![atop Technologies logo]

ATOP Technologies, Inc.

Industrial Unmanaged Gigabit Ethernet Switch

EMG8305 Series

Hardware Installation Guide

Version 1.1
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📞 886-3-5508137 📠 886-3-5508131 🌐 atoponline.com
P/N:89900496G

Package Check List

Inside the package you will find the following items:

■ Industrial Managed Gigabit Ethernet Switch x 1

■ Installation Guide with Warranty Card x 1

⚠ Never install or work on electrical or cabling during periods of lightning activity. Never connect or disconnect power when hazardous gases are present.

⚠ Warning:Hot Surface Do Not Touch.

Product Layout


EMG8305 Series

Note: ⏚ is for function ground
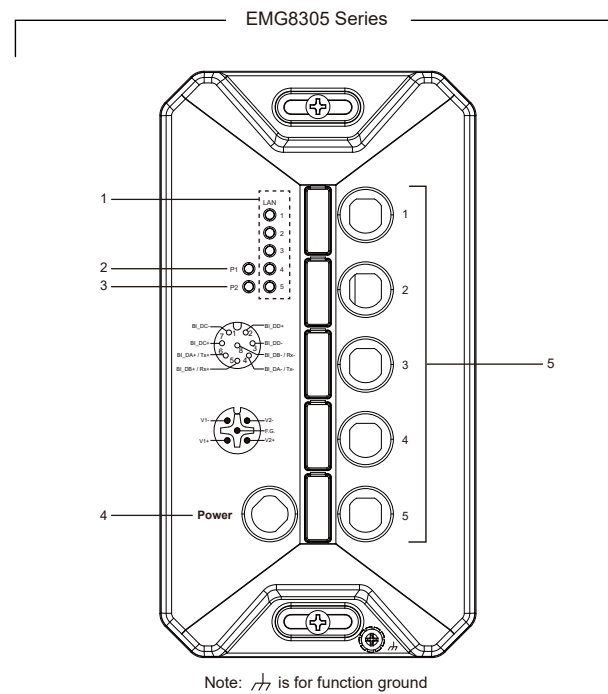
1. LAN Port LED
2. PWR1 LED
3. PWR2 LED
4. 5-pin A-Coding Male of the power connector
5. 10/100/1000BaseT(X) 8-pin A-Coding Female or 8-Pin X-Coding Female

Installation Overview

The device's appearance is as in the figure below.

1. Proceed to place the screws on the back of the device as show in (Fig. 1).

2. If you have the Din-rail kit, proceed to place the screws on the back of the device as show in (Fig. 2)

3. Although internal grounding has been done inside, in order to ensure overall maximum performance and protect your device, it is still strongly advised to ground the device properly; hazardous ESD can come into contact and damage your equipment. On the power terminal block, there is a terminal for Frame Ground, you can choose whether to connect it to the grounding or you may opt to connect to the grounding screw next to the terminal block (the one chosen should be connected at all times) (Fig. 3)

4. You can then choose whether to plug in the other peripheral ports at this point or do it later depending on the actual location of the device or level of comfort for performing such operation.

5. If you have purchased the DIN-Rail kit, Once the plate has been firmly put in place, proceed to mount the whole device as shown in (Fig. 4).
Proceed to (Fig. 5) if you want to remove the device from DIN-Rail.

(Fig. 1)

(Fig. 2)

(Fig. 3)

(Fig. 4)

(Fig. 5)
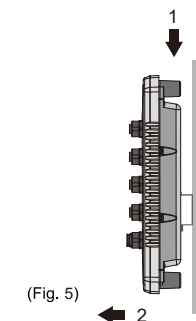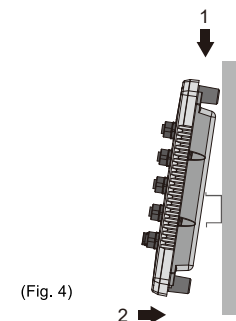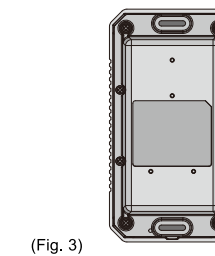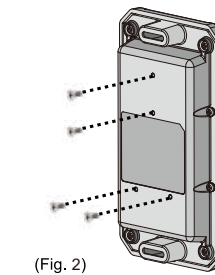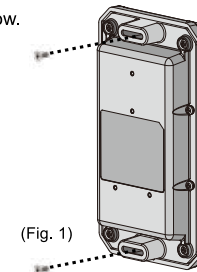
6. Next we can then proceed to connect the device to the LAN (switch or PC, depending on the case), take care on using the M12 connector; after this we can then proceed to the device's settings

■ The housing has a good thermal conductivity material, so the heat can be dissipated to the outside through the housing by conduction-convection.

LED Indicators

LED	Color	State	Deacription
PWR1	Green	On	Power is supplied through PWR1or PWR2
PWR2	Green	Off	Power is off
LAN	Amber	On	Ethernet is linked at 10/100Mbps
	Amber	Blinking	Ethernet is active and data is being transmitted
	Amber	Off	Ethernet is not linked
	Green	On	Ethernet is linked at 1000Mbps
	Green	Blinking	Ethernet is active and data is being transmitted
	Green	Off	Ethernet is not linked

Pin Assignments and Connections

10/100/1000Base-T(X) Ethernet

M12 X-coded

1000Base-T							
Pin	1	2	3	4	5	6	7	8
Signal	BI_DA+	BI_DA-	BI_DB+	BI_DB-	BI_DD+	BI_DD-	BI_DC-	BI_DC+

10/100Base-T(x)							
Pin	1	2	3	4	5	6	7	8
Signal	Tx+	Tx-	Rx+	Rx-				

Compatible with, and recommended to use the following models:

MPM Model name	Specification	Manufacturer
1682935	A code(Female) to free cable End , 5 pin , 1.5M, shielded	Phoenix Contact
1407472	X-code(Male) to RJ45, 8 pin, 2M, shielded	Phoenix Contact
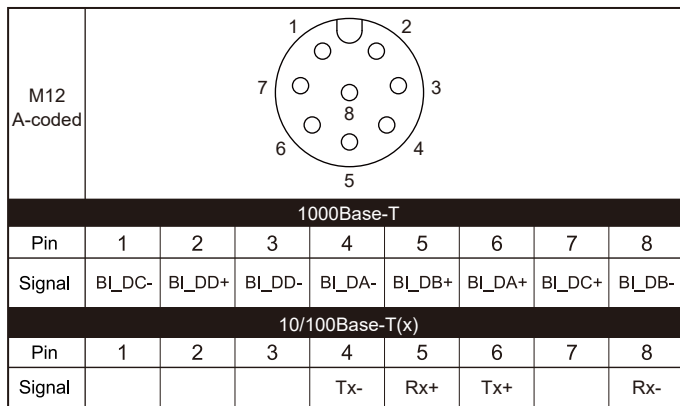
M12 A-coded							

1000Base-T

Pin	1	2	3	4	5	6	7	8
Signal	BI_DC-	BI_DD+	BI_DD-	BI_DA-	BI_DB+	BI_DA+	BI_DC+	BI_DB-

10/100Base-T(x)

Pin	1	2	3	4	5	6	7	8
Signal				Tx-	Rx+	Tx+		Rx-

Compatible with, and recommended to use the following models:

MPM Model name	Specification	Manufacturer
1669767	A code(Male) to free cable End, 5 pin, 1.5M, un-shielded	Phoenix Contact
1407415	A code(Male) to RJ45, 8 pin, 2M, shielded	Phoenix Contact

Power Pinouts

M12					

Power

Pin	1	2	3	4	5
Signal	V2-	V1-	V1+	V2+	F.G.
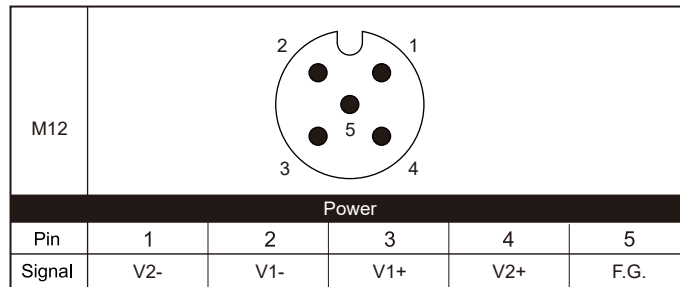
Note : F.G. - Functional Ground

Field Maintenance and Service

If the device requires servicing of any kind, you may need to disconnect and remove it from its mounting. The initial installation should be done in a way that makes this as convenient as possible.

■ Voltage/Power lines should be properly insulated as well as other cables. Be careful when handing the so as to not trip over

■ Do not under any circumstance open the device for any reason. Please contact your dealer for any repair needed or follow the instructions on section of your User's Manual.

⚠ Attention

1. The device needs to be installed in an area of pollution degree 2 or less.
2. If the equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may not be impaired.
3. Clean the device with soft cloth with dry.
4. The installation that the safety of any system incorporating the equipment is the responsibility of the assembler of the system
5. It should be installed suitable Enclosure (at least Type 1 or equal rating)

Power Requirements

■ Power input : 12 – 48 VDC
■ Current Input : 12V@ 0.42A
■ Power Consumption : 5W Max
■ The device is open type , designed redundant input and supplied by SELV power source
■ Cable Assembly Requirement : Minimum suitable used at 80°C
■ Cable Assembly Information :

| Company	Cat no	Suitable Cable Size	For Connector
Phoenixcontact	1411043	AWG26	Lan Port-EMG8305-M12-X
Phoenixcontact	1421679	AWG26	Lan Port-EMG8305-M12-A
Phoenixcontact	1413992	AWG22	Power Port

Environmental Limits

■ Operating Temperature: -40 to 75° C (-40° F to 167° F)
■ Storage Temperature: -40 to 85°C (-40 to 185°F)
■ Ambient Relative Humidity: 5 to 95%, 55°C (non-condensing)
■ Altitude : up to 2,000 m
■ IP67
■ Lan and Power Port Cap Information

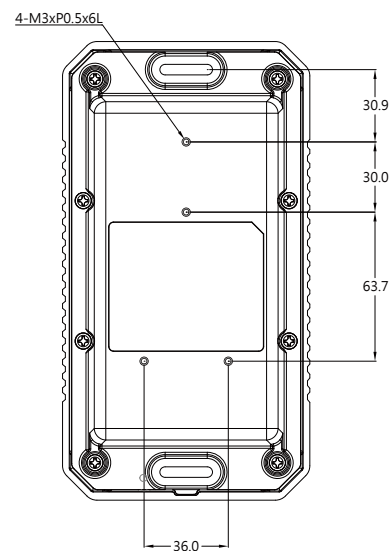| Company	Cat. No.	Type	Torque
ATOP / Phoenixcontact	3990079G/1560251	Power port Plastic	0.2 Nm
ATOP / Phoenixcontact	59908571G/1430488	Power port Metal	0.2 Nm
ATOP / Phoenixcontact	3990078G/1553129	Lan port Plastic	0.2 Nm
ATOP / Phoenixcontact	59908561G/1503302	Lan port Metal	0.2 Nm

Mechanical Dimensions (Unit=mm)

Front View
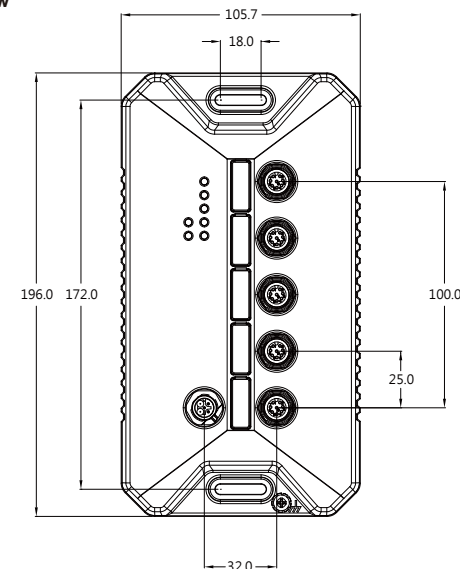
Side View

Bottom View

4-M3xP0.5x6L
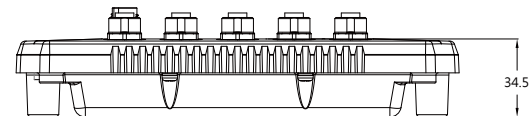
※ The Din-rail kit illustrated in this document is for reference only and is not included in package.

Warranty Policy

Warranty Conditions

Products supplied by ATOP Technologies are covered in this warranty for sub-standard performance or defective workmanship. The warranty is not, however, extended to goods damaged in the following circumstances:
(a) Excessive forces or impacts
(b) War or an Act of God: wind storm, fire, flood, electric shock, earthquake
(c) Use of unqualified power supply, connectors, or unauthorized parts/kits
(d) Replacement with unauthorized parts

RMA and Shipping Costs Reimbursement

Customers shall always obtain an authorized "RMA" number from ATOP before shipping the goods to be repaired to ATOP. When in normal use, a sold product shall be replaced with a new one within 3 months after purchase. The shipping cost from the customer to ATOP will be reimbursed by ATOP.

After 3 months and still within the warranty period, it is up to ATOP whether to replace the unit with a new one; normally, as long as a product is under warranty, all parts and labor are free of charge to the customers.

After the warranty period, the customer shall cover the cost for parts and labor.Three months after purchase, the shipping cost from the customer to ATOP will not be reimbursed, but the shipping cost from ATOP to the customer will be paid by ATOP.

Limited Liability

ATOP shall not be held responsible for any consequential losses from using ATOP's product.

Warranty Period

Product Categories	Warranty	Product Categories	Warranty
Ethernet Switches		DIN-Rail Power Supplies	3 Years
Wireless			
Serial Device Servers	5 Years	Power Adaptors	
Modbus Gateways		Antennas	1 Year
Media Converters			
Embedded Device Servers		Other Accessories	

The warranty certification will not be effective until an authorized stamp issued by ATOP's overseas agents.

Purchase Date:　　　/　　　/　　　　(yyyy/mm/dd)

Serial Number

ATOP Customer Services and Support

1. Contact your local dealers or ATOP Technical Support Center at the following number: +886-3-550-8137
2. Report any problems via ATOP's website or email
   🌐 www.atoponline.com ✉ service@atop.com.tw