



MGate 4101-MB-PBS Quick Installation Guide

First Edition, December 2011

Overview

The MGate™ 4101-MB-PBS and 4101I-MB-PBS are 1-port Modbus serial to PROFIBUS Slave gateways provide protocol conversion for users who need to connect Modbus devices to Siemens PLC.

Package Checklist

Before installing the MGate 4101-MB-PBS or 4101I-MB-PBS, verify that the package contains the following items:

- 1 MGate 4101-MB-PBS or 4101I-MB-PBS Modbus to PROFIBUS slave gateway
- Documentation & Software CD
- Quick Installation Guide
- Product Warranty Statement
- RJ45 to DB9 Cable (for use with console)

Optional Accessories:

- DR-4524: 45W/2A DIN-rail 24 VDC power supply with universal 85 to 264 VAC input.
- DR-75-24: 75W/3.2A DIN-rail 24 VDC power supply with universal 85 to 264 VAC input.
- DR-120-24: 120W/5A DIN-rail 24 VDC power supply with 88 to 132 VAC/176 to 264 VAC input by switch.
- WK-36-01: Wall mounting kit

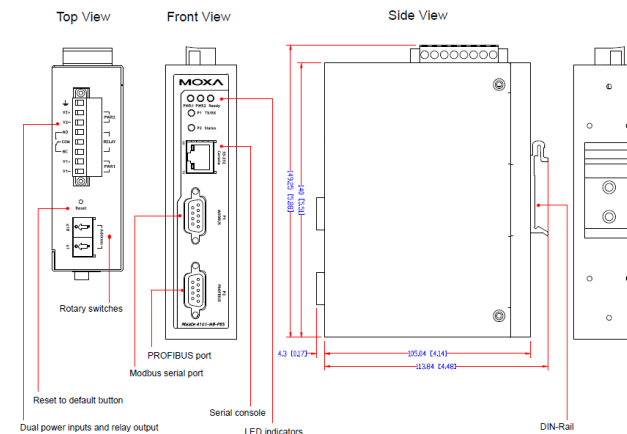
Please notify your sales representative if any of the above items is missing or damaged.

Hardware Introduction

LED Indicators

LED	Color	Function
PWR1	Green	Power is on.
	Off	Power is off.
PWR2	Green	Power is on.
	Off	Power is off.
Ready	Green	Gateway is operational.
	Red	Check Configuration failed or Set Parameter failed
	Off	Power is off or fault condition exists.
P1 TX/RX (Modbus Serial)	Green	Serial device is transmitting data.
	Orange	Serial device is receiving data.
	Off	No data is flowing to or from the serial port.
P2 Status (PROFIBUS)	Green	Steady: Gateway is waiting for data exchanging. Blinking: Data is exchanging.
	Orange	Steady: Error in Configuration. Blinking: Error in Parameter data
	Off	PROFIBUS offline or Slave ID wrong.

The MGate 4101-MB-PBS and 4101I-MB-PBS both come with a RJ45 to DB9 cable for connections to a serial console.



Reset Button

The reset button is used to load factory defaults. Use a pointed object such as a straightened paper clip to hold the reset button down for five seconds. Release the reset button when the Ready LED stops blinking.

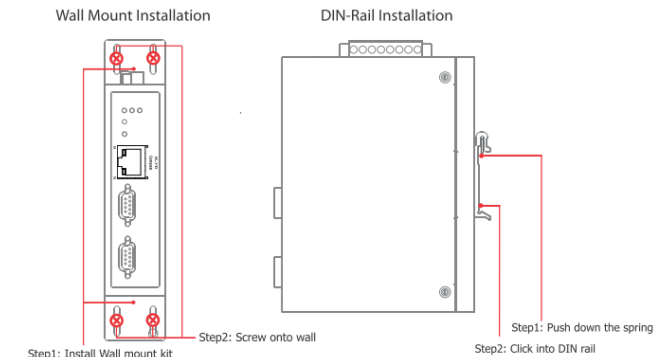
Hardware Installation Procedure

STEP 1: Connect the power adaptor. Connect the 12-48 VDC power line with the MGate 4101-MB-PBS/4101I-MB-PBS series' terminal block, or connect the DIN-rail power supply with the MGate 4101-MB-PBS/4101I-MB-PBS device's terminal block.

STEP 2: Use a PROFIBUS cable to connect the unit to PROFIBUS PLC or other PROFIBUS master.

STEP 3: Connect your device to the unit's serial port.

STEP 4: Attach device to DIN-rail or wall. The MGate 4101-MB-PBS/4101I-MB-PBS series is designed to be attached to a DIN-rail or mounted on a wall. For DIN-rail mounting, push down the spring and properly attach it to the DIN-rail until it "snaps" into place. For wall mounting, install the wall mount kit (optional) first, and then screw the device onto the wall. The following figure illustrates the two mounting options:

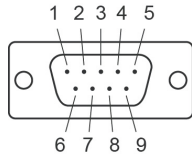


Software Installation Information

To install MGate Manager, insert the MGate Document & Software CD into your PC's CD-ROM drive. Once the installation window opens, click the Installation button and follow the onscreen instructions. For more detailed information about MGate Manager, click the Documents button and select the MGate 4101-MB-PBS User's Manual.

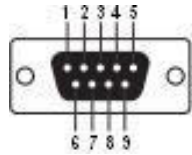
Pin Assignments

Modbus Serial Port (Male DB9)



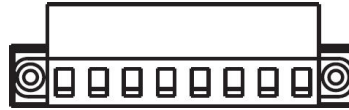
Pin	RS-232	RS-422/ RS-485 (4W)	RS-485 (2W)
1	DCD	TxD-(A)	---
2	RXD	TxD+(B)	---
3	TXD	RxD+(B)	Data+(B)
4	DTR	RxD-(A)	Data-(A)
5	GND	GND	GND
6	DSR	---	---
7	RTS	---	---
8	CTS	---	---
9	---	---	---

PROFIBUS Serial Port (Female DB9)



PIN	Signal Name
1	N.C.
2	N.C.
3	PROFIBUS D+
4	RTS
5	Signal common
6	5V
7	N.C.
8	PROFIBUS D-
9	N.C.

Power Input and Relay Output Pinouts



	V2+	V2-		V1+	V1-
	DC Power Input 2	DC Power Input 2		DC Power Input 1	DC Power Input 1

Specifications

Power Requirements

Power Input 12 to 48 VDC
 Power Consumption MGate 4101-MB-PBS: 340 mA @ 12 VDC,
 130 mA @ 48 VDC
 MGate 4101I-MB-PBS: 375 mA @ 12 VDC,
 140 mA @ 48 VDC

Operating Temperature 0 to 60°C (32 to 140°F)
 -40 to 75°C (-40 to 167°F) for -T model

Operating Humidity 5 to 95% RH
 Dimensions 36 x 105 x 140 mm (1.42 x 4.13 x 5.51 in)

Reliability

Alert Tools Built-in buzzer and RTC
 MTBF 513,139 hrs

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