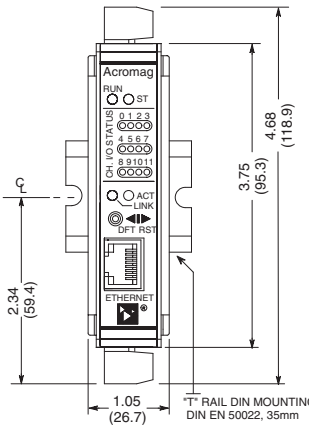
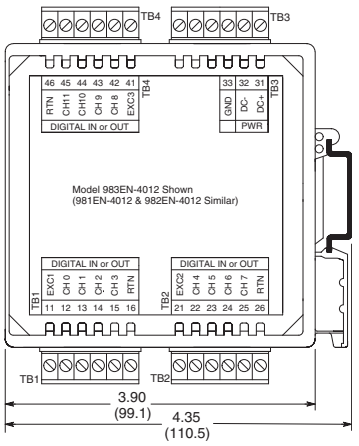
Ethernet I/O: BusWorks® Series

981EN, 982EN, 983EN Ethernet Discrete I/O Modules

RoHS Compliant | Ex | cULus LISTED | CE | 24 HOUR STOCK ITEM | 2 YEAR WARRANTY







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

EtherNet/IP conformance tested

Modbus/TCP conformance tested

12-channel Discrete Input and/or Output ◆ Ethernet/IP, Modbus TCP/IP, i2o® Peer-to-peer Messaging

Description

Models

981EN: 12 input channels
982EN: 12 output channels
983EN: 12 input/output channels

These modules provide an isolated Ethernet network interface for twelve discrete input and/or output channels. The outputs provide direct on/off, high/low, or open/close control of industrial devices. The inputs sense the status of motors, pumps, valves and other equipment. The 983EN model with tandem I/O provides output level control and status verification in one unit.

Input Range

0 to 35V DC

Output Range

0 to 35V DC

Network Communication

EtherNet/IP or Modbus TCP/IP 10/100Mbps with automatic data rate negotiation

Power Requirement

15 to 36V DC supply (2 Watts) required

Approvals

CE/ATEX marked.
UL, cUL listed, Class I; Div. 2; Groups A, B, C, D.
EtherNet/IP, Modbus/TCP conformance tested.

Key Features & Benefits

- Configurable from standard web browser
- 12-channel stand-alone module has far lower start-up cost than multi-piece block I/O systems
- 0-35V DC solid-state logic interface can monitor or control a wide variety of devices
- Bidirectional I/O models facilitate loopback monitoring of the output state
- Socketed SIP resistors provide input and output 5.6K ohm pull-ups to the excitation supply
- Three selectable failsafe modes (off, last-state, or pre-defined) help prevent unsafe conditions

Performance Specifications

◆ Input (981 & 983 models)

Input Type
Twelve active-low, buffered inputs, with a common connection. Built-in 5.6K ohm pullups to excitation terminal socketed for 4-channel groups.

Input Signal Voltage Range
0 to 35V DC, maximum.

Input Impedance
100K ohms, typical.

Input Signal Threshold
TTL compatible with 100mV of hysteresis, typical.

◆ Output (982 & 983 models)

Output Type
12 independent, open-drain, MOSFET switches.

Output Voltage and ON Resistance
0 to 35V DC max. (0 to 500mA/channel continuous).
0.28 ohms maximum ON resistance.

◆ Environmental

Ambient Temperature and Humidity
Operating: -25 to 70°C (-13 to 158F)
Storage: -40 to 85°C (-40 to 185°F)
Relative Humidity: 5 to 95%, non-condensing.

Isolation
1500V AC for 60 seconds or 250V AC continuous.
3-way isolation between I/O, network, and power.

Ordering Information

NOTE: i2o function only on Modbus TCP/IP modules. 981EN does not have the i2o feature.

◆ I/O Modules

981EN-4012
Discrete input, Ethernet Modbus TCP/IP

981EN-6012
Discrete input, EtherNet/IP

982EN-4012
Discrete output, Ethernet Modbus TCP/IP, i2o

982EN-6012
Discrete output, EtherNet/IP

983EN-4012
Discrete input/output, Ethernet Modbus TCP/IP, i2o

983EN-6012
Discrete input/output, EtherNet/IP

◆ Accessories

Industrial Ethernet Switches

Hardware Accessories and Power Supplies

Software Support

Acromag® THE LEADER IN INDUSTRIAL I/O