

iNodes™ Wireless Pressure Monitor (WPM)



**FERGUSON
BEAUREGARD™**
New Intelligence In Problem Solving™

iNodes™ Wireless Pressure Monitor

The iNodes Wireless Pressure Monitor (WPM) is a pressure and temperature monitor that provides an economical method for remote measurement and alarming. The WPM is a self-contained battery powered, solar charged system for Class I, Division 1 hazardous locations which utilizes a permit free radio system for data communications. The WPM provides both remote data reporting and internal logging for convenient trending. Alarm cry-outs are provided for user-settable pressure and temperature conditions as alerts to problems or lost production. The WPM is field configurable and easy to calibrate.



Technical Specifications

Environmental

Operating Temperature	-40°C to +60°C (-40°F to 140°F)
Storage Temperature	-40°C to +70°C (-40°F to +158°F)
Humidity	5 to 95% RH, non-condensing

Measurement

Pressure	<ul style="list-style-type: none"> • Ranges: 0-75 psig, 0-500 psig, 0-1,500 psig, 0-3,600 psig, 0-6,000 psig, 0-10,000 psig (future) • Resolution: 0.05% Full Scale (FS) • Accuracy: ± 1% FS
Temperature	<ul style="list-style-type: none"> • Sensor: 100 platinum RTD • Range: -50°C to +100°C (-58°F to +212°F) • Resolution: 0.1°C (0.2°F) • Accuracy: + 1°C (+ 2°F)

Alarms

Pressure	User-settable low / high setpoint
Temperature	User-settable low / high setpoint with optional RTD
Alarm Holdoff	User-settable, 0 to 1,440 minutes (1 day)

Logging

Log Interval	Every one minute or every five minutes (configurable)
Maximum Log Depth	<ul style="list-style-type: none"> • 10 days in one minute mode • 50 days in five minute mode
Data Reported and Logged	<ul style="list-style-type: none"> • Entry date/time • Instantaneous pressure • Instantaneous temperature • Last day/hour avg, min, max pressure • Last day/hour avg, min, max temperature • Energy level • Device (alarm) status

Features:

- Very low power consumption, solar powered with rechargeable battery storage
- Small, integrated package includes power supply, data storage, processing and communications
- Field configuration, software upgrade and local data retrieval by any iMonitoring-enabled PC, including laptop PCs and PDAs
- Rugged enclosure (IP65)
- Intrinsically safe (UL Class 1, Div. 1, Groups C and D) Temperature Code T4
- User configurable flow and process alarms
 - Alarms can be forwarded to the customer via telephone or email (requires optional alarm service)
 - Alarm holdoff prevents multiple alarm notification, minimizing notification cost
- Data can be secured with cypher encryption

P.O. Box 130158

Tyler, TX 75713

(903) 561-4851

fax (903) 561-6567

www.FergusonBeaugard.com

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The iNodes™ Suite of Products Include:

- Tank Level Monitor
- Wireless Data Switch
- Electronic Flow Monitor
- Wireless Pressure/ Temperature Monitor
- Concentration & Communications Unit
- Concentration & Communications Unit – Remote Terminal Unit
- Compact Flash Radio
- Universal Serial Bus Radio

Communications

Protocol	iMonitoring proprietary Frequency Hopping Spread Spectrum (FHSS)
Certifications	FCC Part 15.247, CFR 47 Part 15
Service	Half-Duplex
Frequency	902 - 928 MHz
Antenna	Standard 1/2 wave omni or optional 6 dBd Yagi
Range	<ul style="list-style-type: none">• To CCU:<ul style="list-style-type: none">• 1,500 feet typical line of sight• Up to 5,000 feet (with optional high gain antennas)• To iMonitoring-enabled PC or PDA: 500 feet

Power

Source	Solar panel, 0.25W standard. Optional 1W remote solar panel (remote power supply)
Storage	<i>Battery:</i> <ul style="list-style-type: none">• Type: Rechargeable 3.6VDC lithium-ion• Life: > 5 years (typical)

Mechanical

Enclosure	<ul style="list-style-type: none">• Ingress protection: Meets IEC IP65 (dust and blowing rain)• Enclosure venting: GORE™ protected vent
Mounting	<ul style="list-style-type: none">• 1/2-inch NPT-M• Overpressure: 1.5 x FS• Burst Pressure: 6 x FS• Mounting for 0-75, 0-3,600, and 0-6,000: 1/2-inch NPT• Mounting for 0-500 and 0-1,500: 1/4-inch NPT

Regulatory Approvals

Safety	UL and c-UL, Class I, Division 1, Groups C and D, temperature code T4 (Intrinsically safe)
Communications	Meets FCC Part 15.247 and Code of Federal Regulations (CFR) 47, Part 15



Contact us today to learn how iNodes Technology can help improve your production performance. Visit our web site—or email us at: Automation@FergusonBeauregard.com

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