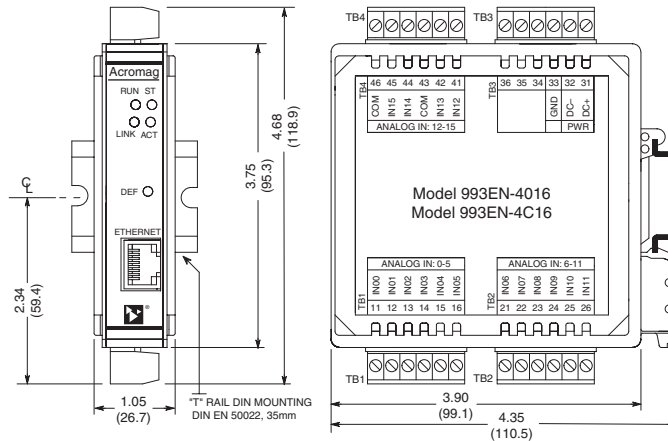


Ethernet I/O: BusWorks® Series



993EN Ethernet Analog Input Modules



Standard model includes cage clamp terminal blocks. Optional terminals are available (see Page 26).

Modbus/TCP
conformance tested

16-channel single-ended analog current input ♦ Modbus TCP/IP communication

Description

Models

993EN-4016: Industrial-grade units
993EN-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

±20mA, 0-20mA, 4-20mA 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

993EN-4016: Less than 0.05% of range.
993EN-4C16: Less than 0.10% of range.

Input Impedance

200 ohms.

Operating Temperature and Humidity Ranges

993EN-4016: -40 to 70°C (-40 to 158°F).
993EN-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

993EN-4016 {industrial-grade}
16-ch current input module with integrator

993EN-4C16 {commercial-grade*}
16-ch current input module

* CE approval only, no integrator function

♦ Accessories

Industrial Ethernet Switches
See Page 25.

Hardware Accessories and Power Supplies
See Page 26.

Software Support
See Page 27.

