

K - SENSOR RANGE CHARTS

1994 Volvo 960

1994 ENGINE PERFORMANCE
Volvo Sensor Operating Range Charts

Volvo; 850, 940, 960

INTRODUCTION

Sensor operating range information can help determine if a sensor is out of calibration. An out-of-calibration sensor may not set a trouble code, but it may cause driveability problems.

NOTE: Perform all voltage tests using a Digital Volt-Ohmmeter (DVOM) with a minimum 10-megohm input impedance unless otherwise instructed in test procedure.

COOLANT TEMPERATURE SENSOR RESISTANCE TABLE

Temperature - °F (°C)	Ohms
850 & 960	
32 (0)	7300
68 (20)	2800
176 (80)	300
212 (100)	150
940	
With LH Fuel Injection	
14 (-10)	8260-10,560
68 (20)	2280-2720
176 (80)	290-364
With Regina Fuel Injection	
14 (-10)	8200-10,600
68 (20)	2200-2800
176 (80)	250-400

ENGINE SPEED (RPM) SENSOR RESISTANCE TABLE

Application	Ohms
850	260-340

FUEL INJECTOR BALLAST RESISTOR RESISTANCE TABLE (1)

Application	Ohms
940	5.5-6.5

(1) - Unit contains four resistors; one per injector. Check resistance between center terminal and 4 other terminals.

FUEL INJECTOR TABLE

Application	Ohms
850	
Non-Turbo	15.5-16.3
Turbo	14.5

940 (1) 15-17

(1) - Vehicles equipped with Regina fuel injection only.

IDLE AIR CONTROL VALVE (COIL) RESISTANCE TABLE

Application Ohms

850
Non-Turbo 7.75-8.30
Turbo (1) 10-14
940 (2) 4
960 10-14
(1) - Measured between terminals No. 1 and 2, or
No. 2 and 3.
(2) - Vehicles equipped with Regina fuel injection only.

INTAKE AIR TEMPERATURE SENSOR RESISTANCE TABLE (1)

Temperature - °F (°C) Ohms

-4 (-20) 15,000
32 (0) 5800
68 (20) 2500
176 (80) 330
212 (100) 160

(1) - Does not apply to 850 turbo and 960.

MASS AIRFLOW SENSOR RESISTANCE TABLE

Terminals Ohms

850 Non-Turbo
1 & 4 (1) 110
940 (2) & 960
2 & 3 (1) 2.5-4.0

(1) - Resistance is measured between these terminals.
(2) - Vehicles equipped with LH fuel injection only.

OXYGEN SENSOR HEATER RESISTANCE TABLE

Temperature - °F (°C) Ohms

850 Turbo
68 (20) 1.5-2.5
660 (350) 6-10
850 Non-Turbo, 940 (1) & 960
68 (20) 3
660 (350) 13

(1) - Vehicles equipped with Regina fuel injection only.

START FUEL INJECTOR TABLE

Application	Ohms
940 (1)	9-11
(1) - Vehicles equipped with Regina fuel injection only.	

THROTTLE POSITION SENSOR RESISTANCE TABLE

Application	Ohms
850	
1 & 3 (1)	
Non-Turbo	
Idle	8-12
Full Load	20-30
Turbo	
Idle	900-1100
Full Load	2300-2900
940 (2)	
1 & 3	
Idle	2500-5000
Full Load	300-500

(1) - Resistance is measured between these terminals.

(2) - Vehicles equipped with LH fuel injection only.
