

## Pin Assignments

ioLogik E1241 (top to bottom)    ioLogik E1242 (top to bottom)

1	V00+	1	A10+
2	V00-	2	A10-
3	I00+	3	A11+
4	I00-	4	A11-
5	V01+	5	A12+
6	V01-	6	A12-
7	I01+	7	A13+
8	I01-	8	A13-
9	V02+	9	COM0
10	V02-	10	D10
11	I02+	11	D11
12	I02-	12	D12
13	V03+	13	D13
14	V03-	14	GND
15	I03+	15	COM1
16	I03-	16	D100
17		17	D101
18		18	D102
19	EX_V	19	D103
20	EX_C	20	GND

ioLogik E1260 (top to bottom)    ioLogik E1262 (top to bottom)

1	EX0	1	TC0+
2	IN0+	2	TC0-
3	IN0-	3	TC1+
4	EX1	4	TC1-
5	IN1+	5	TC2+
6	IN1-	6	TC2-
7	EX2	7	TC3+
8	IN2+	8	TC3-
9	IN2-	9	TC4+
10	EX3	10	TC4-
11	IN3+	11	TC5+
12	IN3-	12	TC5-
13	EX4	13	TC6+
14	IN4+	14	TC6-
15	IN4-	15	TC7+
16	EX5	16	TC7-
17	IN5+	17	
18	IN5-	18	
19		19	
20		20	

## System Configuration

### Configuration via Web Console

Main configuration of an ioLogik E1200 is via its web console.

**Default IP Address:** 192.168.127.254

**Subnet Mask:** 255.255.255.0

**Note:** Be sure to configure the host PC's IP address to the same subnet as the ioLogik E1200. For example, 192.168.127.253

## ioSearch Utility

ioSearch is a search utility that helps user locate an ioLogik E1200 on the local network.

Find the ioSearch utility in the Document and Software CD \ Software \ ioSearch, or download the latest version on Moxa website.

### Load Factory Default

There are three ways to restore the ioLogik E1200 to the factory default.

1. Hold the RESET button for 5 seconds.
2. Right click the specified ioLogik in the ioSearch utility and select "Reset to Default".
3. Select the "Load Factory Default" at the web console.

### Modbus Address Table

Please refer to the user's manual for details of the ioLogik's Modbus address, or refer to the start address of the I/O channels in web console → User-defined Modbus Addressing → Default Address.

### Active OPC Server Connection

Refer to the following steps to connect the ioLogik E1200 to an Active OPC Server.

1. Disable the user-defined Modbus address function.
2. Install the Active OPC Server Lite Package from Document and Software CD → Software → AOPC Lite → ActiveOPCSetup → Install.exe
3. In web console → Active OPC Server Settings → AOPC & I/O Settings, specify the IP address where the Active OPC Server is installed. Specify the I/O channels that need to be added to the Active OPC Server Lite. Submit the settings and then Save/Restart.
4. In web console → Active OPC Server Settings → Create AOPC Tag, click the "Create Tag" button.
5. Launch the Active OPC Server Lite from Start → Programs → MOXA → IOserver → ActiveOPC → ActiveOPC. Save the configuration before exiting the Active OPC Server Lite program.

## ioLogik E1200 Series

Remote Ethernet I/O with 2-port Ethernet Switch

### Overview

The ioLogik E1200 series comes with 2 embedded Ethernet switch ports that can form a daisy-chain topology, which is the easiest way to add more Ethernet devices to a network or connect your ioLogiks in series. Moxa's free Active OPC Server also offers active (or "push") communication with Moxa's ioLogik series of Ethernet I/O products for use with HMI/SCADA systems, providing instant I/O status reports by "Active Tags". The event-driven active tags result in an I/O response time that is 7 times faster than other OPC Server packages. It also causes an apparent 80% reduction in network traffic.

Model Selection:

ioLogik	AI	AO	DI	DIO	RTD	TC
E1241	--	4	--	--	--	--
E1242	4	--	4	4	--	--
E1260	--	--	--	--	6	--
E1262	--	--	--	--	--	8

### Package Checklist

- ioLogik E1200
- Documentation and Software CD
- Quick Installation Guide

### Applications

- Factory Facility Monitoring
- Factory Environmental Monitoring
- Remote Cabinet/Unmanned Site Monitoring
- Lighting Control of Buildings
- Machine Pre-installation

### Features

- Built-in 2-port Ethernet switch for daisy-chain topologies
- Free support of Moxa's push-based Active OPC Server Lite
  - Seamlessly connect to any SCADA system
  - Save 80% on network bandwidth
  - I/O response that's seven times faster
- User-defined Modbus/TCP addressing
- MXIO programming library for Windows and WinCE VB/VB.NET and Linux C APIs
- Web configuration with Import/Export function

### Specifications

Network:

- 2 x 10/100 Mbps switch ports, RJ45
- I/O Control: Modbus/TCP, OPC Server, MXIO(.NET) Library
- Configuration: Web console, ioSearch utility

System:

- Power Input: 12 to 36 VDC
- Power Consumption: 130 mA @ 24 VDC
- Operating temperature: -10 to 60°C (32 to 140°F)
- Ambient Relative Humidity: 5 to 95%
- Dimensions: 27 × 132 × 84 mm
- Housing: ABS + PC
- Weight: 180 ± 10 g
- UL508, CE, FCC Class A approval
- Warranty: 2 years

Digital Input:

- Sensor Type: NPN, PNP, and Dry contact
- I/O Mode: DI or Event Counter
- Dry Contact Logic 0 short to GND; Logic 1: open
- Wet Contact:
  - Logic 0: 0 to 3 VDC
  - Logic 1: 10 to 30 VDC (DI COM to DI)
- Counter/Frequency: 250 Hz, power off storage

Digital Output:

- I/O Mode: DO or Pulse Output
- Pulse Wave Width/Frequency: 500 Hz
- Over-current Limit: 400 mA (typical)

### Analog Input:

- ❑ Type: differential input
- ❑ Resolution: 16 bits
- ❑ I/O Mode: Voltage / Current
- ❑ Input Range: 0 to 10 VDC, 4 to 20 mA
- ❑ Accuracy:
  - $\pm 0.1\%$  FSR @ 25°C
  - $\pm 0.3\%$  FSR @ -10 and 60°C
- ❑ Sampling Rate (all channels): 12 samples per second
- ❑ Input Impedance: 10M ohms (min.)
- ❑ Built-in Resistor for Current Input: 120 ohms

### Analog Output:

- ❑ Resolution: 12 bits
- ❑ Output Range: 0 to 10 VDC, 4 to 20 mA
- ❑ Voltage Output: 10 mA (Max.)
- ❑ Accuracy:
  - $\pm 0.1\%$  FSR @ 25°C
  - $\pm 0.3\%$  FSR @ -10 and 60°C
- ❑ Load Resistor:
  - Internal power: 400 ohms
  - External 24V power: 1000 ohms

### RTD

- ❑ Input Type: PT50, PT100, PT200, PT500, PT1000; Resistance of 10 ohms, 20 ohms, and 100 ohms
- ❑ Sampling Rate: 12 samples per second (all channels)
- ❑ Resolution: 16 bits
- ❑ Accuracy:
  - $\pm 0.1\%$  FSR @ 25°C
  - $\pm 0.3\%$  FSR @ -10 and 60°C
- ❑ Input Impedance: 625K ohms

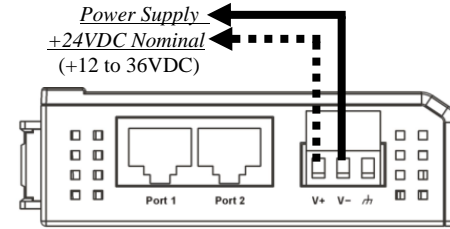
### Thermocouple Input

- ❑ Sensor Type: J, K, T, E, R, S, B, N
- ❑ Mili Volt Type:  $\pm 78.126$  mV,  $\pm 39.062$  mV,  $\pm 19.532$  mV
- ❑ Fault and Overvoltage protection:  $\pm 35$  VDC (power off); -25 to +30 VDC (power on)
- ❑ Sampling Rate: 12 samples per second (all channels)
- ❑ Resolution: 16 bits
- ❑ Accuracy:
  - $\pm 0.1\%$  FSR @ 25°C
  - $\pm 0.3\%$  FSR @ -10 and 60°C
- ❑ Input Impedance: 10M ohms

## Installation

### Power and Networking

Connect the +12 to +36 VDC power line to the ioLogik E1200's terminal block V+; connect the ground from the power supply to the V-. Connect the ground pin (⚡) if earth ground is available

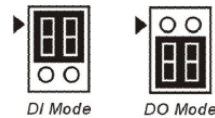


**Note:** For safety reasons, the wires attached to the power should be at least 2 mm in diameter.

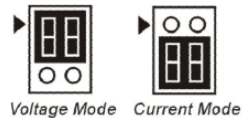
### Jumper Settings (ioLogik E1242)

The ioLogik E1242 requires configuring the jumpers inside the enclosure. Remove the screw on the back panel and open the cover to configure the jumpers.

For the DIO mode configuration is as follows: (default: DO Mode)

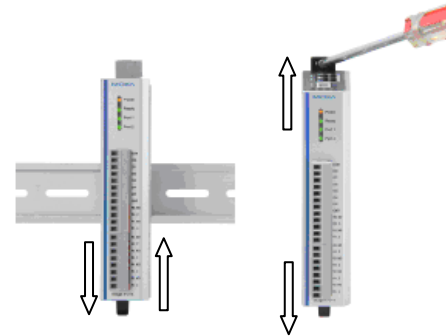


For the analog mode configuration is as follows: (default: Voltage Mode)



### Mounting

The ioLogik E1200 is designed with a vertical form factor, and can be used with both DIN-Rail and Wall Mounting. When mounting on a rail, release the bottom mounting kit, install the ioLogik on the rail, and restore the bottom mounting kit to fix the ioLogik on the rail. When wall mounting, release the both upper and bottom DIN-Rail kit.



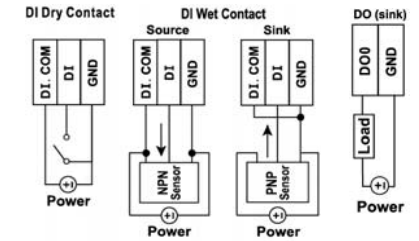
The ioLogik E1200 has two built-in Ethernet switch ports for connecting either a standard direct or cross-over Ethernet cable to either RJ45 port.

### LED Indicators

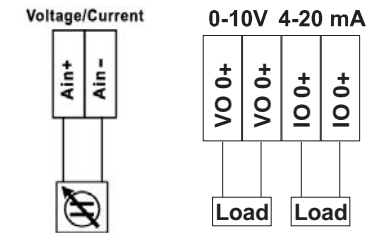
Type	Color	Description
Power	Amber	System power is ON
	Off	System power is OFF
Ready	Green	System is ready
	Flashing	Flashes every 1 sec when the "Locate" function is triggered
	Flashing	Flashes every 0.5 sec when the firmware is being upgraded
	Flashing	A cycle of on/off period: 0.5 second shows "Safe Mode"
	Off	System is not ready.
Port 1	Green	Ethernet connection enabled
	Flashing	Transmitting or receiving data
Port 2	Green	Ethernet connection enabled
	Flashing	Transmitting or receiving data

## I/O Wiring

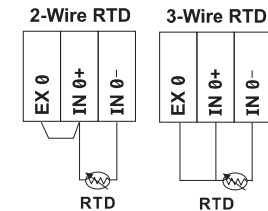
### Digital Input/Output (Sink Type)



### Analog Input/Output



### RTD Input



### TC Input

