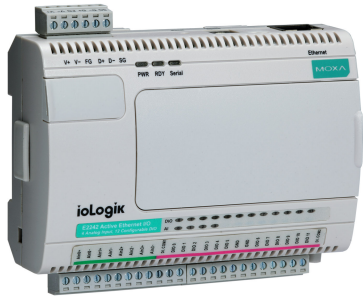


ioLogik E2200 系列

具 Click&Go 邏輯的智慧型乙太網路遠端 I/O



特色與優點

- 具 Click&Go 控制邏輯的前端智能，高達 24 條規則
- 與 MX-AOPC UA 伺服器主動通訊
- 使用點對點通訊節省時間和佈線成本
- 支援 SNMP v1/v2c/v3
- 使用網頁瀏覽器進行輕鬆配置
- 使用適用 Windows 或 Linux 的 MXIO 函式庫簡化 I/O 管理
- 提供寬溫度型號，適合 -40 至 75°C (-40 to 167°F) 的作業環境

認證



簡介

Moxa ioLogik E2200 系列乙太網路遠端 I/O 是一款基於 PC 的資料擷取和控制設備，使用基於事件的主動報告來控制 I/O 設備，並具有 Click&Go 程式介面。不同於被動且必須輪詢資料的傳統型 PLC，Moxa ioLogik E2200 系列在與我們的 MX-AOPC UA 伺服器配對時，將僅在狀態變更或配置事件發生時才會向伺服器主動推播訊息與 SCADA 系統進行通訊。此外，ioLogik E2200 還具有使用 NMS (網路管理系統) 進行通訊和控制的 SNMP 功能，可讓 IT 專業人員根據配置規格所推送的 I/O 狀態報告來配置設備。對於基於 PC 的監控來說，這種異常報告方法是一種全新方法，與傳統輪詢方式相比，所需頻寬要少得多。

無需 PC 的警報和控制智能

此設備支援簡單卻強大的 Click&Go™ 技術來配置透過電子郵件、TCP/UDP 或 SNMP 陷阱傳送的事件驅動報告和警報，為您提供一個強大且有效的工具來即時傳送附時間戳的狀態更新。

憑藉內建的 Click&Go™ 智能，此裝置可配置為與簡易輸入觸發器配對的簡易輸出，且無需 PC 控制器。這讓其可配置為根據使用者指定的條件自動報告 I/O 事件。

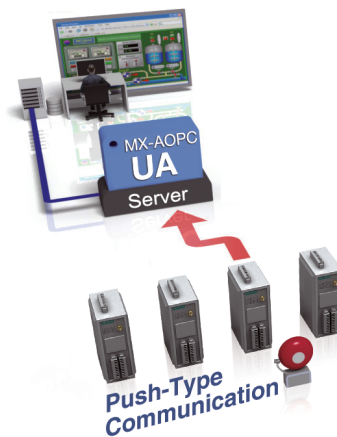


用於乙太網路設備管理的 SNMP

透過使用 SNMP，IT 工程師可將裝置配置為針對特定 I/O 事件發送警報 (陷阱)，或用以直接讀取或寫入 I/O 暫存器。為實現最強安全性，此裝置採用 SNMPv3，具身份驗證和加密功能。使用 Moxa SNMP 功能的 I/O，即使是 IT 專業人員也可透過乙太網路主幹線輕鬆整合工業級感測器和伺服器系統，並憑藉其強大的網路管理工具，非常適合各種工業應用，包括環境監測、電信、發電和傳送、運輸。

事件和警報推播技術

當與 MX-AOPC UA 伺服器一併使用時，設備可在向 SCADA 系統傳達狀態和/或事件的變更時使用主動推送通訊。與輪詢系統不同，當使用推送架構與 SCADA 系統通訊時，僅在狀態或配置事件發生變更時才會傳送訊息，從而實現更高的準確性和更少的所需傳輸資料量。



規格

Control Logic

Language	Click&Go
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Input/Output Interface

Digital Input Channels	ioLogik E2210 Series: 12 ioLogik E2212 Series: 8 ioLogik E2214 Series: 6
Digital Output Channels	ioLogik E2210/E2212 Series: 8 ioLogik E2260/E2262 Series: 4
Configurable DIO Channels (by software)	ioLogik E2212 Series: 4 ioLogik E2242 Series: 12
Relay Channels	ioLogik E2214 Series: 6
Analog Input Channels	ioLogik E2240 Series: 8 ioLogik E2242 Series: 4
Analog Output Channels	ioLogik E2240 Series: 2
RTD Channels	ioLogik E2260 Series: 6
Thermocouple Channels	ioLogik E2262 Series: 8
Buttons	Reset button
Rotary Switch	0 to 9
Isolation	3k VDC or 2k Vrms

Digital Inputs

Connector	Screw-fastened Euroblock terminal
Sensor Type	ioLogik E2210 Series: Dry Contact and Wet Contact (NPN) ioLogik E2212/E2214/E2242 Series: Dry Contact and Wet Contact (NPN or PNP)
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	900 Hz

Digital Filtering Time Interval	Software configurable
Points per COM	ioLogik E2210 Series: 12 channels ioLogik E2212/E2242 Series: 6 channels ioLogik E2214 Series: 3 channels

Digital Outputs

Connector	Screw-fastened Euroblock terminal
I/O Type	Sink
I/O Mode	DO or pulse output
Current Rating	200 mA per channel
Pulse Output Frequency	1 kHz
DIO Output Leakage Current	4.0 mA @ 24 VDC
Over-Current Protection	0.65 A per channel @ 25°C
Over-Temperature Shutdown	175°C (min.)
Over-Voltage Protection	45 VDC (typical)

Relays

Connector	Screw-fastened Euroblock terminal
Type	Form A (N.O.) power relay
I/O Mode	Relay or pulse output
Pulse Output Frequency	0.3 Hz at rated load
Contact Current Rating	Inductive load: 2 A @ 30 VDC, 250 VAC, 110 VAC Resistive load: 5 A @ 30 VDC, 250 VAC, 110 VAC
Minimum Permitted Load	1 A @ 5 VDC
Contact Resistance	100 milli-ohms (max.)
Electrical Endurance	100,000 operations @ 5 A resistive load
Mechanical Endurance	1,000,000 operations
Note	Ambient humidity must be non-condensing and remain between 5 and 95%. The relays may malfunction when operating in high condensation environments below 0°C.

Analog Inputs

Connector	Screw-fastened Euroblock terminal
I/O Mode	Voltage/Current
I/O Type	Differential
Resolution	16 bits
Input Range	ioLogik E2240 Series: ± 150 mV, ± 500 mV, ± 5 V, ± 10 V, 0 to 20 mA, 4 to 20 mA ioLogik E2242 Series: ± 150 mV, 0 to 150 mV, ± 500 mV, 0 to 500 mV, ± 5 V, 0 to 5 V, ± 10 V, 0 to 10 V, 0 to 20 mA, 4 to 20 mA
Accuracy	ioLogik E2240/E2242: $\pm 0.1\%$ FSR @ 25°C $\pm 0.3\%$ FSR @ -10 to 60°C ioLogik E2240-T/E2242-T:

	$\pm 0.1\%$ FSR @ 25°C $\pm 0.3\%$ FSR @ -10 to 60°C $\pm 0.5\%$ FSR @ -40 to 75°C
Sampling Rate	ioLogik E2240 Series: All Channels: 10 samples/sec for voltage; 6 samples/sec for current Per Channel: 1.25 samples/sec for voltage; 0.75 samples/sec for current Single channel: 1.25 samples/sec for voltage; 0.75 samples/sec for current ioLogik E2242 Series: All channels: 32 samples/sec Per channel: 8 samples/sec Single channel: 100 samples/sec
Built-in Resistor for Current Input	120 ohms
Input Impedance	ioLogik E2240 Series: 900 kilo-ohms (min.) ioLogik E2242 Series: 200 kilo-ohms (min.)
Over-Voltage Protection	-25 to +30 VDC (power on) -35 to +35 VDC (power off)

Analog Outputs

Connector	Screw-fastened Euroblock terminal
I/O Mode	Voltage/Current
Output Range	0 to 10 VDC 4 to 20 mA
Resolution	12-bit
Accuracy	ioLogik E2240: $\pm 0.1\%$ FSR @ 25°C $\pm 0.3\%$ FSR @ -10 to 60°C ioLogik E2240-T: $\pm 0.1\%$ FSR @ 25°C $\pm 0.3\%$ FSR @ -10 to 60°C $\pm 0.5\%$ FSR @ -40 to 75°C
Load (Current Mode)	Internal power: 250 ohms (max.)

RTDs

Connector	Screw-fastened Euroblock terminal
Sensor Type	JPT100, JPT200, JPT500 (-200 to 640°C) JPT1000 (-200 to 350°C) NI100, NI200, NI500 (-60 to 250°C) NI1000 (-60 to 150°C) NI120 (-80 to 260°C) PT1000 (-200 to 350°C) PT50, PT100, PT200, PT500 (-200 to 850°C) Resistance of 310, 620, 1250, and 2200 ohms
Input Connection	2- or 3-wire
Sampling Rate	All channels: 12 samples/sec Per channel: 2 samples/sec
Resolution	0.1°C or 0.1 ohms

Accuracy	ioLogik E2260: $\pm 0.1\%$ FSR @ 25°C $\pm 0.3\%$ FSR @ -10 to 60°C ioLogik E2260-T: $\pm 0.1\%$ FSR @ 25°C $\pm 0.3\%$ FSR @ -10 to 60°C $\pm 0.5\%$ FSR @ -40 to 75°C
Input Impedance	625 kilo-ohms (min.)

Thermocouples

Connector	Screw-fastened Euroblock terminal
Sensor Type	J, K, T, E, R, S, B, N
Millivolt Type	± 19.532 mV ± 39.062 mV ± 78.126 mV Fault and over-voltage protection: -35 to +35 VDC (power off); -25 to +30 VDC (power on)
Resolution	16 bits
Millivolt Accuracy	ioLogik E2262: $\pm 0.1\%$ FSR @ 25°C $\pm 0.3\%$ FSR @ -10 to 60°C ioLogik E2262-T: $\pm 0.1\%$ FSR @ 25°C $\pm 0.3\%$ FSR @ -10 to 60°C $\pm 0.5\%$ FSR @ -40 to 75°C
TC Accuracy	Types J, T, E, S, B: $\pm 5^\circ\text{C}$ Types K, R, N: $\pm 8^\circ\text{C}$
CJC Accuracy	$\pm 0.5^\circ\text{C}$ @ 25°C $\pm 1.5^\circ\text{C}$ @ -40 to 75°C
Sampling Rate	All channels: 12 samples/sec Per channel: 1.5 samples/sec
Input Impedance	1 mega-ohms (min.)

LED Interface

LED Indicators	PWR, RDY, Serial, I/O Status
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Ethernet Interface

10/100BaseT(X) Ports (RJ45 connector)	1
Magnetic Isolation Protection	1.5 kV (built-in)

Ethernet Software Features

Configuration Options	Windows Utility (ioAdmin), Web Console (HTTP)
Industrial Protocols	Modbus TCP Server (Slave), SNMPv1/v2c/v3, SNMPv1 Trap, Moxa AOPC (Active Tag), MXIO Library, CGI commands
Management	BOOTP, IPv4, SMTP, DHCP Client, HTTP, TCP/IP
MIB	Device Settings MIB
Time Management	SNTP

Security Functions

Authentication	Local database
Encryption	HMAC
Security Protocols	SNMPv3

Modbus TCP

Functions Supported	1, 2, 3, 4, 5, 6, 15, 16
Mode	Server (Slave)

Serial Interface

Connector	Terminal block
Serial Standards	RS-485
No. of Ports	1
Baudrate	1200, 2400, 4800, 9600, 19200, 38400, 57600, 115200 bps
Parity	None
Data Bits	8
Stop Bits	1
Flow Control	None

Serial Signals

RS-485-2w	Data+, Data-, GND
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Serial Software Features

Industrial Protocols	Modbus RTU Master
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Platform

Real-time Clock (RTC)	Real-time clock with battery backup
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Power Parameters

Power Connector	Screw-fastened Euroblock terminal
No. of Power Inputs	1
Input Voltage	12 to 36 VDC
Power Consumption	ioLogik E2210 Series: 202 mA @ 24 VDC ioLogik E2212 Series: 136 mA @ 24 VDC ioLogik E2214 Series: 170 mA @ 24 VDC ioLogik E2240 Series: 198 mA @ 24 VDC ioLogik E2242 Series: 178 mA @ 24 VDC ioLogik E2260 Series: 95 mA @ 24 VDC ioLogik E2262 Series: 160 mA @ 24 VDC

Physical Characteristics

Dimensions	115 x 79 x 45.6 mm (4.53 x 3.11 x 1.80 in)
Weight	250 g (0.55 lb)
Installation	DIN-rail mounting, Wall mounting

Wiring	I/O cable, 16 to 26 AWG Power cable, 16 to 26 AWG
Housing	Plastic

Environmental Limits

Operating Temperature	Standard Models: -10 to 60°C (14 to 140°F) Wide Temp. Models: -40 to 75°C (-40 to 167°F)
Storage Temperature (package included)	-40 to 85°C (-40 to 185°F)
Ambient Relative Humidity	5 to 95% (non-condensing)
Altitude	2000 m ¹

Standards and Certifications

Safety	UL 508
EMC	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: 10 V/m IEC 61000-4-4 EFT: Power: 2 kV; Signal: 1 kV IEC 61000-4-5 Surge: Power: 1 kV IEC 61000-4-6 CS: 10 V IEC 61000-4-8 PFMF
Shock	IEC 60068-2-27
Vibration	IEC 60068-2-6
Freefall	IEC 60068-2-32

Declaration

Green Product	RoHS, CRoHS, WEEE
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MTBF

Time	ioLogik E2210 Series: 213,673 hrs ioLogik E2212 Series: 217,722 hrs ioLogik E2214 Series: 307,329 hrs ioLogik E2240 Series: 155,941 hrs ioLogik E2242 Series: 204,391 hrs ioLogik E2260 Series: 327,282 hrs ioLogik E2262 Series: 341,063 hrs
Standards	Telcordia SR332

Warranty

Warranty Period	ioLogik E2214 Series: 2 years ² ioLogik E2210/E2212/E2240/E2242/E2260/E2262 Series: 5 years
Details	See www.moxa.com/tw/warranty

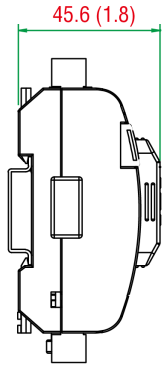
Package Contents

Device	1 x ioLogik E2200 Series remote I/O
Documentation	1 x quick installation guide 1 x warranty card

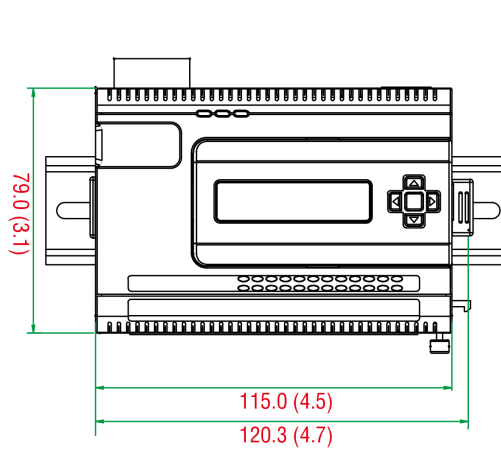
1. 如果您需要產品能在高海拔地區正常運作，請與 Moxa 聯繫。
2. 由於功率繼電器的使用壽命有限，使用此組件的產品享有 2 年保固。

尺寸

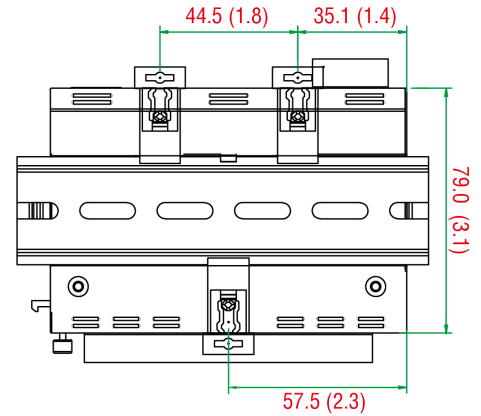
單位：公釐（英吋）



Side View



Front View



Rear View

訂購資訊

Model Name	Input/Output Interface	Digital Input Sensor Type	Analog Input Range	Operating Temp.
ioLogik E2210	12 x DI, 8 x DO	Wet Contact (NPN), Dry Contact	-	-10 to 60°C
ioLogik E2210-T	12 x DI, 8 x DO	Wet Contact (NPN), Dry Contact	-	-40 to 75°C
ioLogik E2212	8 x DI, 4 x DIO, 8 x DO	Wet Contact (NPN or PNP), Dry Contact	-	-10 to 60°C
ioLogik E2212-T	8 x DI, 4 x DIO, 8 x DO	Wet Contact (NPN or PNP), Dry Contact	-	-40 to 75°C
ioLogik E2214	6 x DI, 6 x Relay	Wet Contact (NPN or PNP), Dry Contact	-	-10 to 60°C
ioLogik E2214-T	6 x DI, 6 x Relay	Wet Contact (NPN or PNP), Dry Contact	-	-40 to 75°C
ioLogik E2240	8 x AI, 2 x AO	-	±150 mV, ±500 mV, ±5 V, ±10 V, 0-20 mA, 4-20 mA	-10 to 60°C
ioLogik E2240-T	8 x AI, 2 x AO	-	±150 mV, ±500 mV, ±5 V, ±10 V, 0-20 mA, 4-20 mA	-40 to 75°C
ioLogik E2242	12 x DIO, 4 x AI	Wet Contact (NPN or PNP), Dry Contact	±150 mV, 0-150 mV, ±500 mV, 0-500 mV, ±5 V, 0-5 V, ±10 V, 0-10 V, 0-20 mA, 4-20 mA	-10 to 60°C
ioLogik E2242-T	12 x DIO, 4 x AI	Wet Contact (NPN or PNP), Dry Contact	±150 mV, 0-150 mV, ±500 mV, 0-500 mV, ±5 V, 0-5 V, ±10 V, 0-10 V, 0-20 mA, 4-20 mA	-40 to 75°C
ioLogik E2260	4 x DO, 6 x RTD	-	-	-10 to 60°C
ioLogik E2260-T	4 x DO, 6 x RTD	-	-	-40 to 75°C
ioLogik E2262	4 x DO, 8 x TC	-	-	-10 to 60°C
ioLogik E2262-T	4 x DO, 8 x TC	-	-	-40 to 75°C

配件（選購）

Software

MX-AOPC UA Server

OPC UA Server software for converting fieldbus to the OPC UA standard

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