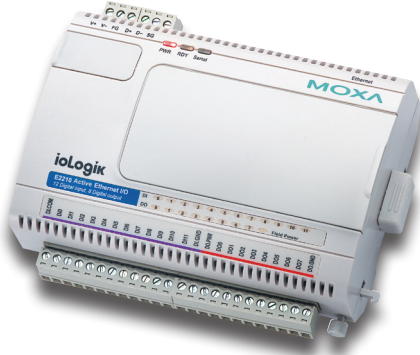


# ioLogik E2240

**Active Ethernet micro controller with 8 analog inputs and 2 analog outputs**



- > Front-end intelligence that supports 24 Click&Go™ rules
- > Active Messaging with real-time stamp, including SMS, SNMP Trap with I/O status, TCP, and email
- > Supports SNMPv1/v2c/v3 protocol
- > I/O peer-to-peer function
- > Built-in web console
- > PC utility: Auto detection of installed modules
- > Windows/WinCE VB/VC.NET and Linux C APIs



## Introduction

Moxa's ioLogik E2240 is a new type of active micro controller that can be used as an RTU (Remote Terminal Unit). Active Ethernet micro controllers are a kind of PC-based data acquisition and control device that use proactive, event-based reporting to control I/O devices. Unlike traditional RTUs, which are passive and must poll for data, Moxa's Active OPC Server makes seamless connection with SCADA systems

in reality. In addition, SNMP is used for communicating with an NMS (Network Management System) for IT field users. The I/O status of an Active Ethernet micro controller can be reported and controlled automatically on-site based on user specified conditions. This report-by-exception approach, which is new to PC-based monitoring, requires far less bandwidth than traditional polling methods.

## Specifications

### LAN

**Ethernet:** 1 x 10/100 Mbps, RJ45  
**Protection:** 1.5 KV magnetic isolation  
**Protocols:** Modbus/TCP, TCP/IP, UDP, DHCP, Bootp, SNMP, HTTP, CGI, SNTp

### Serial Communication

**Interface:** RS-485-2w: Data+, Data-, GND  
**Serial Line Protection:** 15 KV ESD for all signals

### Serial Communication Parameters

**Parity:** None  
**Data Bits:** 8  
**Stop Bits:** 1  
**Flow Control:** None  
**Baudrate:** 1200 to 115200 bps  
**Protocol:** Modbus/RTU

### Analog Input

**Channels:** 8 analog inputs with differential input  
**Resolution:** 16 bits  
**I/O Mode:** Voltage / Current  
**Input Range:** ±150 mV, ±500 mV, ±5 V, ±10 V, 0 to 20 mA, 4 to 20 mA  
**Data Format:** 16-bit integer (2's complement)  
**Accuracy:**  
 ±0.1% FSR @ 25°C  
 ±0.3% FSR @ -10 and 60°C

### Sampling Rate (all channels):

- 10 samples/sec for voltage
  - 6 samples/sec for current
- Input Impedance:** 900K ohms (min.)  
**Built-in Resistor for Current Input:** 106 ohms  
**CMR @ 50/60 Hz:** 95 dB min.  
**Zero Drift:** ±9 µV/°C  
**Span Drift:** ±25 ppm/°C  
**Isolation:** 3K VDC or 2K Vrms

### Analog Output

**Channels:** 2  
**Resolution:** 12 bits  
**Output Range:** 0 to 10 V, 4 to 20 mA  
**Drive Voltage:** 15 VDC for current output  
**Accuracy:**  
 ±0.1% FSR @ 25°C,  
 ±0.3% FSR @ -10 and 60°C  
**Zero Drift:** ±9 µV/°C  
**Span Drift:** ±25 ppm/°C  
**Load Resistor:** Less than 250 ohms

### Power Requirements

**Power Input:** 24 VDC nominal, 12 to 36 VDC  
**Power Consumption:** 282 mA typical @ 24 VDC

**Physical Characteristics**

**Wiring:** I/O cable max. 14 AWG

**Dimensions:** 115 x 79 x 45.6 mm (4.53 x 3.11 x 1.80 in)

**Weight:** under 250 g

**Environmental Limits**

**Operating Temperature:**

Standard Models: -10 to 60°C (14 to 140°F)

Wide Temp. Models: -40 to 75°C (-40 to 167°F)

**Storage Temperature:** -40 to 85°C (-40 to 185°F)

**Ambient Relative Humidity:** 5 to 95% (non-condensing)

**Regulatory Approvals**

**EMI:** FCC Part 15, CISPR (EN55022) class A

**EMS:** IEC 61000-4, IEC 61000-6

**Safety:** UL508

**Shock:** IEC 60068-2-27

**Freefall:** IEC 60068-2-32

**Vibration:** IEC 60068-2-6

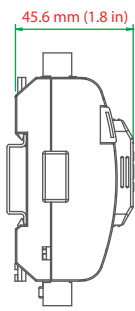
*Note: Please check Moxa's website for the most up-to-date certification status.*

**Warranty**

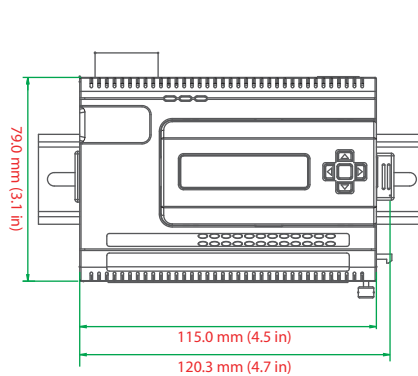
**Warranty Period:** 5 years

**Details:** See [www.moxa.com/warranty](http://www.moxa.com/warranty)

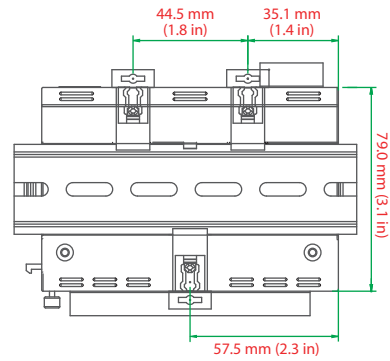
**Dimensions**



Side View



Front View



Rear View

**Ordering Information**

**Available Models**

**ioLogik E2240:** Active Ethernet micro controller with 8 analog inputs and 2 analog outputs, -10 to 60°C operating temperature

**Accessories** (can be purchased separately)

**LDP1602:** LCD module with 16 x 2 text and 5 buttons

# LDP1602 LCD Module

*Snap-on module for the ioLogik E2200/R2100 series*

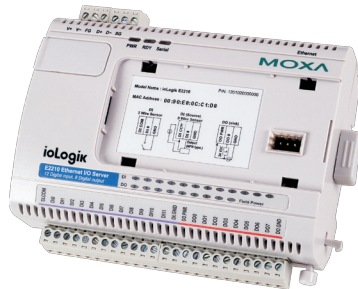


- > Hot-pluggable display module for ioLogik Active Ethernet micro controllers
- > Easy, portable configuration kit for IP display and configuration
- > Direct display for analog value and digital input, counter status
- > No battery required (powered through the I/O )

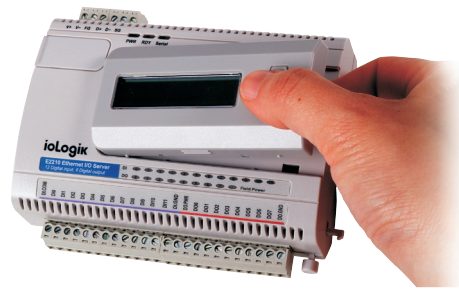


## Installing the LCD Module

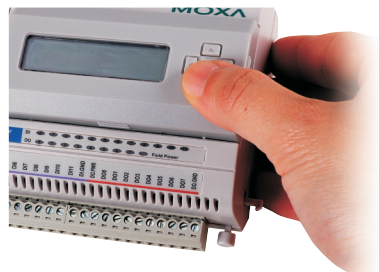
1. Remove the ioLogik's top cover.



2. Plug in the LCD module.



3. Check and configure the IP address.



4. Check IP and I/O status.



## Specifications

**LCD Screen:** 16 x 2 text display (in English)  
**Operating Temperature:** 0 to 55°C (32 to 131°F)

**Storage Temperature:** -20 to 70°C (-4 to 158°F)  
**Ambient Relative Humidity:** 5 to 95% (non-condensing)

## Ordering Information

**LDP1602:** LCD module with 16 x 2 text display and 5 buttons