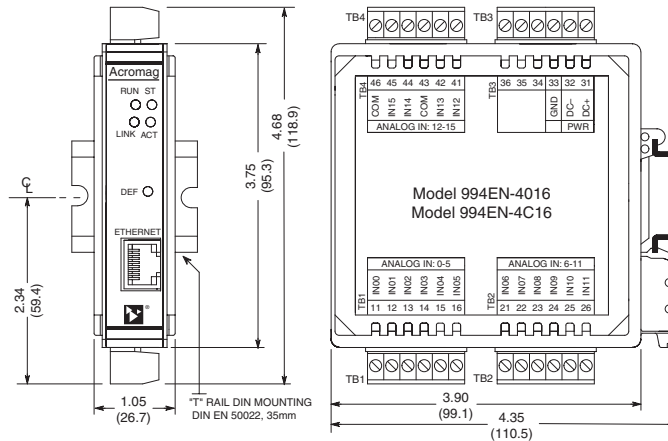


# Ethernet I/O: BusWorks® Series

## 994EN Ethernet Analog Input Modules



Standard model includes cage clamp terminal blocks. Optional terminals are available.

**Modbus/TCP**  
conformance tested

### 16-channel Single-ended Analog Voltage Input ♦ Modbus TCP/IP Communication

#### Description

##### Models

994EN-4016: Industrial-grade units  
994EN-4C16: Commercial-grade units

These modules interface high-level analog input signals to an Ethernet control network. A high-performance design ensures reliable measurements and dependable operation.

Industrial-grade models add a configurable integrator/totalizer plus superior accuracy and temperature performance compared to the economical commercial-grade version.

##### Input Ranges

±5V, ±10V DC  
(selectable on each channel)

##### Ethernet Communication

Modbus TCP/IP, 10/100Base-T(X)

##### Power Requirement

18 to 36V DC, 2.0W

##### Approvals

CE, UL/cUL (industrial-grade units only)  
Zone 2, Class 1, Division 2, ABCD

#### Key Features & Benefits

- High-resolution 16-bit A/D
- Fast scanning of all channels in 8ms
- 3-way isolation and surge suppression
- Configurable integration/totalization function with non-volatile registers
- Dual-format 16/32-bit data registers
- Scaling registers on all channels
- Configurable sample averaging
- Automatic calibration and self-test
- User-adjustable TCP Ports 1-99,999 for advanced network configuration
- Web browser configuration with copy utility for fast setup

#### Performance Specifications

##### Accuracy

994EN-4016: Less than 0.05% of range  
994EN-4C16: Less than 0.10% of range

##### Input Impedance

4M ohms

##### Operating Temperature and Humidity Ranges

994EN-4016: -40 to 70°C (-40 to 158°F)

994EN-4C16: 0 to 55°C (32 to 131°F)

Relative humidity: 5 to 95%, non-condensing.

##### Isolation

3-way isolation of I/O, power, network circuits.

Peak: 1500V AC, ANSI/ISA-82.01-1988

Continuous: 250V AC, 354V DC

#### Ordering Information

##### ♦ I/O Modules

994EN-4016 {industrial-grade}  
16-ch voltage input module with integrator

994EN-4C16 {commercial-grade\*}  
16-ch voltage input module

\* CE approval only, no integrator function

##### ♦ Accessories

Industrial Ethernet Switches

Hardware Accessories and Power Supplies

Software Support



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