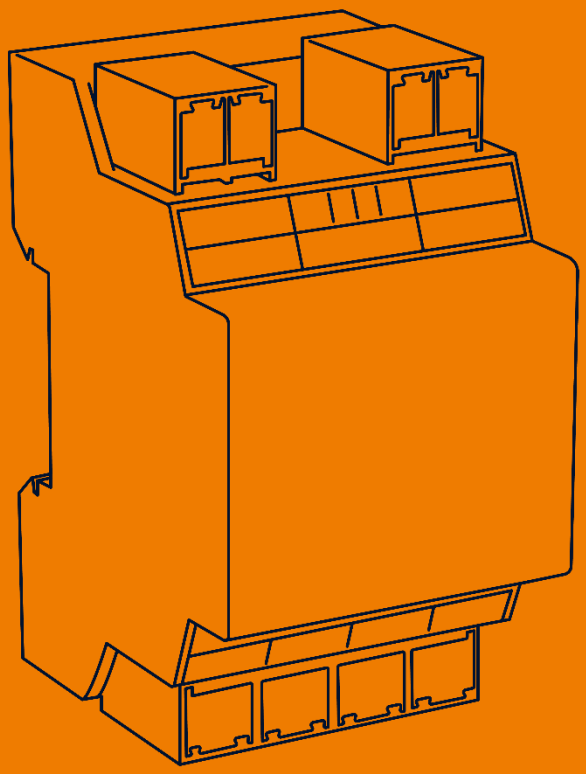

MIEZ
Current Extension Module

ALLES MIT SPANNUNG

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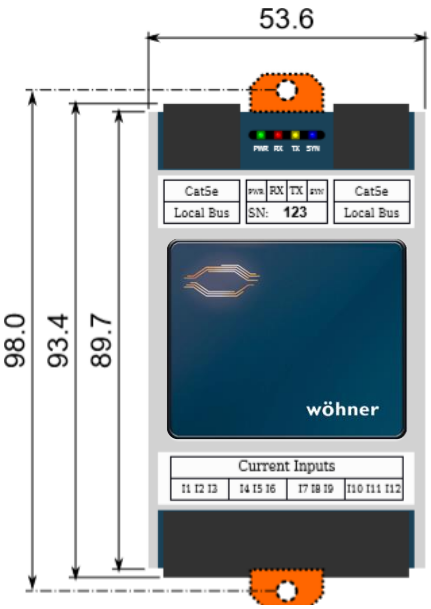
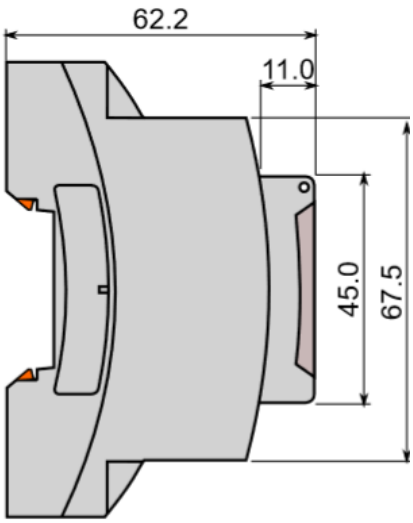
1 Installation

1.1 Mounting

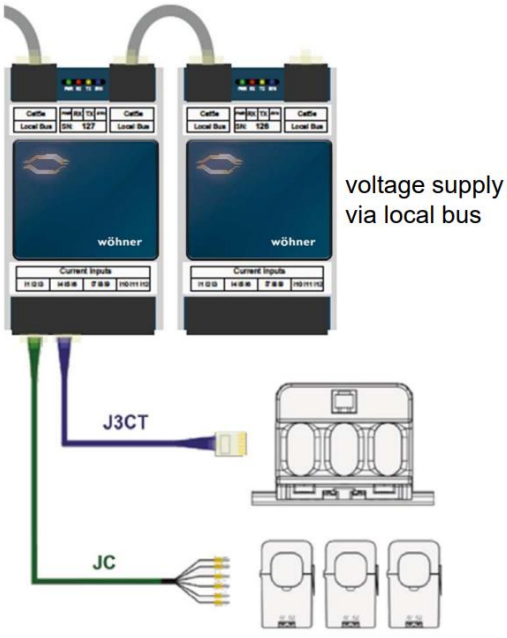
The current extension module is intended for mounting on the DIN rail.





1.2 Voltage supply

The 37100 current extension module is supplied via the local bus (connection via patch cable). The voltage is supplied by the master device with a local bus connection and can be distributed to other current extension modules. The connections for this are located at the top right and top left of the current extension module and are labeled "Local Bus".



1.3 Connecting a current transformer

The current extension modules are not designed for direct current measurement. The connections of the required current transformers are located on the bottom of the current extension module and labelled as follows:

- F1 for the connection cable of currents 1 - 3
- F2 for the connection cable of currents 4 - 6
- F3 for the connection cable of currents 7 - 9
- F4 for the connection cable of currents 10 - 12

The current inputs of the current extension modules are designed for secondary signals of 333 mV and equipped with RJ12 connection sockets.

Notice on connection of the cable conversion current transformers:

- Wire pairs: Phase 1 = brown; phase 2 = black; phase 3 = grey
- Connection: Wire to S1 (k): Grey, green, white Wire to S2 (l): Pink, yellow, brown

1.4 Local Bus interface

The current extension module is additionally equipped with RJ45 connections for the Local Bus at the upper right and left. This interface provides internal communication.

2 Commissioning

2.1 Factory communication settings

The 37100 current extension modules are configured via the MIEZ.Daq software on the 37010 power analyzer and are assigned device addresses from 200.

2.2 Connecting to a PC

To connect the 37010 power analyzer to a PC, you can use either a mini USB-C or a LAN cable.

USB: The corresponding USB driver must be installed on the PC for this connection. You can find this in the MIEZ Software at:

- „Setup“ → „Install USB drivers“

or in the MIEZ installation folder at:

- ...\Wöhner\MIEZ x.x\driver install with a right click on **KMB-USB.inf**.

LAN: If you want to connect to the device via LAN cable, you must either adapt the IP address of the device to your network or adapt the IP address of your computer. The Power Analyzer 37010 is supplied with the **IP: 10.0.0.1**.

- Open MIEZ.Daq and select "COM" for a USB connection and "TCP" for Ethernet.
- Open the drop-down menu and select the COM interface or enter the IP address of the master device and the associated port (default: 4001) in the fields provided for this.
- Clicking “Connect” establishes a connection to the device. You can make all further settings of the device here.

2.3 Configuring the current extension module

The modules connected to the Power analyzer via the RJ45 connection are configured in the tab "Local Bus"

1. **Detected but not Configured Slaves**
   All (max. 5) current extension modules that are connected via the Local Bus but not yet configured in the Power analyzer are displayed here.
2. **Assigning current extension module**
   D1 – D5 are the available slots on the Local Bus that can be occupied with current extension module. Under “Parameter”, the respective module can be added by selecting the serial number and a name can be assigned.
3. **Selecting current input**
   F1 – F4 are the respective 3-phase inputs at the current extension module. They can be activated and configured under “Parameter”.
4. **Device address**
   The individual device addresses of the current extension module inputs start from 200 by default. The first module thus has the addresses from 200 (F1) – 203 (F4).

Notice:
Recording of the Local Bus data must be activated in the respective master device.

2.4 Checking the connection and settings

The connection and the settings of the universal measurement device can now be reviewed via the “Act Data” in the MIEZ.Daq.

- The display of the currents can be used to review plausibility. If you do not know the current, we recommend comparing the current with a current clamp.

- When displaying the individual active powers, consumption is displayed without a prefix and supply with a negative prefix. This permits verification of the correct installation and connection of the current transformers.
- The pointer diagram in the MIEZ.Daq can be used to check the rotating field and assignment of the current and voltage paths. Observe the phase shift of current and voltage for this.

3 Technical data

Voltage supply	via Local Bus
Sampling rate	6,4 kHz
Power consumption	1,5 W / Modul
Ambient temperature $T_{Operation}$	-25 ... 60 °C
Protection type front / rear	IP40 / IP20
EMC	Class A: Industrial area according to IEC 61326-1
Overvoltage category	Depending on the current transformer used
Overload (permanent)	666 mV_{AC}
Overload (1s)	3,33 V_{AC}
Mechanical data	
Mounting	35 mm DIN rail
Dimensions WxHxD	54 x 94 x 61 mm
Weight	Approx. 110 g / module
Max. number of outputs per current extension module	4x 3-phase / 3x 3-phase + N / 12x 1-phase
Max. number of modules	5
Interfaces	
Local Bus	
Protocols	Interner Bus

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