asia@meas-spec.com)

The information in this sheet has been carefully reviewed and is believed to be accurate; however, no responsibility is assumed for inaccuracies. Furthermore, this information does not convey to the purchaser of such devices any license under the patent rights to the manufacturer. Measurement Specialties, Inc. reserves the right to make changes without further notice to any product herein. Measurement Specialties, Inc. makes no warranty, representation or guarantee regarding the suitability of its product for any particular purpose, nor does Measurement Specialties, Inc. assume any liability arising out of the application or use of any product or circuit and specifically disclaims any and all liability, including without limitation consequential or incidental damages. Typical parameters can and do vary in different applications. All operating parameters must be validated for each customer application by customer's technical experts. Measurement Specialties, Inc. does not convey any license under its patent rights nor the rights of others.