

# Contact us

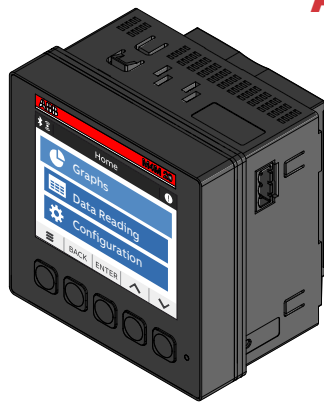
ABB S.p.A.  
**Electrification Business**  
 Viale dell'Industria, 18  
 20009 Vittuone (MI) Italy  
<https://new.abb.com/low-voltage>



Warning! Installation by person with electrotechnical expertise only.  
 Warnung! Installation nur durch elektrotechnische Fachkraft.  
 Avvertenza! Fare installare solo da un elettricista qualificato.

Mar 2021

2CSG445030D0201



## 3.Symbol instruction

Button	Function
	Shortcut to Home/Favorite/Notifications pages.
	Return to the previous page.
	Confirm the selection.
	Increase or decrease the value. Keeping pressed will increase the speed of the number variation.
	Move cursor up or down.
	Move cursor to the left or to the right.

## Network analyzer

# INSTALLATION MANUAL

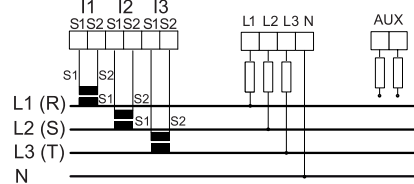
## M4M 20

### M4M 20-M (MID)

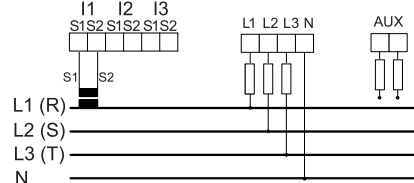
### 2.2.Wiring Diagram

Only configuration market with M are MID compliant on M4M 20-M.

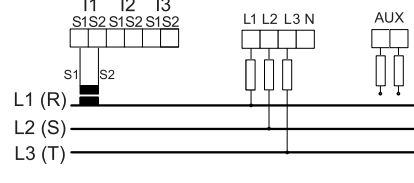
#### 3-phase 4-wire network with 3CTs (M)



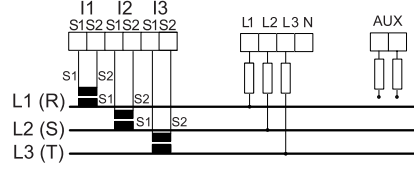
#### 3-phase 4-wire network with 1CT



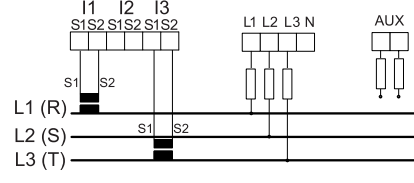
#### 3-phase 3-wire network with 1CT



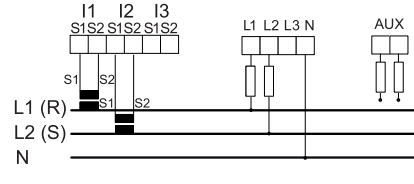
#### 3-phase 3-wire network with 3CTs



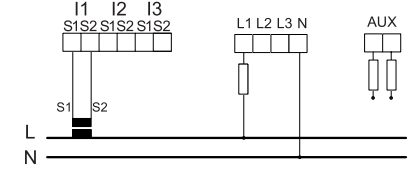
#### 3-phase 3-wire network with 2CTs (M)



#### 2-phase 3-wire network with 2CTs



#### 1-phase 2-wire network with 1CT (M)



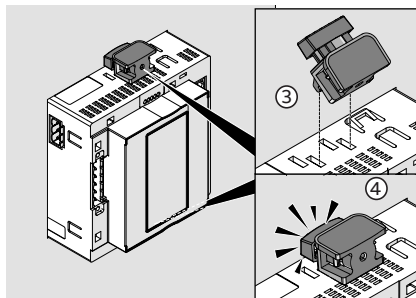
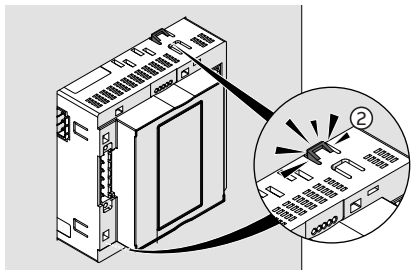
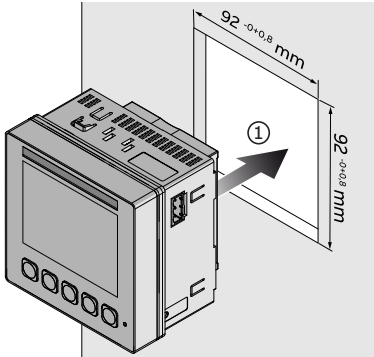
For current measurement, please notice that it is needed to fasten the screw-type terminal to the device with the two screws.

## 1.Packaging Content

- Network analyzer M4M 20 or M4M 20-M
- Installation manual
- Calibration certificate
- 2 mounting clips
- Removable terminals for wiring
- M4M 20-M (MID): Sealable terminal block

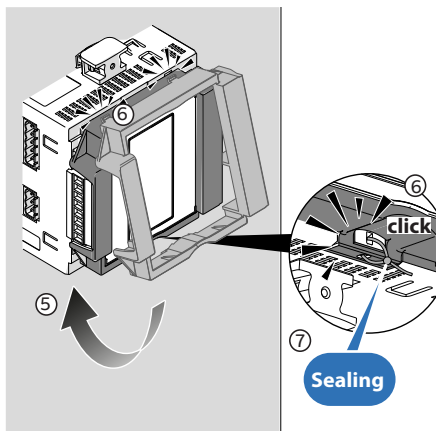
## 2.Mounting

### 2.1.Assembly



Finalize the installation through removable terminals.

**M4M 20-M (MID):** In order to ensure antitampering for MID directive, sealing of terminal block is mandatory



## 5.4.Type of network

HOME → Configuration → Installation → Type of network

Select the type of network among the following ones:

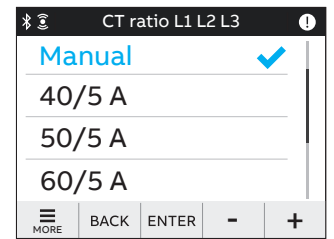
Parameter	Description
3Ph/4W/3CT	3-phase 4-wire + 3CTs
3Ph/4W/1CT	3-phase 4-wire + 1CT
3Ph/3W/1CT	3-phase 3-wire + 1CT
3Ph/3W/3CT	3-phase 3-wire + 3CTs
3Ph/3W/2CT	3-phase 3-wire + 2CTs
2Ph/3W/2CT	2-phase 3-wire + 2CTs
1Ph/2W/1CT	1-phase 2-wire + 1CT

Only configuration market with M are MID compliant on M4M 20-M.

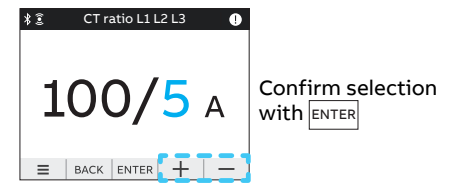
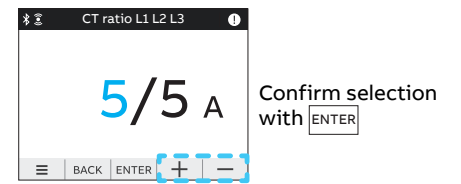
## 5.5.Current Transformer ratio

HOME → Configuration → Installation → CT ratio

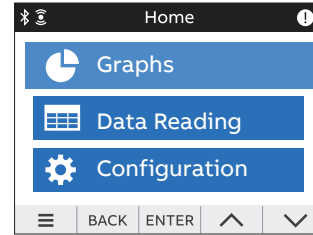
Select the current transformer ratio among the default ones or enter it manually.



In case of manual entry, enter the value of the primary with + or - and select the secondary (1A or 5A).



## 4.Access to device



Access to device is done through the five buttons under the screen.

The home page is divided in 3 sections:

Sections	Description
<b>Graphs</b>	Graphical representation of the main parameters.
<b>Data Reading</b>	Values of the main parameters.
<b>Configuration</b>	Setup of the device.

## 5.First Commissioning

To start to use the analyzer it is mandatory to configure the basic setting: a wizard will guide the user for the configurations (language, password, date&time, type of network, CT ratio and VT ratio).

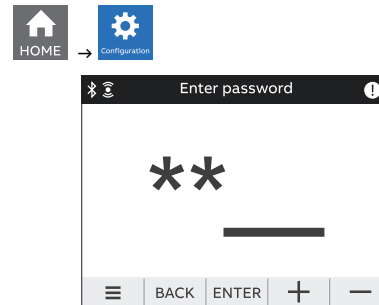
### 5.1.Setting language

HOME → Configuration → Unit → Language

Select the desired language for the display among the ones available.

### 5.2.Setting password

The password is composed by 5 numerical characters. In order to select each numerical character, it is necessary to use + or - and confirm every selection with ENTER.



At first use, the password shall be defined. In order to disable the password, please enter 00000.

M4M 20-M only: It is not possible to disable password. The password protects all configurations that are not critical. Critical configurations are protected by the Lock (see 5.6).

### 5.3.Setting Date/Time

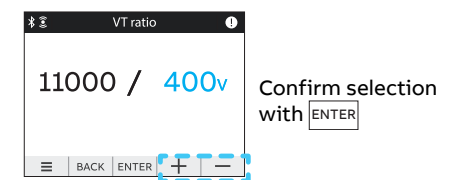
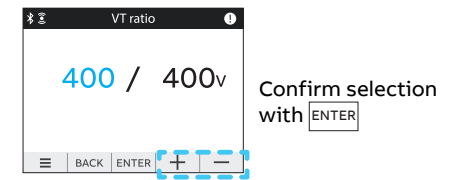
HOME → Configuration → Unit → Date&Time

Set the current date (format: YYYY/MM/DD) and current time.

## 5.6.Voltage Transformer ratio

HOME → Configuration → Installation → VT ratio

Enter the voltage transformer ratio (both primary and secondary) manually with + or -.



In case of direct insertion, 400/400V value shall be used.

## 5.7.Lock (M4M 20-M MID)

To comply with MID, after Type of network, CT ratio, VT ratio are set, the M4M must be put in Lock state.

These parameters cannot be modified after lock operations.

**M4M 20-M will not count any MID energy until Lock is completed.**

