ioLogik E1200H Series

Ethernet remote I/O for offshore wind power applications

> User-definable Modbus/TCP Slave addressing
> 2-port Ethernet switch for daisy-chain topologies
> Active communications with MX-AOPC UA Server
> Easy mass deployment and configuration with ioSearch utility
> Friendly configuration via web browser
> Simplify I/O management with MXIO library on either Windows or Linux platform
> IEC 60945 approval for harsh offshore environments
> Wide operating temperature range: -40 to 75°C (-40 to 167°F)

: Introduction

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 for such demanding industrial applications. Compactly packaged in a metal housing, this rugged hardware supports operating 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.

SCADA or Controller | ioLogik E1200H | ioLogik E1200H | ioLogik E1200H | ioLogik E1200H

MOXA®

Application: Offshore Remote Monitoring

Have you ever wondered where to find a rugged remote Ethernet I/O device for 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 applications are reliable, consistent, and safe.
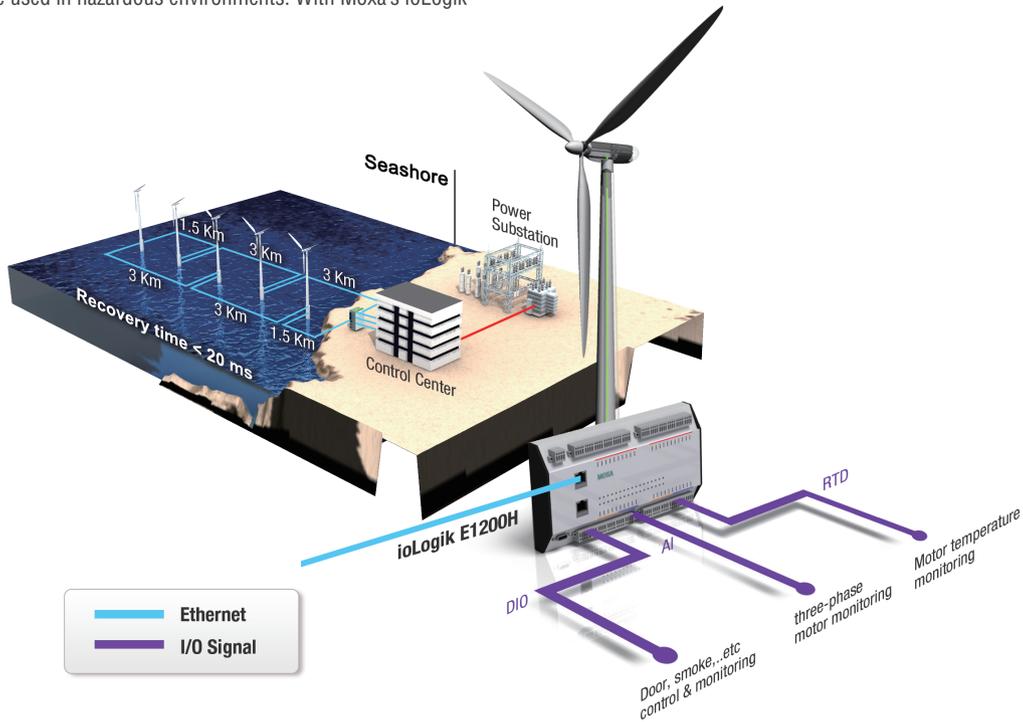
ioLogik E1261H Specifications

Inputs and Outputs
Configurable DIOs (by software): 12 channels
Analog Inputs: 5 channels
RTDs: 3 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 (channels 0 to 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

Digital Output
Type: Sink
I/O Mode: DO or Pulse Output (channels 0 to 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.)
Current Rating: 200 mA per channel

Analog Input
Type: Differential input
Resolution: 16 bits
I/O Mode: Voltage / Current (software selectable)
Input Range: 0 to 10 V, 0 to 20 mA, 4 to 20 mA, 4 to 20 mA (burnout detection)

Accuracy:
• ±0.5% FSR @ 25°C
• ±1.0% FSR @ -40 and 75°
Sampling Rate (all channels):
• All channels: 12 samples/sec
• Per channel: 1.5 samples/sec
Input Impedance: 10 mega-ohms (min.)
Built-in Resistor for Current Input: 120 ohms

RTDs
Sensor Type:
PT100 (-200 to 850°C)
Input Connection: 2- or 3-wire
Sampling Rate:
• All channels: 12 samples/sec
• Per channel: 1.5 samples/sec
Resolution: 0.5°C
Accuracy:
• ±0.5% FSR @ 25°C
• ±1.0% FSR @ -40 and 75°C
Input Impedance: 625 kilo-ohms

Power Requirements
Input Voltage: 12 to 48 VDC
Input Current: 235 mA @ 24 VDC

Physical Characteristics
Dimensions: 140 x 113 x 36.3 mm (5.51 x 4.45 x 1.43 in)
Weight: 825 g (1.82 lb)

MTBF (mean time between failures)
Time: 296,094 hrs
Standard: Telcordia SR332

: ioLogik E1263H Specifications

Inputs and Outputs
Configurable DIOs (by software): 24 channels
Analog Inputs: 10 channels
RTDs: 3 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 (channels 0 to 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

Digital Output
Type: Sink
I/O Mode: DO or Pulse Output (channels 0 to 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.)
Current Rating: 200 mA per channel

Analog Input
Type: Differential input
Resolution: 16 bits
I/O Mode: Voltage / Current (software selectable)
Input Range: 0 to 10 V, 0 to 20 mA, 4 to 20 mA, 4 to 20 mA (burnout detection)

Accuracy:
• ±0.5% FSR @ 25°C
• ±1.0% FSR @ -40 and 75°
Sampling Rate (all channels):
• All channels: 12 samples/sec
• Per channel: 0.9 samples/sec
Input Impedance: 10 mega-ohms (min.)
Built-in Resistor for Current Input: 120 ohms

RTDs
Sensor Type:
• PT100 (-200 to 850°C)
Input connection: 2- or 3-wire
Sampling Rate:
• All channels: 12 samples/sec
• Per channel: 0.9 samples/sec
Resolution: 0.5°C
Accuracy:
• ±0.5% FSR @ 25°C
• ±1.0% FSR @ -40 and 75°C
Input Impedance: 625 kilo-ohms

Power Requirements
Input Voltage: 12 to 48 VDC
Input Current: 343 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 (2.08 lb)

MTBF (mean time between failures)
Time: 180,390 hrs
Standard: Telcordia SR332

: Common Specifications

LAN
Ethernet: 2 switched 10/100 Mbps RJ45 ports
Protection: 1.5 kV magnetic isolation
Protocols: Modbus/TCP (slave), TCP/IP, UDP, DHCP, BOOTP, HTTP

Serial
Interface: 1 RS-232/422/485 (software selectable) DB9 male port
Parity: None
Data Bits: 8
Stop Bits: 1
Flow Control: None
Baudrate: 300 to 115200 bps
Protocols: Modbus RTU (slave)

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 167°F)
Storage Temperature: -40 to 85°C (-40 to 185°F)
Ambient Relative Humidity: 5 to 95% (non-condensing)
Shock: IEC 60068-2-27
Vibration: IEC 60068-2-6
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
EMC: EN 55032/24, EN 61000-6-2/6-4
EMI: CISPR 32, FCC Part 15B Class A
EMS:
IEC 61000-4-2 ESD: Contact: 4 kV; Air: 8 kV
IEC 61000-4-3 RS: 80 MHz to 1 GHz: 3 V/m
IEC 61000-4-4 EFT: Power: 1 kV; Signal: 0.5 kV
IEC 61000-4-5 Surge: Power: 2 kV
IEC 61000-4-6 CS: 3 V
IEC 61000-4-8
Maritime: IEC 60945
Green Product: RoHS, CRoHS, WEEE
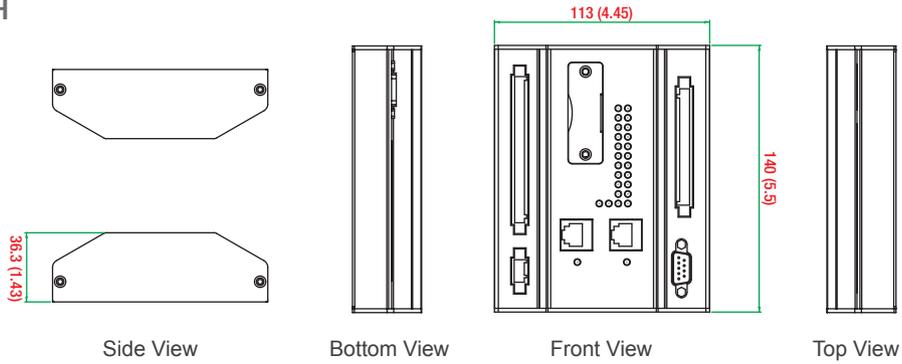Note: Please check Moxa's website for the most up-to-date certification status.

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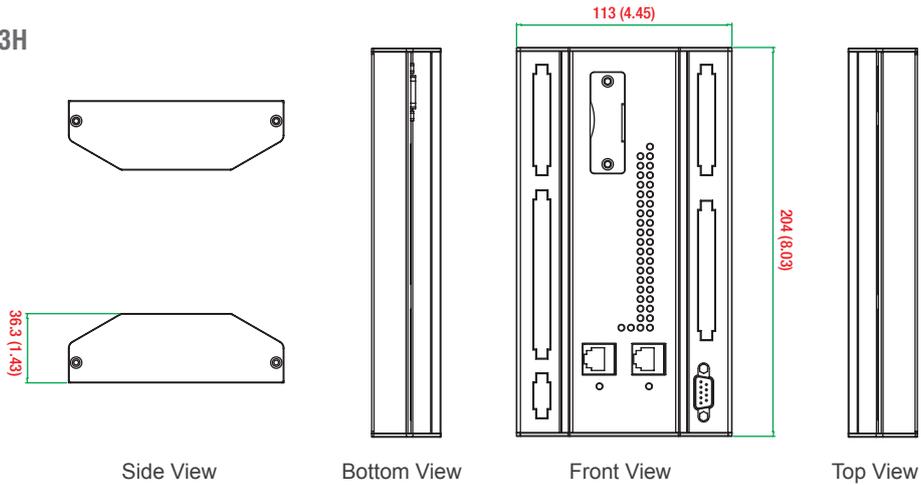**Warranty Period:** 5 years
Details: See www.moxa.com/warranty

Dimensions

Unit: mm (inch)

ioLogik E1261H

113 (4.45)

140 (5.5)

36.3 (1.43)

| Side View | Bottom View | Front View | Top View |

ioLogik E1263H

113 (4.45)

204 (8.03)

36.3 (1.43)

| Side View | Bottom View | Front View | Top View |

: Ordering Information

Available Models

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

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

Optional Accessories (can be purchased separately)

WK-90: Wall-mounting kit, BKTx2 FMSx6 NI Nylok M3x6

Package Checklist

• ioLogik E1200H-T