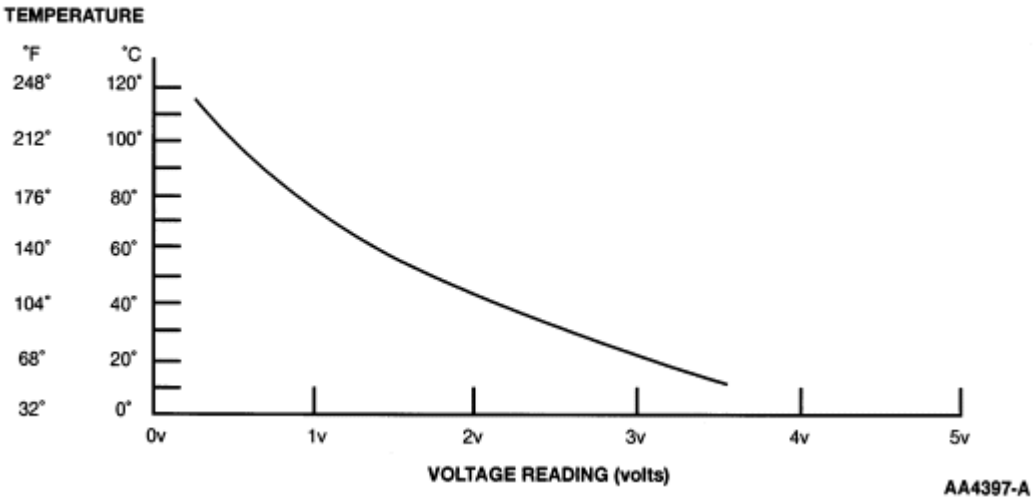
DA: Intake Air Temperature (IAT) Sensor Introduction

DA: Pinpoint Tests ➡

This pinpoint test is intended to diagnose the following:

- integrated mass air flow/intake air temperature (MAF/IAT) sensor (12B579)
- harness circuits: IAT and SIGRTN
- powertrain control module (PCM) (12A650)

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

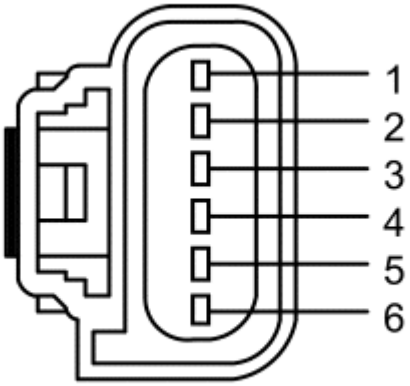


TEMPERATURE SENSOR VOLTAGE AND RESISTANCE SPECIFICATIONS

Temperature		Temperature Sensor Values	
℃	℉	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

Mass Air Flow/Intake Air Temperature (MAF/IAT) Sensor Connector



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Pin	Circuit
4	MAF RTN (Mass Air Flow Return)
2	SIGRTN (Signal Return)
1	IAT (Intake Air Temperature)

Powertrain Control Module (PCM) Connector

For PCM connector views or reference values, refer to Section 6 .

Vehicle	Connector	Pin	Circuit
E-Series 4.6L, E-Series 5.4L, Expedition, F-150, Focus, Navigator	190-Pin	B58 B47	SIGRTN IAT
Edge, Flex, MKS, MKX, Sable, Taurus, Taurus X	190-Pin	B58 B43	SIGRTN IAT
Escape/Mariner	190-Pin	B56 B47	SIGRTN IAT
Fusion, Milan, MKZ	140 Pin	B58 B43	SIGRTN IAT
Town Car	170 Pin	T41	SIGRTN

		E22	IAT
All other vehicles	170 Pin	E58	SIGRTN
		E22	IAT

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