

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

Evaporator Temperature Sensor



The evaporator temperature sensor is used to measure the evaporator core temperature. The evaporator cools the refrigerant in the HVAC system. Since the evaporator core operates at temperatures very close to 0°C, it is important to have an accurate and robust thermistor to measure its temperature to prevent the core from freezing. A frozen core could result in costly damage to the evaporator core and diminished HVAC operation, so that the cabin temperature can no longer be controlled.

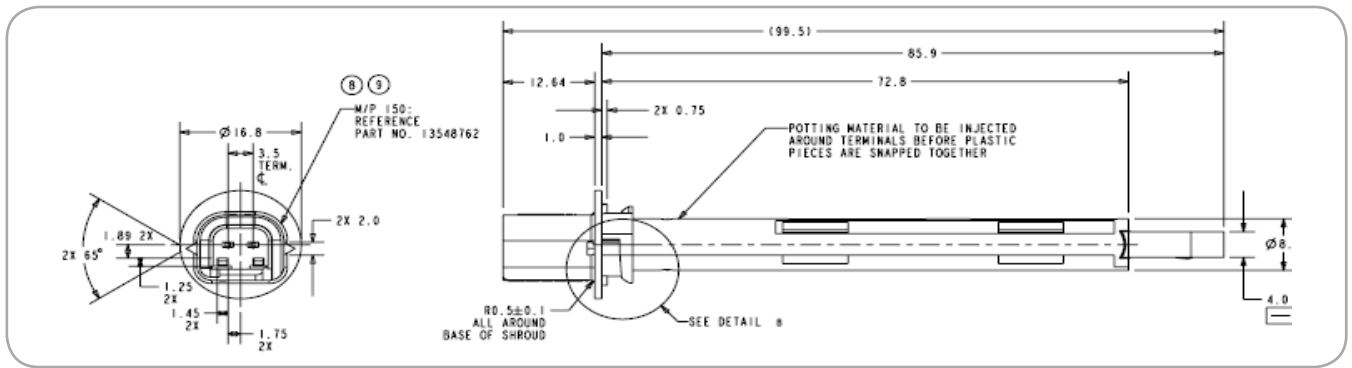
Applications

- Heater Core temperature

Features

- High accuracy and long term stability
- Fast response time
- Small size & flexible packaging
- Snap-fit housing eliminates wiring insulation damage
- Easy twist-to-lock design for easy installation and service
- Integral connector
- The parts passed 2000 hour + submersion test
- Pigtail and fin-type versions available
- Alternate RvT curves available
- Different geometries to meet package requirements

Amphenol
Advanced Sensors



Specifications

R @ 25°C

3000 Ω +/-1.7

R @ 0°C

9795 Ω +/-1%

B (25/100)

3988K

Operating Temperature Range:

-40 to 85°C

Storage Temperature Range:

-40 to 90°C

Temperature Accuracy

+/- 0.20°C @ 0°C

+/- 0.40°C @ 25°C

Response Time

10 seconds from 60°C oil to 20°C oil

NTC part number

NDUS7655

Housing Material

Nylon 6/6

Weight

4.9 gr.

Connector

Packard Electric 150 series

Mating Connector

Packard Electric 12047662



Resistance vs. Temperature Data

Resistance = 3000 Ohms at 25.00 °C Rtol. @ 25°C 1.70%

Temp. (°C)	Rnominal (ohms)	Res. Tol. ±%	Rmin. (Ohms)	Rmax. (Ohms)	Temp Coef (%/ °C)	Temp Coef (± °C)
-40	100,950	2.30	98,626	103,274	6.70	0.30
-35	72,777	2.10	72,232	74,322	6.40	0.30
-30	53,100	2.00	52,064	54,136	6.20	0.30
-25	39,111	1.80	38,413	39,809	6.00	0.30
-20	29,121	1.60	28,647	29,595	5.80	0.30
-15	21,879	1.50	21,556	22,201	5.60	0.30
-10	16,599	1.30	16,379	16,819	5.40	0.20
-5	12,695	1.20	12,544	12,845	5.30	0.20
0	9,795.0	1.00	9,697.0	9,893.0	5.10	0.20
5	7,616.0	1.20	7,526.0	7,706.0	5.00	0.20
10	5,970.0	1.30	5,892.0	6,048.0	4.80	0.30
15	4,712.0	1.40	4,645.0	4,780.0	4.70	0.30
20	3,747.0	1.50	3,689.0	3,805.0	4.50	0.30
25	3,000.0	1.70	2,950.0	3,050.0	4.40	0.40
30	2,417.0	1.80	2,374.0	2,460.0	4.30	0.40
35	1,959.0	1.90	1,923.0	1,996.0	4.10	0.50
40	1,598.0	2.00	1,566.0	1,630.0	4.00	0.50
45	1,311.0	2.10	1,283.0	1,338.0	3.90	0.50
50	1,081.0	2.20	1,057.0	1,104.0	3.80	0.60
55	895.90	2.30	875.50	916.20	3.70	0.60
60	746.40	2.40	728.70	764.10	3.60	0.70
65	624.90	2.50	609.60	640.20	3.50	0.70
70	525.60	2.50	512.30	538.90	3.40	0.70
75	444.40	2.60	432.80	456.10	3.30	0.80
80	377.40	2.70	367.20	387.60	3.20	0.80
85	321.70	2.80	312.80	330.70	3.20	0.90