XW-EDA / XW-EDA-PRO

Long Range Wireless Transmitter

- **Wireless communication up to 1000 m* (3280') outdoor and 100 m* (328') indoor**
- **Wide range of measurements supported (4-20 mA, 0-10 V, mV, TC, and RTD)**
- **Discrete I/O for local control and alarm**
- **Data Assurance and logging up to 4096 readings per measurement**
- **Direct USB configuration for easy set-up**
- **IP65 with long battery life (up to 5 years)**

The XW Series Transmitters provide a wireless interface to a range of analog process signals and precision analog temperature (thermocouple and RTD) sensors. The radio is an IEEE 802.15.4 compliant transmitter operating at 2.4 GHz designed to transmit up to 1000 m* (3280') and 100 m* (328') to a ZW-REC coordinator.

The ZW-REC connects directly to an Ethernet network to serve active web pages and display the data. You can monitor and record data over an Ethernet network or the internet. These wireless devices are designed for demanding industrial applications indoors and harsh outdoor environments. The electronics are protected in a rugged weatherproof polycarbonate NEMA 4 (IP65) rated housing. The XW-EDA Transmitters come in two variants:

XW-EDA

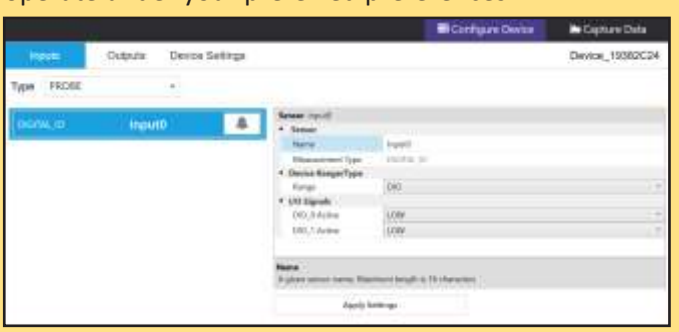
The XW-EDA model support thermocouples, RTD's, and precision process inputs.

XW-EDA-PRO

The XW-EDA-PRO variants adds 2 Discrete Open Drain Digital Inputs / Outputs on a 4 Pin M12 Male connector. These can be used to trigger alarms, monitor a switch, or control other equipment.

Easy Configuration with SYNC

SYNC by Omega allows you to configure device runtime parameters, view process values, export data, and allows you to efficiently set your XW Transmitter to operate under your preferred preferences.



Specifications

Wireless Communication

Standard: IEEE 802.15.4, DSSS
Frequency: 2.4 GHz (2400 to 2483.5 MHz), 16 channels
Network Topology: Star topology
Transmit Power: 9.5 dBm
Receiver Sensitivity: -96 dBm
Range: Up to 1000 m* (3280') outdoor and 100 m* (328') indoor
**without obstruction*

Power

Input Voltage: 5 to 36 Vdc, 24 Vac ±10%
Input Power: 0.8 W maximum
Alkaline Battery: Two C-cell 1.5Vdc (included)
Lifetime: Up to 5 years with frequency of 1 reading per 10 minutes
Lithium Back-Up Battery:** CR2032 (included)
***RTC back-up only*
Safety Qualified AC Power Adaptor (optional):
Nominal Output: 5 Vdc @ 0.6 A
Input: 100 to 240 Vdc, 50/60 Hz
Operating Temperature: 0 to 40°C (32 to 104°F)

Environmental

Operating Conditions:
Base Unit: -20 to 70°C (-4 to 158°F), 90% RH non-condensing
CR2032 Battery: -20 to 60°C (-4 to 140°F), 90% RH
Alkaline Battery: -18 to 55°C (-0.4 to 131°F), 90% RH non-condensing

Packaging

Enclosure Material: Polycarbonate
Enclosure Protection: NEMA 4 (IP65)
Enclosure Dimensions: 135.9 L x 82 W x 39 mm D (5.35 x 3.23 x 1.56")

General

Agency Approvals: ECCN, 5A992, EMC 2014/30/EU, LVD 2014/35/EU, RED 2014/53/EU
Software: Compatible with SYNC by Omega and OEG
Compatibility: Thermocouple, RTD, and Process

Thermocouple

Type	Range	Accuracy
J	-210°C to 1200°C	0.4°C
K	-160°C to 1372°C	0.4°C
T	-190°C to 400°C	0.4°C
E	-220°C to 1000°C	0.4°C
N	-100 to 1300°C	0.4°C
R	40°C to 1788°C	0.5°C
S	100°C to 1768°C	0.5°C
B	640°C to 1820°C	0.5°C
C	0°C to 2320°C	0.4°C

RTD

Type	Range	Accuracy
385, 4 Wire	-200°C to 850°C	0.3°C
385, 3 Wire	-200°C to 850°C	0.3°C
385, 2 Wire	-200°C to 850°C	0.6°C
392, 4 Wire	-200°C to 660°C	0.3°C
392, 3 Wire	-200°C to 660°C	0.3°C
392, 2 Wire	-200°C to 660°C	0.6°C
3916, 4 Wire	-200°C to 660°C	0.3°C
3916, 3 Wire	-200°C to 660°C	0.3°C
3916, 2 Wire	-200°C to 660°C	0.6°C

Process Inputs

Type	Range	Accuracy
Current	0-24 mA	±10 uA
Voltage	0-10 V	±5.0 mV
Voltage	0-1 V	±0.5 mV
Voltage	0-100 mV	±0.05 mV

XW Wireless End Device Transmitter

To Order	
Model No.	**Description**
XW-EDA	Long range wireless end device for use with Dual TC, RTD, and Process
XW-EDA-PRO	Long range wireless end device and Edge Controller for use with Dual TC, RTD, and Process

XW-EDA and XW-EDA-PRO Accessories

Wireless Coordinator/Receiver and Optional External Power Supply	
ZW-REC	Wireless Receiver
UNIV-AC-100/240-5-M8	Universal adaptor with M8 connector
M12 TC Probes	
M12 Series	J Type (Stainless Steel) / K Type (Inconel 600) 6" Thermocouple probes, single and dual element configuration, -50 to 85°C (-58 to 185°F) temp range, available in 1/8" or 1/4" diameter
M12M Series	J Type (Stainless Steel) / K Type (Inconel 600) multi-length Thermocouple probes, single and dual element configuration, -50 to 90°C (-58 to 194°F) temp range, available in 1/4" or 1/8" diameter
M12 TC Cables and Connectors - Note: A cable is required for TC Probe connection to XW-EDA	
M12CM Series	Straight and right-angled M12 Field mountable connector sensor end, compensated thermocouple pins, IEC or ANSI color coded cable insulation options, variety of connection methods
M12 RTD Probes	
PR-21A Series	6" RTD Probes, -50 to 250°C (-58 to 482°F) sensing end, 85°C (185°F) max at connector, Class A, Pt100, or PT1000 element, available in 1/4" or 1/8" probe diameter
PR-22 Series	Multi-Length RTD Probes, -30 to 350°C (-22 to 622°F) Class A probe temp range, -50 to 500°C (-58 to 932°F) Class B probe temp range, -50 to 90°C (-58 to 194°F) connector temp range, available in 1/4" or 1/8" diameter
PR-23 Series	Multi-Length RTD Probes, -30 to 350°C (-22 to 622°F) Class A probe temp range, -50 to 500°C (-58 to 932°F) Class B temp range, -50 to 90°C (-58 to 194°F) connector temp range, 1/8" diameter
M12 RTD Cables and Connectors - Note: A cable is required for RTD Probe connection to XW-EDA	
M12C-PVC-4-S-M-R-F-2	M12, 4 pin Straight Plug to Angled Socket cable - 2m
M12C-PVC-4-S-M-R-F-5	M12, 4 pin Straight Plug to Angled Socket cable - 5m
M12-S-M-FM	M12, 4 pin Straight Plug Field mountable connector
M12-4 Accessories -PRO Models Only	
M12C-P24STPC-SFSR-FL-3	M12, 4 pin Straight socket to stripped leads cable - 3m
M12C-P24STPC-SFSR-FL-5	M12, 4 pin Straight socket to stripped leads cable - 5m
M12C-P24STPC-SFSR-FL-10	M12, 4 pin Straight socket to stripped leads cable - 10m
M12-S-F-FM	M12, 4 pin Straight Socket Field Mountable connector