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 easy configuration

: Introduction

Direct Input-to-Output Communication over IP

The ioMirror E3210, which is designed as a cable-replacement solution to connect remote digital input signals to output signals over an IP network, 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 the ioMirror, remote sensors can 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 E3210 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 Protection: 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

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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)
Altitude: Up to 2000 m
Note: Please contact Moxa if you require products guaranteed to function properly at higher altitudes.

Standards and Certifications
Safety: UL 508
EMI: FCC Part 15, Subpart B, Class A, EN 55022 Class A
EMS: IEC 61000-4, IEC 61000-6
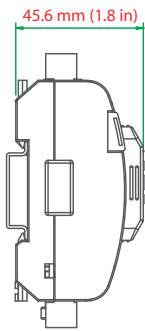**Shock:** IEC 60068-2-27
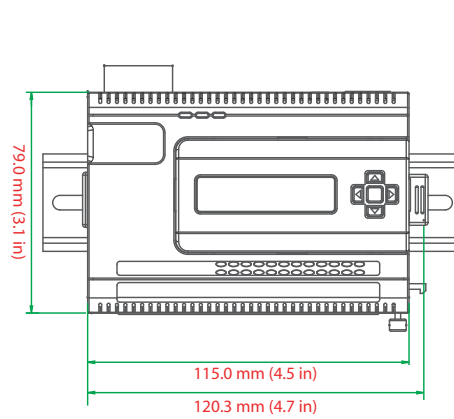**Freefall:** IEC 60068-2-32
Vibration: IEC 60068-2-6

Warranty
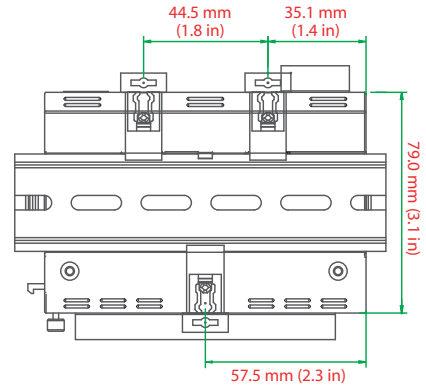**Warranty Period:** 5 years
Details: See www.moxa.com/warranty

Dimensions (unit = mm)

45.6 mm (1.8 in)
79.0 mm (3.1 in)
115.0 mm (4.5 in)
120.3 mm (4.7 in)
44.5 mm (1.8 in)
35.1 mm (1.4 in)
79.0 mm (3.1 in)
57.5 mm (2.3 in)

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	DO0	DO1	DO2	DO3	DO4	DO5	DO6	DO7	DO.GND

Ordering Information

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

Optional Accessories (must be purchased separately)
LDP1602: LCD module with 16 x 2 text display and 5 buttons

Package Checklist
- ioMirror E3210
- Documentation and software CD