ioMirror **E3210**

Ethernet Peer-to-Peer I/O Server 8 Digital Inputs, 8 Digital Outputs

Features

> Remote digital input mapped to local digital output over Ethernet
> High speed peer-to-peer I/O
> Copy sensor signals to up to sixteen locations
> Quick and easy utility and web-based settings
> Local alarm and remote alarm message
> Support Modbus/TCP for remote monitoring

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Remote I/O Servers

: Introduction

Direct input-to-output communication over IP

The ioMirror E3000 Ethernet I/O server is 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 and 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 as well as to a local PLC or DCS controller. Over a local area network, the ioMirror achieves low signal latency, typically 20 ms. With ioMirror servers, 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 sixteen different locations

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

Local alarm with remote alarm messages to monitor connectivity

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

: Specifications

LAN

Ethernet: 10/100 Mbps, RJ45

Protection: 1.5 KV magnetic isolation

Protocols: Modbus/TCP, TCP/IP, UDP, DHCP, Bootp, SNMP(MIB for I/O and Network), HTTP, SNTP

Power Requirements

Power Input: 24 VDC nominal, min 12 VDC, max 48 VDC

DO Power: 24 VDC nominal, up to 36 VDC

Mechanical Specifications

Wiring: I/O cable max. 14 AWG

Environmental

Operation Temperature: -10 to 60°C (14 to 140°F), 5 to 95% RH

Storage Temperature: -40 to 85°C (-40 to 185°F), 50 to 95% RH

Digital Input

Inputs: 8, source type

I/O Mode: Digital Input

Dry Contact: Logic 0: close to GND
Logic 1: open

Wet Contact: Logic 0: 0 to 3 VDC
Logic 1: 10 to 30 VDC

Isolation: 2 KVrms

Common Type: 8 points/1 COM

Stored Counter Value: Yes

Digital Output

Output: 8, sink type

I/O Mode: Digital Output

: Specifications

On-status Voltage: 24 VDC (typical)

Output Current Rating: Max. 200 mA per channel

Optical Isolation: 2 kVrms/3K VDC

Protection:
Over Voltage Protection: +50 VDC
Over Current Limit: 600 mA (typical)
Over Temperature Shutdown: 160°C (min.)

Alarm Port Output

Output: 1, sink type

On-status Voltage: 24 VDC (typical)

Output Current Rating: Max. 200 mA per channel

Optical Isolation: 2 KVrms/3K VDC

Agency Approvals

EMI: FCC part 15, CISPR (EN55022) Class A

EMS: IEC 61000-4-2 (ESD), Level 2/3
IEC 61000-4-3 (RS), Level 2
IEC 61000-4-4 (EFT), Level 2
IEC 61000-4-5 (Surge), Level 3
IEC 61000-4-6 (CS), Level 2
IEC 61000-4-8 (PM), Level 1
IEC 61000-4-11 (DIP)
IEC 61000-6-2
IEC 61000-6-4 (EMC)

Safety: UL 508

Shock: IEC 60068-2-27

Freefall: IEC 60068-2-32

Vibration: IEC 60068-2-6

Warranty: 2 years
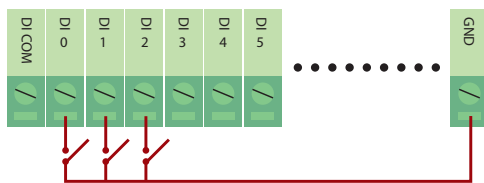
: Pin Assignment

Power and RS-485

(Power Input)		
1	2	3
V+ (12-48 V)	V-	FG

I/O (left to right)

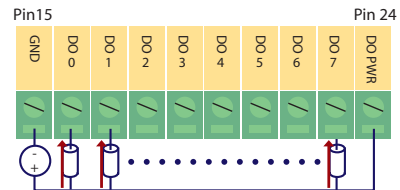| 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
DI COM1	DI 0	DI 1	DI 2	DI 3	DI 4	DI 5	DI 6	DI 7				Alarm	DO Power	GND	DO 0	DO 1	DO 2	DO 3	DO 4	DO 5	DO 6	DO 7	GND

: Wiring Example

Digital Input (Dry Contact)
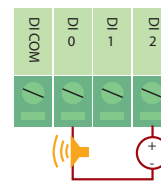

(1) Dry Contact

Digital Output

(2) Digital Output

Digital Input (Wet Contact)

Prondmly Sencor
Shielded wire
Brown — 12 to 24 VDC
Black — NPN open collector output
Blue — DV
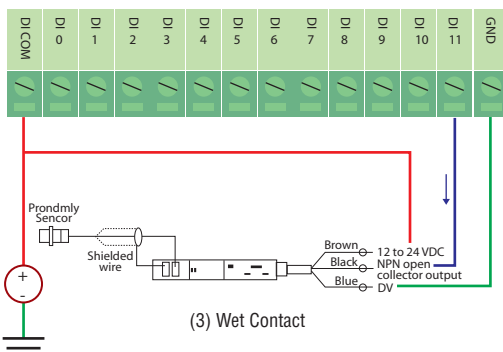
(3) Wet Contact

Alarm Port

(4) Alarm Output

: Ordering Information

ioMirror E3210: Peer-to-peer I/O server with 8 digital inputs and 8 digital outputs

LDP1602: LCD module with 16 x 2 text and 5 button