

FL Low Profile, Flexible Temperature Sensor for Applications in Confined Spaces



The Thermometrics FL temperature sensor is a integrated micro NTC thermistor sensor that is incorporated on a enclosed flat and flexible PCB. Ideal for measuring surface or cavity temperatures where conventional temperature sensors are unable to be be positioned.

Applications

- Battery cell power management
- EV / HEV Battery pack cell surface temperature
- Surface measurement requiring low profile and variable Surface temperature. Ideal for Data centers and Server monitoring

Features

- High reliability and stability over sensor lifetime.
- Low profile 0.5 mm maximum thickness.
- Flexible PCB design.
- Electrical connection by soldering or edge connection.
- Suitable for temperature measurement in rechargeable battery packs.
- Low mass NTC thermistor for fast time response.
- Alternative RvT curves available.
- Custom Flexible PCB lengths available.
- Suitable for temperature measurement in rechargeable battery packs.

Amphenol Advanced Sensors

FL Temperature Sensor Specifications

Resistance @ 25°C 10,000 ohms ± 3%

B value (25/85) 3436

Operating Temperature -40°C to 125°

Storage Temperature -40°C to 125°

Response Time < 10 seconds

Flexible PCB Material Polyimide

NTC Coating HTF1

Insulation Resistance 1000 VDC

Part Number FL103C4R3-Length 'L'



RvT Data

Temp °C	R nominal ohm	Resistance Tolerance (+/-%)	Temperature Tolerance (+/-°C)
-40	209587.05	6.2	-1.1
-35	157721.10	5.9	-1.1
-30	119872.07	5.6	-1.0
-25	91971.34	5.3	-1.0
-20	71203.29	5.0	-1.0
-15	55599.79	4.8	-1.0
-10	43771.53	4.5	-1.0
-5	34728.36	4.3	-0.9
0	27758.00	4.1	-0.9
5	22343.41	3.8	-0.9
10	18106.05	3.6	-0.9
15	14766.39	3.4	-0.8
20	12116.39	3.2	-0.8
25	10000.00	3.0	-0.8
30	8299.31	3.2	-0.9
35	6924.56	3.4	-0.9
40	5807.00	3.6	-1.0
45	4893.58	3.7	-1.1
50	4143.13	3.9	-1.2
55	3523.50	4.1	-1.3
60	3009.44	4.2	-1.4
65	2581.00	4.4	-1.5
70	2222.35	4.6	-1.5
75	1920.85	4.7	-1.6
80	1666.35	4.9	-1.7
85	1450.69	5.0	-1.8
90	1266.43	5.2	-1.9
95	1106.60	5.3	-2.0
100	968.39	5.4	-2.0
105	849.00	5.6	-2.1
110	745.89	5.7	-2.2
115	656.81	5.8	-2.3
120	579.77	6.0	-2.4
125	513.03	6.1	-2.5

Amphenol Advanced Sensors

www.amphenol-sensors.com

© 2015 Amphenol Corporation. All Rights Reserved. Specifications are subject to change without notice. Other company names and product names used in this document are the registered trademarks or trademarks of their respective owners.