MGate 5135/5435 Series Quick Installation Guide

Version 1.0, September 2022

Technical Support Contact Information www.moxa.com/support



P/N: 1802051350010

Overview

The MGate 5135/5435 is an industrial Ethernet gateway for Modbus RTU/ASCII/TCP and EtherNet/IP network communications.

Package Checklist

Before installing the MGate 5135/5435, verify that the package contains the following items:

- 1 MGate 5135 or MGate 5435 gateway
- · Quick installation guide (printed)
- Warranty card

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

Optional Accessories (can be purchased separately)

Color Description

- Mini DB9F-to-TB: DB9 female to terminal block connector
- WK-25: Wall-mounting kit, 2 plates, 4 screws, 25 x 43 x 2 mm

Hardware Introduction

LED Indicators

LED

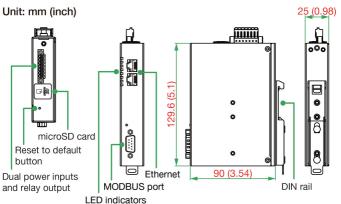
| LED | Color | Description | | |
|-----------------------------------|-------|---|--|--|
| PWR 1, PWR 2 | Green | Power is on. | | |
| | Off | Power is off. | | |
| | Off | Power is off. | | |
| | | Steady: Power is on, and the MGate is | | |
| | Green | functioning normally. | | |
| | | Blinking (1 sec.): The MGate has been located | | |
| | | by the MGate Manager's Location function. | | |
| Ready | | Steady: Power is on, and the MGate is booting | | |
| | | up. | | |
| | Red | Blinking (0.5 sec.): Indicates an IP conflict, or | | |
| | Red | the DHCP or BOOTP server is not responding | | |
| | | properly. | | |
| | | Blinking (0.1 sec.): the microSD card failed. | | |
| | Off | No connection has been established. | | |
| | Green | Steady: I/O data is being exchanged with all | | |
| EtherNet/IP | | of the connections. | | |
| Adapter | Red | Steady: Rejects the connection due to | | |
| Adapter | | incorrect configurations. | | |
| | | Blinking (1 sec.): One or more connections | | |
| | | timed out. | | |
| | Off | No communication with Modbus device. | | |
| | Green | Modbus communication in progress. | | |
| Modbus RTU/ASCII/TCP Client | Red | Blinking (1 sec.):Communication error. | | |
| | | 1. The Modbus slave device returned an error | | |
| | | (exception). | | |
| | | 2. Received a frame error (parity error, | | |
| | | checksum error). | | |
| | | 3. Timeout (the slave device does not | | |
| | | | | |

respond).

| LED | Color | Description | | |
|--------------|-------|---|--|--|
| | | 4. TCP connection failed (only for Modbus TCP). | | |
| ETH 1, ETH 2 | Green | Steady ON: Ethernet link on at 100Mbps. | | |
| | | Blinking: Data transmitting at 100Mbps. | | |
| | Amber | Steady ON: Ethernet link on at 10Mbps. | | |
| | | Blinking: Data transmitting at 10Mbps. | | |
| | Off | Ethernet is not connected. | | |

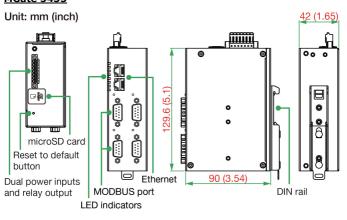
Dimensions

MGate 5135



Top View Front View Side View Back View

MGate 5435



Reset Button

Top View

Restore the MGate to factory default settings by using a pointed object (such as a straightened paper clip) to hold the reset button down until the Ready LED stops blinking (approx. five seconds).

Side View

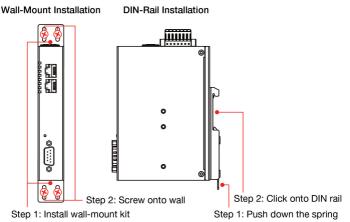
Back View

Front View

Hardware Installation Procedure

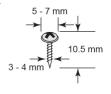
- Connect the power adapter. Connect the 12 to 48 VDC power line or DIN-rail power supply to the terminal block of the MGate 5135/5435 device.
- Use a Modbus serial cable to connect the MGate to a Modbus slave device.
- Use an Ethernet cable to connect the MGate to the EtherNet/IP controller.
- 4. We designed the MGate 5135/5435 to attach 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:



Wall- or Cabinet-mounting

We provide two metal plates for mounting the unit on a wall or inside a cabinet. Attach the plates to the unit's rear panel with screws. With the plates attached, use screws to mount the unit on a wall. The heads of the screws should be 5 to 7 mm in diameter, the shafts should be 3 to 4 mm in diameter, and the length of the screws should be over 10.5 mm.



Software Installation Information

Please download the User Manual and Device Search Utility (DSU) from Moxa's website: www.moxa.com

Refer to the User's Manual for additional details on using the DSU. The MGate 5135/5435 also supports login via a web browser.

Default IP address: 192.168.127.254

Create your administration account and password when you log in the first time.

Pin Assignments

Modbus Serial Port (Male DB9)

| Pin | RS-232 | RS-422/ RS-485 (4W) | RS-485 (2W) | |
|-----|----------|------------------------|-------------|--|
| 1 | DCD | TxD-(A) | ı | |
| 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 | - | - | - | |
| 9 | CTS - | - - | - | |

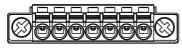


Ethernet Port (RJ45)

| Pin | Signal |
|-----|--------|
| 1 | Tx+ |
| 2 | Tx- |
| 3 | Rx+ |
| 6 | Rx- |



Power Input and Relay Output Pinouts



| V2+ | V2- | Г | - p | | V1+ | V1- |
|---------|---------|------|--------|------|---------|---------|
| DC | DC | | | | DC | DC |
| Power | Power | N.O. | Common | N.C. | Power | Power |
| Input 2 | Input 2 | | | | Input 1 | Input 1 |

Specifications

| Power Parameters | | | |
|--------------------------|---|--|--|
| Power Input | 12 to 48 VDC | | |
| Power Consumption | MGate 5135 Series: 455 mA max. | | |
| | MGate 5435 Series: 455 mA max. | | |
| Relays | | | |
| Contact Current Rating | Resistive load: 2 A @ 30 VDC | | |
| Environmental Limits | | | |
| Operating | Standard models: -10 to 60°C (14 to 140°F) | | |
| Temperature | Wide temp. models: -40 to 75°C (-40 to 167°F) | | |
| Storage Temperature | -40 to 85°C (-40 to 185°F) | | |
| (package included) | | | |
| Ambient Relative | 5 to 95% RH | | |
| Humidity | | | |
| Physical Characteristics | | | |
| Dimensions | MGate 5135 Series: | | |
| | 25 x 90 x 129.6 mm (0.98 x 3.54 x 5.1 in) | | |
| | MGate 5435 Series: | | |

42 x 90 x 129.6 mm (1.65 x 3.54 x 5.1 in)

^{*}Signal ground

| Weight | MGate 5135 Series: 294 g (0.65 lb) | |
|-------------|------------------------------------|--|
| | MGate 5435 Series: 403 g (0.89 lb) | |
| Reliability | | |
| Alert Tools | Built-in buzzer and RTC | |
| MTBF | MGate 5135 Series: 1,240,821 hrs. | |
| | MGate 5435 Series: 689,989 hrs. | |



ATTENTION

Power terminal plug wiring size is 28-14 AWG, tighten to 1.7 in-lbs, wire Min. 80°C, Use copper conductors only.



Hot Surface Label.



Functional earth terminal.



ATTENTION

- This device is an open-type equipment and intended to be installed in a suitable enclosure.
- If the equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired.
- When installing, the assembler is responsible for the safety
 of the system in which the equipment is incorporated.

NOTE •

- This device is intended for use indoors and at altitudes up to 2,000 meters.
- Pollution degree 2.

NOTE Clean the device with a soft cloth, dry or with water.

NOTE The power input specification complies with the requirements of SELV (Safety Extra Low Voltage), and the power supply should comply with UL 61010-1 and UL 61010-2-201.

For any repair or maintenance needs, please contact us. Moxa Inc.

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