

WaveContact Series

WC30i Wireless Pressure Sensor

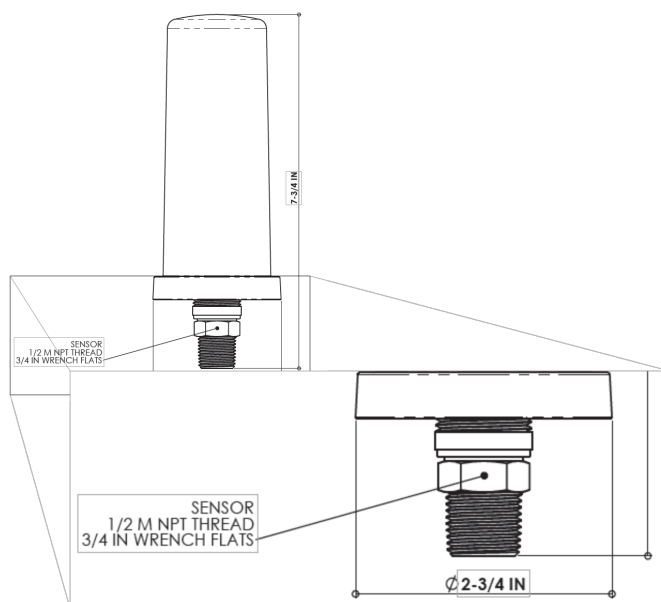


Rugged, Simple, Flexible

FreeWave's new WC30i-PSI Modular Pressure Sensors are intrinsically safe wireless pressure sensors that are easily and quickly installed.

The WC30i Wireless Pressure Sensors are rated up to 20,000 PSI with an accuracy $\pm 0.25\%$.

Together with the WC45i Gateway, WC20i Modular Endpoints and other WaveContact nodes can be combined to form a wireless IO network that is typically quicker to deploy, less expensive, and more reliable than wired installations.



Key Features

- Available in standard pressure ranges
- Rapid pressure sampling with configurable alarms and report by exception
- Push-button 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 0.8 km (0.5 miles) range
- 1/2" NPT process connection for pressures up to 15,000 PSI; F250C Autoclave connection available for 15,000 psi 20,000 PSI
- Class I, Division 1, intrinsically safe

Radio Transmitter

Frequency Range	902 to 928 MHz, FHSS, license-free ISM Band Compliant with FCC Part 15
Range	Up to 0.8 km (0.5 miles) with clear line of sight
Radio Power	40 mW

Data Transmission

Over-the-Air Rate	10 kbps
Data Update Rates	5 seconds to 1 hour, user-selectable
Report by Exception	User-defined alarm thresholds and update rate

Pressure Sensor Specifications @ 25°C / 77°F

Accuracy	+0.25% Full Scale or better
Stability (1year)	+0.25% Full Scale, Typical
Over Range Protection	2x rated pressure
Burst Pressure	5x rated pressure
Pressure Cycles	> 100 Million
Process Connection	½" NTP male for 10,000 PSI and below ½" NPT male or F250C Autoclave fitting for 15,000 PSI F250C Autoclave fitting for 20,000 PSI
Pressure Range	0-2 PSI to 20, 000 PSI, depending on the model
Temperature Compensation Range	-0°C to +55°C

Power Requirements

Battery Pack	1 X D Internal lithium battery pack, field replaceable; C1D1 certified when used with FreeWave system; in situ replacement allowed
Battery Life	Up to 10 years depending on reporting frequency

Radio Receiver

Sensitivity	-109 dBm
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Interfaces

Data Interface	Wireless, available as Modbus registers at the Gateway
Internal Diagnostics	Battery voltage, signal strength, error conditions

General Information

Operating Temperature	-40°C to +80°C (-40°F to +176°F)
Humidity	0 to 100%, non-condensing
Dimensions	196.85 L x 69.85 Diameter (mm) 7.75 L x 2.75 Diameter (in)
Weight	660 g (1.46 lbs)
Safety	Intrinsically Safe Class I, 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
WC30i-PSI-2	WC30i Wireless Pressure Sensor, 2 PSI, ½" NPT connection
WC30i-PSI-20	WC30i Wireless Pressure Sensor, 20 PSI, ½" NPT connection
WC30i-PSI-100	WC30i Wireless Pressure Sensor, 100 PSI, ½" NPT connection
WC30i-PSI-500	WC30i Wireless Pressure Sensor, 500 PSI, ½" NPT connection
WC30i-PSI-1K	WC30i Wireless Pressure Sensor, 1,000 PSI, ½" NPT connection
WC30i-PSI-3K	WC30i Wireless Pressure Sensor, 3,000 PSI, ½" NPT connection
WC30i-PSI-5K	WC30i Wireless Pressure Sensor, 5,000 PSI, ½" NPT connection
WC30i-PSI-10K	WC30i Wireless Pressure Sensor, 10,000 PSI, ½" NPT connection
WC30i-PSI-15K-A	WC30i Wireless Pressure Sensor, 15,000 PSI, F250C Autoclave connection
WC30i-PSI-15K-SS	WC30i Wireless Pressure Sensor, 15,000 PSI, ½" NPT connection
WC30i-PSI-20K-A	WC30i Wireless Pressure Sensor, 20,000 PSI, F250C Autoclave connection