

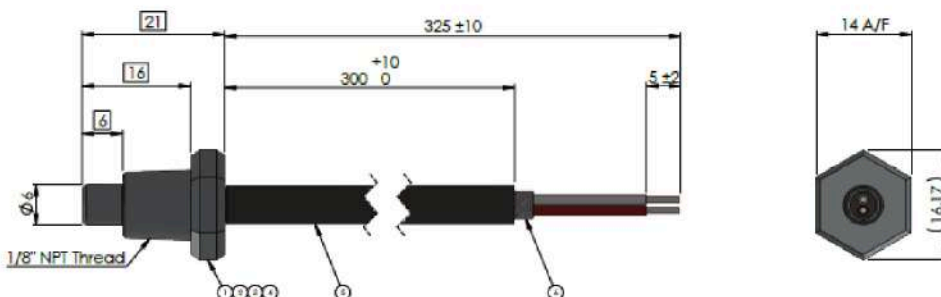


- ▶ **Cost effective standard model**
- ▶ **Robust and compact design**
- ▶ **For harsh environments**
- ▶ **Wide environmental temperature range**

The ETP-MO-SP has been specifically designed for demanding temperature measurement tasks as can be found in motor vehicles. The probe is designed to withstand shock and vibration due to a robust overall construction. The selected materials are oil and fuel resistant for use in typical mobile applications whilst supporting a wide environmental temperature range.

Specifications	
Element:	NTC Thermistor
Resistance at +25 °C:	10000 Ω
Resistance Tolerance at +25°C	±1%
Beta Value 25/85 constant	3435K ± 1%
Working temperature:	-40° C to +230° C
Environmental temperature:	-40° C to +150° C
Sealing:	IP67
Housing:	316 stainless steel
Cable:	2 core AWG 20 oil/fuel resistant cable with stainless steel braid
Heat shrink:	Raychem DR-25

Dimensions in mm



Ordering information

Order code: 25936-ETP-MO-SP-1/8NPT-30-G1B-10k3435-1

Resistance vs. temperature table for 10k3435-1

R(25) = 10000 Ohm

B(25/85) = 3435K

Temp. (°C)	R _{min} (KΩ)	R _{nom.} (KΩ)	R _{max} (KΩ)								
-40	194.3148	202.2693	210.5284	0	26.9448	27.4936	28.0508	42	5.3509	5.438	5.5259
-39	183.6545	191.0637	198.7519	1	25.8102	26.3245	26.8463	43	5.1698	5.2557	5.3425
-38	173.6512	180.5546	187.7137	2	24.73	25.2119	25.7006	44	4.9957	5.0804	5.1661
-37	164.2602	170.6944	177.3629	3	23.7012	24.1527	24.6103	45	4.8283	4.9119	4.9964
-36	155.44	161.4387	167.6521	4	22.7213	23.1442	23.5726	46	4.6674	4.7498	4.8331
-35	147.1525	152.7468	158.5379	5	21.7874	22.1835	22.5846	47	4.5127	4.5939	4.6761
-34	139.362	144.5807	149.9798	6	20.8972	21.2682	21.6436	48	4.3639	4.4439	4.5249
-33	132.0356	136.9052	141.9402	7	20.0485	20.3959	20.7472	49	4.2207	4.2995	4.3793
-32	125.1427	129.6879	134.3847	8	19.2392	19.5644	19.8931	50	4.0829	4.1605	4.2391
-31	118.6551	122.8985	127.281	9	18.467	18.7714	19.0789	51	3.9504	4.0268	4.1042
-30	112.5462	116.5089	120.5991	10	17.7303	18.0151	18.3027	52	3.8228	3.898	3.9742
-29	106.7917	110.4932	114.3116	11	17.027	17.2935	17.5624	53	3.6999	3.7739	3.849
-28	101.3688	104.8272	108.3927	12	16.3556	16.6048	16.8561	54	3.5816	3.6544	3.7283
-27	96.2564	99.4883	102.8185	13	15.7145	15.9475	16.1823	55	3.4677	3.5393	3.612
-26	91.4348	94.4558	97.5669	14	15.102	15.3198	15.5391	56	3.358	3.4284	3.5
-25	86.8857	89.7101	92.6171	15	14.5169	14.7203	14.9251	57	3.2522	3.3215	3.3919
-24	82.592	85.2332	87.9501	16	13.9575	14.1475	14.3386	58	3.1504	3.2185	3.2877
-23	78.5378	81.0082	83.5479	17	13.423	13.6003	13.7786	59	3.0521	3.1191	3.1872
-22	74.7084	77.0194	79.394	18	12.9117	13.0772	13.2435	60	2.9576	3.0234	3.0904
-21	71.09	73.2523	75.4729	19	12.4228	12.5771	12.732	61	2.8663	2.931	2.9969
-20	67.6695	69.6931	71.77	20	11.955	12.0988	12.2431	62	2.7783	2.8419	2.9067
-19	64.4351	66.3291	68.272	21	11.5074	11.6413	11.7756	63	2.6934	2.7559	2.8196
-18	61.3754	63.1485	64.9663	22	11.0791	11.2037	11.3286	64	2.6115	2.6729	2.7355
-17	58.4801	60.1402	61.8412	23	10.6689	10.7848	10.9009	65	2.5326	2.5929	2.6544
-16	55.7394	57.2939	58.8858	24	10.2762	10.3839	10.4917	66	2.4563	2.5156	2.5761
-15	53.144	54.5998	56.0899	25	9.9	10	10.1	67	2.3828	2.441	2.5004
-14	50.6855	52.049	53.4439	26	9.5325	9.6324	9.7324	68	2.3118	2.369	2.4274
-13	48.3557	49.633	50.9389	27	9.1805	9.2802	9.38	69	2.2432	2.2994	2.3568
-12	46.1473	47.3439	48.5666	28	8.8435	8.9428	9.0423	70	2.177	2.2322	2.2886
-11	44.0532	45.1743	46.3193	29	8.5206	8.6195	8.7186	71	2.1131	2.1673	2.2227
-10	42.0668	43.1172	44.1894	30	8.2113	8.3096	8.4083	72	2.0513	2.1046	2.159
-9	40.182	41.1663	42.1705	31	7.9147	8.0124	8.1105	73	1.9917	2.044	2.0975
-8	38.3929	39.3153	40.2558	32	7.6305	7.7275	7.8249	74	1.934	1.9854	2.0379
-7	36.6943	37.5587	38.4396	33	7.3579	7.4541	7.5508	75	1.8783	1.9288	1.9804
-6	35.0809	35.891	36.7161	34	7.0966	7.1919	7.2878	76	1.8245	1.874	1.9247
-5	33.5482	34.3074	35.0803	35	6.8458	6.9403	7.0354	77	1.7724	1.8211	1.8709
-4	32.0914	32.8029	33.5268	36	6.6052	6.6987	6.7928	78	1.7221	1.7699	1.8188
-3	30.7066	31.3734	32.0515	37	6.3744	6.4669	6.5601	79	1.6735	1.7204	1.7685
-2	29.3896	30.0145	30.6497	38	6.1527	6.2442	6.3364	80	1.6264	1.6725	1.7197
-1	28.1368	28.7225	29.3174	39	5.94	6.0304	6.1216	81	1.581	1.6262	1.6726
				40	5.7357	5.825	5.9151	82	1.5369	1.5813	1.6268
				41	5.5394	5.6276	5.7166	83	1.4943	1.5379	1.5826

Resistance vs. temperature table for 10k3435-1

Temp. (°C)	R _{min} (kΩ)	R _{nor.} (kΩ)	R _{max} (kΩ)								
84	1.4531	1.4959	1.5398	124	0.525	0.546	0.5677	166	0.2154	0.226	0.2371
85	1.4132	1.4553	1.4985	125	0.513	0.5336	0.555	167	0.2114	0.2218	0.2327
86	1.3746	1.4159	1.4583	126	0.5014	0.5216	0.5426	168	0.2073	0.2176	0.2284
87	1.3373	1.3778	1.4194	127	0.4899	0.5098	0.5305	169	0.2034	0.2135	0.2241
88	1.301	1.3408	1.3817	128	0.4788	0.4984	0.5187	170	0.1995	0.2095	0.2199
89	1.266	1.3051	1.3453	129	0.4681	0.4873	0.5073	171	0.1958	0.2056	0.2159
90	1.232	1.2704	1.3099	130	0.4576	0.4765	0.4961	172	0.1921	0.2018	0.2119
91	1.1991	1.2368	1.2756	131	0.4474	0.466	0.4853	173	0.1885	0.198	0.208
92	1.1673	1.2043	1.2424	132	0.4375	0.4558	0.4748	174	0.185	0.1944	0.2042
93	1.1365	1.1728	1.2102	133	0.4278	0.4458	0.4645	175	0.1816	0.1908	0.2005
94	1.1065	1.1422	1.1789	134	0.4184	0.4361	0.4545	176	0.1783	0.1874	0.197
95	1.0776	1.1126	1.1487	135	0.4092	0.4266	0.4447	177	0.1749	0.1839	0.1933
96	1.0495	1.0839	1.1193	136	0.4003	0.4174	0.4352	178	0.1718	0.1806	0.1899
97	1.0222	1.056	1.0908	137	0.3916	0.4084	0.4259	179	0.1687	0.1774	0.1865
98	0.9958	1.029	1.0632	138	0.3832	0.3997	0.4169	180	0.1656	0.1742	0.1832
99	0.9702	1.0028	1.0364	139	0.3748	0.3911	0.408	181	0.1626	0.1711	0.18
100	0.9454	0.9774	1.0104	140	0.3668	0.3828	0.3995	182	0.1597	0.168	0.1768
101	0.9213	0.9527	0.9851	141	0.359	0.3747	0.3911	183	0.1568	0.165	0.1736
102	0.8979	0.9288	0.9606	142	0.3514	0.3669	0.383	184	0.154	0.1621	0.1706
103	0.8752	0.9055	0.9368	143	0.344	0.3592	0.3751	185	0.1513	0.1593	0.1677
104	0.8532	0.883	0.9137	144	0.3367	0.3517	0.3673	186	0.1486	0.1565	0.1648
105	0.8318	0.8611	0.8913	145	0.3297	0.3444	0.3598	187	0.146	0.1538	0.162
106	0.8112	0.8399	0.8696	146	0.3227	0.3372	0.3523	188	0.1434	0.1511	0.1591
107	0.7911	0.8193	0.8485	147	0.316	0.3303	0.3452	189	0.141	0.1485	0.1564
108	0.7715	0.7992	0.8278	148	0.3095	0.3235	0.3381	190	0.1385	0.1459	0.1537
109	0.7526	0.7798	0.808	149	0.3031	0.3169	0.3313	191	0.1361	0.1434	0.1511
110	0.7341	0.7609	0.7886	150	0.2968	0.3104	0.3246	192	0.1338	0.141	0.1486
111	0.7162	0.7425	0.7697	151	0.2908	0.3042	0.3182	193	0.1315	0.1386	0.1461
112	0.6989	0.7247	0.7514	152	0.2848	0.298	0.3117	194	0.1292	0.1362	0.1436
113	0.682	0.7074	0.7337	153	0.279	0.292	0.3055	195	0.127	0.1339	0.1412
114	0.6657	0.6906	0.7164	154	0.2734	0.2862	0.2995	196	0.1249	0.1317	0.1389
115	0.6497	0.6742	0.6996	155	0.2679	0.2805	0.2936	197	0.1228	0.1295	0.1366
116	0.6342	0.6583	0.6832	156	0.2625	0.2749	0.2878	198	0.1206	0.1273	0.1343
117	0.6192	0.6429	0.6674	157	0.2573	0.2695	0.2822	199	0.1186	0.1252	0.1321
118	0.6046	0.6278	0.6519	158	0.2522	0.2642	0.2767	200	0.1166	0.1231	0.1299
119	0.5904	0.6132	0.6369	159	0.2472	0.259	0.2713	201	0.1147	0.1211	0.1278
120	0.5765	0.599	0.6223	160	0.2424	0.254	0.2661	202	0.1128	0.1191	0.1257
121	0.5631	0.5852	0.6081	161	0.2376	0.249	0.261	203	0.111	0.1172	0.1238
122	0.5501	0.5718	0.5943	162	0.2329	0.2442	0.256	204	0.1092	0.1153	0.1218
123	0.5374	0.5587	0.5808	163	0.2284	0.2395	0.2511	205	0.1073	0.1134	0.1198
				164	0.224	0.2349	0.2463	206	0.1056	0.1116	0.1179
				165	0.2197	0.2304	0.2416	207	0.1039	0.1098	0.116



Resistance vs. temperature table for 10k3435-1

Temp. (°C)	R _{min} (kΩ)	R _{nor.} (kΩ)	R _{max} (kΩ)
208	0.1022	0.108	0.1141
209	0.1006	0.1063	0.1124
210	0.0989	0.1046	0.1106
211	0.0973	0.1029	0.1088
212	0.0958	0.1013	0.1071
213	0.0943	0.0997	0.1054
214	0.0928	0.0982	0.1039
215	0.0914	0.0967	0.1023
216	0.09	0.0952	0.1007
217	0.0885	0.0937	0.0992
218	0.0871	0.0922	0.0976
219	0.0858	0.0908	0.0961
220	0.0845	0.0895	0.0948
221	0.0832	0.0881	0.0933
222	0.0819	0.0868	0.0919
223	0.0807	0.0855	0.0906
224	0.0795	0.0842	0.0892
225	0.0782	0.0829	0.0878
226	0.0771	0.0817	0.0866
227	0.0759	0.0805	0.0853
228	0.0748	0.0793	0.0841
229	0.0737	0.0781	0.0828
230	0.0726	0.077	0.0816
231	0.0716	0.0759	0.0805
232	0.0705	0.0748	0.0793
233	0.0695	0.0737	0.0782
234	0.0684	0.0726	0.077
235	0.0675	0.0716	0.076
236	0.0665	0.0706	0.0749
237	0.0655	0.0695	0.0738
238	0.0646	0.0686	0.0728
239	0.0637	0.0676	0.0718
240	0.0627	0.0666	0.0707
241	0.0619	0.0657	0.0698
242	0.061	0.0648	0.0688
243	0.0601	0.0639	0.0679
244	0.0593	0.063	0.0669
245	0.0584	0.0621	0.066
246	0.0577	0.0613	0.0651
247	0.0569	0.0605	0.0643
248	0.0561	0.0596	0.0634
249	0.0553	0.0588	0.0625
250	0.0545	0.058	0.0617