



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

A-1737 Motor Coil Temperature Sensor



Thermometrics A-1737 Motor Coil Temperature Sensor provides critical temperature feedback of an electric motor's operating condition. Used by either interlacing into the stator coil, or tied to the neutral bus bar on the motor circuit, it provides temperature feedback to indicate motor load or stall conditions.

In the event of excessive load or stall in the electric motor, the current in the coil or bus bar increases. This increase in current creates heat in the system, which is measured by the sensor. By understanding the temperature conditions, the system can prevent damage to the motor system.

Applications

- EV/HEV Motor Protection
- Starter/Generator Motor Protection
- Industrial Motor/Generator Protection
- Traction Motor Protection

Features

- Robust design utilizing the Amphenol Advanced Sensors AL03006 Series of NTC Thermistors, which is exclusively designed for applications in harsh environments
- Qualified in automotive harsh environment conditions
- Assembly materials rated to 210°C
- Alternative R/T curves and accuracy requirements are possible
- Connector, terminal or straight leads are possible
- Abrasion sleeve utilized to protect wires in application

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Specifications

R @ 25°C

30,000 ohms $\pm 5\%$

R @ 210°C

155.45 ohms $\pm 11.5\%$

B (25/85°C)

3974K

Operating Temperature Range

-40°C to 210°C

Storage Temperature Range

-50°C to 210°C

Response time

7 seconds liquid to liquid

Housing Material

Axial leaded glass NTC thermistor

Terminal

Molex Terminal 33011-3001

NTC Element Part Number

AL03006-17.53-98-G2

Weight

2 grams

Ordering Code

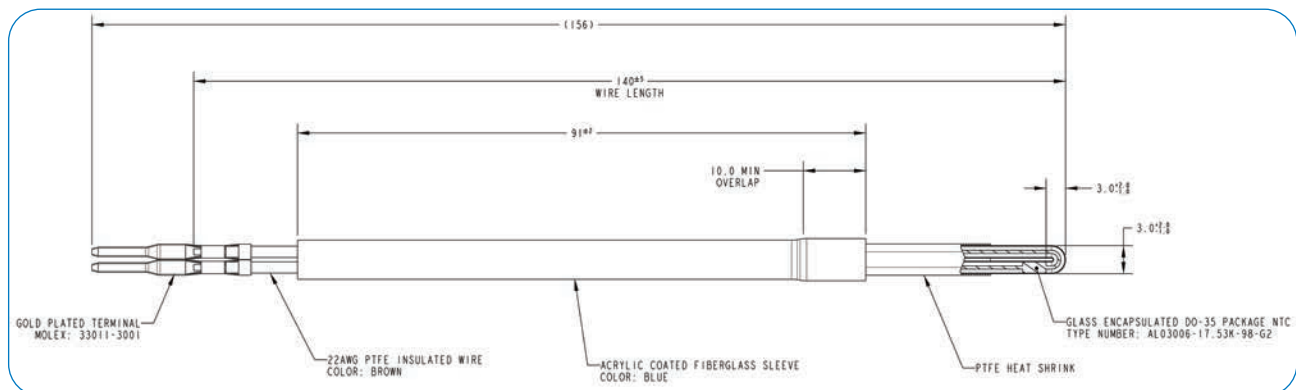
A-1737

Thermistor Material System

GE9.8

Resistance vs. Temperature Data

Temp	Resistance Ω	$\pm$ % Resistance	$\pm$ °C
-40	965530	12.42	1.90
0	96248	6.52	1.30
20	37387	5.30	1.19
25	30000	5.00	1.15
50	10851	6.43	1.68
80	3776	7.79	2.40
100	2036	8.73	2.93
130	886.9	9.54	3.70
150	541.8	10.24	4.34
175	309.9	10.73	5.07
210	155.4	11.48	6.23



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