

MGate 5114 系列

1 埠 Modbus RTU/ASCII/TCP/IEC 101 轉 IEC 104 閘道器



特色與優點

- Modbus RTU/ASCII/TCP、IEC 60870-5-101、IEC 60870-5-104 之間的通訊協定轉換
- 支援 IEC 60870-5-101 主控裝置/從屬裝置 (平衡/非平衡)
- 支援 IEC 60870-5-104 用戶端/伺服器
- 支援 Modbus RTU/ASCII/TCP 主控裝置/用戶端和從屬裝置/伺服器
- 透過網頁式設定精靈輕鬆配置
- 狀態監控和故障保護，可輕鬆維護
- 嵌入式流量監控/診斷資訊，便於故障排除
- microSD 卡可用於備份/複製配置與儲存事件日誌
- 輕鬆佈線的內建乙太網路串接
- 備援雙直流電源輸入和繼電器輸出
- 提供 -40 至 75°C 寬溫度操作型號可供選用
- 串列內建埠 2kV 隔離保護
- 基於 IEC 62443 的資安防護功能

認證



簡介

MGate 5114 是工業乙太網路閘道器，配備 2 個乙太網路連接埠和 1 個 RS-232/422/485 串列埠，適用於 Modbus RTU/ASCII/TCP、IEC 60870-5-101 和 IEC 60870-5-104 網路通訊。透過整合常用的電源通訊協定，MGate 5114 提供滿足現場裝置使用不同通訊通訊協定連接到電源 SCADA 系統時出現的各種條件所需的彈性。若要將 Modbus 或 IEC 60870-5-101 裝置整合到 IEC 60870-5-104 網路，請將 MGate 5114 做為 Modbus 主控裝置/用戶端或 IEC 60870-5-101 主控裝置，藉以收集數據並與 IEC 60870-5-104 系統交換數據。

透過 Web 主控台輕鬆配置

MGate 5114 系列隨附有插圖的快速安裝指南，配置更便利。透過快速安裝，只要幾個步驟即可輕鬆存取通訊協定轉換模式，並完成配置。

Modbus RTU/ASCII/TCP 通訊協定流量監控

MGate 5114 系列閘道器支援 Modbus RTU/ASCII/TCP、IEC 60870-5-101 和 IEC 60870-5-104 通訊協定流量監控，故障排除更容易，尤其在安裝階段。值得一提的是，可以在常用的故障排除工具 Wireshark 中查看流量日誌。使用此項功能可以輕鬆分析流量以確定問題的根本原因。

維護功能

MGate 5114 閘道器支援系統日誌功能，可記錄 MGate 中的事件；使用者可以透過 Web 主控台從遠端輕鬆檢閱日誌數據。閘道器也支援狀態監控和失效防護功能。裝置中斷連線或無回應時，狀態監控功能會通知 PSCADA 系統，PSCADA 系統取得每台終端裝置的狀態，並發出警報通知操作員。

規格

Ethernet Interface

10/100BaseT(X) Ports (RJ45 connector)	2 Auto MDI/MDI-X connection
Magnetic Isolation Protection	1.5 kV (built-in)

Ethernet Software Features

Industrial Protocols	Modbus TCP Client (Master), Modbus TCP Server (Slave), IEC 60870-5-104 Client, IEC 60870-5-104 Server
Configuration Options	Web Console (HTTP/HTTPS), Device Search Utility (DSU), Telnet Console
Management	ARP, DHCP Client, DNS, HTTP, HTTPS, SMTP, SNMP Trap, SNMPv1/v2c/v3, TCP/IP, Telnet, SSH, UDP, NTP Client
MIB	RFC1213, RFC1317
Time Management	NTP Client

Serial Interface

Console Port	RS-232 (TxD, RxD, GND), 8-pin RJ45 (115200, n, 8, 1)
No. of Ports	1
Connector	DB9 male
Serial Standards	RS-232/422/485
Baudrate	50 bps to 921.6 kbps
Data Bits	7, 8
Parity	Even, Mark, None, Odd, Space
Stop Bits	1, 2
Flow Control	RTS Toggle (RS-232 only), RTS/CTS
RS-485 Data Direction Control	ADDC® (automatic data direction control)
Pull High/Low Resistor for RS-485	1 kilo-ohm, 150 kilo-ohms
Terminator for RS-485	120 ohms
Isolation	2 kV (built-in)

Serial Signals

RS-232	TxD, RxD, RTS, CTS, DTR, DSR, DCD, GND
RS-422	Tx+, Tx-, Rx+, Rx-, GND
RS-485-2w	Data+, Data-, GND
RS-485-4w	Tx+, Tx-, Rx+, Rx-, GND

Serial Software Features

Industrial Protocols	Modbus RTU/ASCII Master, Modbus RTU/ASCII Slave, IEC 60870-5-101 Master (Balanced/Unbalanced), IEC 60870-5-101 Slave (Balanced/Unbalanced)
Configuration Options	Serial Console

Modbus RTU/ASCII

Mode	Master, Slave
Functions Supported	1, 2, 3, 4, 5, 6, 15, 16, 23
Max. No. of Commands	128

Modbus TCP

Mode	Client (Master), Server (Slave)
Functions Supported	1, 2, 3, 4, 5, 6, 15, 16, 23
Max. No. of Client Connections	32
Max. No. of Server Connections	32
Max. No. of Commands	128

IEC 60870-5-104

Mode	Client Server
Max. No. of Client Connections	32
Max. No. of Server Connections	32
Max. No. of Information Objects	2000 points

IEC 60870-5-101

Mode	Master (Balanced/Unbalanced) Slave (Balanced/Unbalanced)
Max. No. of Master Connections	1
Max. No. of Slave Connections	1 (Balanced), 31 (Unbalanced)
Max. No. of Information Objects	2000 points

Memory

microSD Slot	Up to 32 GB (SD 2.0 compatible)
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Power Parameters

Input Voltage	12 to 48 VDC
Input Current	455 mA @ 12 VDC
Power Connector	Screw-fastened Euroblock terminal

Relays

Contact Current Rating	Resistive load: 2 A @ 30 VDC
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Physical Characteristics

Housing	Metal
IP Rating	IP30
Dimensions	36 x 105 x 140 mm (1.42 x 4.14 x 5.51 in)
Weight	507 g (1.12 lb)

Environmental Limits

Storage Temperature (package included)	-40 to 85°C (-40 to 185°F)
Ambient Relative Humidity	5 to 95% (non-condensing)
Operating Temperature	MGate 5114: 0 to 60°C (32 to 140°F) MGate 5114-T: -40 to 75°C (-40 to 167°F)

Standards and Certifications

Safety	EN 60950-1, UL 508
EMC	EN 55032/24
EMI	CISPR 32, FCC Part 15B Class B
EMS	IEC 61000-4-2 ESD: Contact: 8 kV; Air: 15 kV IEC 61000-4-3 RS: 80 MHz to 1 GHz: 10 V/m IEC 61000-4-4 EFT: Power: 4 kV; Signal: 2 kV IEC 61000-4-5 Surge: Power: 2 kV; Signal: 2 kV IEC 61000-4-6 CS: 150 kHz to 80 MHz: 10 V/m; Signal: 10 V/m IEC 61000-4-8 PFMF
Hazardous Locations	ATEX, Class I Division 2, IECEx ¹
Freefall	IEC 60068-2-32
Shock	IEC 60068-2-27
Vibration	IEC 60068-2-6, IEC 60068-2-64

MTBF

Time	1,140,815 hrs
Standards	Telcordia SR332

Warranty

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

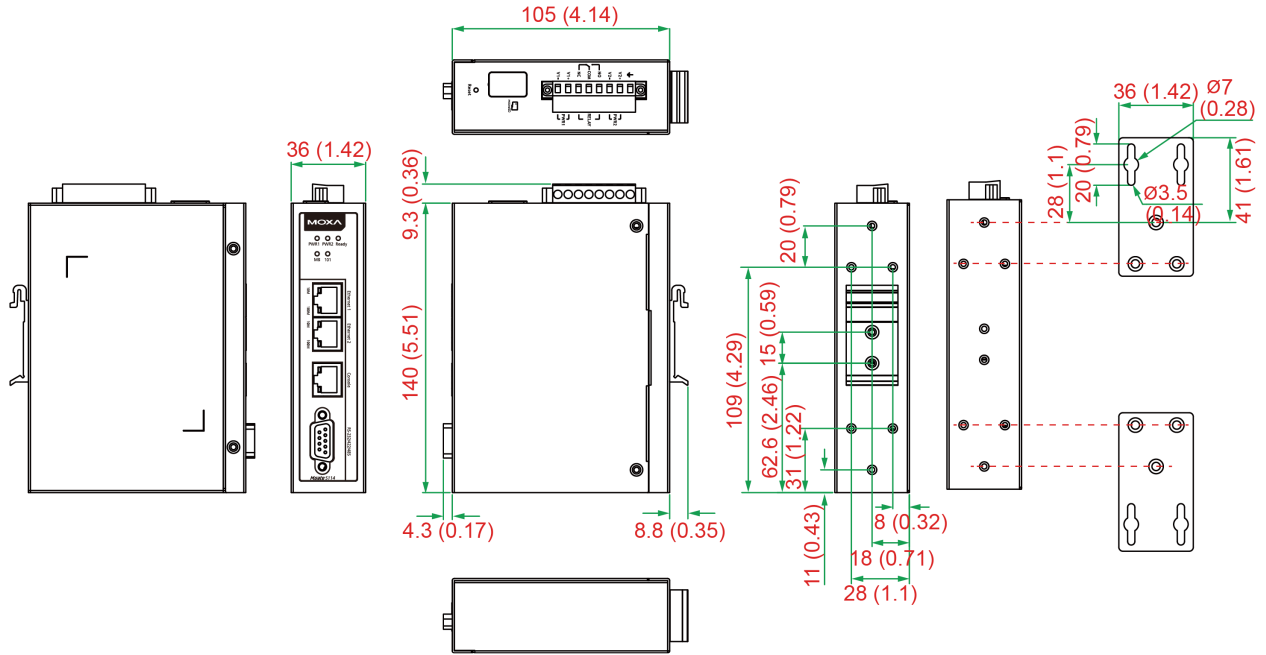
Package Contents

Device	1 x MGate 5114 Series gateway
Cable	1 x RJ45-to-DB9 console cable
Installation Kit	1 x DIN-rail kit
Documentation	1 x quick installation guide 1 x warranty card

1. Class 1 Division 2、ATEX 和 IECEx 認證正在進行中。詳情請聯絡 Moxa 銷售代表。

尺寸

單位：公釐 (英吋)



訂購資訊

Model Name	Operating Temp.
MGate 5114	0 to 60°C
MGate 5114-T	-40 to 75°C

配件 (選購)

Cables

CBL-F9M9-150	DB9 female to DB9 male serial cable, 1.5 m
CBL-F9M9-20	DB9 female to DB9 male serial cable, 20 cm
CBL-RJ45F9-150	RJ45 to DB9 female serial cable, 1.5 m
CBL-RJ45SF9-150	RJ45 to DB9 female serial shielded cable, 1.5 m

Connectors

Mini DB9F-to-TB	DB9 female to terminal block connector
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DIN-Rail Mounting Kits

DK-25-01	DIN-rail mounting kit, 2 screws
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Wall-Mounting Kits

WK-36-02	Wall-mounting kit, 2 plates, 6 screws, 36 x 67 x 2 mm
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Power Cords

CBL-PJTB-10	Non-locking barrel plug to bare-wire cable
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