

ioLogik E1500 Series

Rugged remote I/O



- > Compliant with EN 50121-3-2, EN 50121-4, and essential sections of EN 50155
- > Wide operating temperature: -40 to 85°C (-40 to 185°F)
- > Channel-to-Channel isolation (DI only)
- > Robust and compact design for harsh environments
- > Active communication with patented Active OPC Server
- > User-defined Modbus/TCP addressing
- > Friendly configuration via web browser



Introduction

The ioLogik E1500 series is designed to withstand the severe vibrations experienced in rolling stock and wayside applications. These products come with a threaded M12 Ethernet port to ensure wired connectivity, a spring-type terminal block for vibration-resistant cabling, and a convenient DIN rail mounting assembly. Carefully engineered DI channel-to-channel isolation helps maintain stable data

communications by providing protection against cross-line power surges and crosstalk. In addition, this remote I/O product is compliant with EN 50121-3-2, EN 50121-4 and essential sections of the EN 50155 standard (covering operating temperature, power input voltage, electrical surges, ESD, and vibration), all of which are fundamental for electronic equipment used on or around railway vehicles.

ioLogik E1510-T Specifications

Inputs and Outputs

Digital Inputs: 12 channels (channel-to-channel isolation)

Isolation: 3K VDC or 2K Vrms

Digital Input

Sensor Type: Wet Contact (NPN or PNP), Dry Contact

I/O Mode: DI or Event Counter

Dry Contact:

- On: short to GND
- Off: open

Wet Contact (DI to GND):

- On: 0 to 3 VDC
- Off: 10 to 30 VDC

Counter Frequency: 250 Hz, power off storage

Digital Filtering Time Interval: Software selectable (minimum: 1 millisecond)

Power Requirements

Power Consumption: 163 mA @ 24 VDC

ioLogik E1512-T Specifications

Inputs and Outputs

Digital Inputs: 4 channels (channel-to-channel isolation)

Configurable DI0s: 4 channels

Isolation: 3K VDC or 2K Vrms

Digital Input

Sensor Type: Wet Contact (NPN or PNP), Dry Contact

I/O Mode: DI or Event Counter

Dry Contact:

- On: short to GND
- Off: open

Wet Contact (DI to GND):

- On: 0 to 3 VDC
- Off: 10 to 30 VDC

Common Type: 2 points per COM (Configurable DI0s)

Counter Frequency: 250 Hz, power off storage

Digital Filtering Time Interval: Software selectable (minimum: 1 millisecond)

Power Requirements

Power Consumption: 149 mA @ 24 VDC

: Common Specifications

LAN

Ethernet: 1 10/100 Mbps switch port, M12

Protection: 1.5 KV magnetic isolation

Protocols: Modbus/TCP, TCP/IP, UDP, DHCP, Bootp, HTTP

Power Requirements

Power Input: 24 VDC nominal, 12 to 48 VDC

Note: Compliant with EN 50155 at 24 VDC

Physical Characteristics

Wiring: I/O cable max. 14 AWG

Dimensions: 144 x 124 x 30 mm (5.67 x 4.88 x 1.18 in)

Weight: 825 g

Mounting: DIN rail (standard), wall (with optional kit)

Environmental Limits

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

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

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

Conformal Coating: Applies only to -CT models

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: EN 61000-3-2, EN 61000-3-3, EN 61000-6-4, FCC Part 15 Subpart B Class A

EMS: EN 55024, EN 61000-4-2, EN 61000-4-3, EN 61000-4-4, EN 61000-4-5, EN 61000-4-6, EN 61000-4-8, EN 61000-4-11, EN 61000-6-2

Shock: IEC 60068-2-27

Freefall: IEC 60068-2-32

Vibration: IEC 60068-2-6

Rail Traffic: EN 50155, EN 50121-3-2, EN 50121-4

Green Product: RoHS, CRoHS, WEEE

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

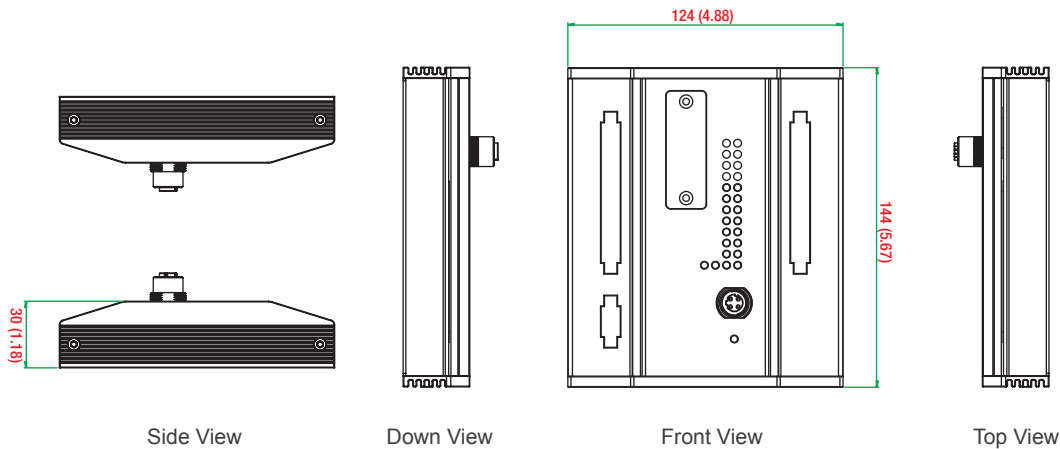
Warranty

Warranty Period: 5 years

Details: See www.moxa.com/warranty

Dimensions

Unit: mm (inch)



: Ordering Information

Available Models

ioLogik E1510-M12-T: Ethernet remote I/O, M12 connector, 12 DIs, -40 to 85°C operating temperature

ioLogik E1512-M12-T: Ethernet remote I/O, M12 connector, 4 DIs, 4 DIOs, -40 to 85°C operating temperature

ioLogik E1510-M12-CT-T: Ethernet remote I/O, M12 connector, 12 DIs, coating, -40 to 85°C operating temperature

ioLogik E1512-M12-CT-T: Ethernet remote I/O, M12 connector, 4 DIs, 4 DIOs, coating, -40 to 85°C operating temperature

Package Checklist

- ioLogik E1500 remote I/O product
- Documentation and software CD
- Quick installation guide (printed)