



IP67 Outdoor Rated Industrial Wireless I/O

Zlinx Xtreme Wireless I/O



PRODUCT FEATURES

- IP67 rated for outdoor applications
- Flexible configuration for multiple types of analog/digital I/Os
- Modbus compatible
- Range to 40 miles (64 km) Line of Sight & External Antenna
- Heavy-duty machine mount industrial grade case and components
- Signal strength indicator aids trouble shooting
- 900 MHz and 2.4 GHz versions
- Wide operating temperature range -40° to 74°C
- Versatile power 10- 30 VDC
- AES Encryption
- UL, Class1/Division2

Do you need to monitor remote assets via discrete analog and digital sensors? Or do you need to control remote control equipment from a central SCADA/PLC? Is the remote equipment outdoor? Zlinx Xtreme I/Os can do the job faster, easier and less expensively than stringing cable.

These compact and rugged IP67 units are ideal for outdoor applications in extreme weather conditions for connecting remote I/Os to local I/Os wirelessly (via Peer-to-Peer Mode) or to connect remote I/Os in multiple locations to a central PLC or SCADA or HMI system via a Serial Radio Modem (Via Modbus mode).

Zlinx® Industrial Wireless products operate in license-free, Proprietary RF 900 MHz and 2.4 GHz ISM bands. Select the 900 MHz version for longer distances. For further flexibility, the output power is software selectable. The 900 MHz units offer 256 bit AES Encryption. The 2.4 GHz have 128 bit AES Encryption.

ORDERING INFORMATION

MODEL NUMBER	DESCRIPTION	ANALOG INPUTS	ANALOG OUTPUTS	DIGITAL INPUTS	DIGITAL RELAY OUTPUTS
Zlinx Xtreme Wireless I/O					
ZXT24-IO-222R2	2.4 GHz *	2	2	2	2
ZXT9-IO-222R2	900 MHz *	2	2	2	2

World-wide.

Check with your local distributor for availability and options.

* Check wireless regulations/standards in your geographic area.

ORDERING INFORMATION

MODEL NUMBER	DESCRIPTION
Zlinx Xtreme Wireless I/O Kit	
ZXT9-IOA-KIT	Zlinx Xtreme IP67 Peer-to-Peer I/O Kit: 2 - ZXT9-IO-222R2 (I/O Modules), 2 - CLG-60-24 (Power Supply), 1 - USBAMBM-6F (Program Cable)
	Zlinx Xtreme IP67 Modbus I/O Kit: 1 - ZXT9-RM (Radio Modem), 1 - ZXT9-IO-222R2 (I/O Module), 2 - CLG-60-24 (Power Supply), 1 - USBAMBM-6F (Program Cable)
ZXT9-MB1A-KIT	Zlinx Xtreme IP67 Modbus I/O Kit: 1 - ZXT9-RM (Radio Modem), 2 - ZXT9-IO-222R2 (I/O Module), 3 - CLG-60-24 (Power Supply), 1 - USBAMBM-6F (Program Cable)

ACCESSORIES

CLG-60-24	P67 Power Supply, Panel Mount, 24VDC, 60 W
ZXT9-ANT	900 MHz Spare Antenna
ZZ24D-ANT1	2.4 GHz Spare Antenna
ZXTMT	Conduit Mounting Kit

IP67 Outdoor Rated Industrial Wireless I/O

Zlinx Xtreme Wireless I/O



SPECIFICATIONS

RF PROPERTIES

Physical Standard 802.15.4

FREQUENCY

ZXT9-IO-xxxx 900 MHz ISM (902-928 MHz)

ZXT24-IO-xxxx 2.4 GHz ISM (2.4 to 2.5 GHz)

TRANSMIT POWER

ZXT9-IO-xxxx 1 mW, 10 mW, 100 mW, 500 mW
1 W – Software Selectable

ZXT24-IO-xxxx 10 mW, 16 mW, 25 mW, 30 mW
63 mW – Software Selectable

RECEIVER SENSITIVITY

ZXT9-IO-xxxx -100 dBm

ZXT24-IO-xxxx -105 dBm

OVER THE AIR DATA RATE

ZXT9-IO-xxxx 9.6 or 115.2 kbps
Software Selectable

ZXT24-IO-xxxx 250 kbps

OUTDOOR RANGE

ZXT9-IO-xxxx Supplied Antenna 14 mi (23 km)
High Gain Antenna 40 mi (64 km)

ZXT24-IO-xxxx Supplied Antenna 1.5 mi (2.4 km)
High Gain Antenna 10 mi (16 km)

Range estimates based on optimal RF conditions and an unobstructed line of sight.

TRANSMISSION METHOD

ZXT9-IO-xxxx FHSS

ZXT24-IO-xxxx DSSS

Modulation FSK

CHANNEL CAPACITY

ZXT9-IO-xxxx 10 hop sequences share 50 frequencies

ZXT24-IO-xxxx 12 direct sequence channels

Network Topologies I/O to I/O: One-to-one (Peer-to-Peer mode)
Radio Modem to I/O: One-to-many (Modbus I/O mode)

ENCRYPTION

ZXT9-IO-xxxx 256 bit AES

ZXT24-IO-xxxx 128 bit AES

SUPPLIED ANTENNA

ZXT9-IO-xxxx Impedance – 50 Ω
Connector – RPSMA Female
VSWR – 2.0 Max (in-band)
Gain – 3 dBi
Polarization – Vertical
Length – 7.8 in (198 mm)

ZXT24-IO-xxxx Impedance - 50 Ω
Connector – RPSMA Female
VSWR – 2.0 Max (in-band)
Gain – 2.1 dBi
Polarization – Vertical
Length – 4.38 in (113 mm)

Antenna Connection RPSMA Male

DIGITAL INPUTS

Voltage Range 0 to 48 VDC

Configuration PNP (default) / NPN (selectable)

Low Voltage (0) 1 VDC Maximum

High Voltage (1) Greater than 1 VDC

Pull Up/Down Current 38 μ A

Frequency Input 2 DIs per module software selectable as counters with 0 to 20 KHz range

DIGITAL OUTPUTS (RELAY)

Number of Relays 2

Type C (Normally Open and Normally Closed)

Output Connection 3 Terminals Per Relay (Common, NO, NC)

Comm. Connection 3.5 mm Terminal Block

Ratings 250 VAC @ 4 A, 30 VDC @ 4 A

ANALOG INPUTS / OUTPUTS

Ranges 0 to 5 VDC, 0 to 10 VDC, 0 to 20 mA
4 to 20 mA

Resolution 16 bit (Inputs), 12 Bit (Outputs)

AI Load Resistance 100 M Ω - configured for Voltage
250 Ω - configured for Current

AO Output Current 1 mA maximum configured for Voltage

AO Source Load 450 Ω maximum configured for current

Input Protection Over voltage to 2x max input voltage

POWER

Power Connector Terminal Block

Input Voltage 10 to 30 VDC

Power Use

ZXT9-IO-xxxx 6.8 W (maximum)

ZXT24-IO-xxxx 4.5 W (maximum)

TERMINAL BLOCKS

Wire Size 26 to 14 AWG

Torque 0.5 Nm (min) 0.6 Nm (max)

ENVIRONMENT

Dimensions 5.12x5.12x2.37 in /130.1x130.1x60.2 mm

Operating Temp -40 to 74°C (-40 to 165°F)

Storage Temp -40 to 85°C (-40 to 185°F)

Op Humidity 0 to 95% (Non-Condensing)

Enclosure Rating IP67

Use Indoor and Outdoor

CERTIFICATIONS

CE EN55022: 2006 – Class A
EN61000-6-1: 2006 – Heavy Industrial
EN61000-4-2:2008 – ESD
EN61000-4-3:2006 – EFT
EN61000-4-6:2005 – Cond. Immunity

FCC Class A
FCC ID – ZXT9-RM – OUR-9XTEND
FCC ID – ZXT24-RM – OUR-XBEEPRO

UL C1D2, File – E245458

CONTROLS AND INDICATORS

Signal Strength 8 Green RSSI LED's indicate signal strength

Power Green LED

Receive Data Green LED

Transmit Data Green LED

Programming Port USB

Reset Push Button