

# XW-ED / XW-ED-PRO

## Long Range Wireless Transmitter



- Wireless communication up to 1000 m\* (3280') outdoor and 100 m\* (328') indoor
- Wide range of measurement types (4-20 mA, mV, Frequency, Counters, Pulse-Width, and Smart Probes)
- 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 digital probes, digital I/O, and analog process signals. 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-ED Transmitters come in two variants:

### XW-ED

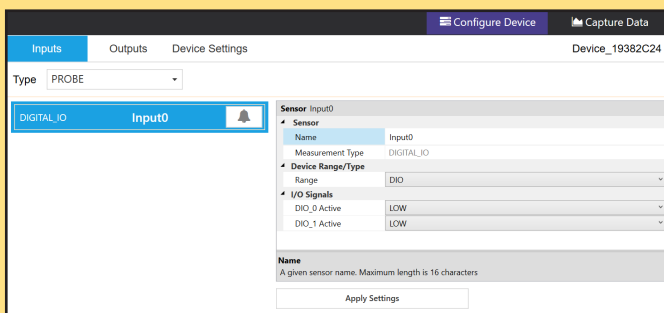
The XW-ED model accepts a wide variety of digital probes, function as a rate/timer/totalizer, or as an mA/mV meter.

### XW-ED-PRO

The XW-ED-PRO variant 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*  
**Optional AC Power Adaptor (UNIV-AC-100/240-5-M8):**  
**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

**Environmental Rating:** NEMA 4 (IP65)  
**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

### Mechanical

**Enclosure Material:** Polycarbonate  
**Enclosure Dimensions:** 135.9 L x 82 W x 39 mm D (5.35 x 3.23 x 1.56")

### General

**Agency Approvals:** ECCN, EAR99, EMC 2014/30/EU, LVD 2014/35/EU, RED 2014/53/EU  
**Software:** Compatible with SYNC and OEG  
**Compatible probes:** zSeries\*, Smart Probes  
*\*when using zSeries probes with the XW-ED-PRO, the discrete I/O will be disabled.*

### Digital Inputs

Type	Range	Accuracy
Frequency	0.01Hz to 100 Hz	±0.5%
Frequency	100Hz to 1000Hz	±1 Hz averaged over 1s
Counter	0 to +8388608	±1 count max
Up/Down Counter	-8388608 to +8388608	±1 count max
Pulse Width (Tpw)	0.2ms min	±50uS ±1%
Pulse Delay (Tpp)	0.2ms min	±50uS ±1%
Duty Cycle	1% to 99%	±50uS f

### Process Inputs

Type	Range	Accuracy
Current	0 to 24 mA	±0.1 mA
Voltage	0 to 1V	±5.0 mV

### XW Wireless End Device Transmitter

To Order	
Model No.	Description
XW-ED	Long range wireless end device for use with Digital Probes
XW-ED-PRO	Long range wireless end device and Edge Controller for use with Digital Probes

## XW-ED and XW-ED-PRO Accessories

<b>Wireless Coordinators/Receivers and Optional External Power Supply</b>	
ZW-REC	Wireless Receiver
UNIV-AC-100/240-5-M8	Universal AC adaptor with M8 connector
<b>Field Mountable Connectors</b>	
M12.8-S-M-FM	M12-8 pin straight plug field mountable connector (for Rate/Process measurement)
M12-S-F-FM	M12-4 straight socket field mountable connector (for Digital I/O connector)
<b>Digital Probes</b>	
SP-001-0	Smart Probe IR, 6:1 FOV
SP-002-0	Smart Probe IR, 10:1 FOV
BT-SMP	Smart Probe, Barometric/Temp, M12
TH-SMP	Smart Probe, Temp/RH, M12
BTH-SMP	Smart Probe, Barometric/Temp/RH, M12
<b>Pre-Calibrated Probes</b>	
zTHP-P-CAL-3-HU	Replacement external industrial probe with temperature and humidity sensor, cable 3m with NIST traceable calibration certificate. Three (3) humidity points of 25%, 50%, and 75%, one temperature of 25°C
zTHP2-P-CAL-3-HU	Replacement external industrial probe with temperature and humidity sensor, short probe and M12 connection with NIST traceable calibration certificate. Three (3) humidity points of 25%, 50%, 75% one temperature of 25°C
zBTP-P-CAL-3-P	Replacement External industrial probe with barometric pressure and temperature sensor, cable 3m with NIST traceable calibration certificate. Three (3) Barometric Pressure Points, temperature of 25°C
zBTHP-P-CAL-3-HU-P-T	Replacement external industrial probe with barometric pressure and temperature sensor, cable 3m with NIST traceable calibration certificate. Three (3) humidity, barometric, pressure, and temperature points.
<b>M12-8 Extension Cables for Probes</b>	
DM12CAB-8-1-RA	1m (3.3') cable dual M12-8 connector, right angle terminator
DM12CAB-8-3-RA	3m (9.8') cable dual M12-8 connector, right angle terminator
DM12CAB-8-5-RA	5m (16.4') cable dual M12-8 connector, right angle terminator
<b>M12-4 Accessories for I/O Connector - PRO Models Only</b>	
M12C-P24STPC-SFR-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