

MOXA



MGate Selection Guide


Sep 2025



2 Easy Ways to Choose an MGate

- Choose by Your Application

Energy or Industrial Automation

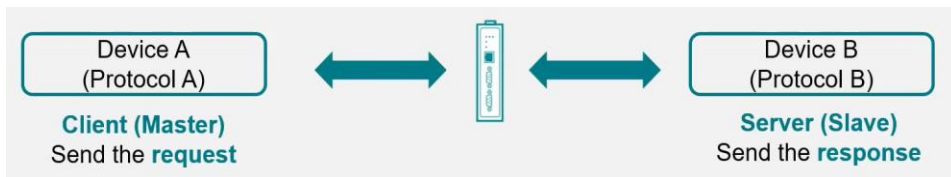


- Choose by Device Protocol



Modbus
DNP3
IEC 60870-5-101
IEC 60870-5-104
IEC 61850
PROFIBUS
PROFINET

EtherNet/IP
DF1
CANopen
J1939
Proprietary CAN
SNMP
BACnet/IP
EtherCAT



Tip: Keep in mind that the protocol and role for Device A is typically different from that of Device B in a conversion.

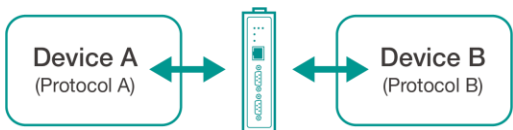
MGate for Energy

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New Product Alert
MGate MB3x70-G2

Find an MGate for Energy Applications (1/2)

Device A/B	Modbus RTU/ASCII Server	Modbus RTU/ASCII Client	Modbus TCP Server	Modbus TCP Client	DNP3 Serial Outstation	DNP3 Serial Master	DNP3 TCP/UDP Outstation	DNP3 TCP/UDP Client
Modbus RTU/ASCII Server		MB3000-G2¹	5105	MB3000-G2³, 5109, 5105				5109
Modbus RTU/ASCII Client	MB3000-G2¹		MB3000-G2³, 5109, 5105	5105, 5109			5109	5109
DNP3 Serial Outstation				5109				5109
DNP3 Serial Master			5109	5109			5109	
IEC 60870-5-101 Slave				5114				
IEC 60870-5-101 Master			5114					
Modbus TCP Server	5105	MB3000-G2³, 5109, 5105		MB3000-G2²		5109		5109
Modbus TCP Client	MB3000-G2³, 5109, 5105	5105, 5109	MB3000-G2²	5109	5109	5109	5109	5109
DNP3 TCP/UDP Outstation		5109		5109		5109		
DNP3 TCP/UDP Client	5109	5109	5109	5109	5109			
IEC 60870-5-104 Server		5114		5114				
IEC 60870-5-104 Client	5114		5114					
BACnet/IP Server		5217		5217				
BACnet/IP Client	5217		5217					
IEC 61850 MMS Client	5119		5119		5119		5119	
IEC 61850 MMS Server		5192		5192		5192		5192



¹Applies only to the MB3270-G2/MB3270/3660.

²Applies only to the MB3x70-G2/MB3x70/MB3660.

³Applies only to the MB3x70-G2/MB3000.

Find an MGate for Energy Applications (2/2)

	IEC 60870-5-101 Master	IEC 60870-5-101 Slave	IEC 60870-5-104 Server	IEC 60870-5-104 Client	IEC 61850 MMS Server	IEC 61850 MMS Client	BACnet/IP Server	BACnet/IP Client
Modbus RTU/ ASCII Server				5114		5119		5217
Modbus RTU/ ASCII Client			5114		5192		5217	
DNP3 Serial Outstation						5119		
DNP3 Serial Master					5192			
IEC 60870-5-101 Slave				5114		5119		
IEC 60870-5-101 Master			5114		5192			
Modbus TCP Server	5114			5114		5119		5217
Modbus TCP Client		5114	5114		5192		5217	
DNP3 TCP Outstation						5119		
DNP3 TCP/ UDP Client					5192			
IEC 60870-5-104 Server	5114					5119		
IEC 60870-5-104 Client		5114			5192			
IEC 61850 MMS Client		5119	5119					
IEC 61850 MMS Server	5192			5192				



MGate for Industrial Applications

Find an MGate for Industrial Automation Application

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	Modbus RTU /ASCII Server	Modbus RTU /ASCII Client	Proprietary Serial Server	PROFIBUS Slave	PROFIBUS Master	CAN Slave ⁴	DF1	Modbus TCP Server	Modbus TCP Client	EtherNet/IP Adapter	EtherNet/IP Scanner	PROFINET Controller	EtherCAT Master	SNMP
Modbus RTU/ASCII Server		MB3000-G2¹			4101, 5111	5118³		5105	MB3000-G2⁵, 5109, 5105	5105	5105, 5135/5435	5103, 5134	5216	
Modbus RTU/ASCII Client	MB3000-G2¹				4101, 5111	5118³		MB3000-G2⁵, 5109, 5105	5105, 5109	5105	5105	5103		
Proprietary Serial Server													5216	
PROFIBUS Slave								5101	5101			5102		
PROFIBUS Master	4101, 5111	4101, 5111						5111	5111		5111	5111		
CAN Slave ⁴	5118³	5118³						5118³	5121, 5118³	5118³	5122, 5118³	5123, 5118³		5121, 5122, 5123
DF1										EIP3000	EIP3000			
Modbus TCP Server	5105	MB3000-G2⁵, 5109, 5105		5101	5111	5118³			MB3000-G2²	5105	5105, 5135/5435	5103, 5134		
Modbus TCP Client	MB3000-G2⁵, 5109, 5105	5105, 5109		5101	5111	5121, 5118³		MB3000-G2²	5109	5105	5105	5103		
EtherNet/IP Adapter	5105	5105				5118²	EIP3000	5105	5105					
EtherNet/IP Scanner	5105, 5135/5435	5105			5111	5122, 5118³	EIP3000	5105, 5135/5435	5105			5103		
PROFINET Controller	5103, 5134	5103		5102	5111	5123, 5118³		5103, 5134	5103		5103			
EtherCAT Master	5216		5216											
SNMP						5121, 5122, 5123								



¹Applies only to the MB3270-G2/MB3270/3660.

⁴CANopen/J1939/Proprietary CAN (CAN 2.0A/B).

²Applies only to the MB3x70-G2/MB3x70/MB3660. ⁵Applies to the MB3x70-G2/MB3000

³Applies to J1939 only.

New Product Alert
MGate MB3x70-G2



MGate by Device Protocols

Modbus TCP/RTU/ ASCII (1/2)

	Modbus RTU/ ASCII Server	Modbus RTU/ ASCII Client	Modbus TCP Server	Modbus TCP Client
Modbus RTU/ ASCII Server		MB3000 ¹	5105	MB3000 , 5109 , 5105
Modbus RTU/ ASCII Client	MB3000 ¹		MB3000 , 5109 , 5105	5105 , 5109
DNP3 Serial Outstation				5109
DNP3 Serial Master			5109	5109
IEC 60870-5-101 Slave				5114
IEC 60870-5-101 Master			5114	
Modbus TCP Server	5105	MB3000 , 5109 , 5105		MB3000 ²
Modbus TCP Client	MB3000 , 5109 , 5105	5105 , 5109	MB3000 ²	5109
DNP3 TCP Outstation		5109		5109
DNP3 TCP/ UDP Client	5109	5109	5109	5109
IEC 60870-5-104 Server		5114		5114
IEC 60870-5-104 Client	5114		5114	
BACnet/IP Client	5217		5217	
IEC 61850 MMS Client	5119		5119	
IEC 61850 MMS Server		5192		5192

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¹Applies only to the MB3270/3660.

²Applies only to the MB3x70/MB3660.

Modbus TCP/RTU/ ASCII (2/2)

	Modbus RTU/ ASCII Server	Modbus RTU/ ASCII Client	Modbus TCP Server	Modbus TCP Client
Modbus RTU/ ASCII Server		MB3000 ¹	5105	MB3000-G2 ⁵ , 5109 , 5105
Modbus RTU/ ASCII Client	MB3000 ¹		MB3000 , 5109 , 5105	5105 , 5109
PROFIBUS Slave			5101	5101
PROFIBUS Master	4101 , 5111	4101 , 5111	5111	5111
CAN Slave ⁴	5118 ³	5118 ³	5118 ³	5121 , 5118 ³
Modbus TCP Server	5105	MB3000 , 5109 , 5105		MB3000 ²
Modbus TCP Client	MB3000 , 5109 , 5105	5105 , 5109	MB3000 ²	5109
EtherNet/IP Adapter	5105	5105	5105	5105
EtherNet/IP Scanner	5105 , 5135/5435	5105	5105 , 5135/5435	5105
PROFINET Controller	5103 , 5134	5103	5103 , 5134	5103
EtherCAT Master	5216			

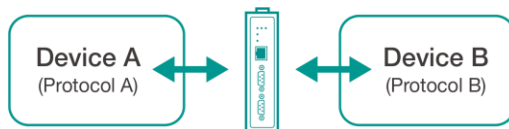
¹Applies only to the MB3270/3660.

²Applies only to the MB3x70/MB3660.

³Applies to J1939 only.

⁴CANopen/J1939/Proprietary CAN (CAN 2.0A/B).

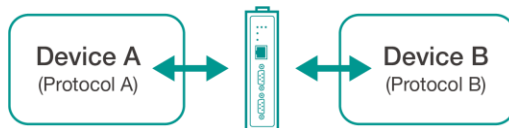
⁵Includes MB3x70-G2/MB3000 series.



DNP3 TCP/UDP/ Serial

	DNP3 Serial Outstation	DNP3 Serial Master	DNP3 TCP/UDP Outstation	DNP3 TCP/UDP Client
Modbus RTU/ASCII Server				5109
Modbus RTU/ASCII Client			5109	5109
DNP3 Serial Outstation				5109
DNP3 Serial Master			5109	
Modbus TCP Server		5109		5109
Modbus TCP Client	5109	5109	5109	5109
DNP3 TCP/UDP Outstation		5109		
DNP3 TCP/UDP Client	5109			
IEC 61850 MMS Client	5109		5109	
IEC 61850 MMS Server		5192		5192

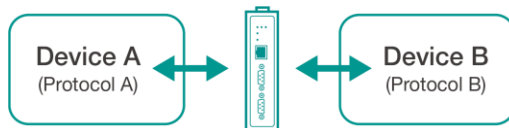
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IEC 101/104

	IEC 60870-5-101 Slave	IEC 60870-5-101 Master	IEC 60870-5-104 Server	IEC 60870-5-104 Client
Modbus RTU/ ASCII Server				5114
Modbus RTU/ ASCII Client			5114	
IEC 60870-5-101 Slave				5114
IEC 60870-5-101 Master			5114	
Modbus TCP Server		5114		5114
Modbus TCP Client	5114		5114	
IEC 60870-5-104 Server		5114		
IEC 60870-5-104 Client	5114			
IEC 61850 MMS Client	5119		5119	
IEC 61850 MMS Server		5192		5192

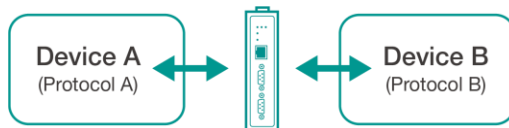
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IEC 61850 MMS

	IEC 61850 MMS Client	IEC 61850 MMS Server
Modbus RTU/ ASCII Server	5119	
Modbus RTU/ ASCII Client		5192
DNP3 Serial Outstation	5192	
DNP3 Serial Master		5192
IEC 60870-5-101 Slave	5192	
IEC 60870-5-101 Master		5192
Modbus TCP Server	5119	
Modbus TCP Client		5192
DNP3 TCP Outstation	5192	
DNP3 TCP/ UDP Client		5192
IEC 60870-5-104 Server	5119	
IEC 60870-5-104 Client		5192

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PROFIBUS PROFINET

	PROFIBUS Slave	PROFIBUS Master	PROFINET Controller
Modbus RTU/ASCII Server		4101, 5111	5103, 5134
Modbus RTU/ASCII Client		4101, 5111	5103
PROFIBUS Slave			5102
PROFIBUS Master			5111
CAN Slave ¹			5123, 5118 ²
Modbus TCP Server	5101	5111	5103, 5134
Modbus TCP Client	5101	5111	5103
EtherNet/IP Scanner		5111	5103
PROFINET Controller	5102	5111	

¹CANopen/J1939/Proprietary CAN (CAN 2.0A/B).

²Applies to J1939 only.

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EtherNet/IP DF1

	DF1	EtherNet/IP Adapter	EtherNet/IP Scanner
Modbus RTU/ASCII Server		5105	5105 , 5135/5435
Modbus RTU/ASCII Client		5105	5105
PROFIBUS Slave			
PROFIBUS Master			5111
CAN Slave ¹		5118 ²	5122 , 5118 ²
DF1		EIP3000	EIP3000
Modbus TCP Server		5105	5105 , 5135/5435
Modbus TCP Client		5105	5105
EtherNet/IP Adapter	EIP3000		
EtherNet/IP Scanner	EIP3000		
PROFINET Controller			5103

¹CANopen/J1939/Proprietary CAN (CAN 2.0A/B).

²Applies to J1939 only.

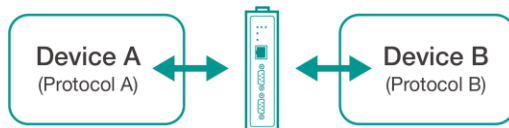
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BACnet/IP

	BACnet/IP Client	BACnet/IP Server
Modbus RTU/ASCII Server	5217	
Modbus RTU/ASCII Client		5217
Modbus TCP Server	5217	
Modbus TCP Client		5217

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CANopen J1939 Proprietary CAN

	CAN Slave ¹
Modbus RTU/ ASCII Server	5118 ²
Modbus RTU/ ASCII Client	5118 ²
Modbus TCP Server	5118 ²
Modbus TCP Client	5121 , 5118 ²
EtherNet/IP Adapter	5118 ²
EtherNet/IP Scanner	5122 , 5118 ²
PROFINET Controller	5123 , 5118 ²
SNMP	5121 , 5122 , 5123

¹CANopen/J1939/Proprietary CAN (CAN 2.0A/B).

²Applies to J1939 only.

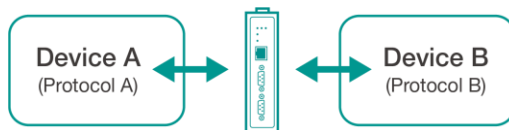
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EtherCAT

	EtherCAT Master
Modbus RTU/ ASCII Server	5216
Proprietary Serial Server	5216

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G1 & G2 Migration

MGate Generation 1 vs. Generation 2



G1 Series

G2 Series

Portfolio	Models available	<ul style="list-style-type: none"> No. of serial ports: 1 or 2 Serial port connector: DB9 Fiber options (10/100M): M-SC, M-ST, S-SC 	<ul style="list-style-type: none"> No. of serial ports: 1, 2, or 4 Serial port connector: DB9, Terminal block (2/4-port models) Fiber options (10/100M): M-SC, M-ST, S-SC, SFP
	Operation mode	Transparent mode conversion	Transparent, Agent mode conversion
Performance	Protocol support	Modbus TCP/RTU/ASCII	Modbus TCP/RTU/ASCII, proprietary serial
Reliability	EMC level	EN 55032 / EN 55035 (Commercial EMC)	EN 61000-6-2 / EN 61000-6-4 (industrial EMC)
	Security	Authentication and security protocols for MGate management, configuration encryption	Hardware-based Secure Boot and Compliance with IEC 62443-4-2 Security Level 2 requirements ¹
Ease-of-use	Network architecture	Single subnet (switch)	Single subnet (switch), Dual subnet
	Trouble-shooting	Traffic monitor (by utility)	<ul style="list-style-type: none"> Advanced traffic monitor, protocol diagnostics, Modbus testing simulator, one-click information download, fiber-diagnostics (web GUI) Serial port monitor (web GUI, Moxa MXview One)

¹The security review process will be completed by Sep. 30, 2025

MGate MB3170/3270/3470-G2 at a Glance

- **Key upgrades**

- **New models, including 4-port serial, fiber SFP, and 2/4-port terminal block connector versions**
- **Enhances security with hardware-based Secure Boot**
- **Upgrades EMC compliance based on EN 55032/35 to EN 61000-6-2/-6-4**
- **Adds Agent mode for high-performance polling with data caching**
- **Supports converting proprietary serial and non-standard Modbus serial devices**
- **Adds dual subnet functionality for flexible network architecture**
- **Supports web GUI based troubleshooting and protocol diagnostics**
- **Integrates ProCOM mode into Real COM mode via Windows Driver Manager**

Transition Guide: MGate MB3000 to MB3000-G2 (1/2-Port)

No. of ports	G1 Model	G2 Successor Model	Note
1 Serial Port	MGate MB3170	MGate MB3170-G2	
	MGate MB3170-T	MGate MB3170-G2-T	
	MGate MB3170I	MGate MB3170I-G2	
	MGate MB3170I-T	MGate MB3170I-G2-T	
	MGate MB3170-S-SC	MGate MB3170-S-SC-G2	
	MGate MB3170-S-SC-T	MGate MB3170-S-SC-G2-T	
	MGate MB3170I-S-SC	N/A	By request
	MGate MB3170I-S-SC-T	N/A	By request
	MGate MB3170-M-SC	MGate MB3170-M-SC-G2	
	MGate MB3170-M-SC-T	MGate MB3170-M-SC-G2-T	
	MGate MB3170I-M-SC	N/A	By request
	MGate MB3170I-M-SC-T	N/A	By request
	MGate MB3170-M-ST	MGate MB3170-M-ST-G2	
	MGate MB3170-M-ST-T	MGate MB3170-M-ST-G2-T	

Transition Guide: MGate MB3000 to MB3000-G2 1/2/4-Port

No. of ports	G1 Models	G2 Successor Models	Note
1 serial port	N/A	New: MGate MB3170-SFP-G2	Fully supports Moxa's 1-port Fast Ethernet SFP module SFP-1FE Series <ul style="list-style-type: none"> - SFP-1FEMLC-T: multi-mode, LC connector - SFP-1FESLC-T: single-mode, LC connector - SFP-1FELLC-T: single-mode, LC connector
		New: MGate MB3170-SFP-G2-T	
2 serial ports	MGate MB3270	MGate MB3270-G2 New: MGate MB3270-TB-G2	In addition to the DB9 serial connector for the serial port, support for a terminal block serial connector (-TB) has now been added.
	MGate MB3270-T	MGate MB3270-G2-T New: MGate MB3270-TB-G2-T	
	MGate MB3270I	MGate MB3270I-G2 New: MGate MB3270I-TB-G2	
	MGate MB3270I-T	MGate MB3270I-G2-T New: MGate MB3270I-TB-G2-T	
4 serial ports	N/A	New: MGate MB3470-G2 New: MGate MB3470-TB-G2	
		New: MGate MB3470-G2-T New: MGate MB3470-TB-G2-T	
		New: MGate MB3470I-G2 New: MGate MB3470I-TB-G2	
		New: MGate MB3470I-G2-T New: MGate MB3470I-TB-G2-T	

Thank You

For further information, visit www.moxa.com.

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