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TECHNOLOGY GROUP

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with experienced engineers and technicians on staff.

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along with credit for buybacks and trade-ins.

Custom engineering
so your equipment works exactly as you specify.

- Critical and expedited services
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Expert team | Trust guarantee | 100% satisfaction

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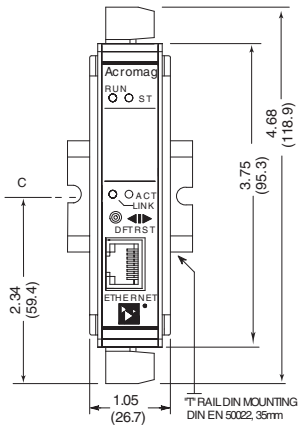
Find the *Acromag BusWorks 972EN-4004* at our website: *Click HERE*

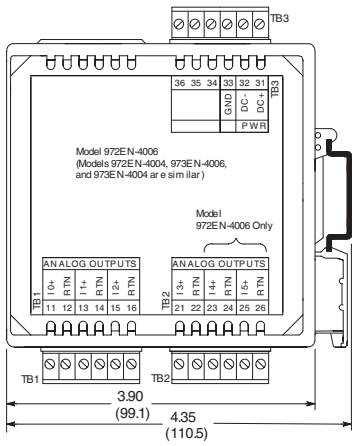
Ethernet I/O: BusWorks® Series

972EN, 973EN Ethernet Analog Output 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

4 or 6-channel DC Current or Voltage Output ◆ Ethernet/IP, Modbus TCP/IP, i2o® Peer-to-peer Messaging

Description

Models

972EN: DC current output channels
973EN: DC voltage output channels

These modules provide up to six channels of analog output. Multi-range outputs support a wide variety of industrial devices. They can drive displays and recorders, control drives, or send analog signals to other systems. High-resolution, low noise, D/A converters deliver high accuracy and reliability. 3-way isolation further improves system performance.

Output Ranges

Ranges selectable on channel to channel basis.

DC Current (user-selectable ranges)
0 to 1mA, 0 to 20mA, or 4 to 20mA

DC Voltage (user-selectable ranges)
0 to 1V, 0 to 5V, or 0 to 10V DC

Network Communication

EtherNet/IP or Modbus TCP/IP10/100Mbps with automatic data rate negotiation

Power Requirement

15 to 36V DC supply required
4.6 Watts (972EN) or 2.3 Watts (973EN)

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
- 6-input stand-alone module has much lower start-up cost than multi-piece block I/O systems
- Universal DC outputs support a wide variety of signals and industrial devices
- Three selectable failsafe modes (0%, last-state, or pre-defined) help prevent unsafe conditions
- Wide operational temperature range permits installation in extreme environments

Performance Specifications

◆ Output

Accuracy
Better than ±0.1% of span, typical.
1.6% for 0 to 1mA range. 0.8% for 0 to 1V range.

Digital to Analog Converter (D/A)
12-bit converter

Current Output Compliance
12V minimum, 13V typical

Current Output Load Resistance Range
0 to 625 ohms, typical

Voltage Output Source Current
0 to 10mA DC, maximum

◆ Environmental

Ambient Temperature and Humidity
Operating:
972EN models: -25 to 60°C (-13 to 140°F)
973EN models: -25 to 70°C (-13 to 158°F)
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. Outputs share a common.

Ordering Information

NOTE: i2o function only on Modbus TCP/IP modules

◆ I/O Modules

972EN-4004
4-ch. current output, Ethernet Modbus TCP/IP, i2o

972EN-4006
6-ch. current output, Ethernet Modbus TCP/IP, i2o

972EN-6004
4-channel current output, EtherNet/IP

972EN-6006
6-channel current output, EtherNet/IP

973EN-4004
4-ch. voltage output, Ethernet Modbus TCP/IP, i2o

973EN-4006
6-ch. voltage output, Ethernet Modbus/TCP, i2o

973EN-6004
4-channel voltage output, EtherNet/IP

973EN-6006
6-channel voltage output, EtherNet/IP

◆ Accessories

Industrial Ethernet Switches
Hardware Accessories and Power Supplies
Software Support

Acromag® THE LEADER IN INDUSTRIAL I/O

Artisan Technology Group is an independent supplier of quality pre-owned equipment

Gold-standard solutions

Extend the life of your critical industrial, commercial, and military systems with our superior service and support.

We buy equipment

Planning to upgrade your current equipment? Have surplus equipment taking up shelf space? We'll give it a new home.

Learn more!

Visit us at **artisantg.com** for more info on price quotes, drivers, technical specifications, manuals, and documentation.

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