Easy Setup: Field Wireless

- Cut back on troublesome wiring, reducing setup costs.
- Traditional wired connections can easily be switched to a wireless solution.

ISA100.11a*1 International Wireless Communication Standard

- Advanced encryption maintains communication security.
- Multi-vendor communication supports transmitters from a variety of manufacturers.

Reliable, Fast, 8-ch Multipoint Measurements

- 8 ch isolated universal input: Perfect for multipoint measurement applications.
- High performance measurements with intervals as fast as 1sec (3ch), or 2sec (8ch).
- Superb environmental tolerance:
  - Operating temperature of -40 to 85°C (-40 to 185°F);
  - Protection level of IP66/IP67 & NEMA 4X.

Easy Battery Maintenance

- Battery life of up to 6 years (measuring at 60 second intervals on 8 ch).
- Battery packs can be swapped even in hazardous areas.*3

Supporting Plant Wide Field Wireless

- Full Redundancy (Duplicate, Duocast)
- 4 hops
- Remote Antenna + extension cable

*1 Industrial wireless communication standard from the International Society of Automation (ISA).
*2 As for explosion protect type, see below FM, CSA, ATEX, IECEx: -50 to 70°C T1SS; -20 to 60°C.
*3 FM, CSA, ATEX, IECEx intrinsically safe approval. TII5 intrinsically safe approval (pending).

Bulletin 04R01B01-01EN

www.field-wireless.com
**Specifications**

**Wireless Specifications**
- **Communication protocol**: ISA100.11a (IEE5802.15.4)
- **Frequency**: 2400 - 2483.5MHz
- **Data rate**: 250 kbps
- **RF Transmitter power**: Max. 11.6dBm (Fixed)
- **Radio security**: AES 128 bit codified
- **Antenna**: +2 dBi Omni directional

**Standard Specifications**
- **Accuracy**: Please refer to GS 04R01B01-01EN
- **Battery life**: Generally 6 years under the following conditions: update time 60 sec, device role I/O functions only, ambient temperature 23°C ±2°C, LED indicator off

**Functional Specifications**
- **Input channels**: 8 points
- **Input signal**: Thermocouples: B,E,J,K,N,R,S,T (IEC584)
  - RTD: Pt100,Pt200,Pt500 (IEC751) 2-, 3-, and 4-wire
  - DCV**: mV (-10 to 100mV), V (-0.01 to 1V)
  - Ohm: Resistance 2-, 3-, and 4-wire (0 to 2000Ω)
  - Current**: mA (4 to 20 mA, with external shunt resistors)
- **Update period**: 1 sec to 60min selectable (minimum of 2 sec with 4 ch or more)
- **Power supply**: Lithium thionyl chloride (size D × 2) battery
- **Enclosure**: IP66/IP67,NEMA Type 4X
- **Operating ambient temperature**: -40 to 85°C (-40 to 185°F)**

**Certification / Conformity**
- **Explosion protect**
  - CSA, FM: Intrinsically safe and nonincendive approval
  - ATEX and IECEx scheme: Intrinsically safe approval
  - TIIIS: Intrinsically safe approval (pending)
- **EMC**
  - EN61326-1 Class A Table 2 (For use in industrial locations), EN61326-2-3, EN55011 Class A Group 1

*1 Actual battery life will vary depending on operating temperatures, vibration, and other environmental factors.
*2 Does not support explosion proof standards.
*3 As for explosion protect type, see below FM, CSA, ATEX, IECEx: -60 to 70°C
TIIIS: -20 to 60°C

**System Configuration Example**

**MW100**
- Data Logger
- Data Acquisition
- Retransmission output

**DX1000/DX2000**
- Paperless Recorder
- Data Acquisition

*System Configuration Example*

**YFGW410**
- Field Wireless Management Station

**YFGW510**
- Field Wireless Access Point

**FieldMate**
- Versatile Device Management Wizard

**YFGW710**
- Field Wireless Integrated Gateway

**YTMX580**
- Infrared adapter

**Vig-RS-5E**
- For existing systems (Modbus/RTU or Analog output)

**Ethernet**
- (Modbus TCP/IP)

** Rotary Dryer/Kiln**
- Temperature Monitoring

**Storage Tank/Vessel**
- Temperature Profile Monitoring

**Coal Storage Yard**
- Temperature Monitoring

**Water Treatment**
- Switchover to wireless transmitters (4 to 20 mA output)

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