

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.



PRO380-Compact

User manual Version 1.12

Specifications

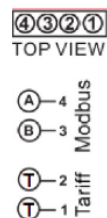
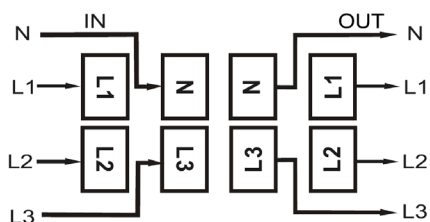
Voltage:	230/400V AC (EU) or 240/415V AC (USA) or 120/208V AC (USA)
Current:	5/45A (EU) or 5/40A (USA)
Frequency:	50Hz (EU) 60Hz (USA)
LED:	10.000 pulses/kWh
S0:	1.000 pulses/kWh
Accuracy class:	B
Operating temperature:	-40°C - +70°C
LCD scroll time:	10s
Backlight:	ON
Calculation method:	(forward + reverse)

RS485 communication specifications

Bus type:	RS485
Protocol:	Modbus RTU with 16 bit CRC
Baud rate:	300, 600, 1200, 2400, 4800 and 9600 (default)
Address range:	1 (default)-247 user settable
Modbus parity:	Even (default), none and odd

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 External tariff input
 3 & 4 Modbus communication contact



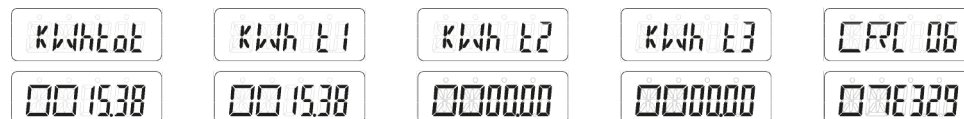
*1 phase 2 wire connection also possible

Wiring 20A application: 2,5mm² stranded wire with Klauke 6304 insulated solderless terminals

Wiring 32A application: 6mm² stranded wire with Klauke 6504 insulated solderless terminals

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)



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

Certificates

