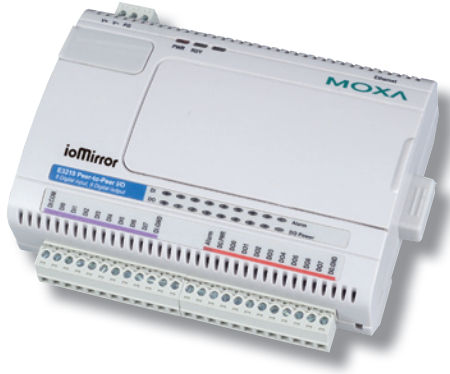


# ioMirror E3210

**Ethernet Peer-to-Peer I/O with 8 digital inputs and 8 digital outputs**



- > Direct input-to-output signal communication over IP
- > High speed Peer-to-Peer I/O within 20 ms
- > One physical alarm port for connectivity status
- > Quick and easy utility and web-based settings
- > Local alarm channel
- > Remote alarm message
- > Supports Modbus/TCP for remote monitoring
- > Optional LCD module for simple setting

The certification logos shown here apply to some or all of the products in this section. For details, see "Regulatory Approvals" under "Specifications" below.



## Introduction

### Direct Input-to-Output Communication over IP

ioMirror E3000 Ethernet I/O products are designed as a cable-replacement solution that connects remote digital input signals to output signals over an IP network. The ioMirror E3210 provides 8 digital input channels, 8 digital output channels, and a 10/100M Ethernet interface. Up to 8 pairs of digital input and output signals can be exchanged over Ethernet with another ioMirror E3210, or can be sent to a local PLC or DCS controller. Over a local area network, the ioMirror can achieve a low signal latency (typically less than 20 ms). With ioMirror, remote sensors can now be connected to local controllers or display panels over copper, fiber, or wireless Ethernet infrastructures. Signals can be transmitted over virtually unlimited distances, without noise problems.

### Split Sensor Signals to 16 Different Locations

The ioMirror E3000 can split one input signal to two digital output channels at two different IP addresses. Eight tank level signals can be monitored at 16 different display panels, all at the same time.

### Local Alarm and Remote Alarm Messages for Monitoring Connectivity

The ioMirror E3210 has a 24 VDC alarm output channel that can activate an attached buzzer or LED display when the connection fails. In addition, both ioMirror modules can send messages to the ioEventLog software, ensuring that at least one of the warning messages will reach the ioEventLog software.

## Specifications

### LAN

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

### Digital Input

**Channels:** 8, source type  
**Sensor Type:** NPN, Dry contact  
**I/O Mode:** Digital Input  
**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)

**Common Type:** 8 points per COM  
**Isolation:** 3K VDC or 2K Vrms  
**Digital Filtering Time Interval:** Software selectable  
**Over-voltage Protection:** 36 VDC

### Digital Output

**Channels:** 8, sink type, 36 VDC, 200 mA  
**I/O Mode:** Digital Output  
**Over-voltage Protection:** 45 VDC  
**Over-current Limit:** 600 mA  
**Over-temperature Shutdown:** 160°C  
**Output Current Rating:** Max. 200 mA per channel  
**Isolation:** 3K VDC or 2K Vrms  
**Alarm Port Output**

**Channels:** 1, sink type  
**Output Current Rating:** Max. 200 mA per channel  
**Isolation:** 3K VDC or 2K Vrms  
**Power Requirements**

**Power Input:** 24 VDC nominal, 12 to 48 VDC  
**DO Power:** 24 VDC nominal, up to 45 VDC

### Physical Characteristics

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

### Environmental Limits

**Operating Temperature:** -10 to 60°C (14 to 140°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

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

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

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

### Warranty

**Warranty Period:** 2 years

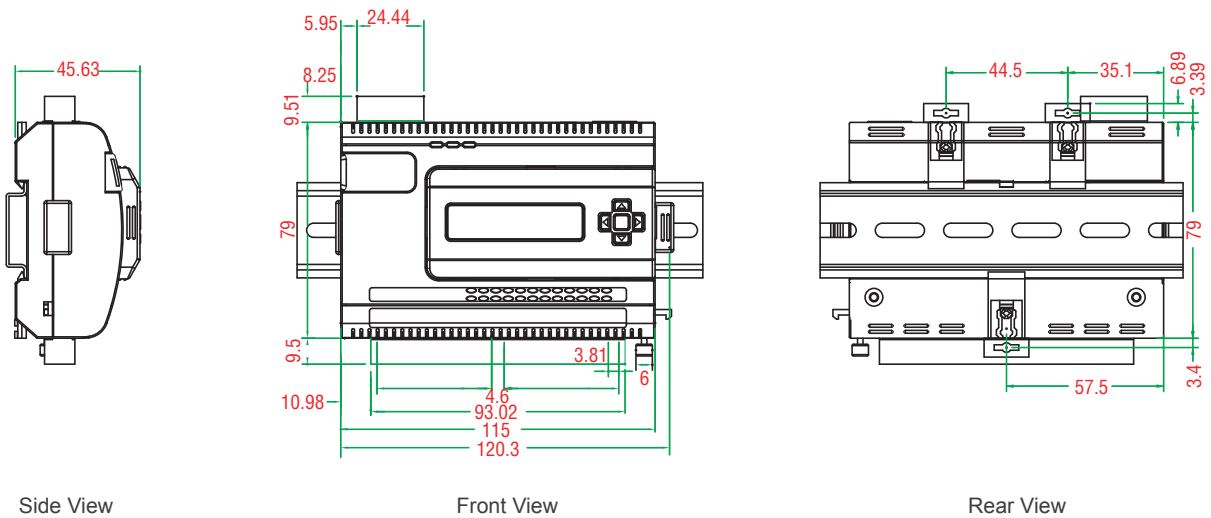
**Details:** See [www.moxa.com/warranty](http://www.moxa.com/warranty)

## I/O Pin Assignment

### I/O (left to right)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
DI.COM	DIO	D11	D12	D13	D14	D15	D16	D17	DI.GND				Alarm	DO.PWR	DO0	DO1	DO2	DO3	DO4	DO5	DO6	DO7	DO.GND

### Dimensions (unit = mm)



## Ordering Information

**ioMirror E3210:** Ethernet Peer-to-Peer I/O with 8 digital inputs and 8 digital outputs

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