

Temperature Probe

ETP-AM-SP-100-GAG10K3435A1

- Cost effective standard model
- Robust and compact design
- Fast response time
- Wide environmental temperature range



The ETP-AM-SP-100-10K3435A1 temperature probe provides a cost-effective measurement solution where heat, dust and moisture are prevalent and where a compact and robust high-reliability design is required. The sensor is particularly suitable for demanding temperature monitoring applications on vehicles but with its fast response time and wide environmental temperature range, it is equally well-equipped for measurement of liquids and gases used in medical equipment, test machinery, industrial instrumentation and process control systems.

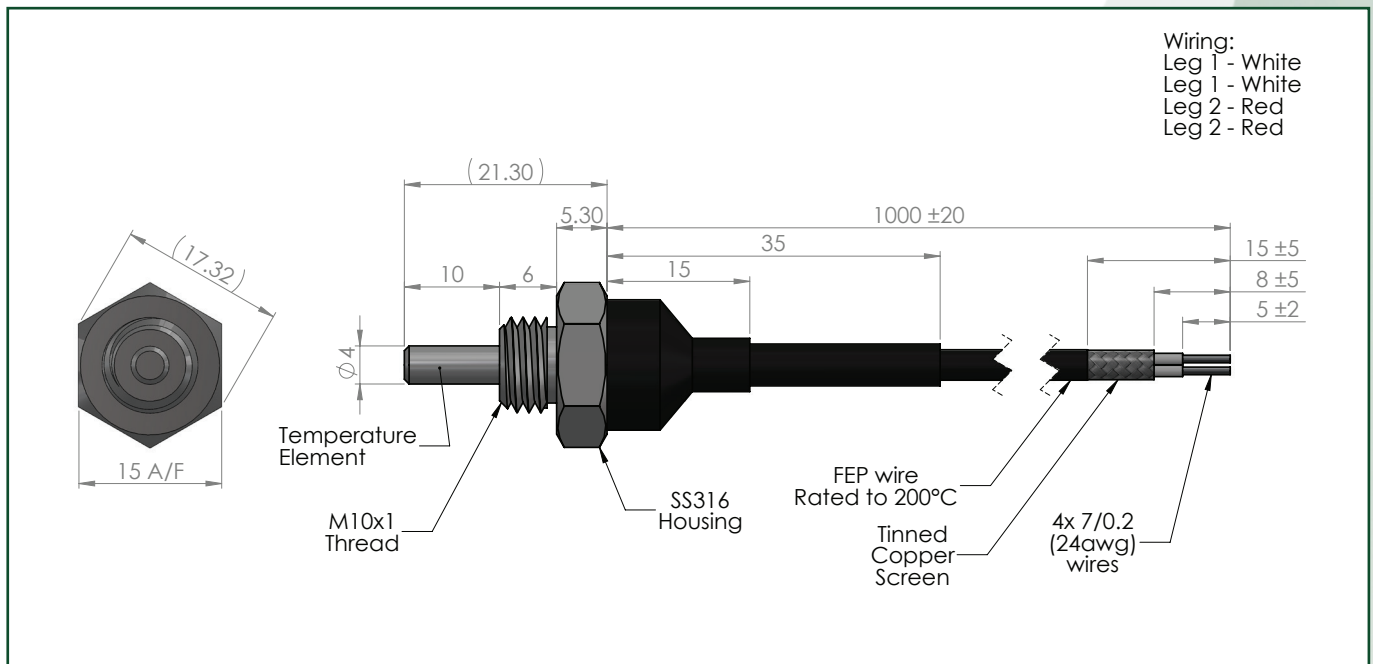
Technical information

Element:	NTC GAG10K3435A1
Accuracy:	$\pm 0.3 \text{ K @ } +25 \text{ }^\circ\text{C}$
Tolerance:	$\pm 1\% \text{ @ } 25 \text{ }^\circ\text{C}$
Beta value 25/85:	3435
Beta tolerance:	$\pm 2\%$

Material:	
Housing:	316 stainless steel
Cable:	FEP 4 core AWG24, tinned copper shield, 3.2 mm OD
Heat shrink:	Elastomer

Working temperature:	$-40^\circ \dots +180 \text{ }^\circ\text{C}$, short term $230 \text{ }^\circ\text{C}$
Environmental temperature:	$-40^\circ \dots +150^\circ\text{C}$
Sealing:	IP67
Response time in still water t_{90} :	7s

Dimensions and wiring



Ordering Information

Order code: 93638-ETP-AM-SP-100-GAG10K3435A1

ETP-AM-SP-100-GAG10K3435A1
Resistance v. temperature table for 10K3435A1

Temp. °C	KΩ	Temp. °C	KΩ	Temp. °C	KΩ	Temp. °C	KΩ
-40	186	2	25.11	44	5.061	86	1.39
-39	176.4	3	24.07	45	4.891	87	1.352
-38	167.4	4	23.07	46	4.729	88	1.315
-37	158.8	5	22.13	47	4.572	89	1.28
-36	150.7	6	21.22	48	4.421	90	1.245
-35	143.1	7	20.36	49	4.276	91	1.212
-34	135.9	8	19.53	50	4.137	92	1.18
-33	129.1	9	18.75	51	4.003	93	1.149
-32	122.7	10	18	52	3.873	94	1.118
-31	116.6	11	17.28	53	3.749	95	1.089
-30	110.8	12	16.6	54	3.629	96	1.06
-29	105.4	13	15.94	55	3.513	97	1.033
-28	100.2	14	15.32	56	3.402	98	1.006
-27	95.37	15	14.72	57	3.295	99	0.9801
-26	90.76	16	14.15	58	3.192	100	0.9549
-25	86.39	17	13.6	59	3.092	101	0.9305
-24	82.26	18	13.08	60	2.996	102	0.9069
-23	78.35	19	12.58	61	2.903	103	0.8839
-22	74.64	20	12.1	62	2.814	104	0.8616
-21	71.12	21	11.64	63	2.728	105	0.84
-20	67.79	22	11.21	64	2.645	106	0.819
-19	64.63	23	10.79	65	2.565	107	0.7987
-18	61.64	24	10.38	66	2.487	108	0.7789
-17	58.79	25	10	67	2.413	109	0.7597
-16	56.1	26	9.631	68	2.341	110	0.7411
-15	53.53	27	9.278	69	2.271	111	0.723
-14	51.1	28	8.94	70	2.204	112	0.7054
-13	48.8	29	8.615	71	2.139	113	0.6883
-12	46.6	30	8.304	72	2.076	114	0.6718
-11	44.52	31	8.006	73	2.016	115	0.6556
-10	42.54	32	7.72	74	1.957	116	0.64
-9	40.66	33	7.445	75	1.901	117	0.6248
-8	38.87	34	7.182	76	1.846	118	0.61
-7	37.17	35	6.929	77	1.794	119	0.5956
-6	35.55	36	6.687	78	1.743	120	0.5817
-5	34.01	37	6.454	79	1.693	121	0.5681
-4	32.55	38	6.23	80	1.645	122	0.5549
-3	31.15	39	6.015	81	1.599	123	0.542
-2	29.82	40	5.809	82	1.555	124	0.5295
-1	28.56	41	5.611	83	1.511	125	0.5174
0	27.35	42	5.42	84	1.47	126	0.5056
1	26.2	43	5.237	85	1.429	127	0.4941

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Resistance v. temperature table for 10K3435A1

Temp. °C	KΩ	Temp. °C	KΩ	Temp. °C	KΩ	Temp. °C	KΩ
128	0.4829	159	0.2489	190	0.1391	221	0.0831
129	0.472	160	0.244	191	0.1366	222	0.0818
130	0.4614	161	0.2392	192	0.1343	223	0.0806
131	0.4511	162	0.2345	193	0.1319	224	0.0793
132	0.4411	163	0.2299	194	0.1297	225	0.0781
133	0.4313	164	0.2255	195	0.1274	226	0.0769
134	0.4218	165	0.2211	196	0.1253	227	0.0757
135	0.4125	166	0.2168	197	0.1231	228	0.0746
136	0.4035	167	0.2127	198	0.121	229	0.0735
137	0.3947	168	0.2086	199	0.119	230	0.0724
138	0.3862	169	0.2046	200	0.117	231	0.0713
139	0.3778	170	0.2007	201	0.115	232	0.0702
140	0.3697	171	0.197	202	0.1131	233	0.0692
141	0.3618	172	0.1932	203	0.1112	234	0.0681
142	0.3541	173	0.1896	204	0.1094	235	0.0671
143	0.3466	174	0.1861	205	0.1076	236	0.0661
144	0.3392	175	0.1826	206	0.1058	237	0.0652
145	0.3321	176	0.1793	207	0.1041	238	0.0642
146	0.3252	177	0.1759	208	0.1024	239	0.0633
147	0.3184	178	0.1727	209	0.1007	240	0.0624
148	0.3118	179	0.1696	210	0.0991	241	0.0615
149	0.3053	180	0.1665	211	0.0975	242	0.0606
150	0.299	181	0.1634	212	0.0959	243	0.0597
151	0.2929	182	0.1605	213	0.0944	244	0.0589
152	0.2869	183	0.1576	214	0.0929	245	0.058
153	0.2811	184	0.1548	215	0.0914	246	0.0572
154	0.2754	185	0.152	216	0.0899	247	0.0564
155	0.2698	186	0.1493	217	0.0885	248	0.0556
156	0.2644	187	0.1467	218	0.0871	249	0.0548
157	0.2591	188	0.1441	219	0.0858	250	0.054
158	0.2539	189	0.1415	220	0.0844		