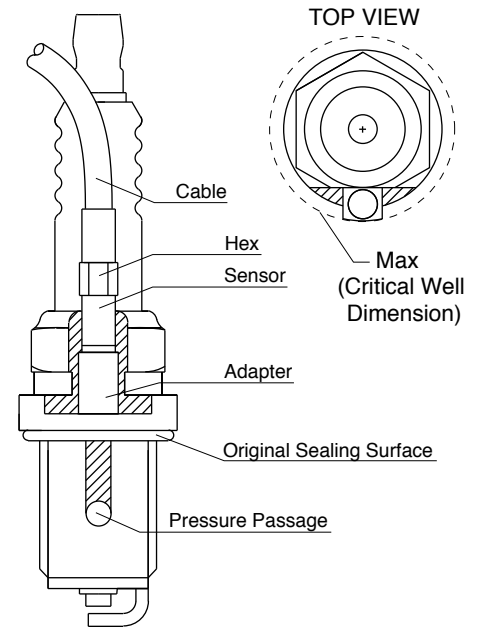


PSIplug™

Pressure Measuring Spark Plug and Sensor

- Detachable Pressure Sensor Mounted in a User-Selected, Modified Production Spark Plug
- Plug Retains Original Thermal, Electrical, and Combustion Characteristics
- Best Suited for In-Vehicle Knock Detection and Peak Pressure Studies
- Spark Plugs are Interchangeable with Sensors
- Inexpensive and Durable



The PSIplug integrates a customer selected, modified production spark plug with a removable, non-invasive pressure sensor. The sensor is located in an adapter which is mounted as close as possible to the spark plug cavity minimizing errors caused by long pressure passages found in custom built sensor/spark plug systems. By using a production spark plug, flame formation and propagation characteristics are not affected. The pressure sensor is interchangeable with other Optrand modified spark plugs making the PSIplug a cost effective solution for applications demanding various plugs.

The device is particularly useful for engine knock studies, misfire detection, and peak pressure measurement. The PSIplug is ideal for multi-cylinder in-vehicle tests of production engines.

Specifications

Pressure Range	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	0-70 bar (~1,000 psi)
	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	0-100 bar (~1,500 psi)
	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	0-200 bar (~3,000 psi)
Over Pressure	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	2x Pressure Range (standard)
Natural Frequency	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	>120 kHz (standard)
Frequency Range	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	0.1 Hz to 20 kHz (standard)

Operating Temperature (continuous)

Sensor Housing	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	-40 to 300°C (572°F)
Cable	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	-40 to 200°C (390°F)
Signal	<input type="checkbox"/> <input type="checkbox"/>	-S Version	-20 to 65°C (150°F)
Conditioner:	<input type="checkbox"/> <input type="checkbox"/>	-HT Version	-20 to 125°C (257°F)

Temperature Coefficient of Sensitivity

AutoPSI-S	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	±0.03% /°C (standard)
AutoPSI-TC	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	±0.005% /°C (standard)

Total Accuracy ±1-2% FSO
(Thermal shock, Hysteresis, Non-linearity)

Output Signal	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	0.5-5 V Analog
Diagnostic Output Signal	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	0-3.6 V Analog
Output Impedance	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	250 Ohm
Interface Power Supply	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	9-18 V DC, 85 mA
Vibration	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	100 g
Sensor Operational Mode	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	Sealed Gauge
Pressure Media	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	Gaseous
Fiber Optic Cable Length	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	2m (6.5 ft.) (standard)
Interface Unit/Amplifier	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	Integrated with Sensor
Signal Conditioner	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	Dia. 1.125" x 3.25"
Guaranteed Lifetime	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	1 year



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