

SELECTION GUIDE

6M Series - Power analyzer products

7M Series - SMART Energy meters



ABOUT US



Finder was founded in Italy in 1954. Since then it has been designing and manufacturing a wide range of electromechanical and electronic components for both the residential and industrial sectors.

Today, thanks to its global vision, Finder now distributes its products around the world through a network of 29 company-owned subsidiaries and more than 80 trade partnerships.

Finder is an international family made up of more than 2000 individuals, all united by the same values and passion for our products.



14,000+ different products to satisfy a myriad of applications. From products at the heart of automation to the control of machines, power, time, temperature, liquid level and light

OUR PRODUCTS CARRY MORE CERTIFICATIONS THAN ANY OTHER RELAY MANUFACTURER



FINDER IS AN ITALIAN BRAND WITH A WORLDWIDE PRESENCE

- 4 PRODUCTION PLANTS IN EUROPE
- 29 SUBSIDIARIES
- 80+ OFFICIAL DISTRIBUTORS



ENVIRONMENTAL, SOCIAL AND GOVERNANCE (ESG)

Finder considers social and environmental sustainability as fundamental principles of doing business, just as it believes that business growth must develop in synergy with a conscious vision of the future.

That is why Finder is committed to reducing and eliminating CO2 emissions, focusing on circularity, caring for its employees to foster a safe, fair and inclusive work environment, spreading a culture of integrity and transparency, and collaborating with stakeholders who share its values.

This focus is demonstrated by the company's commitment to the following internationally recognized projects and certifications:



ISO 9001:2015
Quality management system



ISO 14001:2015
Environmental management system



ISO 45001:2018
Health and safety management system



ISO 50001:2018
Energy management system



ISO 14064-1:2019
Carbon Footprint verification



FSC
Forest Stewardship Council



AEOF
Simplified customs and enhanced supply chain security



Cribis Prime Company
Recognition of highest reliability of commercial relations

AUTONOMY AND INDEPENDENCE

Finder's managerial, financial and technological autonomy allows optimal control over all its business processes, the results of which include simplified customs procedures and a high reliability of commercial relations.



6M SERIES

Power analyzer products



Charging Stations



Energy management



Inverters



Industrial automation



Panels for electrical distribution



PV applications



Complies with (according to type):
EN 61000-6-4/2006 + A1 2011;
EN 64000-6-2/2005; EN 61010-1/2010

CE UK CA cRU us (according to type)



6M Series
See technical data sheet

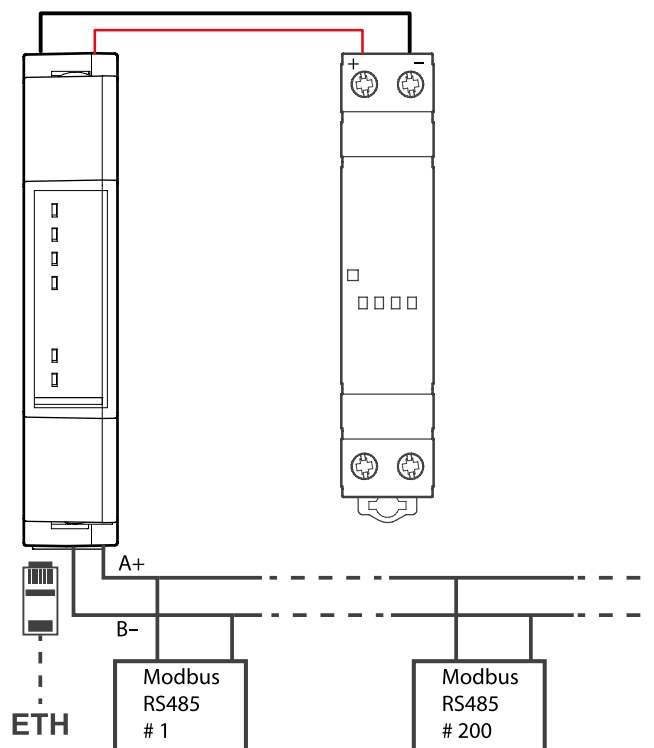
Type 6M.BU.0.024.2200

Modbus RS485 RTU - Modbus TCP/IP Gateway with on board web server interface

- Ethernet com port: 10/100 Mb/s (Max 10 clients)
- Modbus RTU com port: RS485 up to 115.200 bit/s (Max 200 slave)
- User interface: 6 LED
- Insulation between power supply, RS485, Ethernet: 1500 V
- 35 mm Rail mounting



Type 6M.BU with 78.12.x.xxx.2402



6M Series - Single phase Modbus quality power Monitors

“All-in-one”: CT, Power/Energy meter and Supply quality monitor + Modbus communications.

- Fully configurable via Modbus RS485 interface (free software)
- True-RMS AC and DC measurements
- Instantaneous values measured:
V (RMS), A (RMS), PF, kW, kVA, kvar, Hz, THD (I), Vpk, Ipk, Cosφ
- Accuracy class: 0.5 % F.S.
- Measurements in MSW first, LSW first or in cm
- Measurement: up to 300 A - 800 V AC
up to 400 A - 1000 V DC
- Bi-directional active energy measurement kWh
- Working frequency: DC or 1...400 Hz
- 35 mm Rail mounting (rail adaptor included)



Type 6M.TA.9.024.1200
50 A - 800 V AC/1000 V DC

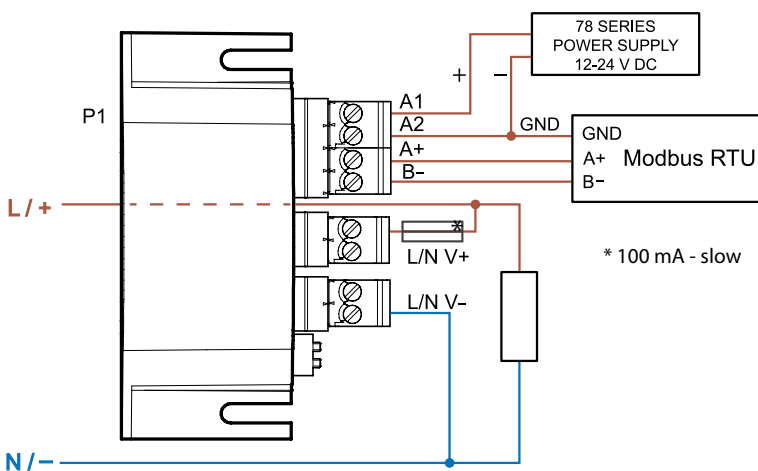


Type 6M.TB.9.024.1200
100 A - 800 V AC/1000 V DC

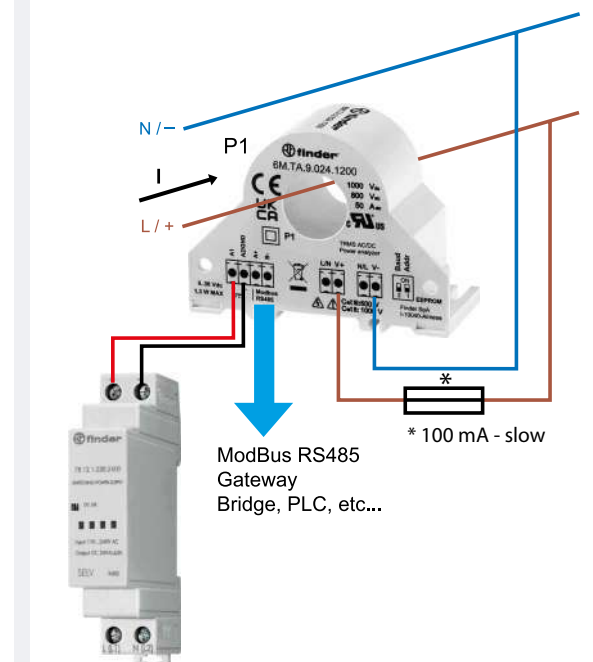


Type 6M.TF.9.024.1200
300 A - 800 V AC,
400 A - 1000 V DC

Types 6M.TA, 6M.TB and 6M.TF



Type 6M.TX with 78.12.x.xxx.2402





7M SERIES SMART Energy meters



Charging Stations



Energy management



Inverters



Industrial automation



Wind turbines



PV applications



Lifting and hoist systems



Heating, ventilation and air conditioning



Refrigeration



Energy generation and distribution



Panels for electrical distribution



Automatic dispensers and vending



Complies with (according to type):

- Active energy accuracy Class B according to EN 50470-3 (MID)
- Reactive energy accuracy Class 2 to EN 62053-23
- S0 pulse output for remote energy monitoring according to EN 62053-31

CE UK CA (according to type)



7M Series
See technical data sheet



Finder's range of energy meters with NFC technology

The world's first range of energy meters that, thanks to NFC technology, can provide energy measurement even in the absence of mains voltage. You can also configure the energy meter using your smartphone.

1-phase and 3-phase energy meters for 3- or 4-wire systems, and current ratings up to 80 A @ 70 °C with NFC, communication protocol and MID certification.



Innovative and original, with NFC technology

The world's first range of energy meters that can provide measure energy in the absence of mains voltage.

Thanks to NFC technology, you can program, save and share 7M Series SMART energy meter configurations from your smartphone.



Ideal for EV charging

Ideal for electric vehicle charging stations thanks to its ambient temperature rating of up to 70 °C.



Integrated

Can easily be interfaced with other devices thanks to M-Bus and Modbus RS485 communication ports.



Modern design

Compact, modern design with capacitive keys and removable tamper-proof terminal covers.



MID certified

To protect the user and ensure reading accuracy.



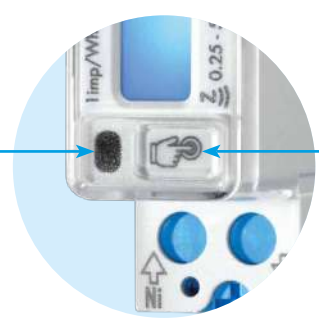


7M SERIES SMART Energy meters

Two programming modes for energy meters with NFC technology

“SMART”

Smart mode via smartphones with NFC communication using Finder Toolbox, iOS or Android App



“CLASSIC”

Classic mode via touch button to scroll and read the meter



Finder Toolbox

Finder Toolbox App for programming

Once the Finder Toolbox App is downloaded and installed, you can easily program your device thanks to NFC technology. One of the main features is that even in the absence of the power supply network, it is possible to read an energy counter, read the existing configuration, change the communication protocol parameters, or save and share the settings.

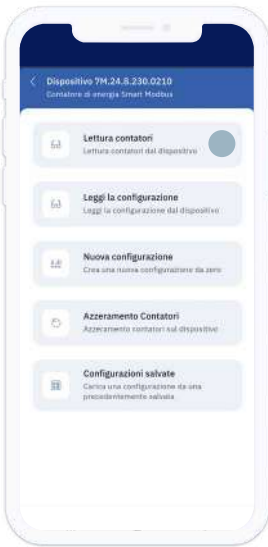
All that is required for the transfer of data is to simply touch the device with the smartphone.

Finder Toolbox App for information

Finder Toolbox can provide you with all the latest technical data sheets and news from Finder.

Example using the NFC Finder Toolbox APP

Reading Counters

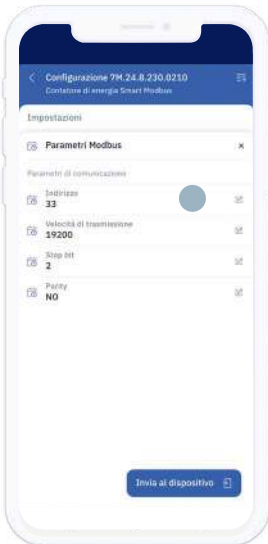


If you want to read all the energy counters select **"Read Counters"**

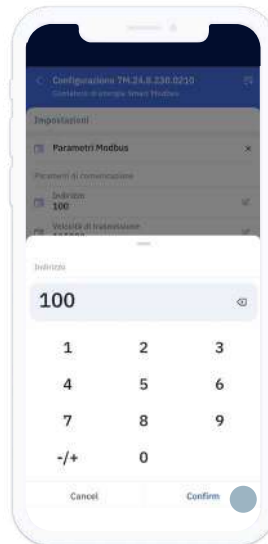


Even in the absence of the power supply network all the measurements made are readable thanks to the App - not just MID values

Modbus parameter setting

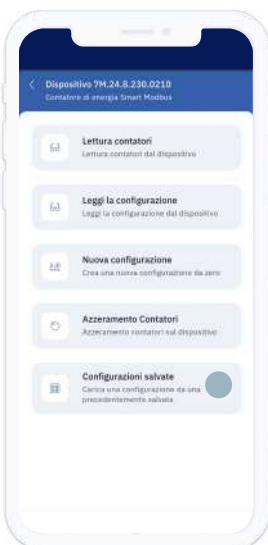


Select **"Address"** in order to change default values

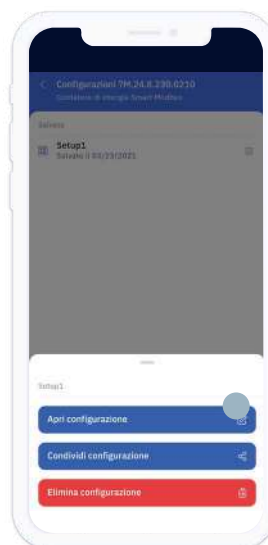


Write the new address: **100**. Click **"Confirm"**

Saved configuration



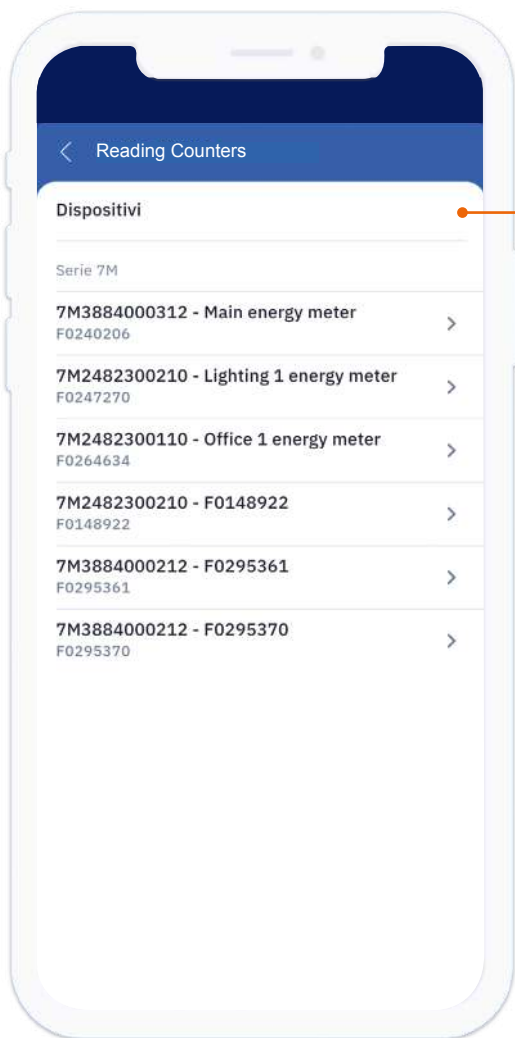
Recall the stored configuration





7M SERIES SMART Energy meters

Monitoring energy consumption with the Finder Toolbox app



List of 7M Series devices being measured



Name the device

Create CSV file

Date, time and energy-consumption data

Creating a CSV file for energy consumption analysis



Finder has integrated an energy consumption-logging section into the Finder Toolbox app. You can now to download the energy consumption history in a CSV file, allowing the data to be analyzed at a later date.

MID-certified energy meters

Name	Date	Time	Mid_1_Value	Mid_1_Parameter	Mid_2_Value	Mid_2_Parameter	Mid_3_Value
7M3884000312 - Main energy meter	2023-09-28	12:05:57	537.1	Active Power (kWh)	0	Active Power (kWh)	0
7M3884000312 - Main energy meter	2023-09-28	12:04:31	537	Active Power (kWh)	0	Active Power (kWh)	0
7M3884000312 - Main energy meter	2023-09-28	11:26:45	535.2	Active Power (kWh)	0	Active Power (kWh)	0
7M3884000312 - Main energy meter	2023-09-27	16:50:48	527.2	Active Power (kWh)	0	Active Power (kWh)	0
7M3884000312 - Main energy meter	2023-09-27	16:40:52	526.9	Active Power (kWh)	0	Active Power (kWh)	0

Customer-customizable meters

C_1_Value	C_1_Parameter	C_2_Value	C_2_Parameter	C_3_Value	C_3_Parameter	C_4_Value	C_4_Parameter
530.5	Active Power (kWh)	6.6	Active Power (kWh)	537.1	Active Power (kWh)		Disabled
530.4	Active Power (kWh)	6.6	Active Power (kWh)	537	Active Power (kWh)	2	Active Power (kWh)
528.5	Active Power (kWh)	6.6	Active Power (kWh)	535.2	Active Power (kWh)		Disabled
520.6	Active Power (kWh)	6.6	Active Power (kWh)	527.2	Active Power (kWh)		Disabled
520.3	Active Power (kWh)	6.6	Active Power (kWh)	526.9	Active Power (kWh)		Disabled

7M SERIES SMART Energy meters

Type 7M.24

Single-phase Bi-directional
energy meters

NFC programmable,
MID certified to 40 A



Finder Toolbox

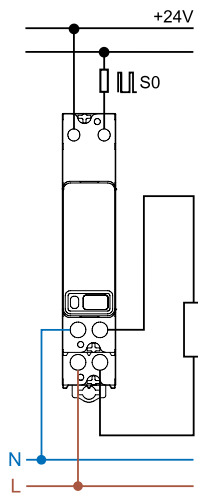


Ideal for monitoring both domestic or industrial energy consumption, in offices, campsites, photovoltaic systems and similar. Programming via Smartphone - Android or iOS - with NFC technology. Energy meter programming and customization via App. Ability to read the measured energy via NFC even in the absence of a network.

- 2 active energy MID counters + 2 reactive energy nationally certified counters
- 8 resettable counters for active, reactive, absolute apparent, imported and exported energy
- Touch navigation and programming key
- Wide range of measurable parameters: V, I, PF, Hz, THD V, THD I, and Run-time counter for preventive maintenance activities
- With M-Bus and Modbus RS485 integrated interface
- Backlit LCD display and sealable tamperproof terminal shield
- Power and control terminals

	7M.24.8.230.0001	7M.24.8.230.0010	7M.24.8.230.0110	7M.24.8.230.0210	7M.24.8.230.0310
NFC Interface	—	—	✓	✓	✓
Output specification (S0+/S0-)					
Number/Type	1 opto-isolated output	1 opto-isolated output	1 opto-isolated output	—	—
Pulses per kWh Imp/kWh	1000	1000	1000	—	—
Communication protocol					
Bus System	—	—	—	Modbus RS485	M-Bus
Baud rate Baud	—	—	—	1200...115200	300...9600
Technical data					
Accuracy class EN 50470-3 (MID)	B	—	—	—	—
Accuracy class IEC EN 50470-3 / IEC EN 62053-23	—	1/2	1/2	1/2	1/2
Ambient temperature (within accuracy class) °C	-25...+55	-25...+55	-25...+55	-25...+70	-25...+55

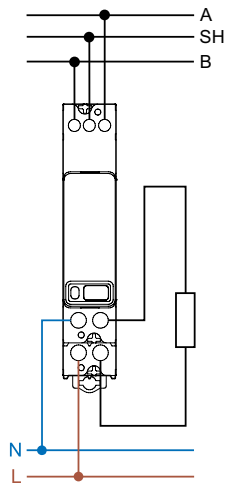
Type 7M.24 - Wiring diagrams



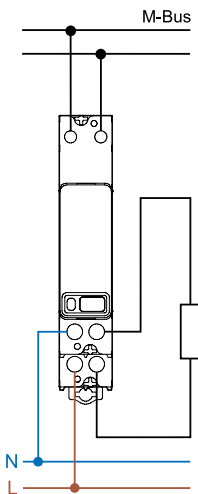
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7M.24.8.230.0010

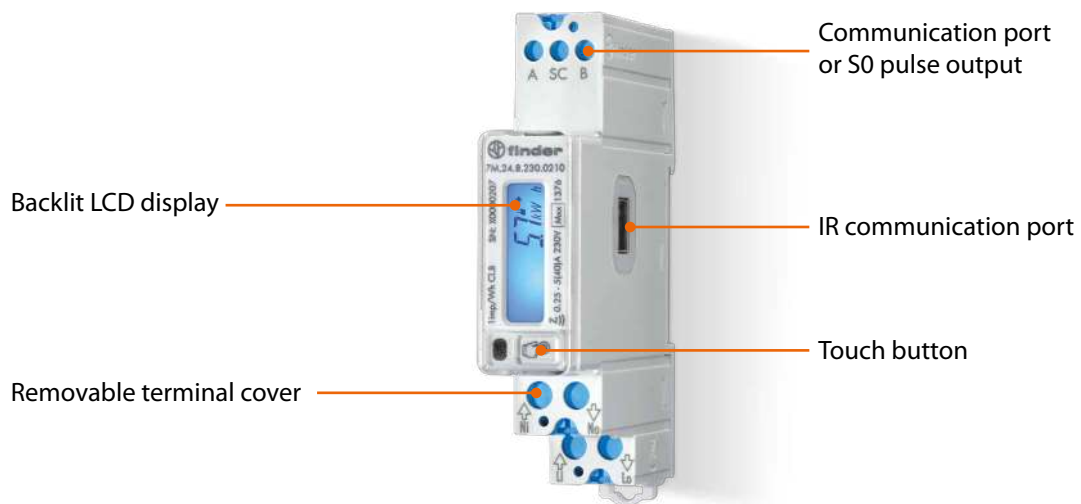
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7M.24.8.230.0310



7M SERIES SMART Energy meters

Type 7M.38

Multi-function Bi-directional energy meters with backlit Matrix LCD display.
MID certified up to 80 A @ 70 °C, for 3 or 4 wire systems and single phase applications.



Finder Toolbox



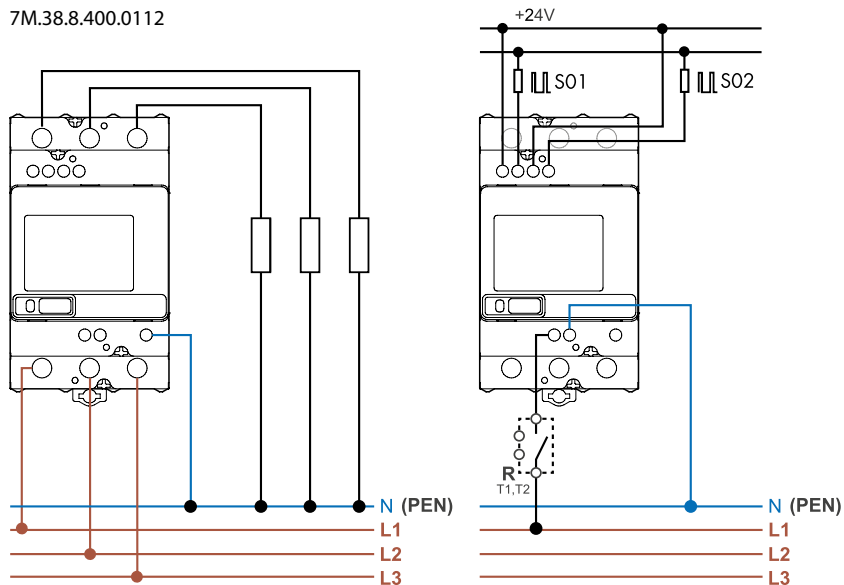
**Direct connection up to 80 A, dual tariff and dual S0 outputs.
Programming via Smartphone - Android or iOS - with NFC technology.
Energy meter programming and customization via App.
Ability to read the measured energy via NFC even in the absence of a network.**

- Display of total or partial (resettable) consumption: kWh, kVAh, kvarh
- 2 active energy MID counters -imported and exported- + 2 reactive energy counters -imported and exported- (nationally certified), 16 resettable counters
- Scroll to view the following instantaneous values: V, A, PF, kW, kVA, kvar, Hz, THD V, THD A, phase angle and direction of power flow
- With M-Bus and Modbus RS485 integrated interface
- Multi-function touch button
- Active energy accuracy Class B according to EN 50470-3 (MID)
- Reactive energy accuracy Class 2 to EN 62053-23
- Sealable tamperproof terminal shield

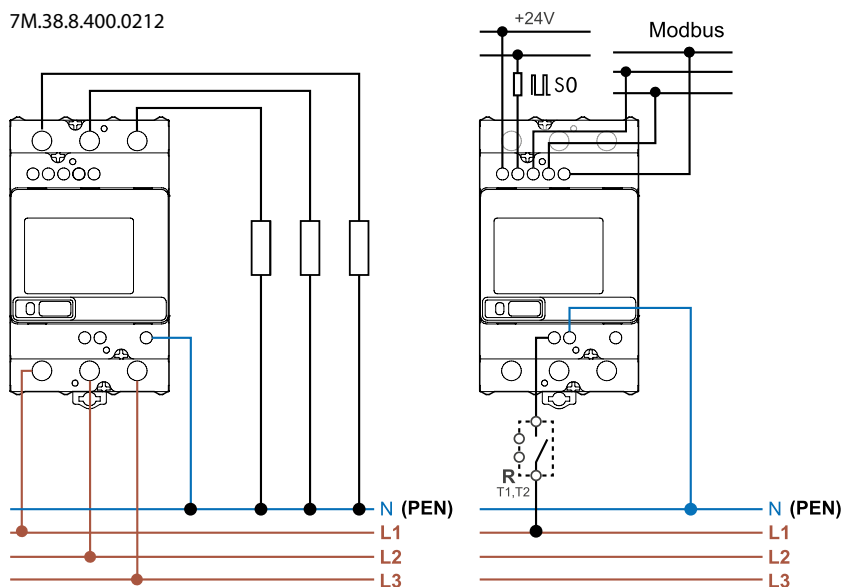
	7M.38.8.400.0112	7M.38.8.400.0212	7M.38.8.400.0312
NFC Interface	✓	✓	✓
Output specification (S0+/S0-)			
Number/Type	2 opto-isolated outputs	1 opto-isolated output	1 opto-isolated output
Pulses per kWh	Imp/kWh	500	500
Communication protocol			
Bus System	—	Modbus RS485	M-Bus
Baud rate	Baud	1200...115200	300...9600
Technical data			
Accuracy class IEC EN 50470-3 / IEC EN 62053-23	B/2	B/2	B/2

Type 7M.38 - Wiring diagrams

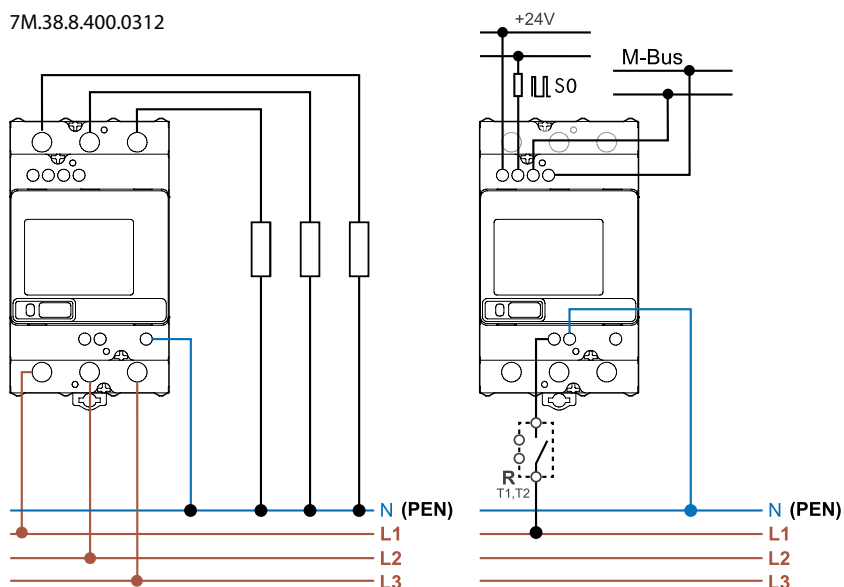
7M.38.8.400.0112



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7M.38.8.400.0312





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