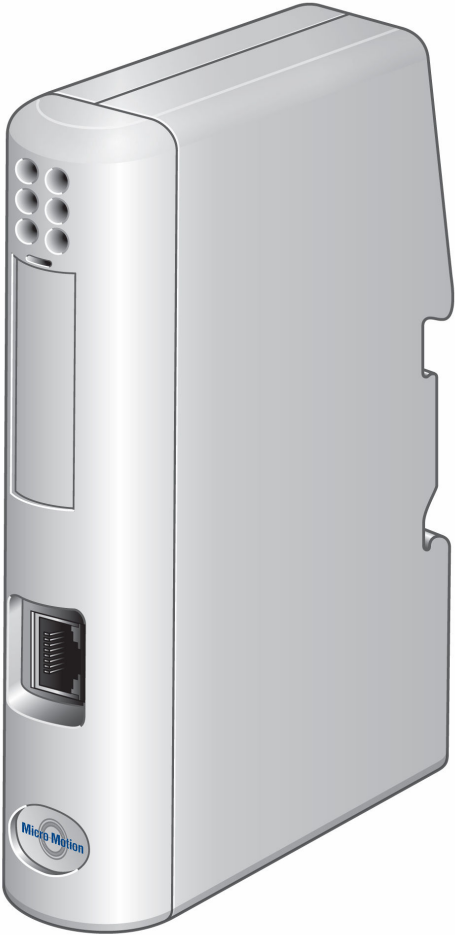


# Micro Motion<sup>®</sup> EtherNet/IP Module



# 1 Quick installation and startup

This procedure provides a summary of installation and startup steps. For installation details, see the *EtherNet/IP Module User Manual*.

## 1.1 Components

Ensure that you have all required components:

- Micro Motion EtherNet/IP Module
- Power connector
- Micro Motion EtherNet/IP Resource CD
  - *Micro Motion EtherNet/IP Module User Manual*
  - EDS file
  - MicroMotion Ethernet Config Tool
- Configuration cable
- Modbus serial cable and connector (included)
- Ethernet cable and connector (not included)

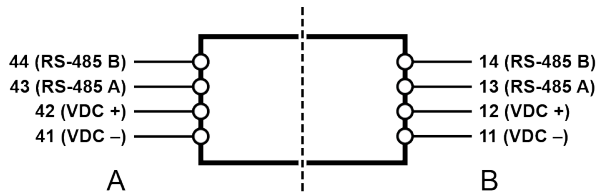
## 1.2 Set up the module with MVD Direct Connect

Use this procedure only if you are installing the module with MVD Direct Connect.

### Procedure

1. Mount and wire the core processor and barrier.

**Figure 1-1: Barrier**



A. I.S. terminals for connection to core processor

B. Non-I.S. terminals for connection to remote host and power supply

2. Power up the core processor and barrier.
3. Set the Modbus address on the core processor to 1.

### Postrequisites

Continue to [Mount, wire, and set the network settings](#).

## 1.3 Set up the transmitter

Use this procedure only if you are installing the module with a transmitter.

### Procedure

1. Mount the transmitter and wire it to the sensor and to power.
2. Power up the transmitter.
3. Set the Modbus address on the transmitter to 1.
4. If your transmitter does not support Modbus auto-detect, configure the RS-485 terminals as follows:
  - Modbus RTU
  - 38400 baud
  - 2 stop bits
  - No parity

### Postrequisites

Continue to [Mount, wire, and set the network settings](#).

## 1.4 Mount, wire, and set the network settings

Use this procedure to mount, wire, and set the network settings for both the transmitter and MVD Direct Connect configurations.

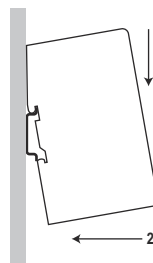
### Procedure

1. Ensure that the following slot registers are available for use by the EtherNet/IP Module:
  - 655–750
  - 751–846

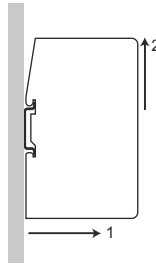
If these slot registers are currently in use, you must reprogram your Modbus interface.

2. Mount the EtherNet/IP Module on the DIN rail.

**Figure 1-2: Snap on**

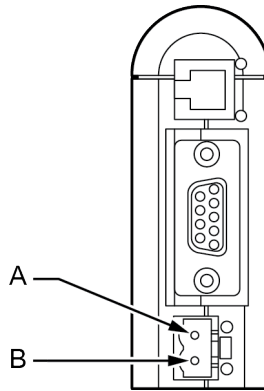


**Figure 1-3: Snap off**



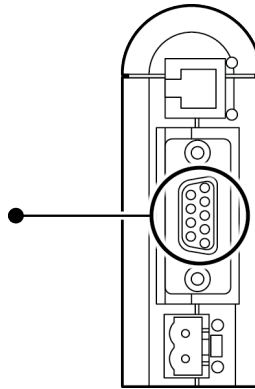
3. Wire the EtherNet/IP Module to power (24 VDC).

**Figure 1-4: Power connections on the EtherNet/IP module**



- A. 24 VDC
- B. Ground

4. Install the Modbus serial cable between the EtherNet/IP Module and the RS-485 terminals on the transmitter (or the I.S. barrier, if present).

**Figure 1-5: Modbus serial connector on the EtherNet/IP module**

See [Modbus terminals](#) and [Pin assignments \(EtherNet/IP Module\)](#).

5. Set the configuration dip switches on the EtherNet/IP module as follows:

- Switches 1–7: Off
- Switch 8: On

The IP address is set to 192.168.0.1.

6. If you are using a Model 1500, Model 2500, or Series 3000 transmitter, ensure that the RS-485 terminals are in RS-485 mode.
7. Cycle power to the transmitter and wait 15 seconds before applying power to the EtherNet/IP Module.
8. Power up the EtherNet/IP Module.  
The module will attempt to make a Modbus connection to the transmitter.
9. Is the Subnet Status LED (LED 5) green?

Option	Description
Yes	Continue with these steps.
No	See <a href="#">LED indicators</a> .

10. Set the network settings for the EtherNet/IP Module.
  - a) Change the Ethernet address setting for your PC so that it is on the same subnet as the device. When prompted, enter the following:
    - IP address: 192 . 168 . 0 . x, where x is something other than 1

- Subnet mask: 255 . 255 . 255 . 0
- b) Disable the popup blocker on your web browser.
  - c) Use a crossover cable (or a standard cable with a switch) and your web browser to connect to the device, using the IP address assigned in Step 6: 192.168.0.1.
  - d) At the login screen, log in as user admin. The default password is admin. Ignore the auto-configuration popup window.
  - e) On the Network Settings page, change the settings as required, and close the web browser.
  - f) At the EtherNet/IP Module, set all dip switches to Off.
  - g) Cycle power to the EtherNet/IP Module.
11. Connect the EtherNet/IP Module to the Ethernet network.  
See [Ethernet connector](#).
  12. Wait for the auto-configuration process to complete.

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### Important

For initial startup, you must use the auto-configuration process to ensure that device memory is completely set up.

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13. Add the EtherNet/IP Module to the Ethernet network control system. The EDS file is available on the Resource CD, the EtherNet/IP Module (download from Administration page), and the Emerson web site.

## Postrequisites

For more information on transmitter installation and wiring, see your transmitter installation manual. For information on configuring the RS-485 terminals and making an RS-485 connection, see your transmitter configuration manual.

### 1.4.1 Modbus terminals

Transmitter	RS-485/A	RS-485/B
Model 1500	33	34
Model 1700 with analog outputs	5	6
Model 2500	33	34
Model 2700 with analog outputs	5	6
Model 3500 with screw-type or solder-tail terminals	32a	32b
Model 3500 with I/O cables	25	24
Model 3700	12	11

### 1.4.2 LED indicators



LED number	Name	Status	Description
A	Module Status (EtherNet)	Off	No power applied to the module.
		Solid green	The module is operating correctly.
		Flashing green	Standby. The module has not been initialized.
		Flashing red	Minor fault. The module may or may not be able to recover.
		Solid red	Major fault. No recovery is possible. The module must be returned to Micro Motion for repair. See the manual for the return policy.
		Flashing green/red	Self-test.
B	Network Status (EtherNet)	Off	The module has not power or no IP address has been assigned.
		Solid green	The module has at least one established EtherNet/IP connection.
		Flashing green	There are no EtherNet/IP connections established to the module.
		Flashing red	One or more of the connections to this module has timed out.
		Solid red	The module has detected that its IP address is already in use.
		Flashing green/red	Self-test.
C	Link	Off	The module does not sense a link.

LED number	Name	Status	Description
		Green	The module is connected to an Ethernet network.
D	Activity	Flashing green	Packet is received or transmitted.
E	Subnet Status (Modbus Serial)	Off	Power off.
		Flashing green	Running correctly, but one or more transaction errors has occurred.
		Green	Running.
		Red	Transaction error/timeout or network stopped. Check the Modbus serial network wiring and configuration, especially the baud.
		Flashing red	Missed transactions.
F	Device Status (Modbus Serial)	Off	Power off.
		Flashing red/green	Configuration missing or invalid.
		Red	Contact customer service.
		Flashing red	Contact customer service.
		Green	Initializing.
		Flashing green	Configuration OK.











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