MGate 4101-MB-PBS Series

1-port Modbus RTU/ASCII-to-PROFIBUS slave gateways

Features and Benefits

- Protocol conversion between Modbus and PROFIBUS

- Supports PROFIBUS DP V0 slave

- Supports Modbus RTU/ASCII master and slave

- Windows utilities with innovative QuickLink function for automatic configuration within minutes

- Status monitoring and fault protection for easy maintenance

- Embedded traffic monitoring/diagnostic information for easy troubleshooting

- Supports redundant dual DC power inputs and 1 relay output

- -40 to 75°C wide operating temperature models available

- Serial port with 2 kV isolation protection (for "-I" models)

Certifications

IEC IECEx CE FC c(UL)us LISTED

Introduction

The MGate 4101-MB-PBS gateway provides a communication portal between PROFIBUS PLCs (e.g., Siemens S7-400 and S7-300 PLCs) and Modbus devices. With the QuickLink feature, I/O mapping can be accomplished within a matter of minutes. All models are protected with a rugged metallic casing, are DIN-rail mountable, and offer optional built-in optical isolation.

QuickLink and Windows Utilities for Easy Setup and Traffic Monitoring

The QuickLink windows utility uses a serial console port to connect to the MGate 4101-MB-PBS and makes configuration and operation as easy as possible. QuickLink can finish the configuration in just a few minutes by passively detecting Modbus requests with the AutoLearning function, and performs error-free I/O mapping with the AutoMapping feature. QuickLink drastically reduces Modbus-to-PROFIBUS integration time when compared to conventional I/O mapping, which can easily require days to complete. Additionally, embedded monitoring tools can maintain logs of Modbus communication packets and assist in troubleshooting.

Redundant Power Inputs

The MGate 4101-MB-PBS has dual power inputs for greater reliability. The power inputs allow simultaneous connection to 2 live DC power sources, so that continuous operation is provided even if one power source fails. The higher level of reliability makes these advanced Modbus-to-PROFIBUS gateways ideal for demanding industrial applications.

Warning by Relay Output

A relay output is provided for the power input status. The relay output gives maintenance engineers an additional tool for troubleshooting and maintenance.

Specifications

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

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Parity	None, Even, Odd, Space, Mark
Stop Bits	1, 2
Flow Control	DTR/DSR, 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 (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

Power Parameters

Input Voltage	12 to 48 VDC
Input Current	MGate 4101I-MB-PBS: 375 mA @ 12 VDC MGate 4101I-MB-PBS-T: 375 mA @ 12 VDC MGate 4101-MB-PBS: 340 mA @ 12 VDC MGate 4101-MB-PBS-T: 340 mA @ 12 VDC
Power Connector	Screw-fastened Euroblock terminal

Relays

Contact Current Rating	Resistive load: 1 A @ 24 VDC

Physical Characteristics

Housing	Metal
IP Rating	IP30
Dimensions	36 x 105 x 140 mm (1.42 x 4.14 x 5.51 in)
Weight	500 g (1.10 lb)

Environmental Limits

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)

Standards and Certifications

Safety	EN 60950-1, UL 60950-1
EMC	EN 55032/24
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: 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: 3 V/m; Signal: 3 V/m IEC 61000-4-8 PFMF
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	513,139 hrs
Standards	Telcordia SR332

Warranty

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

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

Dimensions

Unit: mm (inch)

Rotary switches

Reset to default button

PROFIBUS port

Modbus serial port

Serial console

LED indicators

Dual power inputs and relay output

149.25 (5.88)

140 (5.51)

4.3 (0.17)

105.04 (4.14)

113.84 (4.48)

36 (1.42)

DIN-rail

Top View | Front View | Side View | Rear View
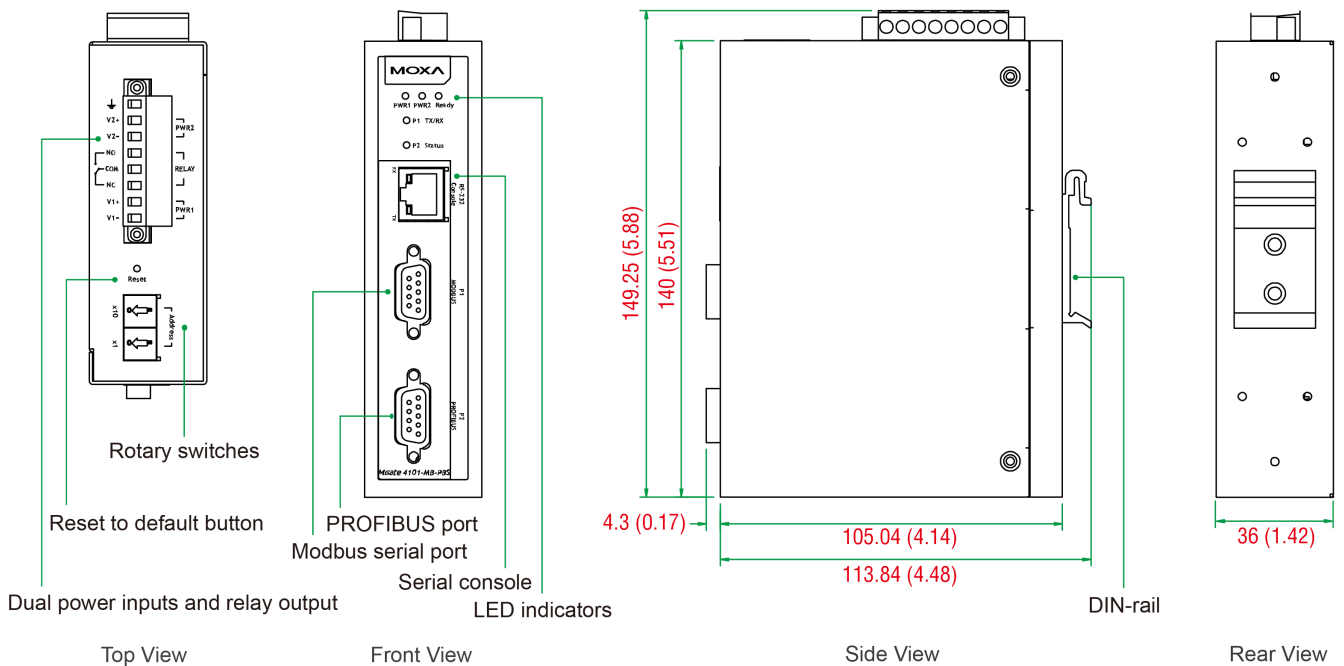
Ordering Information

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

Accessories (sold separately)

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

DIN-Rail Mounting Kits

DK-25-01	DIN-rail mounting kit, 2 screws

Wall-Mounting Kits

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

Power Cords

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

MGate 5111 Series

1-port Modbus/PROFINET/EtherNet/IP to PROFIBUS slave gateways

Features and Benefits

- Converts Modbus, PROFINET, or EtherNet/IP to PROFIBUS
- Supports PROFIBUS DP V0 slave
- Supports Modbus RTU/ASCII/TCP master/client and slave/server
- Supports EtherNet/IP Adapter
- Supports PROFINET IO device
- Effortless configuration via web-based wizard
- Built-in Ethernet cascading for easy wiring
- Embedded traffic monitoring/diagnostic information for easy troubleshooting
- Status monitoring and fault protection for easy maintenance
- microSD card for configuration backup/duplication and event logs
- Supports redundant dual DC power inputs and 1 relay output
- Serial port with 2 kV isolation protection
- -40 to 75°C wide operating temperature models available
- Security features based on IEC 62443

Certifications

Introduction

MGate 5111 industrial Ethernet gateways convert data from Modbus RTU/ASCII/TCP, EtherNet/IP, or PROFINET to PROFIBUS protocols. All models are protected by a rugged metal housing, are DIN-rail mountable, and offer built-in serial isolation.

Modbus is one of the most widely used industrial communication protocols, and EtherNet/IP, PROFINET, and PROFIBUS are commonly used in factory automation and process automation. The MGate 5111 supports both Modbus RTU/ASCII/TCP master and slave modes, so that you can easily connect your Modbus device to PROFIBUS PLCs or DCSs, such as Siemens PLCs.

For system integration, the MGate 5111 can connect to EtherNet/IP PLC/SCADA systems, such as Rockwell Automation PLCs, to PROFIBUS PLC/DCS systems, or between a new Siemens PLC system that supports PROFINET to an existing PROFIBUS system. The MGate 5111 gateways are designed for easy configuration and quick maintenance. A handy web console can be used to implement remote maintenance tasks, and the configuration wizard UI lets you quickly set up your gateway. A comprehensive collection of troubleshooting tools reduce configuration time and system downtime. The rugged design is suitable for industrial applications, such as factory automation, power, oil and gas, water and wastewater, and other process automation industries.

Easy Configuration

The MGate 5111 Series has a user-friendly interface that lets you quickly set up protocol conversion routines for most applications, doing away with what were often time-consuming tasks in which users had to implement detailed parameter configurations one by one. With Quick Setup, you can easily access protocol conversion modes and finish the configuration in a few steps.

The MGate 5111 supports a web console and Telnet console for remote maintenance. Encryption communication functions, including HTTPS and SSH, are supported to provide better network security. In addition, system monitoring functions are provided to record network connections and system log events.

A Variety of Maintenance Functions

The MGate 5111 supports Protocol Diagnose and Traffic Monitor for easy troubleshooting, especially during the installation stage. Communication issues caused by incorrect software parameters, such as slave IDs and register addresses, or incorrect command configurations, can be fished out with Protocol Diagnose and Traffic Monitoring, which let you capture and check data to easily identify root causes.

MGate 5111 gateways also support status monitoring and fault protection functions. The status monitoring function notifies a PLC/DCS/SCADA system when a Modbus device gets disconnected or does not respond, in which case the process PLC/DCS gets the status of each end device and then issues alarms to notify operators. When a PROFIBUS cable gets disconnected, the fault protection function executes actions on end devices identified by a predefined value set by the user.

Specifications

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), PROFINET IO Device, EtherNet/IP Adapter
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	None, Even, Odd, Space, Mark
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

Configuration Options	Serial Console
Industrial Protocols	PROFIBUS DP-V0 Slave, Modbus RTU/ASCII Master, Modbus RTU/ASCII Slave

Modbus RTU/ASCII

Mode	Master, Slave
Functions Supported	1, 2, 3, 4, 5, 6, 15, 16, 23
Max. No. of Commands	128
Input Data Size	2048 bytes
Output Data Size	2048 bytes

Modbus TCP

Mode	Client (Master), Server (Slave)
Functions Supported	1, 2, 3, 4, 5, 6, 15, 16, 23
Max. No. of Client Connections	16
Max. No. of Server Connections	32
Max. No. of Commands	128
Input Data Size	2048 bytes
Output Data Size	2048 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
Input Data Size	244 bytes
Output Data Size	244 bytes

PROFINET

Mode	IO Device
Max. No. of IO Controller Connections	1 (for read/write)
Input Data Size	512 bytes
Output Data Size	512 bytes

EtherNet/IP

Mode	Adapter
CIP Objects Supported	Identity, Message Router, Assembly, Connection Manager, TCP/IP interface, Ethernet link, Port
Max. No. of Scanner Connections	1 (for read-only), 1 (for read/write)
Input Data Size	496 bytes
Output Data Size	496 bytes

Memory

microSD Slot	Up to 32 GB (SD 2.0 compatible)

Power Parameters

Input Voltage	12 to 48 VDC
Input Current	416 mA @ 12 VDC
Power Connector	Spring-type Euroblock terminal

Relays

Contact Current Rating	Resistive load: 2 A @ 30 VDC

Physical Characteristics

Housing	Metal
IP Rating	IP30
Dimensions	45.8 x 105 x 134 mm (1.8 x 4.13 x 5.28 in)
Weight	589 g (1.30 lb)

Environmental Limits

Operating Temperature	MGate 5111: 0 to 60°C (32 to 140°F) MGate 5111-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)

Standards and Certifications

Safety	EN 60950-1, UL 61010-2-201
EMC	EN 61000-6-2/-6-4
EMI	CISPR 32, FCC Part 15B Class A
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: 4 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
Freefall	IEC 60068-2-32
Shock	IEC 60068-2-27
Vibration	IEC 60068-2-6, IEC 60068-2-64

MTBF

Time	718,131 hrs
Standards	Telcordia SR332

Warranty

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

Package Contents

Device	1 x MGate 5111 Series gateway
Installation Kit	1 x DIN-rail kit
Documentation	1 x quick installation guide 1 x warranty card

Dimensions

Unit: mm (inch)
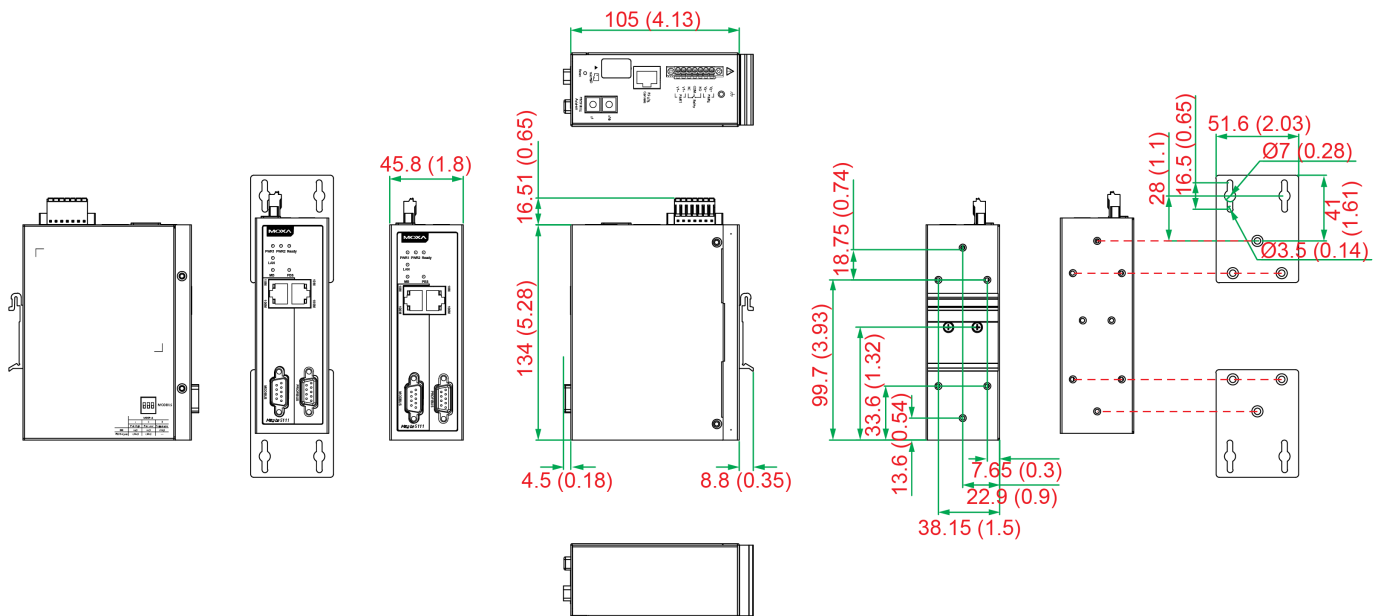
Ordering Information

Model Name	Operating Temp.
MGate 5111	0 to 60°C
MGate 5111-T	-40 to 75°C

Accessories (sold separately)

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

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Mini DB9F-to-TB	DB9 female to terminal block connector

Wall-Mounting Kits

WK-51-01	Wall-mounting kit, 2 plates, 6 screws, 51.6 x 67 x 2 mm

Power Cords

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

MGate 5192 Series

1-port IEC 61850-to-DNP3/IEC 101/IEC 104/Modbus gateways
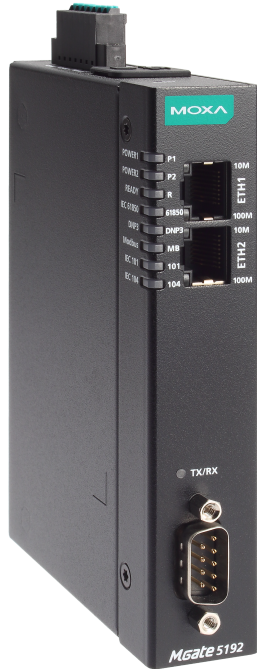
Features and Benefits

- Supports IEC 61850 MMS client
- Supports DNP3 serial/TCP/UDP outstation
- Supports IEC 60870-5-101 server
- Supports IEC 60870-5-104 client
- Supports Modbus RTU/ASCII/TCP server
- Flexible deployment with Ethernet cascading and dual subnet
- Embedded traffic monitoring/diagnostic information for easy troubleshooting
- Easy device configuration via a web-based console
- microSD card for configuration backup/duplication
- Supports dual redundant DC power inputs and 1 relay output
- Serial port with 2 kV isolation protection
- -40 to 75°C wide operating temperature models available
- Developed according to IEC 62443-4-2 with Secure Boot

Certifications

Introduction

The MGate 5192 is an industrial protocol gateway for converting IEC 61850 MMS to Modbus RTU/ASCII/TCP, DNP3 serial/TCP/UDP, IEC 60870-5-101, or IEC 60870-5-104 communications. To integrate existing IEC 61850 devices, such as IEDs or relays, into a Modbus, DNP3, IEC 101, or IEC 104 network, use the MGate 5192 as an IEC 61850 MMS client to collect and exchange data with Modbus RTU/ASCII/TCP, DNP3 serial/TCP/UDP, IEC 60870-5-101, or IEC 60870-5-104 SCADA/devices. All models are protected by a rugged and compact metal housing, are DIN-rail mountable, and offer built-in serial isolation. The rugged design is suitable for industrial applications such as power substation and renewable energy-related applications.
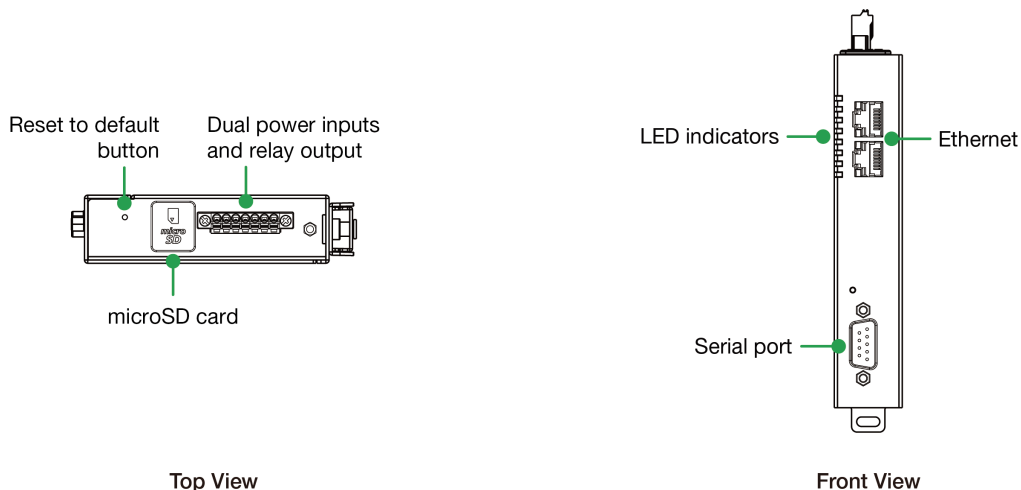
Easy Configuration

The MGate 5192 gateways are provided with a web console to make configuration easy without having to install an extra utility. In addition, HTTPS encryption of communication ensures higher network security. In most data-acquisition applications, configuration of devices with Modbus commands can be time-consuming and increase costs. The MGate 5192 gateways provide offline configuration via a CSV file to help complete the Modbus settings quickly. The MGate gateways provide software-configurable pull high/low and termination resistor settings for RS-485 2-wire to reduce efforts by eliminating the need to open the chassis.

Easy Troubleshooting

The MGate 5192 gateways provide a variety of maintenance functions to reduce troubleshooting time and cost, including LED indicators, protocol diagnostics, traffic monitor, and tag view. These tools help you capture and check data to easily identify the root cause of issues, especially during the installation stage. The MGate gateways also come with status monitoring and fault protection functions. The status monitoring function notifies a SCADA system when a IEC 61850 device gets disconnected or does not respond, in which case the process SCADA gets the status of each end device and then issues alarms to notify operators. The fault protection function keeps the latest data without sending output data to the IEC 61850 devices. When a SCADA gets disconnected, the end devices keep the last operation and do not go offline.

Appearance

Top View

Reset to default button · Dual power inputs and relay output · microSD card

Front View

LED indicators · Ethernet · Serial port

Specifications

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	IEC 61850 MMS Client Modbus TCP Server IEC 60870-5-104 Server DNP3 TCP/UDP Outstation
Configuration Options	Web Console (HTTPS) Device Search Utility (DSU)
Management	ARP DHCP Client DNS HTTP HTTPS SMTP SNMP Trap SNMPv1/v2c/v3 TCP/IP UDP
MIB	RFC1213, RFC1317
Time Management	NTP Client

Security Functions

Authentication	Local database
Encryption	HTTPS AES-128 AES-256 SHA-256
Security Protocols	SNMPv3 SNMPv2c Trap HTTPS (TLS 1.3)

Serial Interface

No. of Ports	1
Connector	DB9 male
Serial Standards	RS-232/422/485
Baudrate	300 bps to 921.6 kbps
Data Bits	7, 8
Parity	None Even Odd Space Mark
Stop Bits	1, 2
Flow Control	RTS Toggle (RS-232 only) 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 software configurable
Terminator for RS-485	120 ohms software configurable
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 Server IEC 60870-5-101 Server DNP3 Serial Outstation

IEC 61850

Mode	MMS Client
Max. No. of Server Connections	32
Max. No. of Data Objects	5000 points

Modbus TCP

Mode	Server
Functions Supported	1, 2, 3, 4, 5, 6, 15, 16, 23
Max. No. of Client Connections	16
Max. No. of Data Tags	5000 tags

Modbus RTU/ASCII

Mode	Server
Functions Supported	1, 2, 3, 4, 5, 6, 15, 16, 23
Max. No. of Client Connections	1
Max. No. of Data Tags	5000 tags

DNP3 TCP/UDP

Mode	Outstation
Objects Supported	Binary inputs Analog inputs Counters Frozen counters Binary outputs Analog outputs
Max. No. of Client Connections	1
Protocol Security	Secure Authentication v5
Max. No. of Objects	5000 points

DNP3 Serial

Mode	Outstation
Objects Supported	Binary inputs Analog inputs Counters Frozen counters Binary outputs Analog outputs
Max. No. of Client Connections	1
Max. No. of Objects	5000 points

IEC 60870-5-101

Mode	Server (balanced/unbalanced)
Objects Supported	Single point Double point Step position Bit string of 32 bit Measured value (normalized) Measured value (scaled) Measured value (floating) Integrated totals
Max. No. of Client Connections	1
Max. No. of Information Objects	5000 points

IEC 60870-5-104

Mode	Server
Objects Supported	Single point Double point Step position Bit string of 32 bit Measured value (normalized) Measured value (scaled) Measured value (floating) Integrated totals

Max. No. of Client Connections	32
Max. No. of Information Objects	5000 points

Memory
microSD Slot	Up to 32 GB (SD 2.0 compatible)

Power Parameters
Input Voltage	12 to 48 VDC
Input Current	455 mA (max)
Power Connector	Spring-type Euroblock terminal

Relays
Contact Current Rating	Resistive load: 2 A @ 30 VDC

Physical Characteristics
Housing	Metal
IP Rating	IP30
Dimensions	25 x 90 x 129.6 mm (0.98 x 3.54 x 5.1 in)
Weight	294 g (0.65 lb)

Environmental Limits
Operating Temperature	-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)

Standards and Certifications
Safety	EN 61010-2-201 UL 61010-2-201
EMC	EN 61000-6-2/-6-4
EMI	FCC Part 15B Class A
EMS	IEC 61000-4-2 ESD: Contact: 8 kV; Air: 15 kV IEC 61000-4-3 RS: 80 MHz to 1 GHz: 20 V/m IEC 61000-4-4 EFT: Power: 4 kV; Signal: 4 kV IEC 61000-4-5 Surge: Power: 2 kV; Signal: 4 kV IEC 61000-4-6 CS: 10 V/m IEC 61000-4-8 PFMF: 100 A/m
Shock	IEC 60068-2-27
Vibration	IEC 60068-2-6 IEC 60068-2-64
Power Substation	IEEE 1613 IEC 61850-3
International Approval	UKCA KC

MTBF
Time	1,240,821 hrs
Standards	Telcordia SR332

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Warranty

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

Package Contents

Device	1 x MGate 5192 Series gateway
Documentation	1 x quick installation guide 1 x warranty card

Dimensions

DIN-rail Mounting

Unit: mm (inch)

Top View

Side View

Front View

Side View

Back View
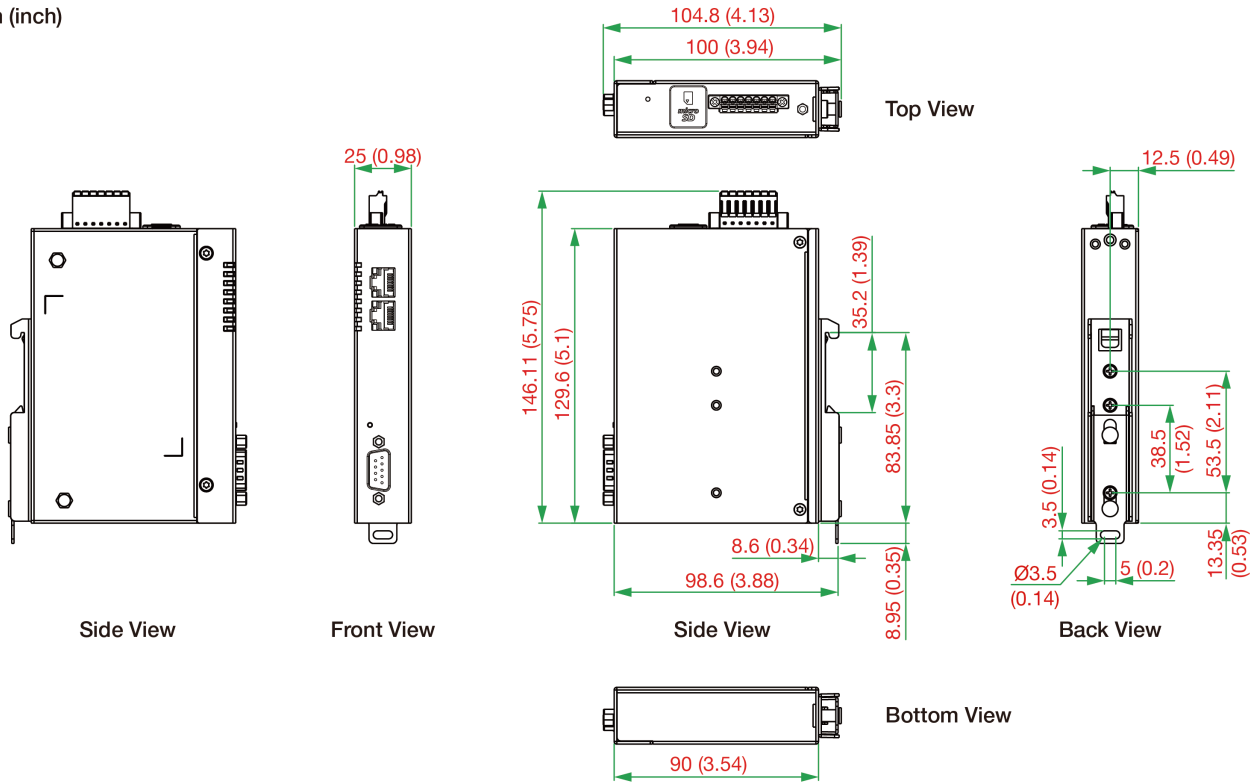
Bottom View

DIN-rail Mounting (side view)

Unit: mm (inch)

94.8 (3.73)

35 (1.38)

Top View

25 (0.98)

45 (1.77)

146.11 (5.75)

129.6 (5.1)

83.85 (3.3)

35.2 (1.39)

38.5 (1.52)

53.5 (2.11)

8.6 (0.34)

33.6 (1.32)

Ø3.5 (0.14)

5 (0.2)

13.35 (0.53)

8.95 (0.35)

Side View   Front View   Side View   Back View

90 (3.54)
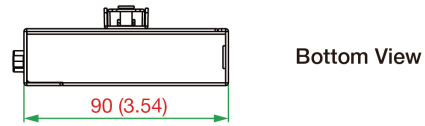
Bottom View

Wall Mounting

Unit: mm (inch)

96.8 (3.81)

Top View

25 (0.98)

16.51 (0.65)

21.2 (0.84)

13 (0.51)

6 (0.24)

5 (0.2)

129.6 (5.1)

116 (4.57)

18.5 (0.73)

153 (6.02)

172 (6.77)

10 (0.39)

4.8 (0.19)

21.2 (0.84)

Ø7 (0.28)

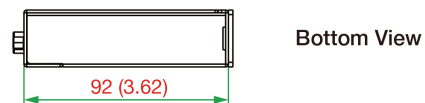Ø3.5 (0.14)

Side View   Front View   Side View   Back View

92 (3.62)

Bottom View

Ordering Information

Model Name	No. of Serial Ports	Operating Temperature
MGate 5192-T	1	-40 to 75°C

Accessories (sold separately)

Connectors

Mini DB9F-to-TB	DB9 female to terminal block connector

Wall-Mounting Kits

WK-25	Wall-mounting kit, 2 plates, 4 screws, 25 x 43 x 2 mm