

# MGate 4101-MB-PBS 系列

## 1 埠 Modbus RTU/ASCII 轉 PROFIBUS 從屬裝置閘道器



### 特色與優點

- Modbus 和 PROFIBUS 之間的通訊協定轉換
- 支援 PROFIBUS DP V0 從屬裝置
- 支援 Modbus RTU/ASCII 主控裝置和從屬裝置
- Windows 公用程式具有創新的 QuickLink 功能，可在幾分鐘內自動配置
- 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
- 支援備援 DC 電源輸入與 1 點 relay 輸出
- 提供 -40 至 75°C 寬溫度操作型號可供選用
- 內建 2 kV 光電隔離保護的串列埠（適用於「-I」型號）

### 認證



### 簡介

MGate 4101-MB-PBS 閘道器提供 PROFIBUS PLC（例如，Siemens S7-400 和 S7-300 PLC）和 Modbus 裝置之間建立通訊連接。藉由 QuickLink 功能，可在幾分鐘內完成 I/O 對應。所有型號均有強固的金屬外殼加以保護，支援 DIN 軌道套件安裝，而且提供選配內建光學隔離。

### 用於輕鬆設定和流量監控的 QuickLink 和 Windows 公用程式

QuickLink Windows 公用程式使用串列主控台連接埠連接到 MGate 4101-MB-PBS，儘可能簡化配置和操作。QuickLink 可以透過 AutoLearning 功能被動偵測 Modbus 要求，在幾分鐘內完成配置，並透過 AutoMapping 功能精確執行 I/O 對應。相較於傳統的 I/O 對應，QuickLink 顯著減少 Modbus 到 PROFIBUS 的整合時間，傳統的 I/O 對應動輒需要數天才能完成。此外，內建流量監控工具可以記錄 Modbus 通訊數據封包並協助進行故障排除。

### 備援電源輸入

MGate 4101-MB-PBS 具有雙電源輸入，可靠性更高。可同時連接到 2 個帶電直流電源，因此即使電源供應失效也能保持運作不中斷。這些具備高度可靠性的功能使得這款進階的 Modbus 轉 PROFIBUS 閘道器成為嚴苛工業應用的理想選擇。因而是嚴苛的工業應用相當理想的選擇。

### 繼電器輸出警告

繼電器輸出提供了電源輸入狀態，為維護工程師提供了額外的故障排除和維護工具。

### 規格

#### 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	None, Even, Odd, Space, Mark

Stop Bits	1, 2
Flow Control	DTR/DSR RTS/CTS
RS-485 Data Direction Control	Automatic Data Direction Control (ADDC)
Pull High/Low Resistor for RS-485	1 kilo-ohm, 150 kilo-ohms
Terminator for RS-485	120 ohms
Isolation	2 kV (I models)

### 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

Configuration Options	MGate Manager
Industrial Protocols	Modbus RTU/ASCII Master Modbus RTU/ASCII Slave PROFIBUS DP-V0 Slave

### Modbus RTU/ASCII

Mode	Master, Slave
Functions Supported	1, 2, 3, 4, 5, 6, 15, 16, 23
Max. No. of Commands	100
Input Data Size	7744 bytes
Output Data Size	7744 bytes

### PROFIBUS Interface

Industrial Protocols	PROFIBUS DP
No. of Ports	1
Connector	DB9 female
Baudrate	9600 bps to 12 Mbps
Isolation	2 kV (built-in)
Signals	PROFIBUS D+, PROFIBUS D-, RTS, Signal Common, 5V

### PROFIBUS

Rotary Switch	PROFIBUS addresses 0-99 (addresses 100-125 supported through software configuration)
Mode	DP-V0 Slave
Max. No. of Master Connections	1
Max. No. of PROFIBUS I/O Modules	24 per page
Max. No. of PROFIBUS Pages	32

Input Data Size	7744 bytes
Output Data Size	7744 bytes
<b>Power Parameters</b>	
Input Voltage	12 to 48 VDC
Input Current	275 mA @ 12 VDC
Power Connector	Screw-fastened Euroblock terminal
<b>Relays</b>	
Contact Current Rating	Resistive load: 1 A @ 24 VDC
<b>Physical Characteristics</b>	
Housing	Metal
Dimensions	36 x 105 x 140 mm (1.42 x 4.14 x 5.51 in)
Weight	500 g (1.10 lb)
IP Rating	IP30 Note: It is recommended to attach the M3x3mm Nylok screws at the rear side
<b>Environmental Limits</b>	
Operating Temperature	MGate 4101I-MB-PBS: 0 to 60°C (32 to 140°F) MGate 4101I-MB-PBS-T: -40 to 75°C (-40 to 167°F) MGate 4101-MB-PBS: 0 to 60°C (32 to 140°F) MGate 4101-MB-PBS-T: -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)
<b>Standards and Certifications</b>	
EMC	EN 55032/35
EMI	CISPR 32, FCC Part 15B Class A
EMS	IEC 61000-4-2 ESD: Contact: 6 kV; Air: 8 kV IEC 61000-4-3 RS: 80 MHz to 1 GHz: 3 V/m IEC 61000-4-4 EFT: Power: 2 kV; Signal: 1 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
Safety	IEC 60950-1 UL 60950-1 IEC 62368-1 UL 62368-1
Hazardous Locations	ATEX Class I Division 2 IECEX
Freefall	IEC 60068-2-32
Shock	IEC 60068-2-27
Vibration	IEC 60068-2-6 IEC 60068-2-64

## MTBF

Time	MGate 4101-MB-PBS models: 1,537,948 hrs MGate 4101I-MB-PBS models: 1,315,666 hrs
Standards	Telcordia SR332

## Warranty

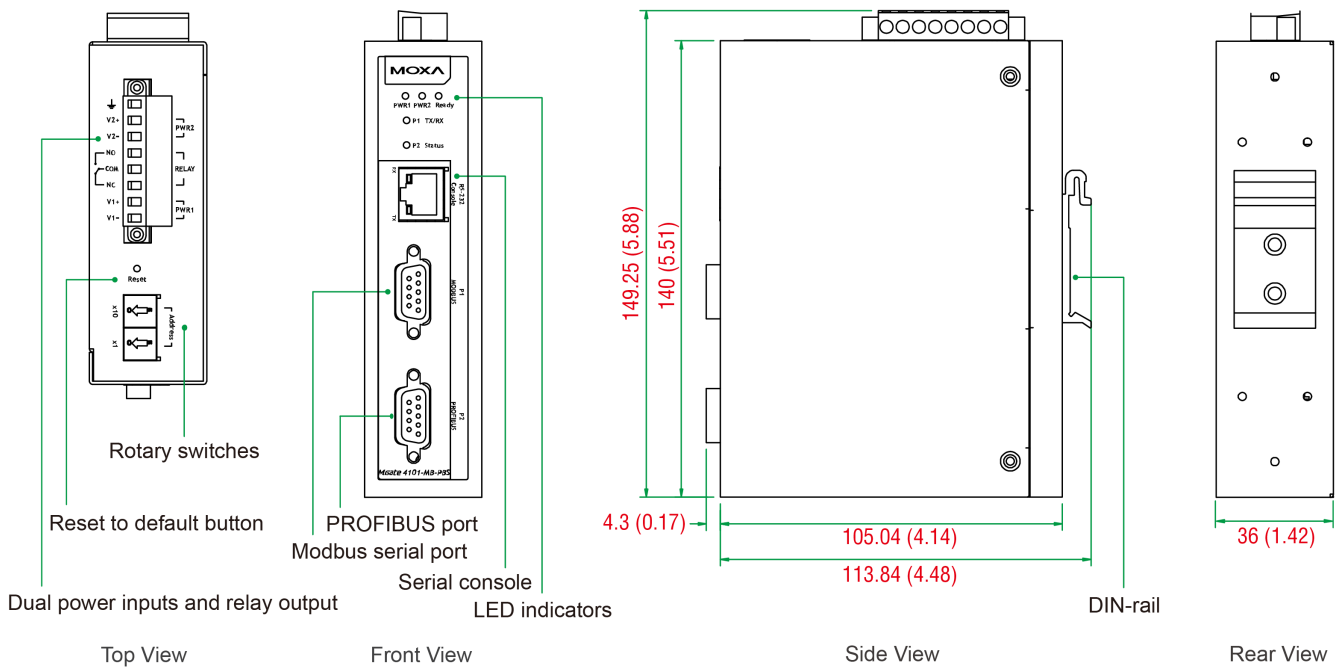
Warranty Period	5 years
Details	See <a href="http://www.moxa.com/tw/warranty">www.moxa.com/tw/warranty</a>

## Package Contents

Device	1 x MGate 4101-MB-PBS 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

## 尺寸

單位：公釐 (英吋)



## 訂購資訊

Model Name	Serial Isolation	Operating Temp.
MGate 4101-MB-PBS	-	0 to 60°C
MGate 4101I-MB-PBS	2 kV	0 to 60°C
MGate 4101-MB-PBS-T	-	-40 to 75°C
MGate 4101I-MB-PBS-T	2 kV	-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	8-pin RJ45 to DB9 female serial cable, 1.5m
CBL-RJ45SF9-150	8-pin RJ45 to DB9 female serial cable with shielding, 1.5m

### 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	DIN-rail/wall-mounting kit, 2 plates, 6 screws
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### Power Cords

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