

## Pressure Sensor Node (SD-PSN)

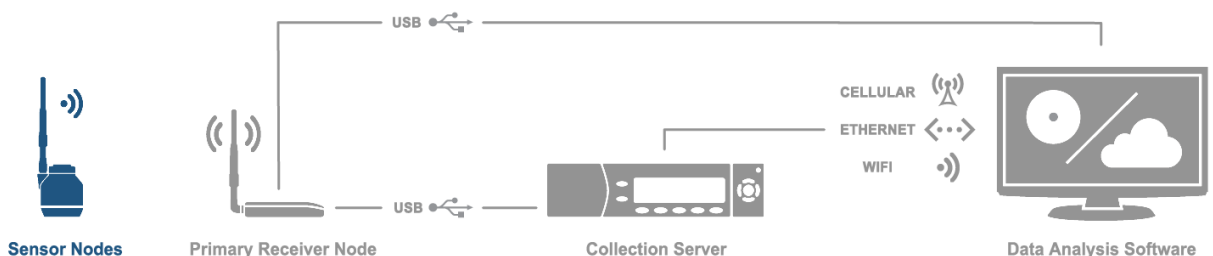
The SmartDiagnostics® family of innovative wireless sensor products enables cost-effective predictive maintenance for industrial equipment. The system provides continuous remote monitoring of key performance indicators to track the operating health of equipment.

- Optimized for long battery life
- Customizable sampling regimes
- Flexible transducer options
- Expandable to hundreds of nodes per system



## Give Your Machines a Voice™

Reliable Monitoring	Flexible Configuration	Cost Effective
Pressure Sensor Nodes provide health monitoring in the most hard-to-reach, rugged locations. Each node communicates via a direct wireless link to a Primary Receiver Node, from which the data is imported into SmartDiagnostics® Software for viewing and analysis.	The system is highly configurable and scalable and KCF can provide transducers to meet a wide array of applications. A system can have hundreds of sensor points, each of which can be configured to transmit data on a user-selected frequency, and unique indicators can be implemented to warn users of potential machine health issues.	Easily installed without the downtime, expense, and labor costs of old-fashioned, hard-wired sensors. Simply place the sensors where you need them and within minutes they'll transmit data. SmartDiagnostics® can predict failure before it occurs, saving money spent on unnecessary replacements and extending machine life. At the same time, energy costs are reduced, as properly maintained machines are more efficient.



## Pressure Sensor Node Specifications

### Mechanical

Configuration	Wireless node with cable whip to pressure transducer
Weight	4.1 oz (115 g) not including transducer
Enclosure Material	Anodized aluminum and high-strength polycarbonate
Connector Type	4-pin 12x1mm threaded connector
Cable Length	39 in (1 m)
Process Fitting	3/4" NPT Male

### Environmental

Storage Temperature	-40 to 238 °F (-40 to 120 °C)
Min. Operating Temp.	-4 °F (-20 °C)
Max. Operating Temp.	230 °F (110 °C) surface @ 72 °F (22 °C) ambient 212 °F (100 °C) surface @ 105 °F (40 °C) ambient 167 °F (75 °C) surface @ 167 °F (75 °C) ambient
IP Rating	IP65, dust-tight and impervious to water jets
Impact Resistance	Survives 5-ft drop onto concrete surface

### Wireless Radio

Radio	KCF DART™ Wireless 2.4GHz ISM band, FCC ID #Z5ISD2
Range	800ft (244m) line-of-sight (site survey recommended for installation)
Antenna	Steerable antenna, providing 360° directional coverage.

### Power

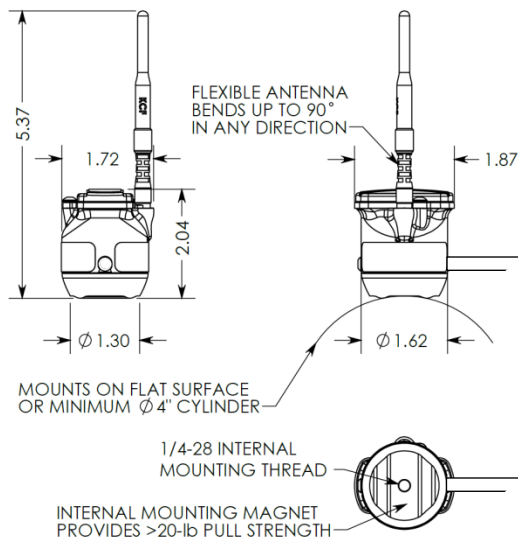
Power Source	3-Volt Lithium Manganese Dioxide (CR123A) KCF Energy Harvester (optional)
Battery Life	32-sample acquisition every: <ul style="list-style-type: none"> <li>• 13 seconds – 1 years</li> <li>• 40 seconds – 3 years</li> <li>• 65 seconds – 5 years</li> </ul> <p>Note: battery life is somewhat reduced at extremely cold temperatures</p>

### Pressure Transducer

Type	KCF provides recommended pressure transducers matched to customer application. Please call with your application requirements.
Range	Ranges available from 0-10,000 psi
Resolution	0.03% of full scale
Noise Floor	0.05% of full scale
Samples per Acquisition	32-1600 configurable
Sampling frequency	64 Hz – 8192 Hz configurable
Operating Temperature	-40 to 185 °F (-40 to 85 °C) Typical

### Temperature Sensor

Range	-4 to 167 °F (-20 to 75 °C)
Resolution	+/- 1 °F (+/- 0.5 °C)



## Configurations

Part Number	Description
SD-PSN-I	Pressure sensor for 4-20 mA pressure transducer (call with specific transducer request)
SD-PSN-V	Pressure sensor for voltage-output pressure transducer (call with specific transducer request)