

Features and Benefits

WIRELESS DESIGN

Radio (license-free and global): WPAN 802.15.4, 2.4 GHz, point-to-point (P2P) provides increased **reliability, flexibility, and security in wireless transmission**. Up to 305 m [1000 ft] line-of-sight communication range when used with Honeywell's Wireless Multi-Protocol Receiver (WMPR) module, sold separately.

CONFIGURABLE PLATFORM

Designed for global availability, a wide variety of inputs with simple and universal PLC connections are available. The WPS Series provides a Total Error Band (TEB) of $\pm 2.0\%$ within the operating temperature range. It can measure gage or absolute* pressures from 0 psi to 50 psi through 0 psi to 10,000 psi.

WELL-SUITED FOR TOUGH ENVIRONMENTS

IP67 sealed polycarbonate plastic enclosure ** with 316L Port and Hastelloy® C-276 diaphragm and direct- or remote-mount antenna options. The sensor's body can be **rotated/swiveled 350 degrees about the port axis** so that the LCD can be oriented in the desired reading position after installation.

Range of 305 m [1000 ft]

REMOTE CONTROL AND MONITORING

License-free RF wireless protocol standards allow for remote control and monitoring of processes and equipment.

Consumes low power to prolong battery life

RECONFIGURABLE

Ability to reconfigure multiple WPS Series' inputs allows users to easily add, subtract, or relocate the WPS Series sensor. **Reduces issues with wire connection integrity** on moving equipment.

REDUCES COSTS

Minimizes installation/maintenance costs because there are no wires, conduit, strain relief, clips, connectors, connection boxes, etc.

OFF-THE-SHELF BATTERIES

Batteries Readily available batteries can be obtained from electrical supply houses and distributors.

* Absolute pressure devices require longer lead times.

** Suitability of the device for the operating environment needs to be assessed by the end user.

Potential Applications



INDUSTRIAL APPLICATIONS

- Process monitoring of important pressures
- Gauge placement
- Liquid level sensing (corrosive or non-corrosive)
- Leak detection (detection of pressure drop)
- Process pump failure monitoring
- Well head monitoring
- Irrigation water pressure monitoring
- Equipment health monitoring
- Tank level monitoring (water or corrosive liquids)

Table 1. Specifications

Characteristic	Parameter
Availability	Global, license-free bands
Operating and storage temperature range	-40 °C to 70 °C [-40 °F to 158 °F]
Process connections	1/4 in NPT female connection is integral to 1/2 in NPT male or 3/4 in NPT male
Pressure ranges	0 psi to 50 psi, 0 psi to 200 psi, 0 psi to 500 psi, 0 psi to 1000 psi, 0 psi to 1500 psi, 0 psi to 5000 psi, or 0 psi to 10,000 psi; gage or absolute
Measurement accuracy	better than ±2.0 % Total Error Band (TEB), full scale, full temperature range. Example 100 psi is ±2 psi
Total error band (TEB)	±2.0 %FSS
Output	digital output via wireless, end-user configurable as psi, bar, kPa, and Pa local LCD variant also available
Sensor output resolution	0.04 %FS
Housing/wetted parts	polycarbonate plastic enclosure, 316L stainless steel port, Hastelloy® C-276 diaphragm
Antenna type	direct mount antenna with radome or remote mount antennas available
Housing/radome material	polycarbonate plastic
Sealing	IP65, IP67
Media isolated	yes
Radio/communication protocol	IEEE 802.15.4, 2.4 GHz radio; WPAN 802.15.4
Signal range*	nominal 305 m [1000 ft] clear line of sight when used with a WMPR
Battery	3.6 Vdc Lithium Thionyl Chloride; D size, quantity: 2; see battery details on page 5
Module transmit power	country code A: 16 dBm max.; country code B: 8 dBm max.
Receive sensitivity (typ.)	-98 dBm
Shock	40 g per IEC 60068-2-27
Vibration	5 Hz to 200 Hz, 4 g, Sinusoidal as per IEC 60068-2-6
Operating humidity	0 %RH to 100 %RH
Overload safe pressure	4x FS or 3000 psi whichever is less for ≤1000 psi; 4x FS or 15000 psi, whichever is less for >1000 psi
Burst pressure	3000 psi for ≤ 1000 psi; 4x Full Scale or 15000 psi, whichever is less for >1000 psi
Antenna options	integrated 2.0 dBi., or remote antenna (see antenna options)
Periodic update interval	field programmable rate, 1, 5, 10, 30, or 60 second intervals
Data rate	250 kbps
Battery life**	6.5 years at 60-second interval, 5 years at five-second data interval, 2.5 years at one-second interval
Battery location	battery holder inside base unit
EMC	latest applicable standards: EN 300 328, V1.8.1; EN 61326-1 (2012); EN 301 489-1, V1.8.1; EN 301 489-17, V2.2.1
Agency approvals and standards	16 dBm: FCC 15.247 and 15.209, Industry Canada RSS 210 Issue 8, ACMA (C-Tick mark) 8 dBm: ETSI EN 300 328 V1.8.1 (CE mark)

* Actual range will vary depending upon antennas, cables, and site topography.

** Battery life is defined at 25 °C [77 °F]