

DX: Engine Coolant Temperature (ECT) Sensor Introduction

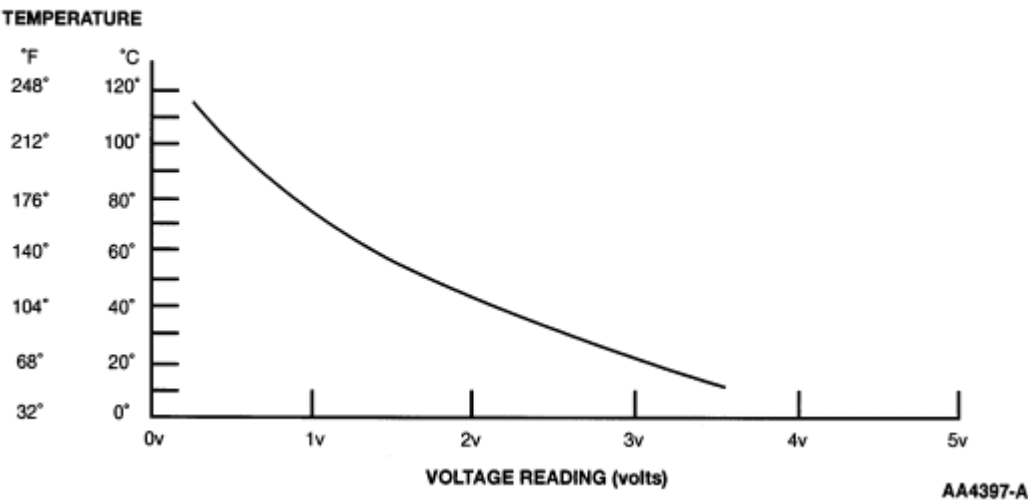
DX: Pinpoint Tests ➔

Note: Engine coolant temperature must be greater than 10°C (50°F) to pass the KOEO self-test and greater than 82°C (180°F) to pass the KOER self-test. to ac complish this, the engine must be at normal operating temperature.

This pinpoint test is intended to diagnose the following:

- engine coolant temperature (ECT) sensor (12A648)
- harness circuits: ECT and SIGRTN
- powertrain control module (PCM) (12A650)

Voltage values calculated for VREF = 5 volts. These values can vary by 15% due to sensor and VREF variations.

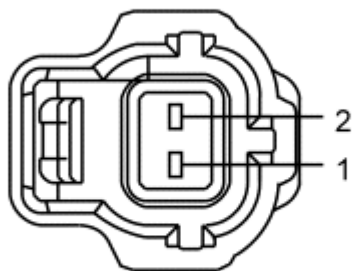


TEMPERATURE SENSOR VOLTAGE AND RESISTANCE SPECIFICATIONS

Temperature		Temperature Sensor Values	
°C	°F	Voltage	Resistance (K ohms)
120	248	0.28	1.18
110	230	0.36	1.55
100	212	0.47	2.07
90	194	0.61	2.80
80	176	0.80	3.84
70	158	1.05	5.37
60	140	1.37	7.70
50	122	1.77	10.97
40	104	2.23	16.15
30	86	2.74	24.27

20	68	3.26	37.30
10	50	3.73	58.75
0	32	4.14	95.85
-10	14	4.45	160.31

Engine Coolant Temperature (ECT) Sensor Connector



A0077548

Pin	Circuit
2	SIGRTN (Signal Return)
1	ECT (Engine Coolant Temperature)

Powertrain Control Module (PCM) Connector

For PCM connector views or reference values, refer to [Section 6](#).

Vehicle	Connector	Pin	Circuit
Fusion, Milan	140 Pin	E57	VREF
		E58	SIGRTN
		E18	ECT
All other vehicles	170 Pin	E57	VREF
		E58	SIGRTN
		E18	ECT