Ethernet I/O

Easy Peer-to-Peer Communication with Acromag i2o®

i2o input-to-output communication

Acromag's i2o technology provides the easiest way to link your inputs to your outputs without a PLC, PC or master CPU.
With i2o, many BusWorks 900EN I/O modules have the ability to operate like a long-distance transmitter. You can convert your sensor inputs at Point A to process control signals at Point B. Or, monitor a discrete device at one site by reproducing the discrete level with a relay output at another location.

Use your existing Ethernet lines to save time and wiring expenses
You can connect the input modules to the output modules using your existing copper/fiber infrastructure or with a single new cable. Multiple I/O modules can be multiplexed through a switch or wireless radios.

No complicated controllers. No software. No programming.
Acromag's Ethernet I/O modules have a built-in web page making it simple to configure using your standard web browser. Just click a few menu settings, enter the IP addresses, and you are done. Fast and easy.

BusWorks XT Series I/O Modules

Up to 12 channels per module and reliable, failsafe communication
Monitor up to a dozen devices with a single pair of I/O modules. Discrete I/O modules have twelve channels that you can set up as inputs or as outputs in four-channel groups. This allows bi-directional communication between two modules. Analog input modules measure up to six current, voltage, thermocouple, or RTD sensor signals. This data is then transmitted to a six-channel analog output module providing DC current or voltage output signals.

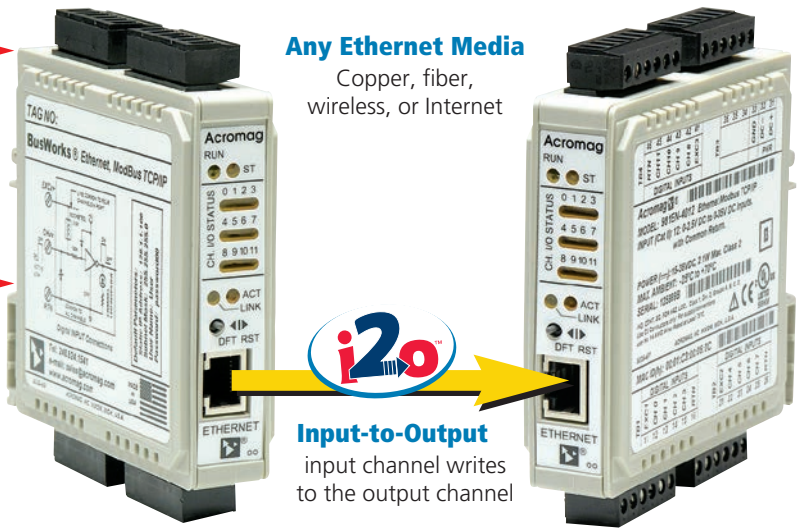
Wire-saving applications
Our i2o technology lets an input module speak directly to an output module. It is ideal for non-critical projects that don't need a PLC or PC master. Reproduce remote signals based on timed or event updates.

- Remote monitoring of process variables (temperature, pressure, level, flow) and discrete devices
- Remote data display, recording, alarms, or control
- Signal splitters
- Analyzer system monitoring
- Power and water utility monitoring
- Tank level, pump, and valve control
- Remote monitoring of motor loads and contactor status
- Remote control switching stations
- Environmental control systems
- Process shutdown, alarming, and annunciator systems
- RFID systems

Peer-to-Peer Communication

Analog Inputs
4-20mA, 0-10V DC, thermocouple, RTD/resistance

Discrete Inputs
on/off, high/low, open/close, momentary push-buttons



Any Ethernet Media
Copper, fiber, wireless, or Internet

Input-to-Output
input channel writes to the output channel

(uni-directional or bi-directional communication)

Analog Outputs
proportional 4-20mA or 0-10V DC

Discrete Outputs
on/off, high/low, open/close


EtherStax I/O® also supports i2o

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Ethernet I/O: BusWorks® XT Series

Acromag i2o® Technology for Peer-to-Peer Communication

XT Series Modules with i2o

Analog Input Modules

XT1211
8 differential current inputs

XT1221
8 differential voltage inputs

XT1231
16 single-ended current inputs

XT1241
16 single-ended voltage inputs

Discrete I/O Modules

XT1111
16-channel sinking outputs

XT1121
16-channel sourcing outputs

Combination I/O Modules

XT1531
4 analog current outputs,
4 discrete I/O

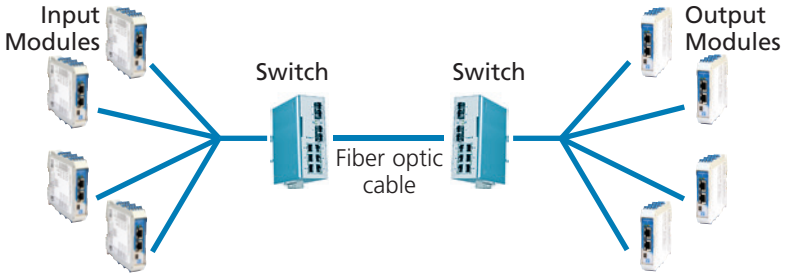
XT1541
8 analog voltage outputs,
4 discrete I/O

Installation #1: Copper Ethernet network

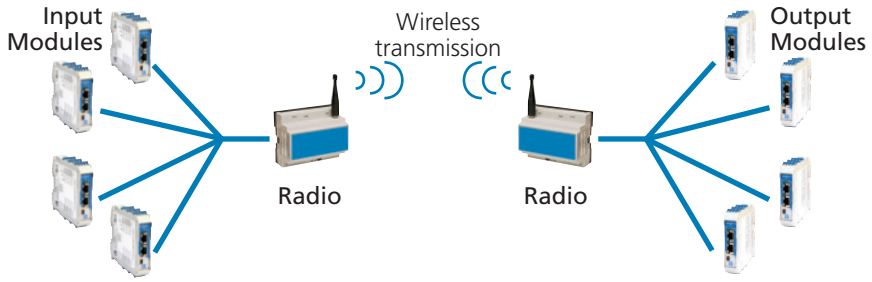
NOTE: Buy modules in pairs. For example:

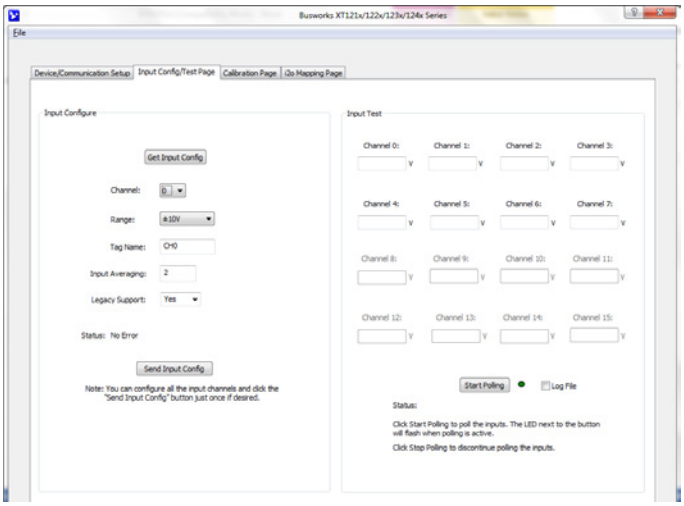
AI with AO
DIO with DO or DIO
Combo with Combo

Installation #2: Fiber optic connection

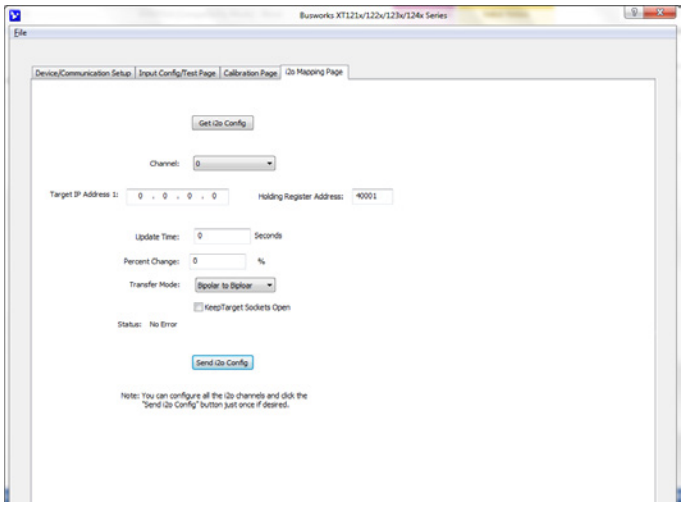


Installation #3: Wireless connection (telemetry systems)





XT Module input configuration screen



XT Module i2o mapping screen

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Ethernet I/O: BusWorks® Series

Acromag i2o® Technology for Peer-to-Peer Communication

900EN Series Modules with i2o

Analog Input Modules
961EN / 962EN
6 differential current/voltage inputs

965EN
6 thermocouple/mV inputs

966EN
6 RTD/resistance inputs

967EN / 968EN
8 differential current/voltage inputs

Analog Output Modules
972EN
4 or 6 current outputs

973EN
4 or 6 voltage outputs

Discrete I/O Modules
982EN
12 solid-state relay outputs

983EN
12 solid-state input/outputs

Combination I/O Modules
951EN
4 analog current inputs,
2 analog current outputs, 6 discrete I/O

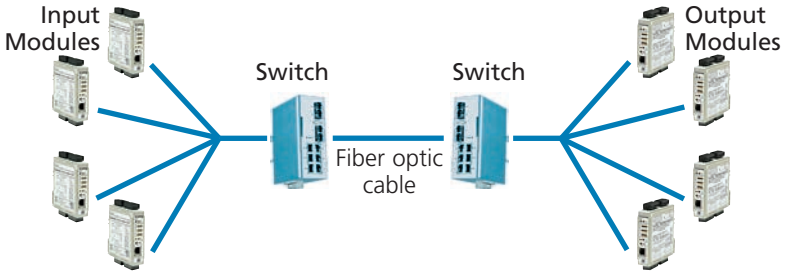
952EN
4 analog voltage inputs,
2 analog current outputs, 6 discrete I/O

Installation #1: Copper Ethernet network

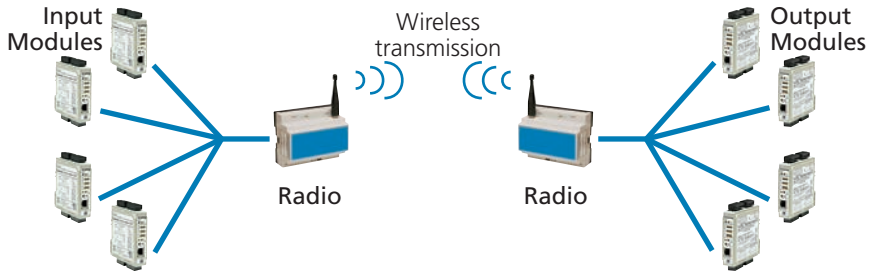
NOTE: Buy modules in pairs. For example:

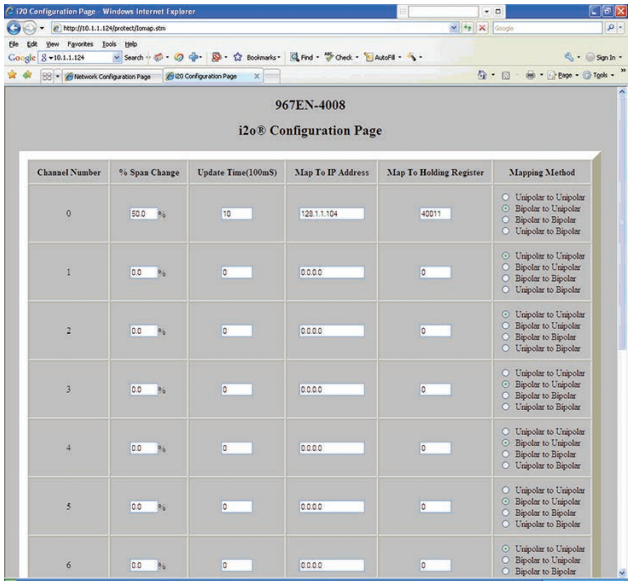
AI with AO
DIO with DO or DIO
Combo with Combo

Installation #2: Fiber optic connection

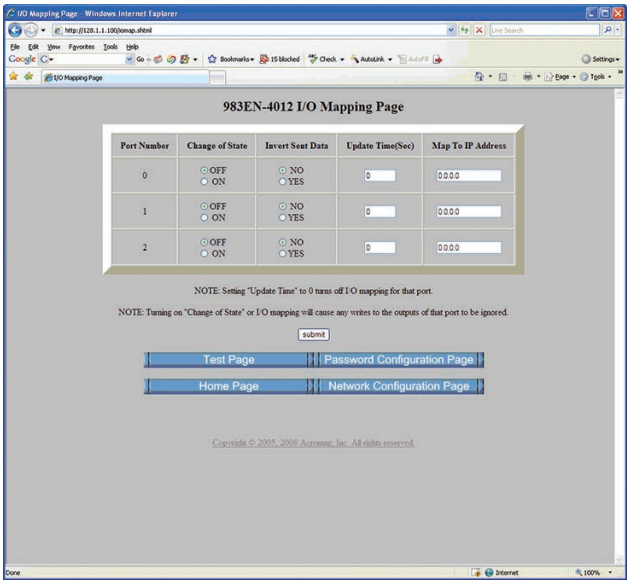


Installation #3: Wireless connection (telemetry systems)





Analog input module configuration screen



Discrete I/O module configuration screen

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Ethernet I/O: EtherStax® Series

Acromag i2o® Technology for Peer-to-Peer Communication

ES2000 Series Units with i2o

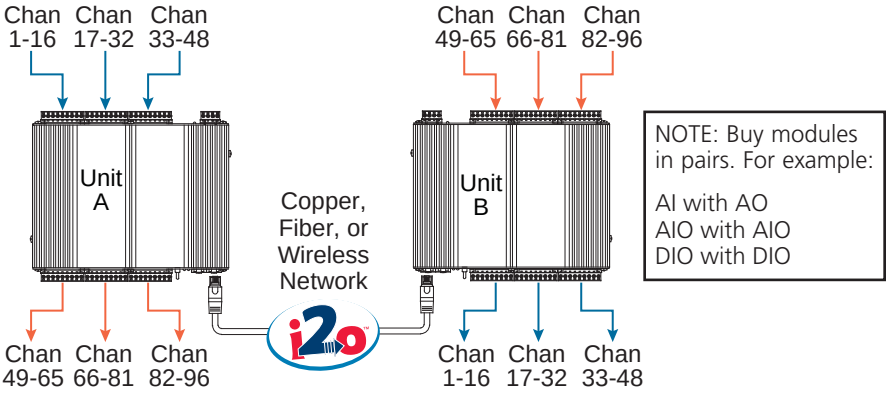
◆ Analog Input Modules
ES2153
16 analog current inputs,
16 analog voltage or 8B inputs

◆ Analog Output Modules
ES2171
16 current outputs
ES2172
16 voltage outputs

◆ Analog I/O Modules
ES2151
16 analog current inputs,
16 analog voltage or 8B inputs,
16 analog current outputs
ES2152
16 analog current inputs,
16 analog voltage or 8B inputs,
16 analog voltage or 8B outputs

◆ Discrete I/O Modules
ES2113
96 solid-state input/outputs
ES2117
32 solid-state inputs
16 relay outputs

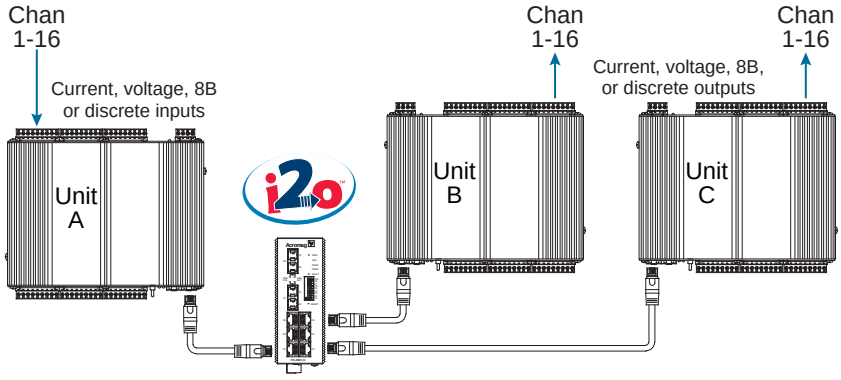
Installation #1: Peer-to-Peer Bi-directional Communication

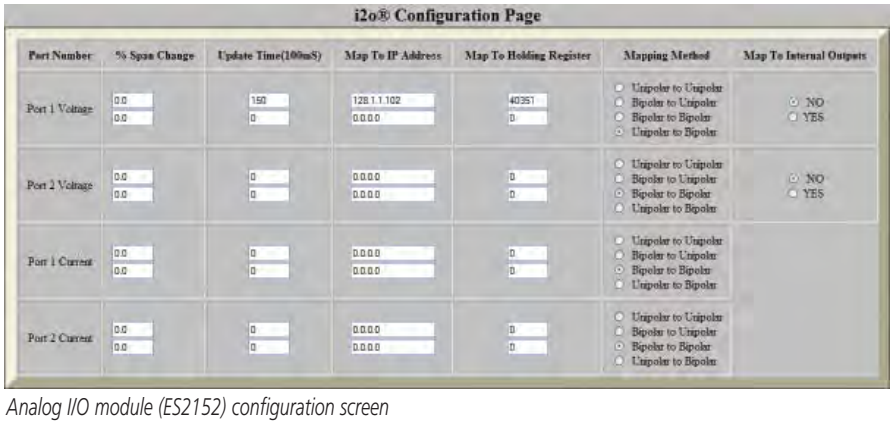


NOTE: Buy modules in pairs. For example:

AI with AO
AIO with AIO
DIO with DIO

Installation #2: Peer-to-Peer Signal Splitter (dual outputs)





Analog I/O module (ES2152) configuration screen

Acromag® THE LEADER IN INDUSTRIAL I/O

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