

Z: Injection Control Pressure (ICP) Sensor Introduction

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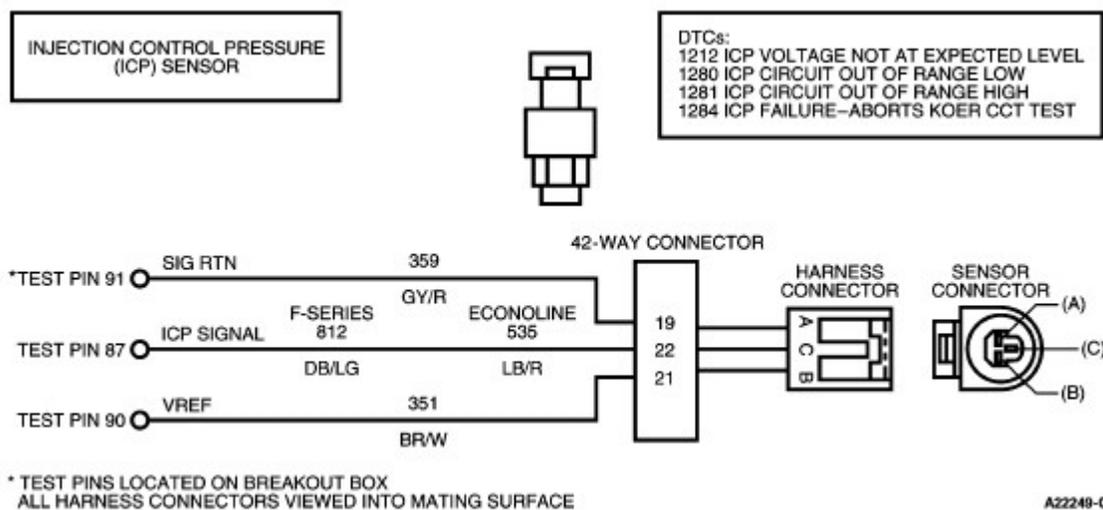
Signal Functions

The injection control pressure (ICP) sensor is a variable capacitance sensor that, when supplied with a 5-volt reference signal from the powertrain control module (PCM), produces a linear analog voltage signal that indicates pressure.

The ICP sensor's primary function is to provide a feedback signal to indicate rail pressure so that the PCM can command the correct injector timing and pulse width and the correct injection control pressure for proper fuel delivery at all speed and load conditions.

Detection/Management

If the PCM detects a malfunctioning ICP sensor the CHECK ENGINE light is illuminated and the PCM will go to open loop control of injection control pressure. (Operate from an estimated injection control pressure.)



Note

After removing connector, check for damaged pins, corrosion, loose terminals, etc.

DT Descriptions

P1212 = ICP voltage not at expected level

P1280 = ICP circuit out of range low

P1281 = ICP circuit out of range high

P1284 = ICP failure — aborts KOER Cylinder Contribution Self Test

Pressure (PSI)	Pressure (MPA)	Sensor Voltage
0	0	.02v
200	1.5	.4v
400	3	0.73v
600	4	.96v
800	5.5	1.2v
1000	7	1.4v
1200	8	1.6v
1400	9.7	1.9v
1600	11	2.1v
1800	12.4	2.3v
2000	13.8	2.6v
2200	15.2	2.8v
2400	16.5	3v
2600	18	3.3v
2800	19.3	3.5v
3000	20.6	3.8v

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