

**B&B ELECTRONICS**

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)
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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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