

PCS Fluid and Air Temperature Sensor User Guide

Kit Contents

- 1 - Temperature Sensor
- 1 - 3ft subharness with connector

If any of the above items are missing or replacement parts are needed, please contact Powertrain Control Solutions.

Description

The air temperature sensor is used for measuring temperature of gases, typically manifold air temperature. The fluid temperature sensor is used to measure engine coolant, transmission fluid, or other liquids with a temperature range of -50 deg F to 300 deg F.

Electrical Connection

The mate to the temperature sensor is a 2-way connector. The pinout of the temperature sensor is shown below.

Pin	Function	Wire Color
A	Sensor Output	Yellow/Green
B	Signal Ground	Black/White

Sensor Output

The temperature sensor is a variable resistance sensor. As temperature increases, the sensor's resistance decreases. The table below shows the output resistance with respect to temperature. Since most electronic devices such as transmission controllers or data loggers do not measure resistance directly, a pull-up resistor is necessary. The voltage output shown on the table is the output of the sensor when it is installed with a 1000-ohm pull-up resistor to 5V. A 1000-ohm pull-up resistor is installed on analog inputs 5 and 6 of the PCS Transmission Controller, and is programmable ON or OFF on analog inputs 7 and 8 of the PCS D200 Dash Logger.

Deg F	302	257	221	192	172	154	140	127	115	104	91	77	63	45	18	-40
Deg C	150	125	105	89	78	68	60	53	46	40	33	25	17	7	-8	-40
Ohms	0	71	155	250	362	502	667	873	1146	1500	1994	2759	4000	6463	14152	100700
Volt	0.0	0.33	0.67	1.0	1.33	1.67	2.0	2.33	2.67	3.0	3.33	3.67	4.0	4.33	4.67	5.0

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