

# 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
<b>Zlinx Xtreme Wireless I/O</b>					
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	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)
ZXT9-IOA-KIT	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)
ZXT9-MB2A-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

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## SPECIFICATIONS

RF PROPERTIES		DIGITAL INPUTS	
Physical Standard	802.15.4	Voltage Range	0 to 48 VDC
FREQUENCY		Configuration	PNP (default) / NPN (selectable)
ZXT9-I0-xxxx	900 MHz ISM (902-928 MHz)	Low Voltage (0)	1 VDC Maximum
ZXT24-I0-xxxx	2.4 GHz ISM (2.4 to 2.5 GHz)	High Voltage (1)	Greater than 1 VDC
TRANSMIT POWER		Pull Up/Down Current	38 $\mu$ A
ZXT9-I0-xxxx	1 mW, 10 mW, 100 mW, 500 mW 1 W – Software Selectable	Frequency Input	2 DI's per module software selectable as counters with 0 to 20 KHz range
ZXT24-I0-xxxx	10 mW, 16 mW, 25 mW, 30 mW 63 mW – Software Selectable	DIGITAL OUTPUTS (RELAY)	
RECEIVER SENSITIVITY		Number of Relays	2
ZXT9-I0-xxxx	-100 dBm	Type	C (Normally Open and Normally Closed)
ZXT24-I0-xxxx	-105 dBm	Output Connection	3 Terminals Per Relay (Common, NO, NC)
OVER THE AIR DATA RATE		Comm. Connection	3.5 mm Terminal Block
ZXT9-I0-xxxx	9.6 or 115.2 kbps Software Selectable	Ratings	250 VAC @ 4 A, 30 VDC @ 4 A
ZXT24-I0-xxxx	250 kbps	ANALOG INPUTS / OUTPUTS	
OUTDOOR RANGE		Ranges	0 to 5 VDC, 0 to 10 VDC, 0 to 20 mA 4 to 20 mA
ZXT9-I0-xxxx	Supplied Antenna 14 mi (23 km) High Gain Antenna 40 mi (64 km)	Resolution	16 bit (Inputs), 12 Bit (Outputs)
ZXT24-I0-xxxx	Supplied Antenna 1.5 mi (2.4 km) High Gain Antenna 10 mi (16 km)	AI Load Resistance	100 M $\Omega$ - configured for Voltage 250 $\Omega$ - configured for Current
Range estimates based on optimal RF conditions and an unobstructed line of sight.		AO Output Current	1 mA maximum configured for Voltage
TRANSMISSION METHOD		AO Source Load	450 $\Omega$ maximum configured for current
ZXT9-I0-xxxx	FHSS	Input Protection	Over voltage to 2x max input voltage
ZXT24-I0-xxxx	DSSS	POWER	
Modulation	FSK	Power Connector	Terminal Block
CHANNEL CAPACITY		Input Voltage	10 to 30 VDC
ZXT9-I0-xxxx	10 hop sequences share 50 frequencies	Power Use	
ZXT24-I0-xxxx	12 direct sequence channels	ZXT9-I0-xxxx	6.8 W (maximum)
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)	ZXT24-I0-xxxx	4.5 W (maximum)
ENCRYPTION		TERMINAL BLOCKS	
ZXT9-I0-xxxx	256 bit AES	Wire Size	26 to 14 AWG
ZXT24-I0-xxxx	128 bit AES	Torque	0.5 Nm (min) 0.6 Nm (max)
SUPPLIED ANTENNA		ENVIRONMENT	
ZXT9-I0-xxxx	Impedance – 50 $\Omega$ Connector – RPSMA Female VSWR – 2.0 Max (in-band) Gain – 3 dBi Polarization – Vertical Length – 7.8 in (198 mm)	Dimensions	5.12x5.12x2.37 in /130.1x130.1x60.2 mm
ZXT24-I0-xxxx	Impedance – 50 $\Omega$ Connector – RPSMA Female VSWR – 2.0 Max (in-band) Gain – 2.1 dBi Polarization – Vertical Length – 4.38 in (113 mm)	Operating Temp	-40 to 74°C (-40 to 165°F)
Antenna Connection	RPSMA Male	Storage Temp	-40 to 85°C (-40 to 185°F)
CERTIFICATIONS		Op Humidity	0 to 95% (Non-Condensing)
CE		Enclosure Rating	IP67
FCC		Use	Indoor and Outdoor
UL		CERTIFICATIONS	
		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	
		Class A	
		FCC ID – ZXT9-RM – OUR-9XTEND	
		FCC ID – ZXT24-RM – OUR-XBEEPRO	
		UL	C1D2, File – E245458
CONTROLS AND INDICATORS		CONTROLS AND INDICATORS	
Signal Strength	8 Green RSSI LED's indicate signal strength	Signal Strength	8 Green RSSI LED's indicate signal strength
Power	Green LED	Power	Green LED
Receive Data	Green LED	Receive Data	Green LED
Transmit Data	Green LED	Transmit Data	Green LED
Programming Port	USB	Programming Port	USB
Reset	Push Button	Reset	Push Button