



Field Wireless

Building a wireless future to last

VTMX[®]

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. TISS intrinsically safe approval (pending).

Bulletin 04R01B01-01EN

www.field-wireless.com

Multi-Input Temperature Transmitter



Specifications

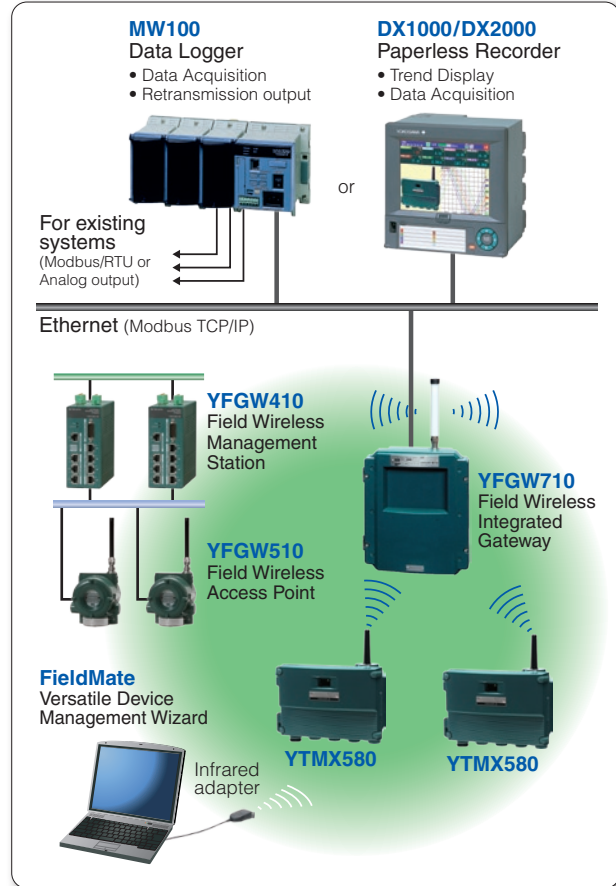
Wireless Specifications	
Communication protocol	ISA100.11a (IEEE802.15.4)
Frequency	2400 - 2483.5MHz
Data rate	250 kbps
RF Transmitter power	Max. 11.6dBm (Fixed)
Radio security	AES 128 bit codified
Antenna	+2 dBi Omni directional
Standard Specifications	
Accuracy	Please refer to GS 04R01B01-01EN
Battery 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	Storage Tank/Vessel	Coal Storage Yard	Water Treatment
<ul style="list-style-type: none"> Temperature Monitoring 	<ul style="list-style-type: none"> Temperature Profile Monitoring 	<ul style="list-style-type: none"> Temperature Monitoring 	<ul style="list-style-type: none"> Switchover to wireless transmitters (4 to 20 mA output)

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SEE CLEARLY

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ACT WITH AGILITY

The clear path to operational excellence

VigilantPlant is Yokogawa's automation concept for safe, reliable, and profitable plant operations. VigilantPlant aims to enable an ongoing state of Operational Excellence where plant personnel are watchful and attentive, well-informed, and ready to take actions that optimize plant and business performance.

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Vig-RS-5E

Printed in Japan, 210(KP) [Ed : 03/b]

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