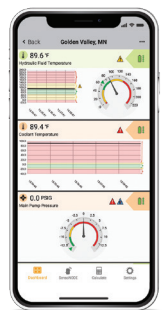


## Condition Monitoring and Diagnostic Solutions Sensonode™ Blue Sensors and Software

Sensors, Software, and Accessories  
Catalog 3864 USA | April 2023  
PDF Update: May 11, 2023



ENGINEERING YOUR SUCCESS.

# Quick Coupling Division Locations



Minneapolis, MN



Grantsburg, WI



Chetek, WI



Union City, PA

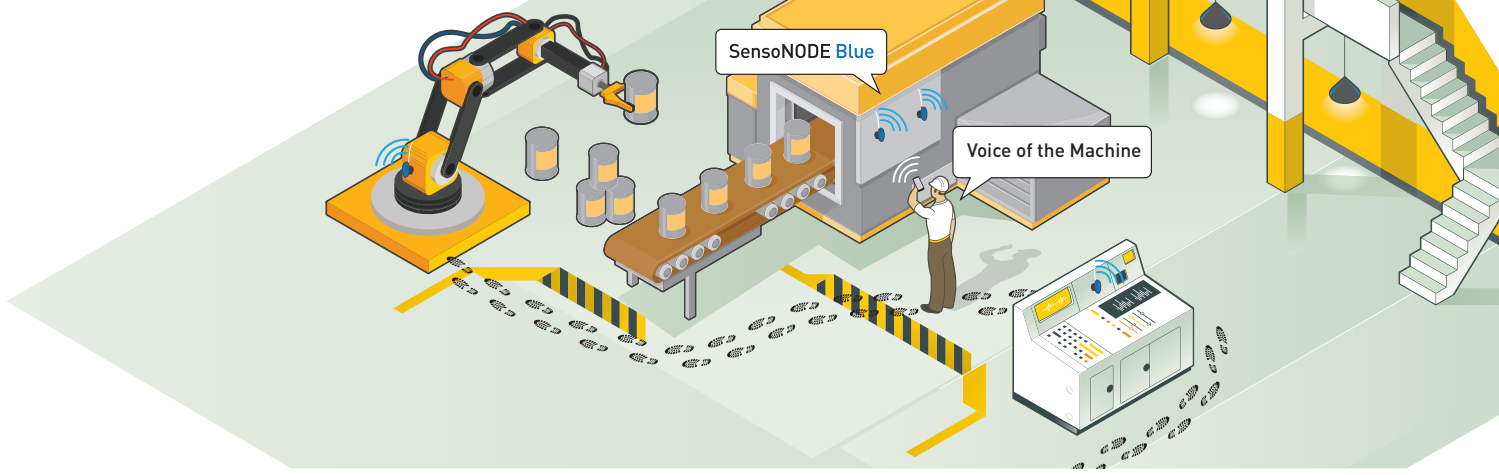
## **WARNING**

### **FAILURE OR IMPROPER SELECTION OR IMPROPER USE OF THE PRODUCTS DESCRIBED HEREIN OR RELATED ITEMS CAN CAUSE DEATH, PERSONAL INJURY AND PROPERTY DAMAGE.**

- This document and other information from Parker Hannifin Corporation, its subsidiaries and authorized distributors provide product or system options for further investigation by users having technical expertise.
- The user, through its own analysis and testing, is solely responsible for making the final selection of the system and components and assuring that all performance, endurance, maintenance, safety and warning requirements of the application are met. The user must analyze all aspects of the application, follow applicable industry standards, and follow the information concerning the product in the current product catalog and in any other materials provided from Parker or its subsidiaries or authorized distributors.
- To the extent that Parker or its subsidiaries or authorized distributors provide component or system options based upon data or specifications provided by the user, the user is responsible for determining that such data and specifications are suitable and sufficient for all applications and reasonably foreseeable uses of the components or systems.

### **Offer of Sale**

The items described in this document are hereby offered for sale by Parker Hannifin Corporation, its subsidiaries or its authorized distributors. This offer and its acceptance are governed by the provisions stated in the "Offer of Sale."



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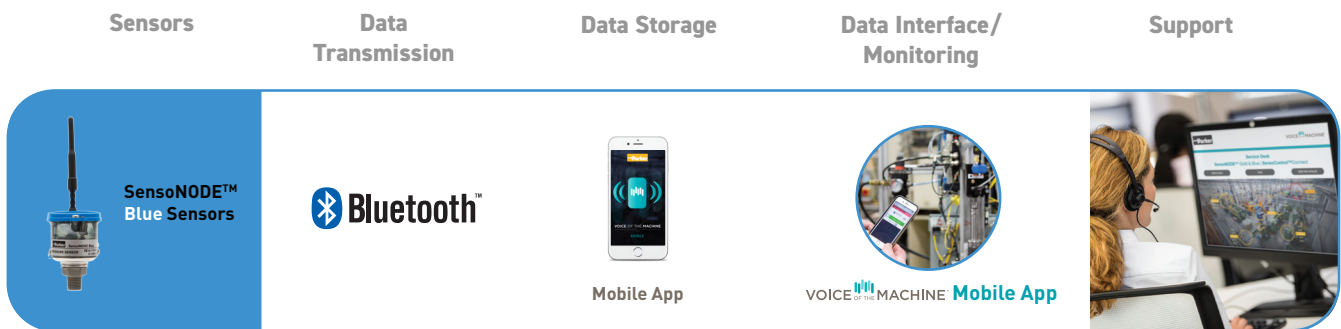
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# Parker's Complete IoT-based Condition Monitoring and Diagnostics System

The Internet of Things (IoT) has changed the way manufacturing works, and **you can't afford to be left behind**. Global competitiveness drives companies to find new ways to improve efficiency and product quality, and incorporating IoT-enabled solutions into your operations ensures your company is moving forward.

Parker's **SensoNODE™ sensors and Voice of the Machine™ software** platforms are IoT-empowered solutions that create new, advanced condition monitoring possibilities to **reduce downtime** and **decrease maintenance costs**, helping you to **maintain production and improve efficiency**.

With multiple sensor options, software configurations, and integrating with existing infrastructure, **we partner with customers** to identify the best solution for each application.



# Condition Monitoring for Preventative and Predictive Maintenance

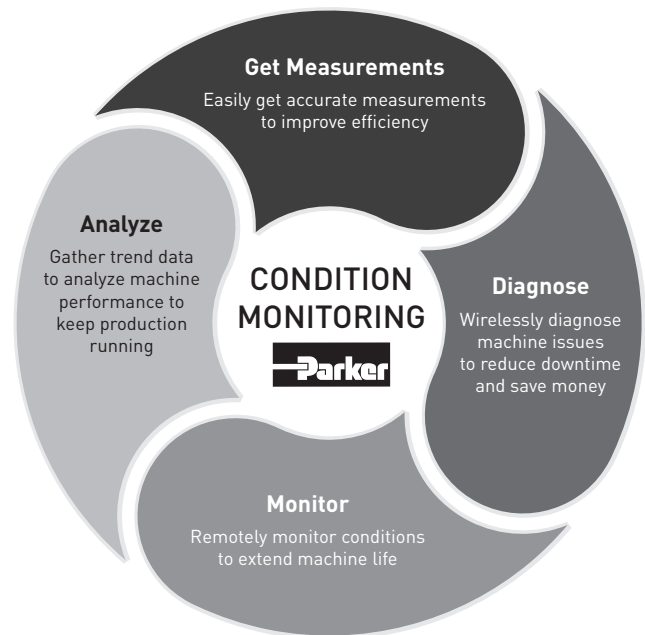


IoT-based condition monitoring is driving data generation to monitor and analyze performance of machines and processes in manufacturing.

This is leading to improved maintenance practices that are helping maintenance and operations teams identify issues before they escalate to big challenges resulting in shutdowns of machines and production.

By switching from manual maintenance practices and run-to-failure strategies to more preventative and predictive maintenance tactics, maintenance teams are discovering benefits and better results including:

- Increased uptime
- Decreased maintenance costs
- Increased asset lifetime
- Reduction in safety risks



# Condition Monitoring Solutions

## SensoNODE Blue and Mobile App

Primary Application	
Wireless Continuous Remote Monitoring	
Wireless Route-Based Monitoring	√
Diagnostics	√
Communication Method	
Sub-GHz Wireless	
Cellular	
Bluetooth Low Energy (BLE)	√
Wires	
Key Features	
Alert Notifications - Text, Email	
In-Use Alarms	√
Export and Share Data	√
Recordings	√
View Historical Data	
Configurable Dashboards	√
Functions or Calculations	√
Configurable Units of Measure	√
Multiple Visualizations	√
Viewable on Multiple Devices	√*
Add Sensors Instantly	√
Fastest Measurement Rate	1 second
Pressure Spike and Drop Capturing	
Synchronization of Measurement Inputs	
Battery Life	Rate Dependent
FCC, IC, &/or CE Certified	√
Sensor IP Rating	IP65
Data Storage	
Cloud	
Local Server	
Mobile Device	√
Handheld Meter	
Interface	
Desktop/Laptop	
Mobile App	√
Handheld Meter	
Other	
Software License	
Cloud Subscription Required	
Optional Cellular Subscription	
Internet/WiFi/LAN Required	
Gateway Required	
Site Survey Required	

\*In Broadcast Mode Only \*\*0.1ms Available on ServiceMaster+ \*\*\*Varies with Handmeters





# Route-Based Monitoring and Diagnostics

Parker's route-based monitoring and diagnostics allow workers to take instant measurements of individual assets wirelessly, and record those measurements using their mobile device. Compared to traditional, wired gauges, users spend less time getting measurements, and can avoid potentially unsafe working conditions; e.g. monitoring mobile equipment.

Parker's SensoNODE Blue Sensors and Voice of the Machine Mobile Software deliver an IoT solution where hardware and software work together to provide measurements and diagnostics across multiple applications and industries.

Ideal for quick, accurate diagnostics, SensoNODE Blue and Voice of the Machine help companies:

- Get accurate measurements
- Gather measurements from a distance without interrupting production
- Avoid potentially dangerous situations
- Diagnose issues quickly
- Improve work efficiency
- Share data direct from your mobile device

## SensoNODE Blue Sensors and Voice of the Machine Software

**SensoNODE Blue** is Parker's series of Bluetooth-enabled sensors. Compact, energy-efficient, and wireless, they are designed to provide simple and useful solutions for diagnostic and condition monitoring applications with mobile devices. SensoNODE monitors asset measurements to help predict problems and prevent downtime.

### Why Blue?

- Accurate measurements
- Easy installation
- No network required
- Wireless installation removes challenges of wired systems
- No external power source required
- Ultra-low battery consumption for up to five years of battery life\*
- Sealed sensor housing ideal for harsh environments
- Compact lightweight design
- LED indicators aid in identifying sensor status

\* Not continuous use

**Voice of the Machine Mobile App** allows users to receive measurements directly to their mobile devices. The app compiles the data and presents it in a way that makes sense to a user's operation allowing them to track data immediately and receive user-defined alarms for unplanned condition changes that may damage assets. Mapping and dashboard functions allow you to customize data visualization.

### Why Mobile App?

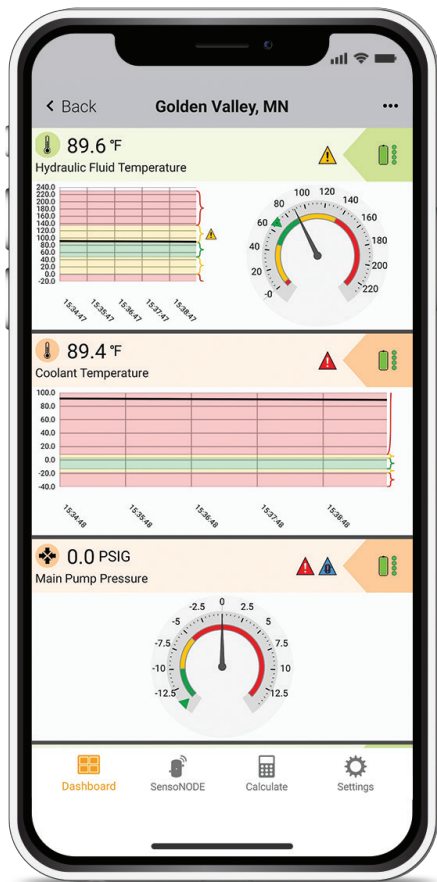
- Measurements delivered to your mobile device
- Easy-to-use interface
- Customizable dashboards
- Mapping function
- Set your own alarm thresholds of measurements (min/max)
- Alerted when outside of defined thresholds
- Name sensors so they are easily identifiable
- Easy-to-understand trend charts
- Multiple users can access data from their mobile device
- Export data for analysis, sharing, and retention

## Mobile App

Voice of the Machine Mobile App is used for diagnostics and condition monitoring for predictive maintenance. The app allows users to connect to Parker's SensoNODE™ Blue wireless sensors to gather measurements for a wide range of fluid and gas applications.

Voice of the Machine Mobile App puts vital information in the palm of the user's hand. It offers immediate and historic trend information collected by SensoNODE™ Blue wireless sensors and presents it in a way that makes sense to a user's operation, providing the information needed to optimize asset performance. Data can also be easily exported and shared.

Voice of the Machine Mobile App alerts users of unplanned condition changes that may damage components and equipment. As levels rise above or fall below user-defined thresholds, users are alerted to these events, giving them an opportunity to address potential issues that could harm the system over time, helping to reduce unplanned downtime and increase productivity.



### Capabilities:

- Mobile application designed for iOS and Android
- Connect and display SensoNODE Blue Sensors

### Features:

- Intuitive design and user experience
- Auto recognition enables users to quickly add and connect multiple sensors concurrently
- Easy readability of measurements with visualized data in digital gauges and trend charts
- View immediate measurements that include current values and minimum/maximum indicators in addition to historical sensor information
- Configurable alarm thresholds with alerts when thresholds are exceeded; monitoring continues while sensors are unattended
- Customizable trend charts and dashboards
- Mapping function for pressure, 4-20mA and flexible displacement sensors that correlates raw measurements into your "specific" units
- Easily export and share data



# Voice of the Machine™ Mobile App



## Compatibility:

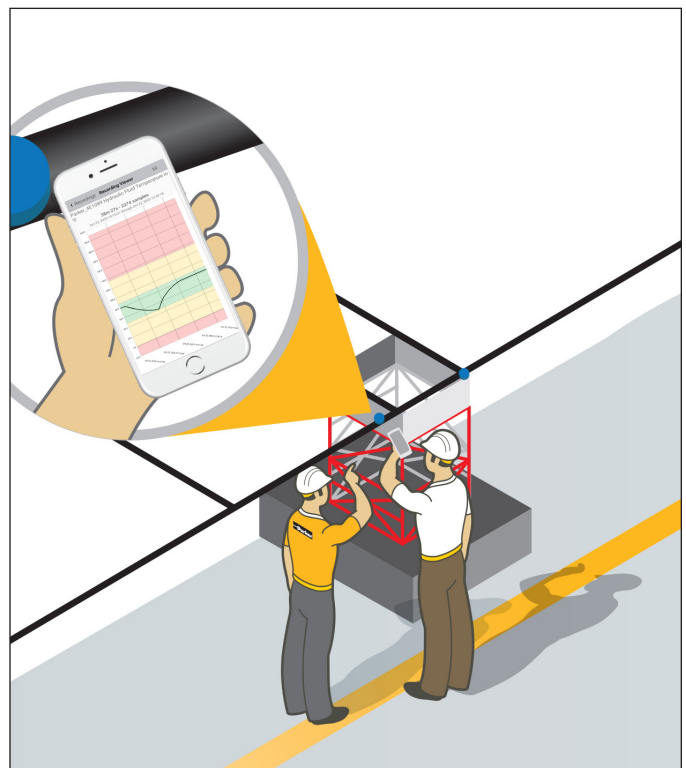
- Requires iOS (10.3 or newer) or Android (6 or newer)

## Languages:

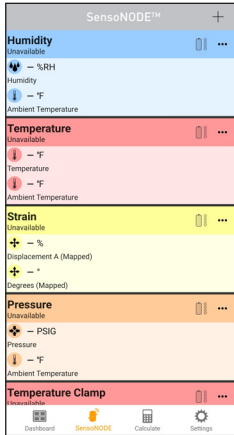
- English

## Supported Devices:

- iPhone (6S and newer)
- iPad (5th generation and newer)
- Compatible with most Bluetooth Low Energy (BLE) supported Android devices

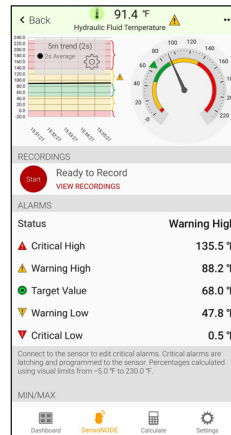


## Sensor Inventory



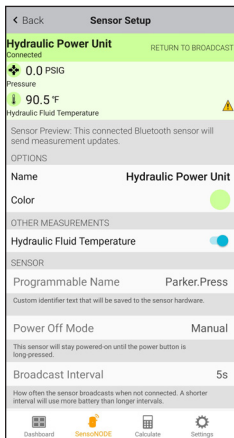
One-touch access to sensors that have been added to your mobile device with their latest measurements, alarm status, and sensor mode - broadcasting or connected.

## Measurement Detail



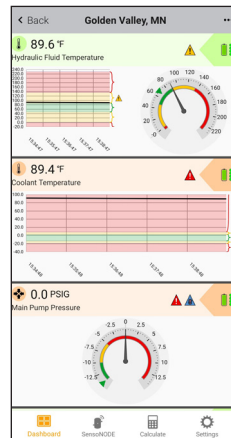
Focus on a single measurement with trend charts, digital gauge, alarm thresholds and other useful features for the operational professional.

## Sensor Setup



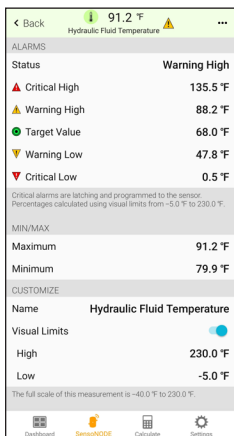
Configure sensors with individually programmed name, highlight color and modes of operation to suit different use cases.

## Dashboard



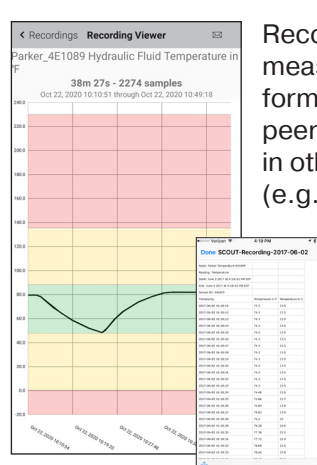
Simplify monitoring activities by grouping measurements that belong together and compare the group's trends and gauges.

## Alarm Settings



Define measurement thresholds to get notified of important changes. Critical thresholds are programmed to sensor firmware for exception monitoring between readings.

## Record and Export



Record and export measurements in CSV format for sharing with peers or further analyzing in other applications (e.g. Excel).



### Features:

- Available in a variety of pressure ranges from -14.5 psi to 8700 psi
- User-definable measurement units (psi/bar) for convenient and familiar data readings
- Port options: Male NPT or SAE thread and EMA or PD quick couplers for fast and easy connecting
- Corrosion resistant materials for challenging environments
- Sensor also provides ambient temperature values
- User selectable measurement and broadcast intervals. Refer to Voice of the Machine Mobile App for more information about capabilities and modalities.

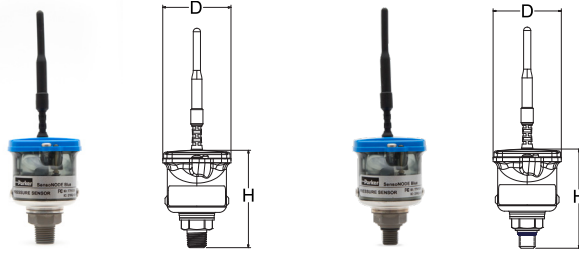
Sensor Technical Data							
Housing Material	Polycarbonate	Polycarbonate	Polycarbonate	Polycarbonate	Polycarbonate	Polycarbonate	Polycarbonate
Port	1/4" Male NPT	1/4" Male NPT	1/4" Male NPT	-4 SAE	-4 SAE	-4 SAE	-4 SAE
Wetted Parts Material	17-4 Stainless	17-4 Stainless	17-4 Stainless	17-4 Stainless and Nitrile	17-4 Stainless and Nitrile	17-4 Stainless and Nitrile	17-4 Stainless and Nitrile
Measurement Range (pressure)	-14.5 to 14.5 psi [-1 to 1 bar]	0-150 psi [10 bar]	0-232 psi [16 bar]	0-1500 psi [100 bar]	0-3625 psi [250 bar]	0-5800 psi [400 bar]	0-8700 psi [600 bar]
Max. Overload Pressure	29 psi	225 psi	350 psi	2250 psi	5440 psi	8700 psi	13,050 psi
Burst Pressure	3x	4x	4x	4x	4x	4x	4x
Accuracy (at 77°F / 25°C)	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%
Resolution	.01 psi	.1 psi	.1 psi	1 psi	1 psi	1 psi	1 psi
Measurement and Broadcast Interval	User Selectable	User Selectable	User Selectable	User Selectable	User Selectable	User Selectable	User Selectable
Response Time (min)	1 sec	1 sec	1 sec	1 sec	1 sec	1 sec	1 sec
Ambient Temperature* (battery limited)	-4°F to 158°F [-20°C to 70°C]	-4°F to 158°F [-20°C to 70°C]	-4°F to 158°F [-20°C to 70°C]	-4°F to 158°F [-20°C to 70°C]	-4°F to 158°F [-20°C to 70°C]	-4°F to 158°F [-20°C to 70°C]	-4°F to 158°F [-20°C to 70°C]
Fluid Media Temperature Range	-40°F to 185°F [-40°C to 85°C]	-40°F to 185°F [-40°C to 85°C]	-40°F to 185°F [-40°C to 85°C]	-40°F to 185°F [-40°C to 85°C]	-40°F to 185°F [-40°C to 85°C]	-40°F to 185°F [-40°C to 85°C]	-40°F to 185°F [-40°C to 85°C]
Full Range Life Cycles	> 1 million	> 1 million	> 1 million	> 1 million	> 1 million	> 1 million	> 1 million
Certifications	FCC, IC, CE	FCC, IC, CE	FCC, IC, CE	FCC, IC, CE	FCC, IC, CE	FCC, IC, CE	FCC, IC, CE
Battery (Panasonic is recommended brand)	CR123A	CR123A	CR123A	CR123A	CR123A	CR123A	CR123A
IP Rating	IP65	IP65	IP65	IP65	IP65	IP65	IP65

Note: Consult QCD for other port options, pressure ratings, and port seal materials.

\*Ambient temperature range can be broadened by installing Wired Power Adapter (SNWP2-B)

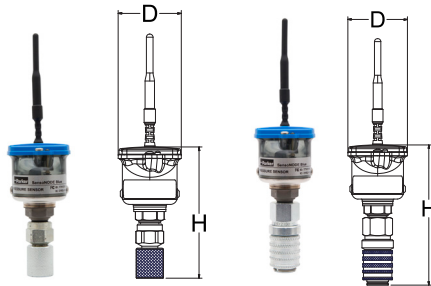


## Pressure Sensors



Part Number	Pressure Rating psi [bar]	Port	D	H
SNPT4-1-B-4MP	-14.5 to 14.5 [-1 to 1]	1/4" Male NPTF	ø1.88" [48mm]	2.66" [68mm]
SNPT4-10-B-4MP	0-150 [10]	1/4" Male NPTF	ø1.88" [48mm]	2.66" [68mm]
SNPT4-16-B-4MP	0-232 [16]	1/4" Male NPTF	ø1.88" [48mm]	2.66" [68mm]
SNPT4-100-B-4MO	0-1500 [100]	-4 SAE	ø1.88" [48mm]	2.72" [69mm]
SNPT4-250-B-4MO	0-3625 [250]	-4 SAE	ø1.88" [48mm]	2.72" [69mm]
SNPT4-400-B-4MO	0-5800 [400]	-4 SAE	ø1.88" [48mm]	2.72" [69mm]
SNPT4-600-B-4MO	0-8700 [600]	-4 SAE	ø1.88" [48mm]	2.72" [69mm]

## Quick Couplers

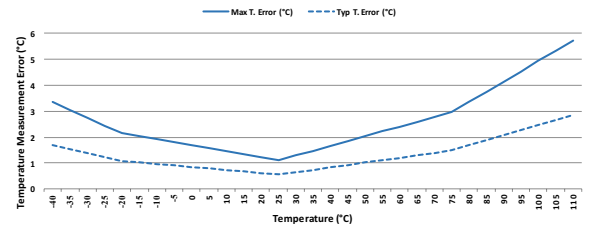
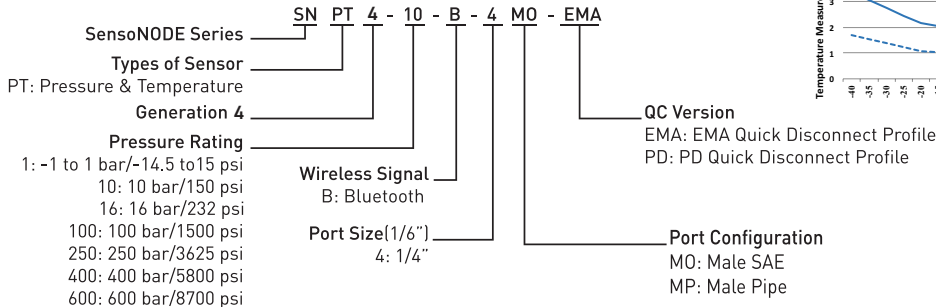


Part Number	Pressure Rating psi [bar]	Port	D	H
SNPT4-100-B-4MO-EMA	0-1500 [100]	EMA	ø1.88" [48mm]	4.00" [101mm]
SNPT4-250-B-4MO-EMA	0-3625 [250]	EMA	ø1.88" [48mm]	4.00" [101mm]
SNPT4-400-B-4MO-EMA	0-5800 [400]	EMA	ø1.88" [48mm]	4.00" [101mm]
SNPT4-600-B-4MO-EMA	0-8700 [600]	EMA	ø1.88" [48mm]	4.00" [101mm]
SNPT4-100-B-4MO-PD	0-1500 [100]	PD	ø1.88" [48mm]	4.40" [112mm]
SNPT4-250-B-4MO-PD	0-3625 [250]	PD	ø1.88" [48mm]	4.40" [112mm]
SNPT4-400-B-4MO-PD	0-5800 [400]	PD	ø1.88" [48mm]	4.40" [112mm]

Note: Products in catalog are currently only for sale in U.S., Canada, and Europe except where stated otherwise.

Temperature Accuracy

### How to Order:



**WARNING** The products listed can expose you to chemicals including Lead, which is known to the State of California to cause cancer, and to cause birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)













**Features:**

- User-definable measurement units (F°/C°) for convenient and familiar data readings
- Port Options: Male NPTF and SAE
- Corrosion-resistant materials for challenging environments
- User-selectable measurement and broadcast intervals. Refer to Voice of the Machine Mobile App for more information about capabilities and modalities.
- Available in unique foot and clamp designs for quick attachment to pipe or hard tubing

### Sensor Technical Data

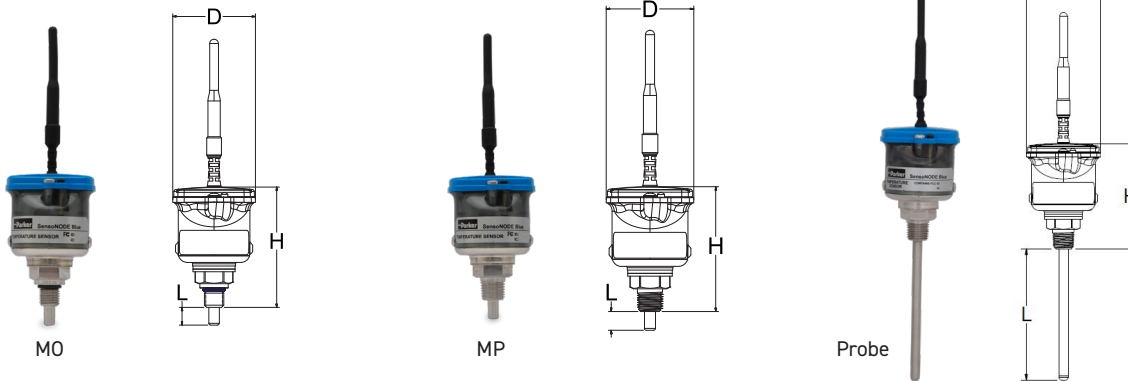
						
Housing Material	Polycarbonate	Polycarbonate	Polycarbonate	Polycarbonate	Polycarbonate	Nylon
Port	1/4" Male NPTF	-4 SAE	1/4" Male NPTF	-4 SAE	Foot	Clamp
Wetted Parts Material	17-4 Stainless	17-4 Stainless and Nitrile	17-4 Stainless	17-4 Stainless and Nitrile	Stainless	Stainless
Measurement Range (Fluid Temperature)	-40°F to 230°F [-40°C to 110°C]	-40°F to 230°F [-40°C to 110°C]	-40°F to 230°F [-40°C to 110°C]	-40°F to 230°F [-40°C to 110°C]	-40°F to 257°F [-40°C to 125°C]	-40°F to 257°F [-40°C to 125°C]
Working Pressure	0-10k psi [0-700 bar]	0-9k psi [0-630 bar]	0-1500 psi [0-100 bar]	0-1500 psi [0-100 bar]	N/A	N/A
Max. Overload Pressure	3x	3x	2x	2x	N/A	N/A
Burst Pressure	4x	4x	3x	3x	N/A	N/A
Accuracy (at 77°F/ 25°C)	±3.0%	±3.0%	±3.0%	±3.0%	±5.0%	±5.0%
Resolution (from 14°F to 120°F) [-10°C to 44.8°C]	1°F [.56°C]	1°F [.56°C]	1°F [.56°C]	1°F [.56°C]	2°F [1.12°C]	2°F [1.12°C]
Measurement and Broadcast Intervals	User Selectable	User Selectable	User Selectable	User Selectable	User Selectable	Measurement Only (1 sec)
Response Time (minimum)	1 sec	1 sec	1 sec	1 sec	1 sec	1 sec
Ambient Temperature (battery limited)*	-4°F to 158°F [-20°C to 70°C]	-4°F to 158°F [-20°C to 70°C]	-4°F to 158°F [-20°C to 70°C]	-4°F to 158°F [-20°C to 70°C]	-4°F to 158°F [-20°C to 70°C]	-4°F to 158°F [-20°C to 70°C]
Full Range Life Cycles	> 1 million	> 1 million	> 1 million	> 1 million	> 1 million	> 1 million
Certifications	FCC, IC, CE	FCC, IC, CE	FCC, IC, CE	FCC, IC, CE	FCC, IC, CE	FCC, IC, CE
Battery (Panasonic is recommended brand)	CR123A	CR123A	CR123A	CR123A	CR123A	CR2450
IP Rating	IP65	IP65	IP65	IP65	IP65	IP65

Note: Consult QCD for other port options and port seal materials.

\*Ambient temperature range can be broadened by installing Wired Power Adapter (SNWP2-B)



## Temperature Sensors – Ported



Part Number	Fluid Temperature Range	Port	D	H	L
SNT4-700-B-4MO	-40°F to 230°F [-40°C to 110°C]	-4 SAE	ø1.88" [48mm]	2.72" [69mm]	0.40" [10.16mm]
SNT4-700-B-4MP	-40°F to 230°F [-40°C to 110°C]	1/4" Male NPTF	ø1.88" [48mm]	2.66" [68mm]	0.40" [10.16mm]
SNT4-100-B-4MO-0335	-40°F to 230°F [-40°C to 110°C]	-4 SAE/Probe	ø1.88" [48mm]	2.72" [69mm]	3.35" [85mm]
SNT4-100-B-4MP-0335	-40°F to 230°F [-40°C to 110°C]	1/4" Male NPTF/Probe	ø1.88" [48mm]	2.66" [68mm]	3.35" [85mm]

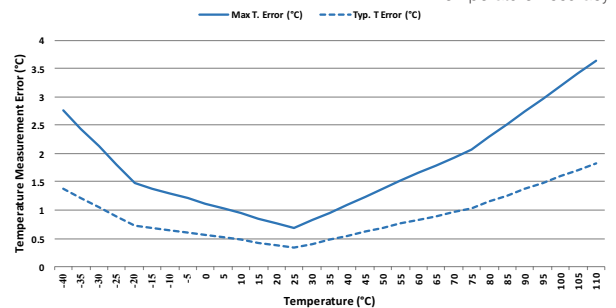
## Temperature Sensors – Foot and Clamp



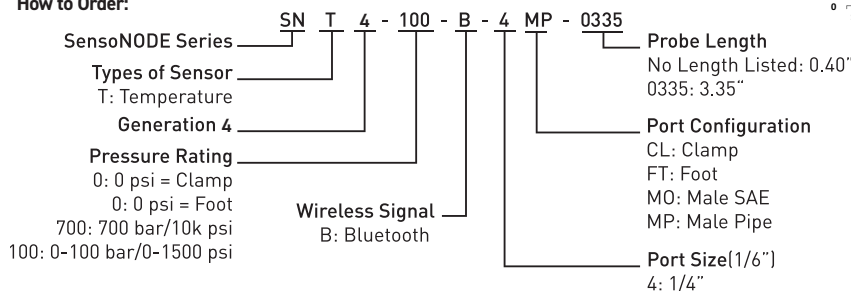
Part Number	Fluid Temperature Range	L	H	Optimal Clamping
SNT4-0-B-FT	-40°F to 257°F [-40°C to 125°C]	2.42" [61.5mm]	2.31" [58.7mm]	> ø.25" + [>ø6.4mm]
SNT-0-B-CL-KB	-40°F to 257°F [-40°C to 125°C]	5.24" [133.1mm]	3.06" [77.7mm]	ø.25" to ø1.5" [ø6.4mm-ø38.1mm]

Note: Products in catalog are currently only for sale in U.S., Canada, and Europe except where stated otherwise.

Temperature Accuracy



### How to Order:



**WARNING**

The products listed can expose you to chemicals including Lead, which is known to the State of California to cause cancer, and to cause birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)





## Features:


- 0-100% relative humidity
- Ideal for ambient condition and inert compressed gas monitoring applications
- NPTF port to make plumbing and connecting easier and faster
- Optimal mounting orientation is vertical with port facing down to prevent moisture collection
- Sensor also provides gas temperature values
- User-selectable measurement and broadcast intervals. Refer to the Voice of the Machine Mobile App for more information about capabilities and modalities.

## Sensor Technical Data

Housing Material	Polycarbonate
Port	1/4" Male NPTF
Wetted Parts Material	Brass, Nitrile, Urethane, and GORE-TEX®
Measurement Range (Humidity)	0-100% RH
Working Pressure	0-150 psi [10 bar]
Max. Overload Pressure	150 psi Max [10 bar]
Burst Pressure	4x
Accuracy (77°F/25°C, 20% RH to 80% RH, at ambient pressure)	±5% RH Max
Resolution (at 77°F/25°C)	0.1% RH
Measurement and Broadcast Interval	User Selectable
Response Time (from 33% to 75% RH)	10 secs
Ambient Temperature (battery limited)*	-4°F to 158°F [-20°C to 70°C]
Temperature Accuracy (from 14°F to 185°F [-10°C to 85°C])	±1.0°F [±0.5°C]
Full Range Life Cycles	> 1 million
Certifications	FCC, IC, CE
Battery (Panasonic is recommended brand)	CR123A
IP Rating	IP65

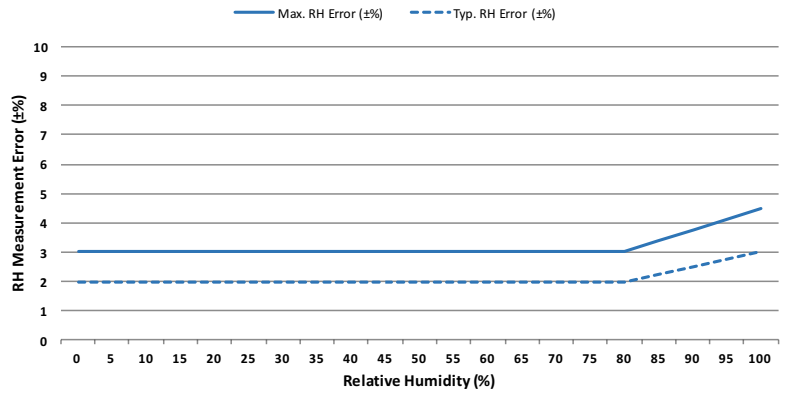
\*Ambient temperature range can be broadened by installing Wired Power Adapter (SNWP2-B)



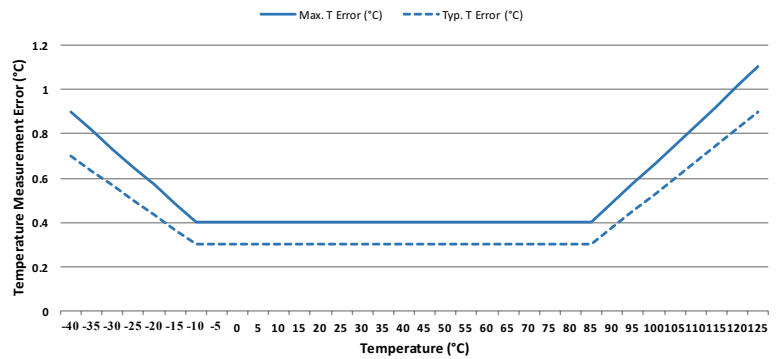
Humidity Sensors				
				
Part Number	RH Range	Port	D	H
SNHT4-10-B-4MP	0-100%	1/4" Male NPTF	ø1.88" [48mm]	2.66" [68mm]

Note: Products in catalog are currently only for sale in U.S., Canada, and Europe except where stated otherwise.

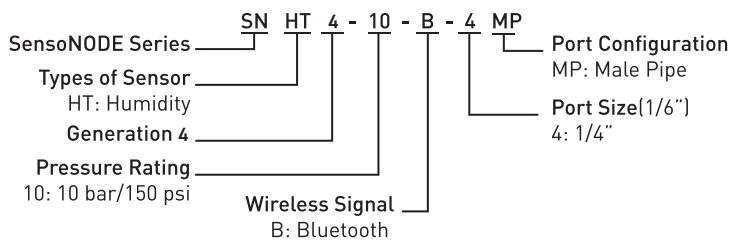
### RH Accuracy



### Temperature Accuracy



### How to Order:



**WARNING**

The products listed can expose you to chemicals including Lead, which is known to the State of California to cause cancer, and to cause birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

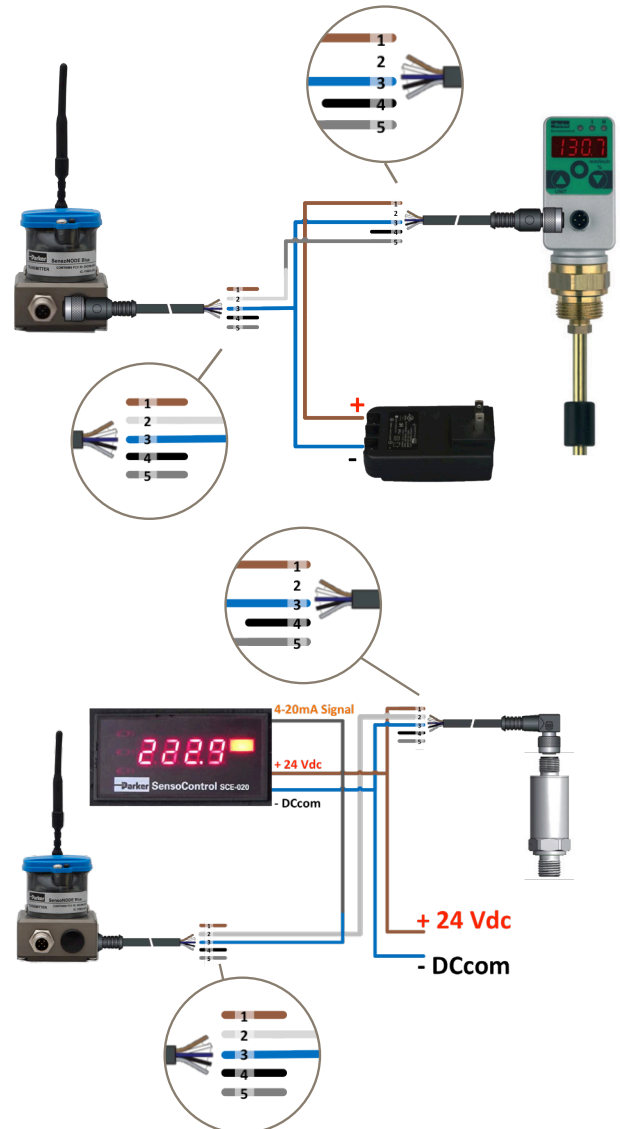


## Features:

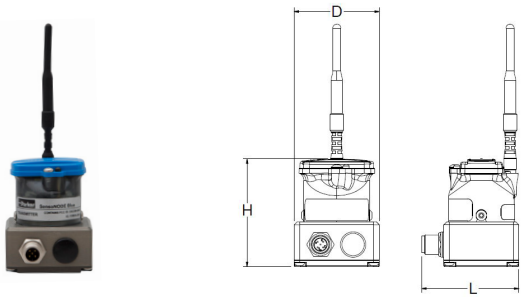
- Connects inline with any 4-20mA Sensor
- Integrates hardwired sensors into wireless Voice of the Machine Software
- Does not require reprogramming of existing control system
- Magnetic base for tool-free mounting
- Threaded stud port provides alternative mounting options where magnetic base is not suitable
- Definable mapping feature in Voice of the Machine Mobile App to present 4-20mA signal in user defined units
- Requires connection cable SCK-400-xx-xx in conjunction with transmitter and 4-20mA Sensor

### Transmitter Technical Data

Base Material	Aluminum
Housing Material	Polycarbonate
Accuracy	0.5% (additive to source)
Resolution	0.1%
Temperature Range with Wired Power	-40ÜF- 185ÜF
Temperature Range with Battery	-4ÜF- 158ÜF
Measurement and Broadcast Interval	User Selectable
Full Range Life Cycles	> 1 million
Certifications	FCC, IC, CE
Battery (Panasonic is recommended brand)	CR123A
IP Rating	IP65



## 4-20mA Transmitter

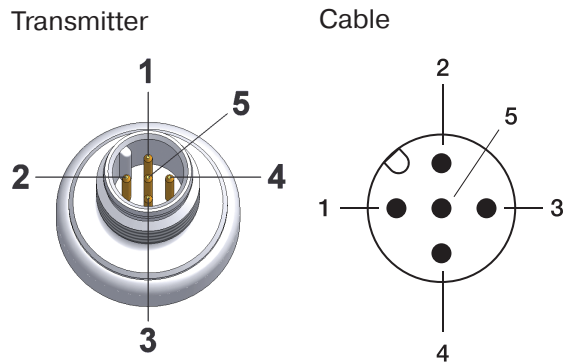


Part Number	Frequency	Base Mounting Thread	D	H	L	Region
SN4204-B	4.2 GHz	1/4-28 UNF x0.45" [11mm]	2.11" [54mm]	2.67" [68mm]	2.41" [61mm]	Worldwide

Note: Products in catalog are currently only for sale in U.S., Canada, and Europe except where stated otherwise.

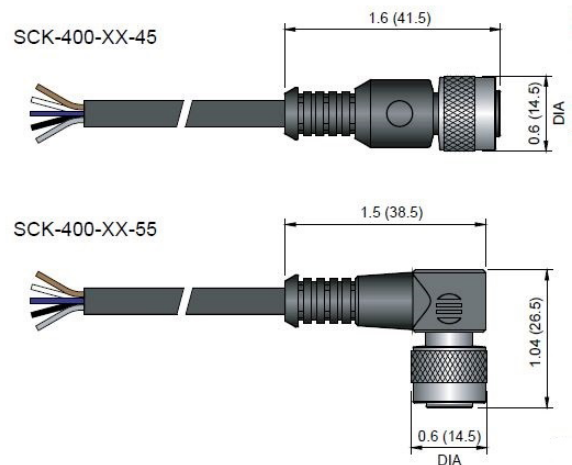
## Pin Assignment

PIN	Connection	Wire Color
1	No Connection	Brown
2	4-20mA Signal In	White
3	4-20mA Signal Out	Blue
4	No Connection	Black
5	No Connection	Gray



## M12 Connection Cable

Part Number	Cable Length	Plug-in Connector
SCK-400-02-45	6.5 ft [2m]	M12 socket, straight
SCK-400-02-55	6.5 ft [2m]	M12 socket, 90U
SCK-400-05-45	16 ft [5m]	M12 socket, straight
SCK-400-05-55	16 ft [5m]	M12 socket, 90U
SCK-400-10-45	32.5 ft [10m]	M12 socket, straight
SCK-400-10-55	32.5 ft [10m]	M12 socket, 90U



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### Features:

- Enables local wireless monitoring of fluid level
- Integrates seamlessly with Voice of the Machine Mobile software
- Eliminates necessity for communication cabling
- High visibility level display
- No surge pipe necessary
- Two switching outputs for independent process control

Kit Technical Data <sup>1</sup>					
SNCLSD4-KIT-	250	370	520	800	1000
Sensor length measurement range [inches (mm)]	9.8 (250)	14.6 (370)	20.5 (520)	31.5 (800)	39.4 (1000)
Active range [inches (mm)]	1.6 to 8.3 (40 to 210)	1.6 to 13 (40 to 330)	1.6 to 18.9 (40 to 480)	1.6 to 30 (40 to 760)	1.6 to 37.8 (40 to 960)
Increment size [inches (mm)]	0.2 (5)	0.2 (5)	0.2 (5)	0.4 (10)	0.4 (10)
Lowest reset point RSP [inches (mm)]	1.6 (40)	1.6 (40)	1.6 (40)	1.6 (40)	1.6 (40)
Largest switching value SP [inches (mm)]	8.3 (210)	13 (330)	18.9 (480)	30 (760)	37.8 (960)

Level Controller Technical Data <sup>1</sup>	
<b>Input Parameters</b>	
Measuring Component	Resistance reed chain with float
Connector thread	G3/4 BSPP; nickel-plated brass: ED soft seal NBR <sup>2</sup>
Wetted Parts	Brass; nickel-plated brass, NBR <sup>2</sup>
Fluid temperature range	-4 to 185°F
Media compatibility	Water; lubricating oil; hydraulic oil
<b>Output Values</b>	
Switching point accuracy	±1% FS at 77°F
Controller Display accuracy	±1% FS ±1 digit at 77°F
Response speed	≤700 ms
Controller resolution	0.3 inches
<b>Float</b>	
Material	NBR
Dimensions	Ø 0.7 inches, length 1.4 inches
<b>Level Rod</b>	
Material	Stainless Steel
Dimensions	Ø 0.3 inches
Operating pressure	14.5 psi

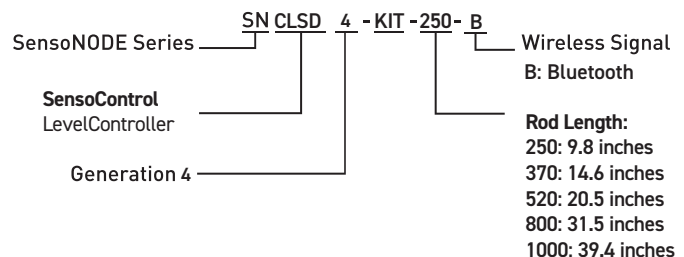
Transmitter Technical Data <sup>3</sup>	
Base Material	Aluminum
Housing Material	Polycarbonate
Accuracy	0.5% (additive to source)
Resolution	0.1%
Ambient temperature (battery limited)	-4 to +158°F
Radio Certifications	FCC, IC, CE
Battery [Panasonic is recommended]	CR123A
IP Rating (Transmitter only)	IP65

<sup>1</sup>Consult Parker Catalog 4083 for additional level controller details & data

<sup>2</sup>Different sealing material (FKM, EPDM, etc) upon request

<sup>3</sup>Consult Analog Transmitter portion of Parker Catalog 3864 for additional details

### How to Order:

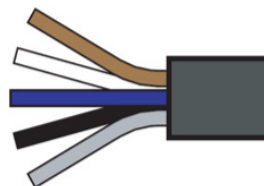




Technical Data	
	<p>Analog Transmitter (SN4204-B)</p> <p>The transmitter wirelessly communicates the analog signal output from the controller to the gateway receiver for monitoring the fluid level of common tanks.</p>
	<p>LevelController (SCLSD-xxx-10-05)</p> <p>The LevelController combines the functions of a level switch, a level sensor and a level display. The LevelController is ideal for the monitoring of fluid level contents. The parameters are set using the keys or over a programming module.</p>
	<p>Mating Cable (SCK-WH-02-45-02)</p> <p>This connection cable (2 meter length) is uniquely designed to connect the analog signals from the controller to the wireless transmitter and switch outputs while also allowing the supply of sufficient voltage needed to power the controller.</p>
	<p>Power Lead (SCK-400-02-45)</p> <p>Connect this cable (2 meter length) via M12 plug to the mating cable to supply voltage to the system. A 15 to 30Vdc supply is required and can be provided via flying leads from the factory DC power or the included 24Vdc power supply included within kit.</p>
	<p>Power Supply (SCSN-240)</p> <p>Provided as an easy solution to supply the appropriate voltage to the wireless kit system. Connect the appropriate Power Leads to corresponding terminals of power supply.</p> <p>Input Voltage: 90~264 VAC Output Voltage: 24Vdc</p>

**Flying Lead Wire Diagram for Level Kit (SCK-400-02-45)**

PIN	Connection	Wire Color
1	V Supply	Brown
2	S2 out	White
3	0 V/GND	Blue
4	S1 out	Black
5	No Connection	Gray



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### Features:

- Enables local wireless monitoring of hydraulic flow
- Integrates seamlessly with Voice of the Machine Mobile software
- Eliminates necessity for communication cabling
- Turbine-based measurement
- Measurement range 4 to 210 gpm
- Low flow resistance
- Capable of reverse flow measurement

Kit Technical Data <sup>1</sup>						
SNCFT4-KIT-	004	016	040	080	160	210
Flow measuring range Qn [gpm (l/min)]	0.25 to 4 (1 to 15)	0.8 to 16 (3 to 60)	1.3 to 40 [5 to 150]	2 to 80 (8 to 300)	4 to 160 (15 to 600)	5 to 210 (20 to 800)
Accuracy (±%) FS/IR @ 21cSt.	± 1 % FS	± 1 % IR	± 1 % IR	± 1 % IR	± 1 % IR	± 1 % IR
Operating Pressure Pn [psi (bar)]	5000 (350)	5000 (350)	5000 (350)	5000 (350)	4200 (290)	5800 (400)
Ports (A-B)	3/4"-16UN #8 SAE ORB	1-1/16"-12UN #12 SAE ORB	1-1/16"-UN #12 SAE ORB	1-5/16"-12UN #16 SAE ORB	1-5/8"-12UN #20 SAE ORB	1-7/8"-12UN #24 SAE ORB
Pressure Drop ΔP [psi (bar)] @ (FS)	21 (1.5)	21 (1.5)	21 (1.5)	58 (4)	58 (4)	72 (5)
Weight [lbs (g)]	1.5 (700)	3.5 (1600)	3.5 (1600)	3.7 (1700)	6 (2700)	11 (5000)

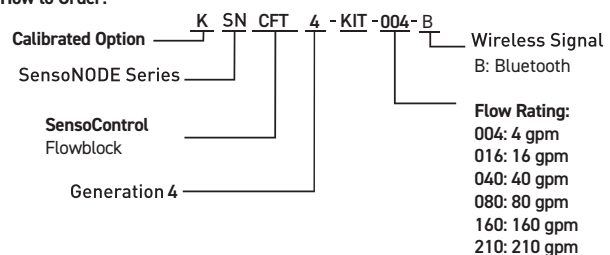
Flow Turbine Technical Data <sup>1</sup>	
<b>Accuracy</b>	
Response time	50 ms
Thermal drift	±0.05 % FS/°C
Repeat accuracy	±0.5 % FS
<b>Resistance to pressure</b>	
Qmax (gpm)	Qn × 1.1
Overload pressure Pmax	Pn × 1.2
<b>Material</b>	
Flow Turbine Housing	Aluminum
Seal	FKM
Wetted Path	Aluminum, steel, FKM
<b>Ambient Conditions</b>	
Ambient temperature	+50 to +122°F
Storage temperature	-4 to +176°F
Tmax Fluid	-4 to +176°F
Filtration	25 μm (10 μm for SNCFT2-004)
Viscosity	15 to 100 cSt.
Protection Class	IP66

Transmitter Technical Data <sup>2</sup>	
Base Material	Aluminum
Housing Material	Polycarbonate
Accuracy	0.5% (additive to source)
Resolution	0.1%
Ambient temperature (battery limited)	-4 to +158°F
Radio Certifications	FCC, IC, CE
Battery [Panasonic is recommended]	CR123A
IP Rating (Transmitter only)	IP65

<sup>1</sup>Consult Parker Catalog 4083 for additional flow block details & data

<sup>2</sup>Consult Analog Transmitter portion of Parker Catalog 3864 for additional details

### How to Order:

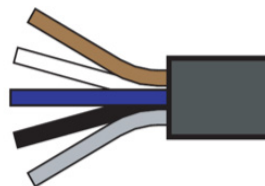




Technical Data	
	<p>Analog Transmitter (SN4204-B)</p> <p>The transmitter wirelessly communicates the analog signal output from the flow turbine to the gateway receiver for monitoring the condition of common hydraulic systems.</p>
	<p>Flow Turbine (SCFT-xxxG-2U-07)</p> <p>The turbine wheel is driven by the oil flow. The generated frequencies are processed through the digital electronics and influences from the disturbing flow effects are compensated for. Because of the low flow resistance <math>Q_R</math>, the hydraulic circuit operates with very low losses.</p> <p>Reverse operation is also possible because of the special vane (winged) design – so the turbine can be operated in both directions.</p> <p>The turbine casing also includes two plugged 7/16-20UN SAE ORB ports to add additional wireless pressure or temperature sensors directly in the oil flow. Please contact division for more detail.</p>
	<p>Mating Cable (SCK-WH-02-45-01)</p> <p>This connection cable (2 meter length) is uniquely designed to connect the analog signals from the flow turbine to the wireless transmitter while also allowing the supply of sufficient voltage needed to power the flow block.</p>
	<p>Power Lead (SCK-400-02-45)</p> <p>Connect this cable (2 meter length) via M12 plug to the mating cable to supply voltage to the system. An 18 to 30Vdc supply is required and can be provided via flying leads from the factory DC power or the included 24Vdc power supply within kit.</p>
	<p>Power Supply (SCSN-240)</p> <p>Provided as an easy solution to supply the appropriate voltage to the wireless kit system. Connect the appropriate power leads to corresponding terminals of power supply.</p> <p>Input Voltage: 90~264 VAC Output Voltage: 24Vdc</p>

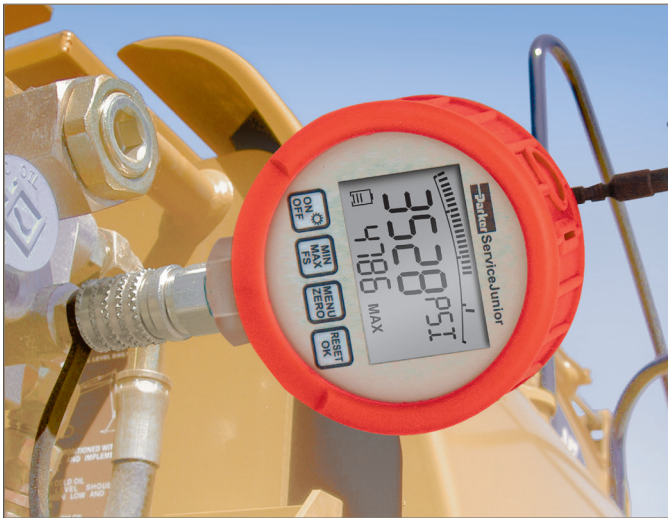
### Flying Lead Wire Diagram for Flow Kit (SCK-400-02-45)

PIN	Connection	Wire Color
1	V Supply	Brown
2	No Connection	White
3	0 V/GND	Blue
4	No Connection	Black
5	No Connection	Gray



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**Features:**

- Wireless remote readings
- Easy operation
- Hand-held digital pressure gauge
- Measure and display - pressure
- Backlit display
- User-adjustable pressure units
- Min/Max memory
- Battery life indicator
- Ranges for hydraulics and pneumatics
- Scanning rate of 10ms
- Fluid temperature: -40°F to 176°F
- Certifications: FCC, IC, CE

Cover Color Code	
Blue	-14.5 to 230 psi (-1 to 16 bar)
Green	0 to 1500 psi (0 to 100 bar)
Orange	0 to 5800 psi (0 to 400 bar)
Red	0 to 8700 psi (0 to 600 bar)

**Digital pressure monitoring**

- Capture minimum/maximum pressure changes at a rate of 10 ms
- Digital readout more accurate than mechanical
- Exportable records and proof-of-work statements
- Set alarms, create/view trend graphs, create asset records

**Wireless operation**

- Powered by Industrial Mobile Software
- Fast accurate readings
- No more wiring or hoses getting caught in machinery
- Line of sight is not needed to obtain measurement
- Allows users to be away from machinery while in use and under full load, reducing safety risks

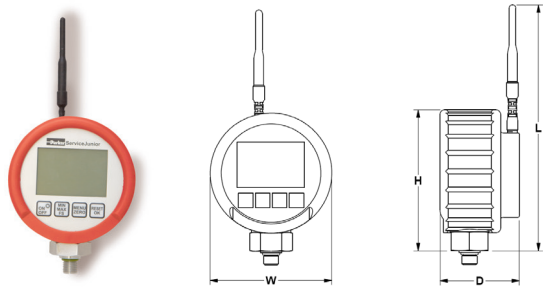
**Scalable and expandable**

- Increase or decrease the total number of gauges used
- No need to reconfigure wired infrastructure
- Works with SensoNODE™ Blue Sensors via Mobile App





**ServiceJunior CONNECT**



ServiceJunior CONNECT (PD Coupler*)	ServiceJunior CONNECT (EMA3 Coupler**)	ServiceJunior CONNECT (1/4" NPT Port)	Measuring Range	Overload Pressure (psi)	Resolution (psi)	Accuracy
SCJN-016-01-PD-BLE2	SCJN-016-01-BLE2	SCJN-016-01-4MP-BLE2	-14.5 to 230 psi (-1 to 16 bar)	460	0.1	0.5% FS
SCJN-100-01-PD-BLE2	SCJN-100-01-BLE2	SCJN-100-01-4MP-BLE2	0 to 1500 psi (0 to 100 bar)	2,900	1	0.5% FS
SCJN-400-01-PD-BLE2	SCJN-400-01-BLE2	SCJN-400-01-4MP-BLE2	0 to 5800 psi (0 to 400 bar)	11,600	1	0.5% FS
SCJN-600-01-PD-BLE2	SCJN-600-01-BLE2	SCJN-600-01-4MP-BLE2	0 to 8700 psi (0 to 600 bar)	14,500	1	0.5% FS

Product Dimensions	W	D	H	L
ServiceJunior CONNECT	3.52" [89.40mm]	2.28" [57.91mm]	4.04" [102.61mm]	7.05" [179.07mm]

Note: Products in catalog are currently only for sale in U.S., Canada, and Europe except where stated otherwise.

Battery life is dependent upon wireless transmission rate:  
 1 second rate = 100 hours of battery life    2 second rate = 200 hours of battery life

\* PD Couplers rated to 6,000 psi max

\*\* EMA3 Couplers rated to 9,000 psi max

Note: To receive ServiceJunior with calibration certificate, add K- to the beginning of the part number. (i.e. K-SCJN-016-01-PD-BLE2)

**Accessories**

Part Number	Description
PD248	PD Series Diagnostic Coupler with 1/4-19 BSPP thread
SCA-1/4-EMA-3CF	1/4- 19 BSPP female to M16x2.0 EMA3 female swivel
1/4X1/4FHG4S	1/4- 19 BSPP female to 1/4" NPT male adapter, available from TFD
PDH-19	19" PD Hose extension to be used with PD nipple
PDH-32	32" PD Hose extension to be used with PD nipple
SMA3-400CF	16" (400 mm) Hose assembly for EMA M16X2.0 interface
SCC-300	Storage case for three gauges and diagnostic adapters

**Kits**

EMA Kits	PD Kits	1/4 MP Kits
SCJN-KIT-016-BLE2	SCJN-KIT-016-PD-BLE2	SCJN-KIT-016-4MP-BLE2
SCJN-KIT-100-BLE2	SCJN-KIT-100-PD-BLE2	SCJN-KIT-100-4MP-BLE2
SCJN-KIT-400-BLE2	SCJN-KIT-400-PD-BLE2	SCJN-KIT-400-4MP-BLE2
SCJN-KIT-600-BLE2	SCJN-KIT-600-PD-BLE2	SCJN-KIT-600-4MP-BLE2



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**Features:**

- Supplies continuous power to sensors
- Used with IEC/UL 508 Class 2 power supply
- Easy upgrade eliminates the need for battery replacement
- Extends temperature operating range over batteries
- FCC, IC, and CE certified when used with SensoNODE products

**Technical Data**

Part Number	SNWP2-B
Wire Length	9.8 ft [3m]
Temperature Range	-40°F- 185°F
Input Power	5-36 Volts DC
Output Power	3 Volts DC
Connection	Flying lead 24 AWG Wires
Form	CR123A Battery

**WARNING**

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# Notes

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# Notes

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# Parker Fluid Connectors Group

**Your complete source** for quality tube fittings, hose & hose fittings, brass & composite fittings, quick-disconnect couplings, valves, and assembly tools, locally available from a worldwide network of authorized distributors.

## **Fittings:**

Available in inch and metric sizes covering SAE, BSP, DIN, GAZ, JIS, and ISO thread configurations, manufactured from steel, stainless steel, brass, aluminum, nylon, and thermoplastic.

## **Hose, Tubing, and Bundles:**

Available in a wide variety of sizes and materials including rubber, wire-reinforced, thermoplastic, hybrid and custom compounds.

## **Worldwide Availability:**

Parker operates Fluid Connectors manufacturing locations and sales offices throughout North America, South America, Europe, and Asia-Pacific.

For more information on

## **SensoNODE and Voice of the Machine** products:

**Visit:** [Parker.com/ConditionMonitoring](http://Parker.com/ConditionMonitoring)

**Call:** (763) 544-7781

For more information on

## **SensoControl Wired Diagnostic and Control** products:

**Visit:** [Parker.com/SensoControl](http://Parker.com/SensoControl)

**Call:** (763) 544-7781

**Have questions or need help?** Sign into our Condition Monitoring Service Desk.

**Solutions.Parker.com/IoT-Support**

Sales of **SensoNODE** Sensors and **Voice of the Machine** Software in U.S., Canada and Europe. Consult QCD for other regions.

