



# Field Wireless

Building a wireless future to last

# VTMX<sup>®</sup>

## Multi-Input Temperature Transmitter

**ISA100**  
**Wireless**  
**COMPLIANT**



YTMX580

### 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); \*2  
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)
- 4hops
- 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 TISS; -20 to 60°C.

\*3 FM, CSA, ATEX, IECEx intrinsically safe approval. TIIS intrinsically safe approval (pending).

Bulletin 04R01B01-01EN

[www.field-wireless.com](http://www.field-wireless.com)

## Specifications

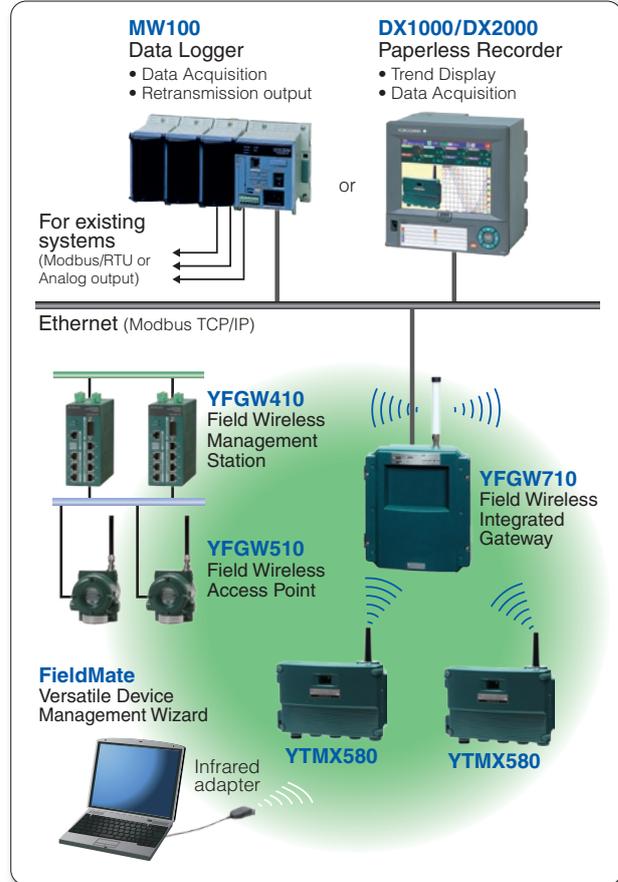
Wireless Specifications	
Communication protocol	ISA100.11a (IEEE802.15.4)
Frequency	2400 - 2483.5MHz
Data rate	250 kbps
RF Transmitter power	Max. 11.6dBm (Fixed)
Radio security	AES 128 bit codified
Antenna	+2 dBi Omni directional
Standard Specifications	
Accuracy	Please refer to GS 04R01B01-01EN
Battery life	Generally 6 years under the following conditions*1: 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*2: mV (-10 to 100mV), V (-0.01 to 1V) Ohm: Resistance 2-,3-, and 4-wire (0 to 2000Ω) Current*2: 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)*3
Certification / Conformity	
Explosion protect	CSA,FM: Intrinsically safe and nonincendive approval ATEX and IECEx scheme: Intrinsically safe approval TIIS: 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; -50 to 70°C TIIS; -20 to 60°C

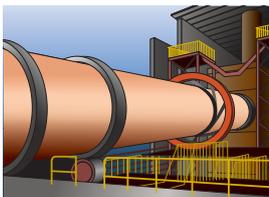
## System Configuration Example



## Application Examples

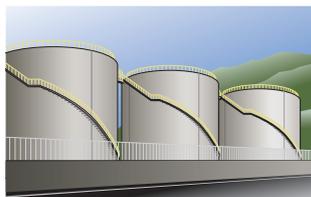
### Rotary Dryer/Kiln

- 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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ACT  
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