

Caution

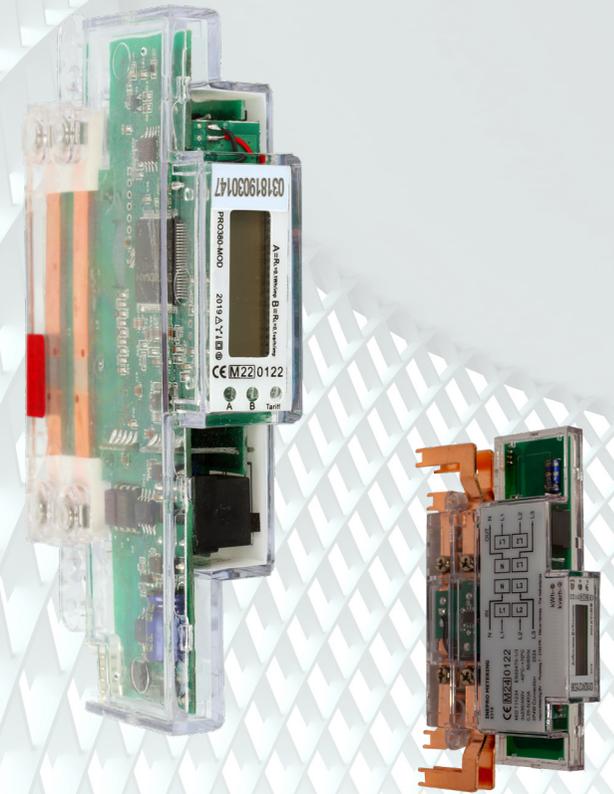
- Turn off and if possible lock all sources supplying the energy meter and the equipment that is connected to it before working on it.
- Always use a properly rated voltage sensing device to confirm that the power is off.
- The connecting wire, connecting the device to the outside circuit, should be sized in accordance with local regulations for the maximum amount of the current breaker or other overcurrent protection devices used in the circuit.
- An external switch or a circuit-breaker should be installed on the supply wires, which will be used to disconnect the meter and the device supplying energy. It is recommended that this switch or circuit-breaker is placed near the meter because that is more convenient for the operator. The switch or circuit-breaker should comply with the specifications of the building's electrical design and all local regulations.
- An external fuse or thermal cut-off used as an overcurrent protection device for the meter must be installed on the supply side wires. It's recommended that this protection device is also placed near the meter for the convenience of the operator. The overcurrent protection device should comply with the specifications of the building's electrical design and all local regulations.

Warning

- The installation should be performed by qualified personnel familiar with applicable codes and regulations.
- Use insulated tools to install the device. A fuse, thermal cut-off or single-pole circuit breaker should be fitted on the supply line and not on the neutral line.
- The meter is intended to be installed in a Mechanical Environment 'M1', with Shock and Vibrations of low significance and Electromagnetic Environment 'E2', as per 2014/32/EC Directive. The meter is intended for indoor use. The meter shall be installed inside a suitable IP rated enclosure, in accordance with local codes and regulations.
- To prevent tampering, an enclosure with a lock or a similar device can be used.
- The meter has to be installed against a fire resistant wall.
- The meter has to be installed in a well-ventilated and dry place.
- The meter has to be installed in a protective box if the meter is exposed to dust or other contaminants.
- The meter can be installed and used after being tested and can be sealed afterwards.
- The meter should be installed on a location where the meter can be read easily.
- In case the meter is installed in an area with frequent surges for example due to thunderstorms, welding machines, inverters etc., the meter is required to be protected with a Surge Protection Device.
- The device should be sealed immediately after installing it in order to prevent tampering.
- The device should be installed with a torque screw driver.

This user manual does not contain every applicable safety regulation for using this meter. Also it might be required because of company, local government regulations or (inter)national laws to take additional measures. We have checked the contents of this manual and every effort has been made to ensure that the descriptions are as accurate as possible. However, deviations from the description cannot be completely ruled out, so that no liability can be accepted for any errors or omissions in the information given. Versions might be different in default programming based on the customers order.

inepro® Metering



PRO380-Compact/V/DIN

PRO380-Compact/V/DIN

User manual

Version 1.20

Specifications

Casing:	PC flame resistant plastic
Flammability rate:	UL-94 V0
Voltage:	230/400V AC
Insulation capabilities:	
-AC voltage withstand	4kV for 1 minute
-Impulse voltage withstand	6kV - 1.2/50µs
Nominal current (Inom):	5A
Maximum rated current (Imax):	45A (cable thickness 6mm ²) 25A (cable thickness 2.5mm ²)
Frequency:	50Hz or 60Hz
LED:	10.000 pulses/kWh
Internal power consumption:	≤2W/10VA per Phase
Operating temperature:	-40°C ... +70°C
LCD scroll time:	10s
Backlight:	ON
Calculation method:	(forward + reverse)
Active energy accuracy class:	B
Reactive energy accuracy class:	2

The meter shall not be used with 2 phases loaded with import energy while 1 phase is loaded with export energy

LCD scrolling pages

1. Total active energy (kWh)
2. T1 active energy (kWh T1)
3. T2 active energy (kWh T2)
4. T3 active energy (kWh T3)
5. CRC (0607E329)



Tariff

The PRO380-COMPACT supports 3 tariff settings.
To change the tariff, apply 12V to UART ports 1 and 2.

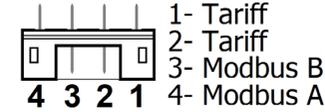
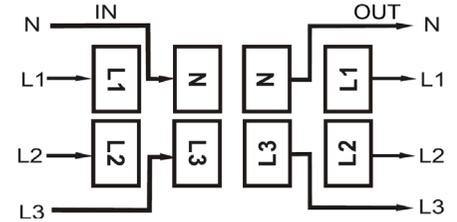
Tariff	1	2
T1	-	-
T2	N	12V
T3	12V	N

Errors

ERR 80	EEPROM cannot initialize
ERR 0d	Energy data check error.Difference in value of energy (integer kWh) between LCD (main storage in EEPROM) and backup part of EEPROM Hardware related problem.
ERR 1d	Energy data check error.Difference in value of energy (integer and decimal kWh) between LCD (main storage in EEPROM) and backup part of EEPROM Can be hardware or software problem.
ERR 0F	Cannot read data from the EEPROM
ERR 0C	Energy data check error.Difference in value of energy (integer kWh) between LCD (main storage in EEPROM) and backup part of EEPROM Software related problem.

Connection diagram (3 phase/4wire)

L1 (IN) Phase 1 input - L1 (OUT) Phase 1 output
L2 (IN) Phase 2 input - L2 (OUT) Phase 2 output
L3 (IN) Phase 3 input - L3 (OUT) Phase 3 output
N (IN) Neutral input - N (OUT) Neutral output
1 & 2 Modbus communication contact
3 & 4 External tariff input



RS485 communication specifications

Bus type:
Protocol:
Baud rate:

RS485
Modbus RTU with 16 bit CRC
300, 600, 1200, 2400, 4800 and 9600 (default)
1 (default) ... 247 user settable
Even (default), none and odd

Address range:
Modbus parity:

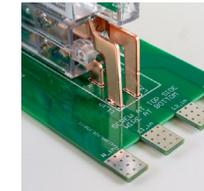
Mounting versions

PRO380-COMPACT

The standard, fully enclosed version, designed with robust protection characteristics for ease of use in versatile standalone installations.

PRO380-COMPACT-PCB-V

A variant that makes direct mounting on PCB's and other setups possible. The "V" stands for "Vertical", indicating the meter's vertical mounting orientation when installed.



PRO380-COMPACT-DIN

A DIN-rail mountable version, perfect for industrial or commercial electrical panels requiring quick and secure DIN-rail installation.

Modbus register file, Certificates & Declarations

Scan QR code to open the modbus register file, certificates and more documents for the PRO380-Compact meter.

