

Wireless Integrated Process Pressure Sensor



Smart Agriculture, Smart Building, Smart City, Smart Energy, Smart Facility, Smart Factory, Smart Farm, Smart Retail, Smart Utilities

SKU: WS433-PPS

WIRELESS INTEGRATED PROCESS PRESSURE SENSOR WS433-PPS



WS433-PPS-H1.PNG

☒ Safe Zone

☐ Hazardous Zones

Wireless Integrated Process Pressure Sensor is a combination of wireless sensor transmitter WS433-M12F and sensor PPS, it has different kind of measurement, such as Gage/ Absolute/ Differential, range -1~700 bar, high accuracy and stability, Ultra-low power consumption. The wireless portion is Sub-GHz technology from Texas Instruments allows long range transmission at ultra-low power consumption. It will connect 2-way wirelessly to the wireless coordinator WS433-CL to send data and receiving the configuration. It can be configured the operation parameters like data sending interval, health check cycle... remotely from Gobiots platform or via ModbusRTU software (thru the WS433-CL). Its default data rate is 50kbps, can be switched to 625bps to increase the communication range. It can last up to 10 years with a single AA battery. There are a lot of applications in factory, facility, building, water pipeline, air compressed, machine monitoring...

Applications

Flood Monitoring, Fuel Monitoring, Level Monitoring, Process Monitoring, Safety Monitoring, Smart Irrigation, Water Pressure Pipeline Monitor

Notes For Applications

- Sensor Materials Compatibility: Choose materials that won't react with the substances or degrade in corrosive media.
- Environmental Conditions: Consider the system environment (pipes, vibrations, temperature, etc.).
- Pressure Range: Choose sensors that function well within the process range.

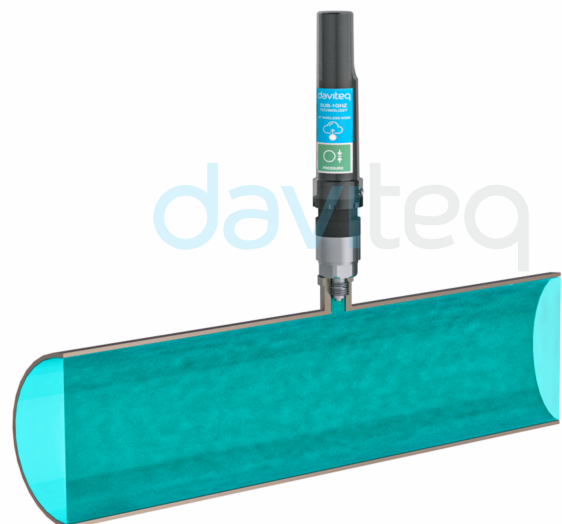
☒ **Reliable & Secured Wireless Connection**
Sub-GHz technology from Texas Instruments allows reliable wireless connection and secured data by AES-128

☒ **10-year with a single battery**
Ultra-low power sensing technology from Daviteq with Ultra-low power wireless technology from Texas Instruments allow the sensor can last up to 10 years with a single battery AA.

☒ **High accuracy**
0.5% of span

☒ **Wide measurement range**
Select from -1~700 bar

PRESSURE SENSOR INSTALLED ON THE WATER PIPE



WS433-PPS-H2.PNG

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Specification

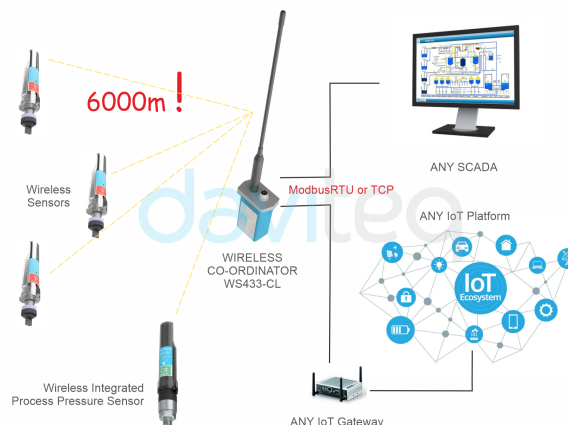
SENSOR SPECIFICATION:	
Sensing Technology	Advanced Piezo/ Capacitance technology
Measuring range	Select from -1~700 bar Gage/ Absolute/ Sealed Gage
Over pressure protection	1.5 x Span
Accuracy & Stability	0.5% of span, < 0.3% span/ year
Measuring Fluids	Any fluid which is workable with wetted materials 304SS/316SS
Working temperature	-10~80℃
Process connection	Standard G 1/4 or Others (consult factory)
WIRELESS TRANSMITTER SPECIFICATION:	
Data speed	Up to 50kbps
Transmission distance, LOS	1000m
Antenna	Internal Antenna
Battery	01 x AA 1.5-3.6VDC, up to 10-year operation, depends on configuration
Frequency Band	ISM 433MHz, Sub-GHz technology from Texas Instrument, USA
International Compliance	ETSI EN 300 220, EN 303 204 (Europe) FCC CFR47 Part15 (US), ARIB STD-T108 (Japan)
Vietnam Type Approval Certification	QCVN 73:2013/BTTTT, QCVN 96:2015/BTTTT (DAVITEQ B00122019)
Security Standard	AES-128
Operating temperature of PCB	-40~60℃ (with AA L91 Energizer®)
Housing	Poly-carbonate, IP67
Installation method	Direct mount on process piping
Product dimensions & weight	160x30x30mm, < 250g (without battery)
Box dimension & gross weight	190x50x50mm, < 300g

CONNECT WIRELESS SENSORS TO any PLC or HMI



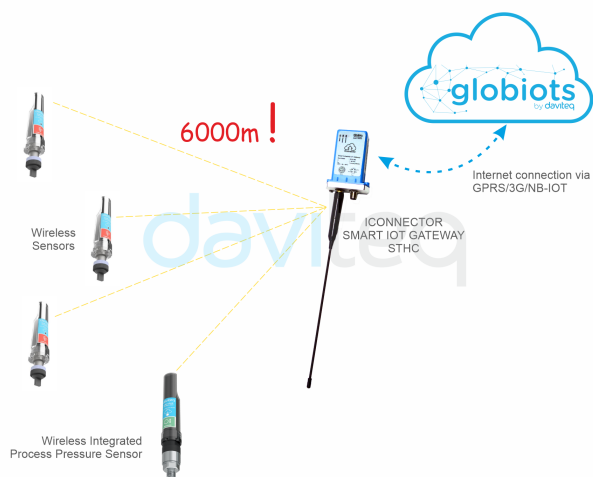
WS433-PPS-H3.PNG

CONNECT WIRELESS SENSORS TO any SCADA or IoT Platform



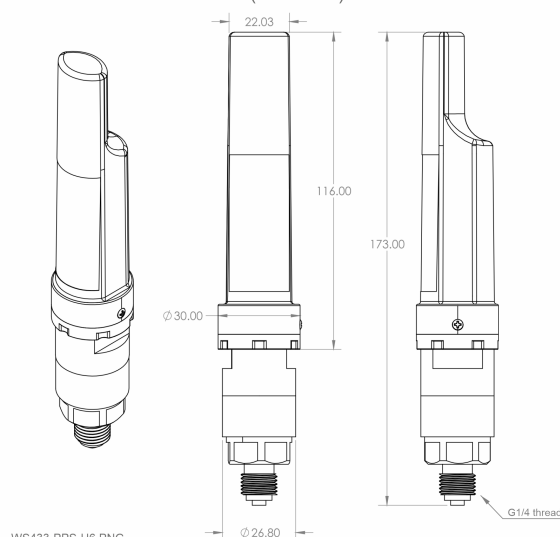
WS433-PPS-H4.PNG

CONNECT WIRELESS SENSORS TO GLOBIOTS Platform



WS433-PPS-H5.PNG

DIMENSION DRAWING OF WIRELESS SENSOR (Unit: mm)



WS433-PPS-H6.PNG

CARTON BOX OF WIRELESS SENSOR



SIZE: 50x50x190MM

WS433-PPS-H7.PNG

RECOMMENDED BATTERIES FOR WIRELESS SENSOR WS433

E91 AA Alkaline battery



-18 .. + 60 oC working temperature
10-year shelf life
3000 mAh Capacity
Price: 1X

L91 AA Lithium battery



-40 .. + 60 oC working temperature
20-year shelf life
3500 mAh Capacity
Price: 3.5X

WS433-PPS-H8.PNG

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Ordering Information

ITEM CODE	DESCRIPTIONS
WS433-PPS-G-10	Wireless Integrated Process Pressure Sensor 433MHz, 0-10 BARG, -10~80°C process, G 1/4"-Male port, 316/304SS, type AA 1.5-3.6VDC battery, IP67
WS433-PPS-G-20	Wireless Integrated Process Pressure Sensor 433MHz, 0-20 BARG, -10~80°C process, G 1/4"-Male port, 316/304SS, type AA 1.5-3.6VDC battery, IP67