

HMS-EN2MB-R Linking Device INSTALLATION SHEET



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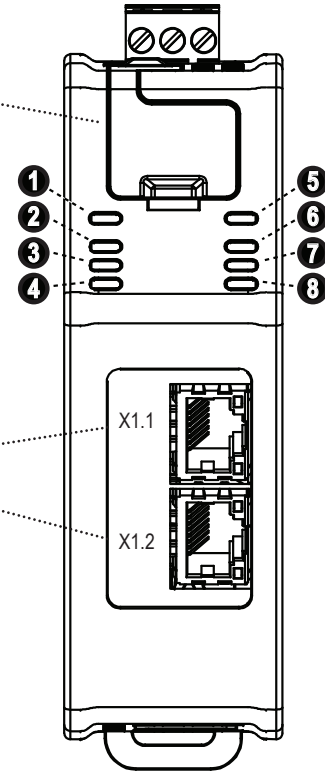
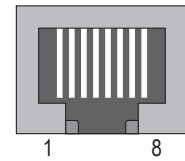
www.anybus.com

Device Front

USB port:
Connect a PC to the USB port
for firmware upgrades.

EtherNet/IP
Connector:

Pin no	Description
1	TX+
2	TX-
3	RX+
6	RX-
4, 5, 7, 8	Termination



LED Indicators

No	Name	Indication	Meaning
1	Module Status EtherNet/IP	Off Alternating red/green Flashing green Green Flashing red Red	Power off Boot sequence Idle Running Major or minor unrecoverable error Major or minor unrecoverable error (Exception state or FATAL)
2	Network Status EtherNet/IP	Off Green Flashing green Red Flashing red	No power or no IP address Online, one or more connections established (CIP Class 1 or 3) Online, no connections established Duplicate IP address, FATAL error One or more connections timed out (CIP Class 1 or 3)
3 4	EtherNet/IP Ethernet Link 1 and 2	Off Flashing green Flashing yellow	No link Receiving/transmitting Ethernet packets at 100 Mbit Receiving/transmitting Ethernet packets at 10 Mbit
5	SD Card	Green Red	Accessing SD card Failure
6	Modbus-TCP Status	Off Green Flashing green Flashing red Red	Power off Communicating with Modbus-TCP network Idle Transaction error or timeout Fatal error
7 8	Modbus-TCP Ethernet Link 1 and 2	Off Flashing green Flashing yellow	No link Receiving/transmitting Ethernet packets at 100 Mbit Receiving/transmitting Ethernet packets at 10 Mbit

Installation and Startup Summary

- Attach the linking device to the DIN-rail.
- Connect the device to the EtherNet/IP network.
- Connect the device to the Modbus-TCP network.
- Turn on the device (+24 V DC).
- Assign an IP address to the device using BOOTP-DHCP server.
- Start the Studio 5000 software.
- Search in the catalogue for the HMS-EN2MB-R.
- Add the device to the Ethernet network in the I/O configuration.
- In the general tab, assign a name and the previously chosen IP address to the device.
- Configure the device using the configuration manager and download the configuration to the device.
- Set up the EtherNet/IP communication according to the device configuration.

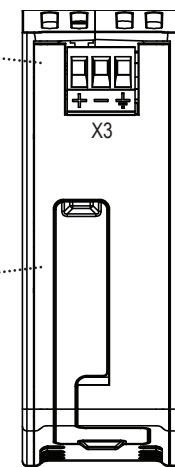
Technical Details

- Power supply:
24 V DC (-15% to +20%).
- Power consumption:
Maximum power consumption is 300 mA @ 24 V DC.
Typical power consumption: 150 mA @ 24 V DC.
- Surrounding temperature
70 degrees C @ 225 mA @ 24 V DC.
- Functional Earth (FE):
Internal connection to FE via DIN-rail or, if the DIN-rail can not be used, via the power connector.
Note: Make sure the DIN-rail is properly connected to FE.

Top View

Power:
(+) +24 V DC
(-) GND
(⊕) FE

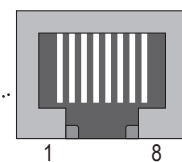
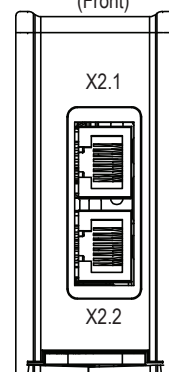
SD card slot:



Bottom View

Modbus-TCP Connector:

(Front)



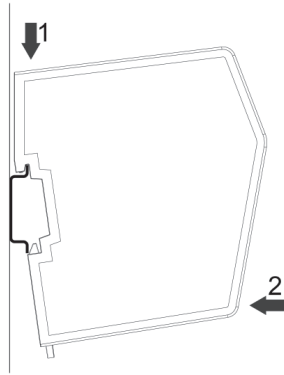
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6	RX-
4, 5, 7, 8	Termination

For maintenance and support, contact the HMS support department.
Contact information is available at the support pages on www.anybus.com.

Further information and documents about this product can be found at the product pages on www.anybus.com.

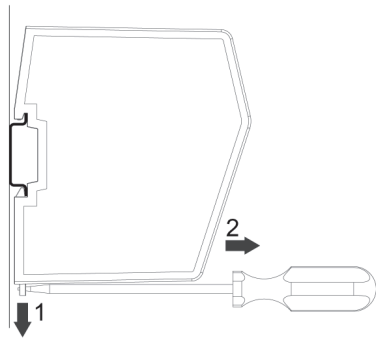
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DIN-rail Mounting



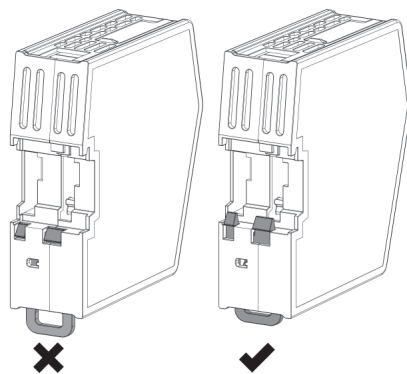
Ensure that the DIN-rail fastening mechanism on the back of the module is in a fixed and closed position, i. e. that it is pushed all the way up.

To mount the device, first hook it on to the DIN-rail (1), then push it against the DIN-rail to make it snap on (2).



To unmount the device, use a screwdriver to push the DIN-rail fastening mechanism on the back of the device down until it locks in a fixed and open position (1). Then unhook the device from the DIN-rail (2).

Note: Do not leave the device with the DIN-rail fastening mechanism in a fixed and open position. This may cause unnecessary wear on the fastening mechanism, so that it cannot be used efficiently. Be sure to push the DIN-rail fastening mechanism back into the fixed and closed position after unmounting the device, with reference to the picture below.



Additional Installation and Operating Instructions

Supply voltage: The linking device requires a regulated 24 (20.4-28.8V) VDC power source.

Field wiring terminal markings (wire type Cu only, 14-30AWG)
"Use 105°C copper (Cu) wire only"
Terminal tightening torque (5-7 lb-in).

Use in Overvoltage Category I Pollution Degree 2 Environment.

Install in an enclosure considered representative of the intended use. To comply with ATEX directives, the equipment must be installed within an IP54 enclosure and must be installed with a transient suppressor on the supply that does not exceed 140% (33.6 V DC) of the nominal rated supply voltage.

Operating temperature/Surrounding temperature:
-25° to +60° degrees C @ 300 mA @ 24 V DC.

NOTE: If the surrounding temperature exceeds +40° C, install the unit with at least 10 mm of air on each side.

Maximum surface temperature: 135 degrees C.

Pressure: 850 - 1050 millibar.

This product is designed to safely operate in class I, division 2 Hazardous location according to ANSI/ISA 12.12.01-2015 and category 3, zone 2 according to EN 60079-0 and EN 60079-15.

SUITABLE FOR USE IN CLASS I, DIVISION 2, GROUPS A, B, C AND D HAZARDOUS LOCATIONS, OR NONHAZARDOUS LOCATIONS ONLY.

Warnings

- **WARNING - EXPLOSION HAZARD - SUBSTITUTION OF ANY COMPONENTS MAY IMPAIR SUITABILITY FOR CLASS I, DIVISION 2.**
- **WARNING - EXPLOSION HAZARD - WHEN IN HAZARDOUS LOCATIONS, TURN OFF POWER BEFORE REPLACING OR WIRING MODULES.**
- **WARNING - EXPLOSION HAZARD - DO NOT DISCONNECT EQUIPMENT WHILE THE CIRCUIT IS LIVE OR UNLESS THE AREA IS KNOWN TO BE FREE OF IGNITABLE CONCENTRATIONS.**
- **WARNING - EXPLOSION HAZARD- THE USB CONNECTOR IS NOT FOR USE IN HAZARDOUS LOCATIONS AND FOR TEMPORARY CONNECTION ONLY. DO NOT USE, CONNECT OR DISCONNECT UNLESS THE AREA IS KNOWN TO BE NONHAZARDOUS. CONNECTION OR DISCONNECTION IN AN EXPLOSIVE ATMOSPHERE COULD RESULT IN AN EXPLOSION.**
- **WARNING - EXPLOSION HAZARD - DO NOT CONNECT OR DISCONNECT THE SD CARD UNLESS THE AREA IS KNOWN TO BE NONHAZARDOUS. CONNECTION OR DISCONNECTION IN AN EXPLOSIVE ATMOSPHERE COULD RESULT IN AN EXPLOSION.**
- **WARNING - INSTALL IN AN ENCLOSURE CONSIDERED REPRESENTATIVE OF THE INTENDED USE. TO COMPLY WITH ATEX DIRECTIVES, THE EQUIPMENT MUST BE INSTALLED WITHIN AN IP54 ENCLOSURE AND MUST BE INSTALLED WITH A TRANSIENT SUPPRESSOR ON THE SUPPLY THAT DOES NOT EXCEED 140% (33.6 V DC) OF THE NOMINAL RATED SUPPLY VOLTAGE.**

UL Certification



Ind. Contr. Eq./Haz.Loc.
22ZB, E214107
67AM, E203225
CL1, DIV 2, GP A, B, C, D
TEMP CODE T4

Atex Certification

EX nA IIC T4 Gc



Demko 12 ATEX 1062524X

EMC Compliance (CE)

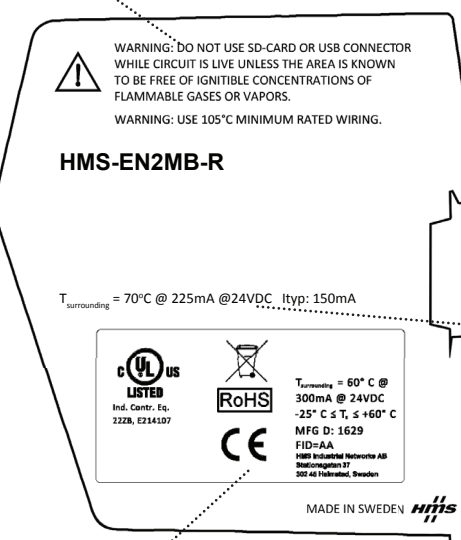


This product is in accordance with the EMC directive 2014/30/EU through conformance with the following standards:

- **EN 61000-6-4**
Emission standard for industrial environment
EN 55016-2-3, Class A
- **EN 61000-6-2**
Immunity for industrial environment
EN 61000-4-2
EN 61000-4-3
EN 61000-4-4
EN 61000-4-5
EN 61000-4-6

Label Markings

Warnings



Certification markings

HMS Industrial Networks AB
Stationsgatan 37
302 45 Halmstad
Sweden



Further information and documents about this product can be found at the product pages on www.anybus.com.