

## NEWS RELEASE

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### **New Analog Module Connects Signal Conditioned Sensor Data from 8B Modules to Ethernet Networks.**

*Acromag's new 16-channel BusWorks module provides an Ethernet interface for a rack of 8B signal conditioners to simplify data acquisition from a broad mix of analog isolation amplifiers.*

**Wixom, MI:** Acromag has released another BusWorks Ethernet I/O module to simplify the task of interfacing data from virtually any analog sensor to a Modbus TCP/IP network. The new 958EN model has 16 analog input channels and a quick-connect DB25 port to capture isolated and amplified sensor signals directly from a full panel of industry-standard 8B signal conditioners. This analog input module performs fast, 16-bit A/D conversions to make the temperature, frequency, strain gage or other sensor data available to any control device via Ethernet. Typical applications involve processes requiring high voltage isolation or a mix of signal types (power generation, glass/metal processing, test/measurement instrumentation, and SCADA systems). Commercial-grade versions are affordably priced at \$495. Industrial-grade models offer enhanced performance, -40 to 70C extreme temperature operation, integration/totalization capability, and are designed for UL/cUL Class 1 Division 2 ABCD (Zone 2) sites.



The 958EN has 16 analog voltage inputs to accept  $\pm 5V$  and  $\pm 10V$  signals from 8B or legacy 7B signal conditioning modules through a DB25 port. 8B modules support over 100 analog input types. Fast scanning updates all 16 channels in just 8mS. Dual-format data registers support 16-bit integer and 32-bit floating point formats. Users can read raw channel data based on 16-bit signed integer or 32-bit scaling registers, configurable on a per-channel basis, to minimize CPU or HMI software processing time. Surge protection and 3-way 1500V isolation between I/O, power, and network circuits increase reliability.

A sample averaging function is user-configurable and improves performance in noisy or fluctuating environments. On industrial-grade units, an integration function can totalize inputs with non-volatile counter registers on all channels. Totalizing is ideal for flow applications, providing the ability to accurately measure actual volumetric usage on liquid, gas, electricity, and fuel flows. Users can read instantaneous flow signals and totalized volume data on each channel. Configuration and totalization information are stored in non-volatile memory which is safe in the event of a power loss

These input modules are very easy to use. No software is required as the units are configured using any internet browser to set operating parameters on embedded web configuration pages. An auto-copy function lets users rapidly apply a saved configuration to multiple units. The automatic calibration function uses built-in precision sources. On-demand self-test capability verifies the calibration and performance. Front-panel LEDs provide a visible confirmation of proper operation.

Acromag's makes available Modbus C Library software to greatly simplify the development of custom programs to interface with Acromag's BusWorks and EtherStax Ethernet I/O products. The library, Model ESW-MBLIB, also supports any standard Ethernet Modbus slave device communicating via Modbus TCP/IP or UDP/IP protocol. This utility is ideal for developers that are unfamiliar with Modbus protocol or the framing of TCP/IP or UDP/IP messages. The C library makes programming easy and portable by simply linking user code with the provided function calls. Most function calls require passing only a few parameters such as the IP address, Modbus register address, and register count. The library can be used to develop programs in a Microsoft Visual C environment and with Linux™, VxWorks®, QNX®, or OS-9® operating systems. An example program and C source code are provided.

**Acromag** is an international corporation that has been developing and manufacturing measurement and control products for more than 50 years. They offer a complete line of industrial I/O products including process instruments, signal conditioning equipment, data acquisition boards, distributed I/O modules, and network communication devices.

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Shown: BusWorks Model 958EN analog input Ethernet module with a panel of 8B signal conditioners  
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