

MGate EIP3170/EIP3270 Quick Installation Guide

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Overview

The MGate EIP3170 and EIP3270 are 1- and 2-port DF1-to-EtherNet/IP gateways that provide protocol conversions for users who need to connect Rockwell Automation PLCs to an EtherNet/IP network. The MGate EIP3000 Series products support up to 8 EtherNet/IP clients and 8 EtherNet/IP servers simultaneously. Each client can send up to 16 requests at one time.

Package Checklist

Before installing the MGate EIP3170 or EIP3270, verify that the package contains the following items:

- MGate EIP3170 or EIP3270 DF1 to EtherNet/IP gateway
- Quick installation guide (printed)
- Warranty card

Optional Accessories:

- **DK-35A:** DIN-rail mounting kit (35 mm)
- **Mini DB9F-to-TB Adaptor:** DB9 female to terminal block adapter
- **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

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

Hardware Introduction

LED Indicators

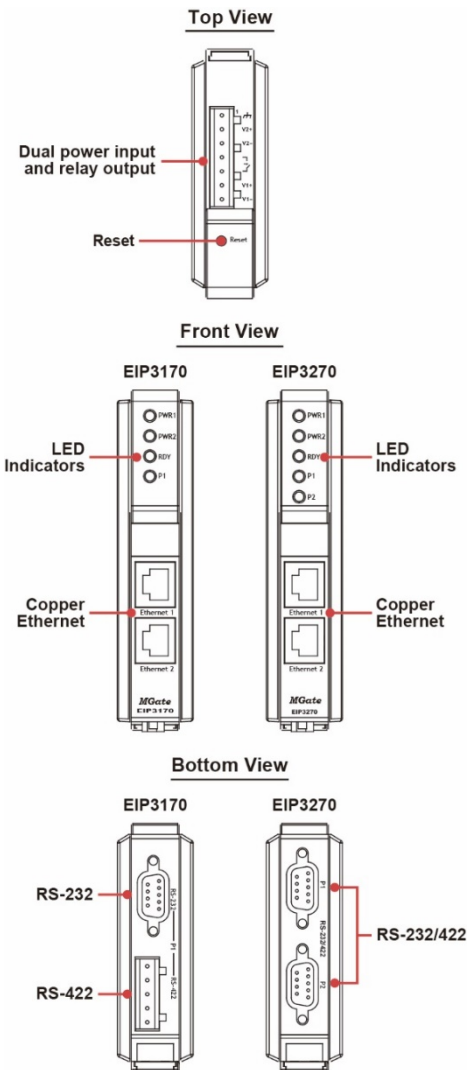
Name	Color	Function
PWR1	Red	Power is being supplied to the power input
PWR2	Red	Power is being supplied to the power input
RDY	Red	Steady: Power is on and the unit is booting up
		Blinking: IP conflict, DHCP or BOOTP server did not respond properly, or a relay output occurred
	Green	Steady: Power is on and the unit is functioning normally
	Off	Blinking: Unit is responding to Locate function
	Off	Power is off or power error condition exists
Ethernet	Orange	10 Mbps Ethernet connection
	Green	100 Mbps Ethernet connection
	Off	Ethernet cable is disconnected or has a short
P1	Orange	Serial port is receiving data
	Green	Serial port is transmitting data
	Off	Serial port is not transmitting or receiving data
P2 (EIP3270 only)	Orange	Serial port is receiving data
	Green	Serial port is transmitting data
	Off	Serial port is not transmitting or receiving data

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.

Panel Layouts

The MGate EIP3170 has a male DB9 port and a terminal block for connecting to serial devices. The MGate EIP3270 has two DB9 connectors for connecting to serial devices.



Hardware Installation Procedure

STEP 1: Use a standard straight-through Ethernet cable to connect the unit to a network hub or switch.

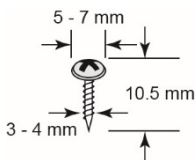
STEP 2: Connect your device to the unit's serial port.

STEP 3: Mount the unit on a DIN-rail.

STEP 4: Connect the power source to power input.

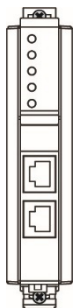
Wall or Cabinet Mounting

Mounting the MGate EIP3170/3270 on to a wall requires two screws. 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 more than 10.5 mm.

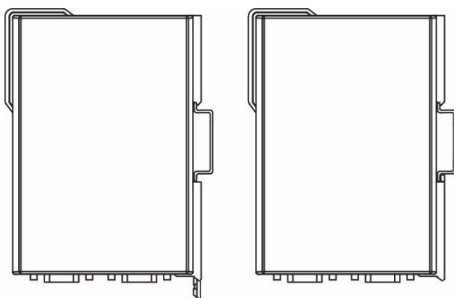


NOTE Wall mounting is certified for use in maritime applications.

Wallmount



DIN Rail



Push here to lock to the DIN-Rail

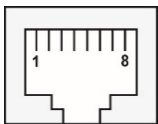
Software Installation Information

You can download the MGate Manager, User's Manual, and Device Search Utility (DSU) from Moxa's website: www.moxa.com. Please refer to the User's Manual for additional details on using the MGate Manager and DSU.

Default IP address: **192.168.127.254**

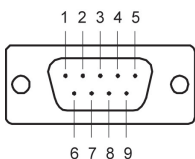
Pin Assignments

Ethernet Port (RJ45)



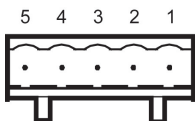
Pin	Signal
1	Tx+
2	Tx-
3	Rx+
6	Rx-

Serial Port (Male DB9)



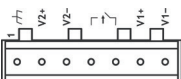
Pin	RS-232
1	DCD
2	RxD
3	TxD
4	DTR
5	GND
6	DSR
7	RTS
8	CTS
9	-



RS-422 (Terminal Block) Pinouts



Pin	RS-422
1	TxD+(B)
2	TxD-(A)
3	RxD+(B)
4	RxD-(A)
5	GND

Power Input and Relay Output Pinouts



	V2+	V2-		V1+	V1-
Shielded Ground	DC Power Input 1	DC Power Input 1	Relay output	DC Power Input 2	DC Power Input 2

Environmental Specifications

Power Requirements	
Power Input	12 to 48 VDC
Power Consumption (Input Rating)	<ul style="list-style-type: none"> EIP3170/EIP3170-T/EIP3270/EIP3270-T: 12 to 48 VDC, 435 mA (max.) EIP3270I: 12 to 48 VDC, 510 mA (max.) EIP3170I/EIP3170I-T: 12 to 48 VDC, 555 mA (max.)
Operating Temperature	0 to 60°C (32 to 140°F), -40 to 75°C (-40 to 167°F) for -T model
Storage Temperature	-40 to 85°C (-40 to 185°F)
Operating Humidity	5 to 95% RH
Magnetic Isolation Protection (Serial)	2 kV (for "I" models)
Dimensions	Without ears: 29 x 89.2 x 118.5 mm (1.14 x 3.51 x 4.67 in) With ears extended: 29 x 89.2 x 124.5 mm (1.14 x 3.51 x 4.90 in)
Relay Output	1 digital relay output to alarm (normal close): current-carrying capacity 1 A @ 30 VDC
Hazardous Location	UL/cUL Class 1 Division 2 Group A/B/C/D, ATEX Zone 2, IECEx

This device complies with Part 15 of the FCC rules.

Operation is subject to the following conditions:

1. This device may not cause harmful interference.
2. This device must accept any interference received, including interference that may cause undesired operation.

ATEX and IECEx Information



EIP3170/ EIP3270 Serial

1. Certificate number: DEMKO 18 ATEX 2168X
2. IECEx number: IECEx UL 18.0149X
3. Certification string: Ex nA IIC T4 Gc
Ambient Range : $0^{\circ}\text{C} \leq T_{\text{amb}} \leq 60^{\circ}\text{C}$ (For suffix without -T)
Ambient Range : $-40^{\circ}\text{C} \leq T_{\text{amb}} \leq 75^{\circ}\text{C}$ (For suffix with -T)
4. Standards covered:
ATEX: EN 60079-0:2012+A11:2013, EN 60079-15:2010
IECEX: IEC 60079-0 Ed.6; IEC 60079-15 Ed.4
5. The conditions of safe usage:
 - The equipment shall only be used in an area of at least pollution degree 2, as defined in IEC/EN 60664-1.
 - The equipment shall be installed in an enclosure that provides a minimum ingress protection of IP4 in accordance with IEC/EN 60079-0.
 - Conductors suitable for Rated Cable Temperature $\geq 100^{\circ}\text{C}$
 - Input conductor with 28-12 AWG (max. 3.3 mm²) to be used with the devices

EIP3170I/ EIP3270I Serial

1. ATEX Certificate number: DEMKO 19 ATEX 2232X
2. IECEx number: IECEx UL 19.0058X
3. Certification string: Ex nA IIC T4 Gc
Ambient Range : $0^{\circ}\text{C} \leq T_{\text{amb}} \leq 60^{\circ}\text{C}$ (For suffix without -T)
Ambient Range : $-40^{\circ}\text{C} \leq T_{\text{amb}} \leq 75^{\circ}\text{C}$ (For suffix with -T)
4. Standards covered:
ATEX: EN 60079-0:2012+A11:2013, EN 60079-15:2010
IECEX: IEC 60079-0 Ed.6; IEC 60079-15 Ed.4
5. The conditions of safe usage:
 - The equipment shall only be used in an area of at least pollution degree 2, as defined in IEC/EN 60664-1.
 - The equipment shall be installed in an enclosure that provides a minimum ingress protection of IP 54 in accordance with IEC/EN 60079-0.
 - Conductors suitable for Rated Cable Temperature $\geq 100^{\circ}\text{C}$
 - Input conductor with 28-12 AWG (max. 3.3 mm²) to be used with the devices

**Address of manufacturer: Fl. 4, No. 135, Lane 235, Baoqiao Rd.
Xindian Diist., New Taipei City, 23145, Taiwan, R.O.C.**