

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



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
Dimensions: 115 x 79 x 45.6 mm (4.53 x 3.11 x 1.80 in)
Weight: 205 g

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)

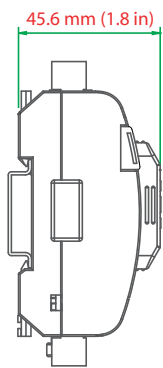
Regulatory Approvals

EMI: FCC Part 15, CISPR (EN55022) class A
EMS: IEC 61000-4, IEC 61000-6
Safety: UL508
Shock: IEC 60068-2-27
Freefall: IEC 60068-2-32
Vibration: IEC 60068-2-6

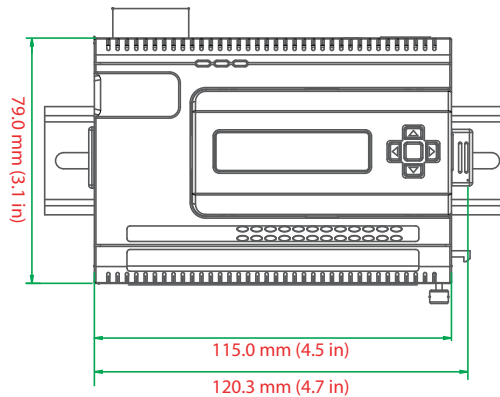
Warranty

Warranty Period: 2 years
Details: See www.moxa.com/warranty

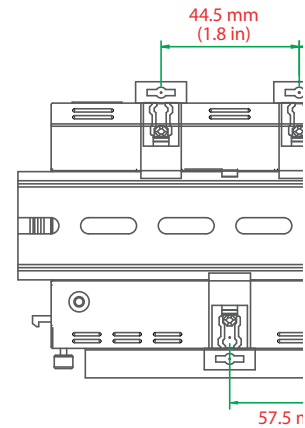
Dimensions (unit = mm)



Side View



Front View



Rear View

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	DI0	DI1	DI2	DI3	DI4	DI5	DI6	DI7	DI.GND				Alarm	DO.PWR	D00	D01	D02	D03	D04	D05	D06	D07	DO.GND

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