

ioLogik E1200H Series

Robust remote I/O for offshore wind power applications



- > IEC 60945 approval for harsh offshore environments
- > Wide operating temperature: -40 to 75°C (-40 to 167°F)
- > Active communication with patented MX-AOPC UA Server and Active OPC Server
- > 2-port Ethernet switch for daisy-chain topologies
- > User-defined Modbus/TCP addressing
- > Friendly configuration via web browser



▶ Rugged Ethernet Remote I/O: The ioLogik E1200H Series for Harsh Environments

Industry-Proven Rugged Design

Installation of remote Ethernet I/O in offshore environments is a real challenge. It is critical to find devices properly designed for protected, safe use in these environments. Moxa's ioLogik E1200H series with IEC 60945 certifications fulfills the need for devices suitable to such demanding industrial applications. Compactly packaged in a metal housing, this rugged hardware keeps operating in temperatures

ranging from -40 to 75°C, meeting the stringent demands of IEC 60945 for harsh offshore applications.



Daisy-Chain Topology Reduces Deployment Costs

Thanks to its two embedded Ethernet switch ports, the ioLogik E1200H remote Ethernet I/O allows you to create daisy-chain topologies for easy cabling. In distributed Ethernet data acquisition applications, panels, units, and cabinets are often located at remote sites where

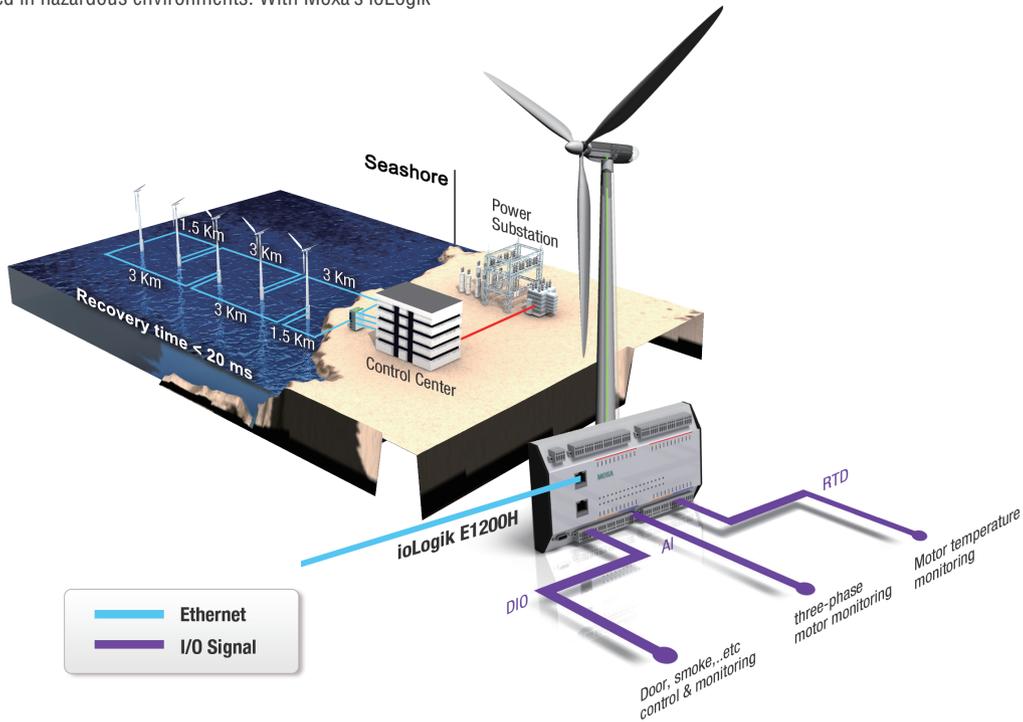
space is limited. The daisy-chain capability of the ioLogik E1200H series allows ioLogik E1200H units to connect in series either to each other or to other nearby Ethernet devices, drastically saving on both space and wiring costs.



Application: Offshore Remote Monitoring

Have you ever wondered where to find a rugged remote Ethernet I/O device to offshore facilities? You need something with the ability to withstand extreme weather conditions, wide temperature changes and that can be used in hazardous environments. With Moxa's ioLogik

E1200H, you get a robust design that will meet your most stringent demands, ensuring your remote data acquisition remains reliable, consistent, and safe.



ioLogik E1261H Specifications

Inputs and Outputs

Analog Inputs: 5 channels

RTD Inputs: 3 channels

Configurable DI/Os: 12 channels

Isolation: 3k VDC or 2k Vrms

Analog Input

Type: Differential input

Resolution: 16 bits

I/O Mode: Voltage/Current

Input Range: 0 to 10V, 0 to 20 mA, 4 to 20 mA

Accuracy:

- ±0.5% FSR @ 25°C

- ±1.0% FSR @ -40 and 75°

Sampling Rate (all channels): 12 samples/sec

Input Impedance: 10M ohms (minimum)

Built-in Resistor for Current Input: 120 ohms

Digital Input

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

I/O Mode: DI or Event Counter (channel 0~3)

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: 12 points per COM

Counter Frequency: 250 Hz

Digital Filtering Time Interval: Software Configurable

RTD Inputs

Input Type:

- PT100 (-200 to 850°C)

Sampling Rate: 12 samples/sec (all channels)

Resolution: 0.5°C

Accuracy:

- ±0.5% FSR @ 25°C

- ±1.0% FSR @ -40 and 75°C

Input Impedance: 625k ohms

Input connection: 2 or 3 wire

Digital Output

Type: Sink

I/O Mode: DO or Pulse Output (channel 0~3)

Pulse Output Frequency: 500 Hz

Over-voltage Protection: 45 VDC

Over-current Protection: 2.6 A (4 channels @ 650 mA)

Over-temperature Shutdown: 175°C (typical), 150°C (min.)

Output Current Rating: 200 mA per channel

Power Requirements

Power Input: 24 VDC nominal, 12 to 48 VDC

Power Consumption: 284 mA @ 24 VDC

Physical Characteristics

Dimensions: 140 x 113 x 36.3 mm (5.51 x 4.45 x 1.43 in)

Weight: 825g

ioLogik E1263H Specifications

Inputs and Outputs

Analog Inputs: 10 channels

RTD Inputs: 3 channels

Configurable DI/Os: 24 channels

Isolation: 3k VDC or 2k Vrms

Analog Input

Type: Differential input

Resolution: 16 bits

I/O Mode: Voltage/Current

Input Range: 0 to 10V, 0 to 20 mA, 4 to 20 mA

Accuracy:

- ±0.5% FSR @ 25°C

- ±1.0% FSR @ -40 and 75°

Sampling Rate (all channels): 12 samples/sec

Input Impedance: 10M ohms (minimum)

Built-in Resistor for Current Input: 120 ohms

Digital Input

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

I/O Mode: DI or Event Counter (channel 0~7)

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:

- 12 points per COM

Counter Frequency: 250 Hz

Digital Filtering Time Interval: Software Configurable

RTD Inputs

Input Type:

- PT100 (-200 to 850°C)

Input connection: 2 or 3 wire

Sampling Rate: 12 samples/sec (all channels)

Resolution: 0.5°C

Accuracy:

- ±0.5% FSR @ 25°C

- ±1.0% FSR @ -40 and 75°C

Input Impedance: 625k ohms

Digital Output

Type: Sink

I/O Mode: DO or Pulse Output (channel 0~7)

Pulse Output Frequency: 500 Hz

Over-voltage Protection: 45 VDC

Over-current Protection: 2.6 A (4 channels @ 650 mA)

Over-temperature Shutdown: 175°C (typical), 150°C (min.)

Output Current Rating: 200 mA per channel

Power Requirements

Power Input: 24 VDC nominal, 12 to 48 VDC

Power Consumption: 425 mA @ 24 VDC

Physical Characteristics

Dimensions: 204 x 113 x 36.3 mm (8.03 x 4.45 x 1.43 in)

Weight: 945 g

Common Specifications

LAN

Ethernet: 2 switched 10/100 Mbps RJ45 ports

Protection: 1.5 kV magnetic isolation

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

Serial Communication

Interface: 1 software-selectable RS-232/422/485 port; male, DB9

Serial Line Protection: 15 kV ESD for all signals

Serial Communication Parameters

Parity: None

Data Bits: 8

Stop Bits: 1

Flow Control: None

Baudrate: 300, 1200, 2400, 4800, 9600, 19200, 38400, 57600,

115200 bps

Protocol: Modbus/RTU

Power Requirements

Power Input: 24 VDC nominal, 12 to 48 VDC

Physical Characteristics

Wiring: I/O cable max. 14 AWG

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

Environmental Limits

Operating Temperature: -40 to 75°C (-40 to 176°F)

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

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

Standards and Certifications

Safety: UL 508 (Pending)

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

Offshore: IEC 60945, 4th Edition (Pending)

Shock: IEC 60068-2-27

Freefall: IEC 60068-2-32

Vibration: IEC 60068-2-6

Marine Communications: IEC 60945, 4th Edition (Pending)

Green Product: RoHS, CRoHS, WEEE

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

Warranty

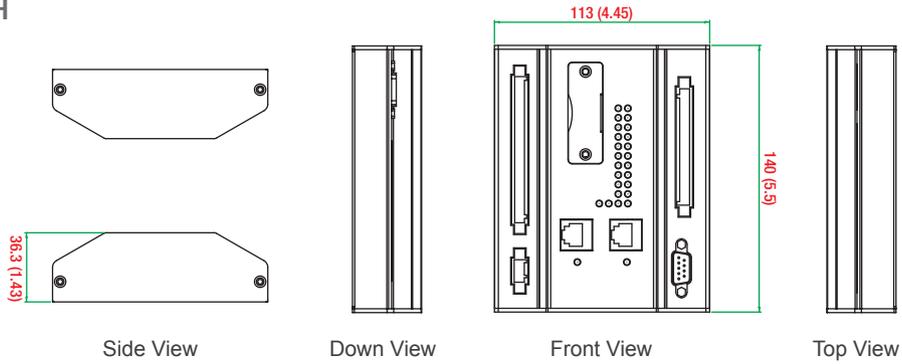
Warranty Period: 5 years

Details: See www.moxa.com/warranty

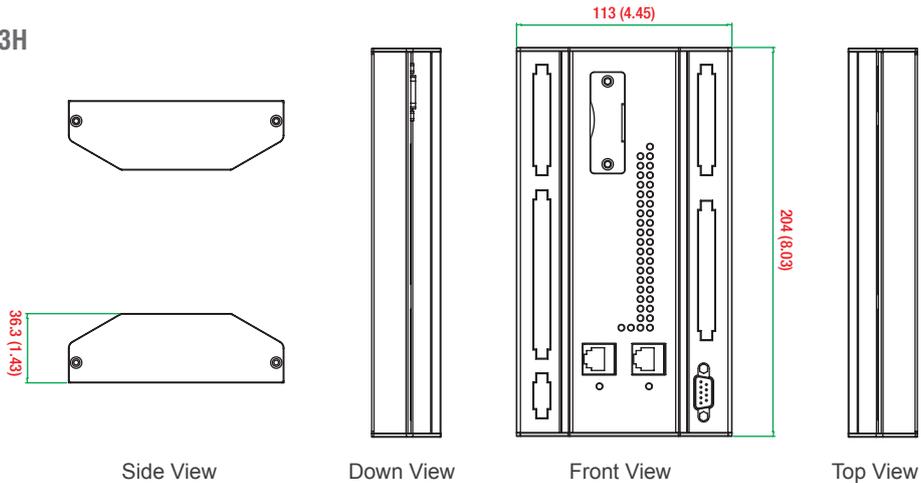
Dimensions

Unit: mm (inch)

ioLogik E1261H



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Ordering Information

Available Models

ioLogik E1261H-T: Ethernet remote I/O with 2-port Ethernet switches, 12 DI/Os, 5 AIs and 3 RTDs, -40 to 75°C operating temperature.

ioLogik E1263H-T: Ethernet remote I/O with 2-port Ethernet switches, 24 DI/Os, 10 AIs and 3 RTDs, -40 to 75°C operating temperature.

Optional Accessories (can be purchased separately)

WK-90: Wall mount kit

Package Checklist

- ioLogik E1200H-T
- Documentation and software CD
- Quick installation guide (printed)