

# XIO Node

## Sensor to Ethernet Solution



**Product Description:** Built to replace large, bulky, and expensive I/O devices, the XIO Node supports serial communications and analog-to-digital data types. It allows for sensor data to be collected and disseminated via the Ethernet to remote points. The Power-over-Ethernet capability allows for the unit to power itself, and it can also be utilized to power the sensor attached to the XIO Node. The user interface is easily configurable via a web page. The XIO Node was developed by the Naval Surface Warfare Center, Dam Neck, in partnership with W R Systems, Ltd. It supports the Integrated Tactical Mobility System (ITMS): a small-craft, integrated bridge system which provides navigation and tactical information for the special operations forces operating in extreme environments.

### Features

- Extremely small form factor
- Operates in extreme, harsh environments
- Power-over-Ethernet (PoE) capability
- Serial, analog, and digital versions available



### Serial Server XIO Node

**Product Description:** Rugged PoE Four Channel Serial Server. The XIO Node-SS04 allows for easy integration of legacy serial devices into an IP network. Setup is easily performed using the built-in web server. XIO Node-SS04 can be powered from a PoE switch or via an external 4-32 VDC power source. The XIO Node-SS04 can source 12 V up to 500 ma to power-connected sensors/devices. It has software-selectable RS-232 and RS-422 serial interfaces, baud rates from 110 bps to 230.4 kbps, and full or half duplex mode.

### A/D XIO Node

**Product Description:** Rugged PoE 32 Channel Analog-to-Digital Converter Server. The XIO Node-AI32 allows for remote monitoring of up to 32 analog voltage or current signals via an IP network. The XIO Node-AI32 can accurately measure input voltages ranging from 0 to 50 VDC and currents from 0 to 25 ma using dual 24-bit delta-sigma A/D converters on any of the 32 inputs. The 24-bit A/D converters allow for accurate readings down to 200 nV, enabling the device to accurately read signals from thermocouples without external amplifiers. The XIO Node-AI32 has advanced transfer functions to directly read B, E, J, K, N, R, S, & T thermocouples and other linear and non-linear sensors, and to convert the measured signal to engineering units. Data is presented in XML packets on the network using TCP and/or UDP protocols. Setup is easily performed using the built-in web server. XIO Node-AI32 can be powered from a PoE switch or via an external 4-32 VDC power source. The XIO Node-AI32 can source 12 V up to 500 ma to power-connected sensors.

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