

# WIRELESS PRESSURE SENSOR WC30i-PSI

**FREEWAVE**



## KEY FEATURES

Available in standard pressure ranges

Rapid pressure sampling with configurable alarms and report by exception

Pushbutton or remote zeroing

Compact and simple to install and maintain

Rugged design for demanding outdoor environments

Internal battery powers integrated pressure sensor and radio for years

Up to ½ mile range

½" NPT Process connection standard

Class 1 Division 1, Intrinsically safe system

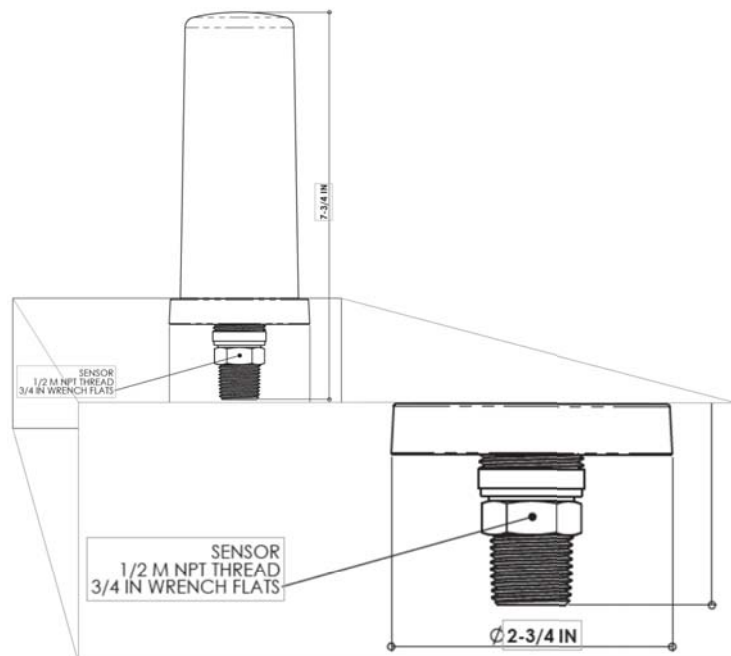
## OVERVIEW

### Rugged, Simple, Flexible, Value

FreeWave's new WC30i-PSI Modular Pressure Sensors are intrinsically safe wireless pressure sensors that are easily and quickly installed and deployed at a low-CAPEX or OPEX price point.

The WC30i Wireless Pressure Sensors are rated up to 10,000 psi with an accuracy  $<+/-0.25\%$  BFSL.

Together with the WC45i Gateway, the WAVECONTACT system is easily and quickly deployed to implement industrial automation where wired installations would be cost prohibitive. The WAVECONTACT System has been designed for deployment in Class 1 Div 1 locations.



# TECHNICAL SPECIFICATIONS

## PRESSURE SENSOR SPECIFICATIONS @ 77°F/25°C

<b>Accuracy</b>	±0.25% BFSL
<b>Stability (1 year)</b>	±0.25% FS, typical
<b>Over Range Protection</b>	2X Rated Pressure, Minimum
<b>Burst Pressure</b>	5X or 40,000 PSI (whichever is less)
<b>Pressure Cycles</b>	>100 Million
<b>Process Connection</b>	½" NPTM 316L Stainless Steel Standard, F250C Autoclave for pressure > 10,000 psi available. Other process connections and/or material available.

**High Standard Pressure Ranges:** 0-50 psi, 0-100 psi, 0-300 psi, 0-500 psi, 0-1000 psi, 0-3000 psi, 0-5000 psi, 0-7500 psi, 0-10,000 psi, 0-15,000 psi, 20,000 psi

**Low Pressure Ranges:** 0-1 psi, 0-2 psi, 0-5 psi, 0-7.5 psi 0-10 psi, 0-15 psi, 0-20 psi

<b>Compensated Range</b>	0° to 55°C
<b>TC Zero / Span</b>	<±1.5% of FS

## TRANSMITTER - RADIO

<b>Data Update Rates</b>	User-selectable. 5 seconds to 1 hour, typical
<b>Radio Frequency</b>	902–928 MHz, FHSS, license free ISM Band Compliant with FCC Part 15
<b>Range</b>	Up to ½ mile
<b>Networks</b>	Up to 65,520 separate networks
<b>Over the Air Rate</b>	10kbps

## RECEIVER - RADIO

<b>Sensitivity</b>	-109dB
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## INTERFACES

<b>Data Interface</b>	Wireless – available as Modbus registers at Gateway
<b>Internal Diagnostics</b>	Battery voltage, signal strength, error conditions

## DATA TRANSMISSION - RADIO

<b>Report by Exception</b>	Configurable alarm pressure thresholds, pressure sample rate 5 seconds (min).
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## POWER REQUIREMENTS - RADIO

<b>Power</b>	“D” Cell Lithium battery pack. Field replaceable. Class 1 Division 1 certified when used with FreeWave system.
<b>Battery Life</b>	1–10+ years, depending on reporting frequency.
<b>Radio Power</b>	40 mW

## GENERAL INFORMATION - RADIO

<b>Operating Temperature</b>	-40° to +80°C
<b>Humidity</b>	0% - 100% condensing
<b>Size</b>	7¾ in H x 2¾ in Diameter ½ in NPT thread, ¾ in Wrench Flats
<b>Safety</b>	Intrinsically Safe Class 1 Division 1, Temp Code T3, Groups C&D. Conforms to UL Std. 913, Certified to Can/CSA Std C22.2 No. 157

## INFORMATION TO ORDER

Model Number	Description
<b>WC30i-PSI-1</b>	WC30i Wireless P Sensor, 1PSI
<b>WC30i-PSI-20</b>	WC30i Wireless P Sensor, 20PSI
<b>WC30i-PSI-100</b>	WC30i Wireless P Sensor, 100PSI
<b>WC30i-PSI-500</b>	WC30i Wireless P Sensor, 500PSI
<b>WC30i-PSI-1K</b>	WC30i Wireless P Sensor, 1,000PSI
<b>WC30i-PSI-3K</b>	WC30i Wireless P Sensor, 3,000PSI
<b>WC30i-PSI-5K</b>	WC30i Wireless P Sensor, 5,000PSI
<b>WC30i-PSI-10K</b>	WC30i Wireless P Sensor, 10,000PSI

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