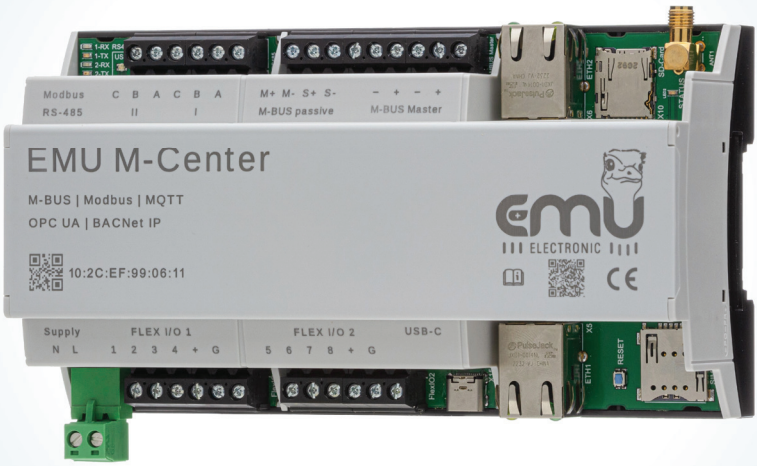

QUICKSTARTER
EMU M-CENTER

ENGLISH

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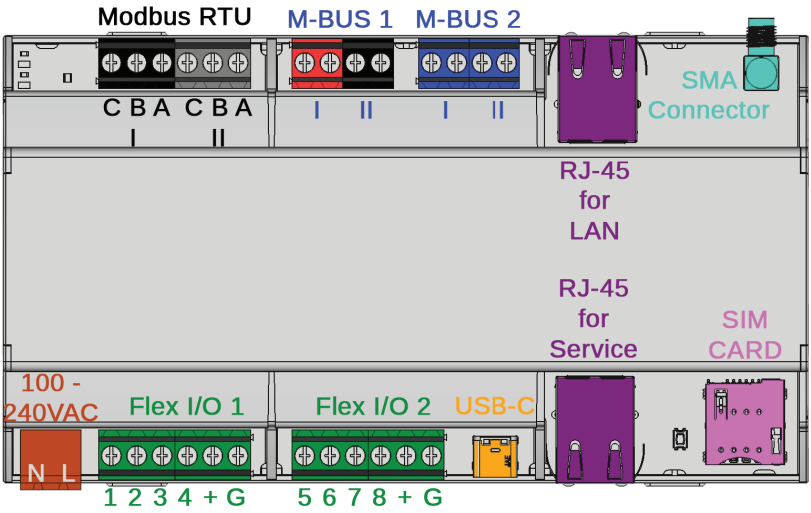
INSTALLATION



POWER

The EMU M-Center needs a 230VAC (100 - 240VAC) power supply with a minimal current of 1A. The connection is located on the lower left (see above, brown colored).

USB-C

The EMU M-Center has a USB-C Port. The connection is located on the lower terminal strip (see above, orange colored).

SIM CARD

The EMU M-Center has a slot for a SIM card. The slot is on the lower right (see above, pink colored).

NETWORK CONNECTION

The EMU M-Center has two RJ-45 connections for LAN. The connections are on both sides of the device (see page 3, violet colored). The connection on top is meant for LAN, the lower connection for the service of the M-Centers.

M-BUS

The EMU M-Center has two parallel M-Bus connections. These connections are on the upper terminal strip (see page 3, red/black/blue colored).

RS-485

The EMU M-Center has 2 RS-485 connections. These connections are on the upper terminal strip (see page 3, black/grey colored).

FLEX I/O

The EMU M-Center has 8 programmable inputs/outputs. The eight I/O‘s are divided in two blocks. This allows for two different supply voltages to be toggled over the different connections (+/G) if the Flex I/O‘s are programmed as output (see page 3, green colored).

SMA CONNECTOR

The EMU M-Center has a SMA connector for a LTE antenna (see page 3, teal colored).

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INITIAL OPERATION

NETWORK SETTINGS EX-FACTORY

The EMU M-Center LAN connection is set to DHCP.

The service network connector has the fixed IP-Address **169.254.254.1.**
The EMU M-Center can be configured via the web interface reachable with this address.

Service Port = Fixed IP 169.254.254.1

For a remote setup, the EMU M-Center can be accessed via the upper LAN-connector.

LOGIN

All further configuration are made on the web interface. The web interface is accessed as follows:

- Start Browser
- Enter the ***IP-Address*** of the EMU M-Center in the address bar
- The login screen pops up
- Default login
  Name: ***admin***
  Password: ***123***
- Login with a click on „***Login“***

WEB-INTERFACE

After a successful login the home screen of the EMU M-Center appears.

You can return to this home screen from the submenus by ***clicking on „Home“*** on the top left. Be aware as this web interface is an application an not a website, the „back“ of your browser does not work!

You can change the ***language and the password*** in the drop down menu on the top left. It is advisable to change the default password as soon as possible.

The M-Center can be completely configured via the web-interface.

CONFIGURE TIME

To correctly log measurements the M-Center requires a correctly set system time. To ensure this make sure that the M-Center is connected to a NTP-server at all times.

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CONFIGURE NETWORK

You can configure the LAN interface in this menu. The interface is set to ***DHCP*** ex factory.

To set the IP-Adress ***manually***, please set the option „manual configuration“ to „manual“. Once on manual, you can set the IP-Address, Subnet mask and Gateway.

ADD/ SCAN FOR METERS

Meters connected via M-Bus can be added to the M-Center via an automated scan or through manual addition with the primary or secondary address. The ***automatic scan*** can be used on one or all ***Baud rates***.

JOULIO ANBINDUNG

The M-Center supports the automatic connection to Joulio-Web. To use this function, go to the ‘**Connection to Joulio-Web**’ menu in the **settings**.

BACNET BBMD

The M-Center supports Bacnet functionalities. Go to the ‘**Bacnet BBMD**’ menu in the **settings** to configure this.

BACNET

The M-Center supports Bacnet. For this function, go to the ‘**Bacnet**’ menu in the **settings**.

MODBUS

The M-Center supports readout via Modbus RTU. For this function, go to the ‘**Modbus**’ menu in the **settings**.

MQTT

The M-Center supports readout via MQTT. For this function, go to the ‘**MQTT**’ menu in the **settings.**

CONFIGURE FTP-UPLOAD

The M-Center supports the upload of data to an FTP server. To use this function, go to the ‘**FTP**’ menu in the **settings**.

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TECHNICAL DATA

Power Supply $U_{Nominal}$	230VAC
Max. Current I_{Max}	1000 mA
Ambient Temperature $T_{Amb.}$	0..55 °C
Safety Class	IP20
Tested according to	IEC / EN 61000-6-2; IEC / EN 61000-6-3
Energy Management	ISO 50001
Mechanical Data	
Installation	35mm DIN Rack
Device dimensions	9 TE, 162mm
Weight	Ca. 350 g
Material	Polycarbonat, recycable, not flammable
Interfaces	
Ethernet	2x RJ45
USB	USB-C
RS-485	2 Strings
Flex I/O	8 x, 0-36V @ max. 500mA
M-BUS	2 x Master, 1x Slave (parallel)
M-BUS	
Compatibility	Electric-, Heat-, Water-, Gasmeter with M-Bus specified according to EN 13757-2, -3 (was EN1434-3)
Max. Current $I_{M\text{-}BUS\ max}$	375mA (250 x 1.5mA)
Baud rates	300, 600, 1200, 2400, 4800, 9600
Addressing	Primary- or Secondary
Application Reset Subcode send	Yes (can be deactivated)
SND_NKE send	Yes (can be deactivated)
BACnet IP	
Device Profile	B-ASC
Function	M-BUS to BACnet Gateway
Supplementary function	BBMD

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