

DEFAULT PASSWORD AND DISPLAY VALUES

Default password to enter „Pro-3“ menu: 0000

Display values:

By pressing the keys, the meter changes from the automatic scrolling display to the manual display. Here, by pressing the buttons, all available display values can be displayed via a main menu and a submenu. If no key is pressed for 30 seconds, the meter returns to automatic mode.

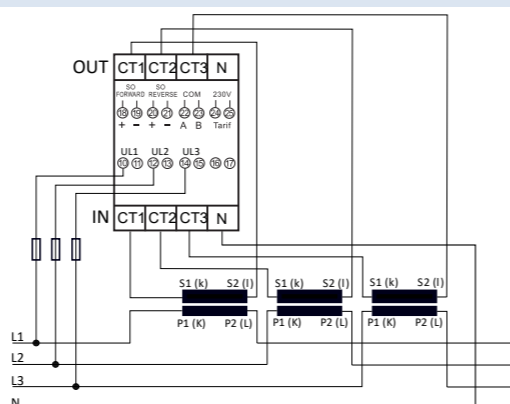
A table with all display values can be found on the back of this sheet.

Values which are display in automatic mode:

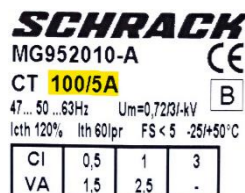
Current direction "F" = forward ; "r" = reverse	1r 2F 3F
Total forward active energy	88888888 Σ I kW h
Total reverse active energy	88888888 REV Σ 2 kW h
Total active power	88888888 Σ 0 kW

WIRING DIAGRAM

- CT1 (IN) Terminal k (S1) - CT1 (OUT) Terminal I (S2)
- CT2 (IN) Terminal k (S1) - CT2 (OUT) Terminal I (S2)
- CT3 (IN) Terminal k (S1) - CT3 (OUT) Terminal I (S2)
- Terminal „N“ Neutral conductor
- Terminal 10/11 Voltage Phase 1
- Terminal 12/13 Voltage Phase 2
- Terminal 14/15 Voltage Phase 3
- Terminal 16/17 not used
- Terminal 18/19 SO output „forward“ (18 +)
- Terminal 20/21 SO output „reverse“ (20 +)
- Terminal 22/23 for M-Bus or Modbus interface
- Terminal 24/25 external tariff (230V AC)



INFORMATION ABOUT CT SETTINGS



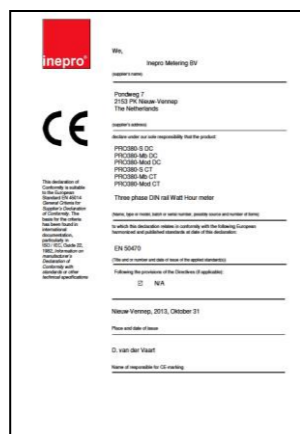
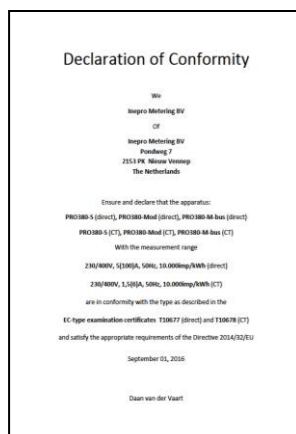
Example:
Primary current = 100A
Secondary current = 5A
Set the ratio as it is given!



CT	Secondary cur.	Primary cur.
CT	5	0100

If the counter is connected to power for the first time, the display alternately shows the message "Set CT" and "CT5 0005". If any key is pressed, the display stops on the page "CT5 0005" and the first digit from the left flashes. This number is the value for the secondary current, here you can select between /1A or /5A and then confirm it by pressing both keys at the same time for 3 seconds. Then select the primary current by selecting all 4 digits from left to right. Select each digit and confirm each digit by holding both buttons at the same time. When the last digit is confirmed, the transformer ratio is fixed and cannot be changed, and the meter begins to measure.

CERTIFICATES AND DECLARATION OF CONFORMITY



Documents are available upon request.

CONTACT

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Short user manual

Order number: MGX20006
PRO380 S CT

Order number: MGX20406
PRO380 Modbus CT

Order number: MGX20306
PRO380 M-Bus CT

Electronic 3-Phase energy meter for DIN rail with MID conformity

042023V1.00



The ct ratio is settable only once!

SAFETY INFORMATION

This instruction does not contain all the safety instructions applicable to the operation of the meter. It may be necessary to take further measures due to special operating conditions, local regulations or ordinances.

QUALIFIED PERSONNEL

The energy meter may only be installed and connected by qualified personnel. Qualified are those who are authorized to commission, switch on, ground and mark devices, systems and circuits in accordance with safety standards and regulations.

IMPORTANT INFORMATION

The housing of the energy meter is sealed and prohibited to open. Opening the energy meter or breaking the seals voids the warranty.

INFORMATION REGARDING THE MECHANICAL AND EMV-ENVIRONMENT

The meter can be installed...

- ...indoor or outdoor in a meter housing.
- ...in an environment with low shock and vibration influences according to the 2014/32/EC directive mechanical environment "M1.
- ...in electromagnetic environment "E2" according to 2014/32 / EC directive.

TECHNICAL INFORMATION

Voltage:	230/ 400V AC
Current:	0,015 – 1,5(6) A
Frequency:	50Hz
Measurement:	Active and Reactive energy in forward and reverse direction
Accuracy:	B
Consumption:	<10VA - <2W
Width:	4TE (70mm)
LED output:	10.000 Imp/kWh, 2,5ms
SO output:	10.000 Imp/kWh, 30ms <i>Adjustable via touch keys</i>

Work temperature:	-25°C to +70°C
Air humidity:	75% in middle, briefly 95%
Registered harmonic:	0,05 – 0,25kHz
LED:	red blinking: consumption > 4W output rate = consumption
Display:	5+3 Digits (99999,111 kWh)
Wire diameter	
Main terminals:	max. 10mm ² min. 2,5mm ²
Additional terminals:	max. 2,5mm ²

MID-MARKING AND CHECKSUM

Meter with MID declaration of conformity can be used for billing purpose.

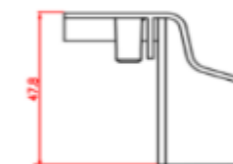
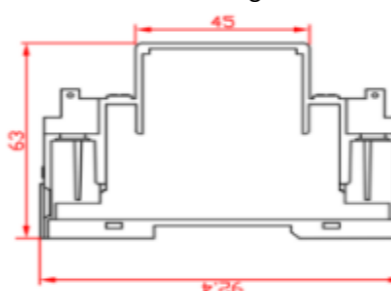
Marking example for MID declaration:



Checksum is as following:

HOUSING DIMENSIONS

Width: 70 mm	Height without cover: 92,4 mm
Depth: 63 mm	Height with cover: 140 mm



DISPOSAL

The responsibility belongs to the manufacturer:
Inepro Metering BV
Pondweg 7
2153 PK Nieuw Vennep
The Netherlands



Automatic scrolling display: default 10 seconds

Current direction 1F 2F 3r	Total FW active energy 123456.78 Σ 1 kW h	Total RV active energy 123456.78 REV Σ 2 kW h	Total active power 00045.00 Σ 0 kW	① MGX20300 & MGX20400
				② MGX20400

Button scroll: press the buttons for less than 3 seconds to scroll. After 30 seconds of in no interaction the meter goes back to automatic scroll mode.

MAIN MENU ↓

Current direction
 1F 2F 3r

Total active energy
 123456.78
 Σ 0 kW h

Total reactive energy
 123456.78
 Σ 0 k varh

Total active power
 123456.78
 Σ 0 kW

Resettable kWh
 123456.70
 kW h

Program mode 1 (Read only)
 Pro - 1

Program mode 2 (Write)
 Pro - 2

Program mode 3 (Write: Password protected)
 Pro - 3

SUBMENU ↓

Current direction 1F 2F 3r	active status word 5 11 111	Serial number 17100247	Software version 1 Soft	Software version 2 00000000
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Total active energy 123456.78 Σ 0 kW h	T1 active energy 123456.78 Σ T1 kW h	T2 active energy 123456.78 Σ T2 kW h	Total FW active energy 123456.78 Σ 1 kW h	T1 FW active energy 123456.78 T1 kW h	T2 FW active energy 123456.78 T2 kW h
Total RV active energy 123456.78 REV Σ 2 kW h	T1 RV active energy 123456.78 REV T1 kW h	T2 RV active energy 123456.78 REV T2 kW h	L1 total active energy 123456.78 Σ L1 kW h	L1 FW active energy 123456.78 L1 kW h	L1 RV active energy 123456.78 REV L1 kW h
L2 total active energy 123456.78 Σ L2 kW h	L2 FW active energy 123456.78 L2 kW h	L2 RV active energy 123456.78 REV L2 kW h	L3 total active energy 123456.78 Σ L3 kW h	L3 FW active energy 123456.78 L3 kW h	L3 RV active energy 123456.78 REV L3 kW h

Total reactive 123456.78 Σ 0 k varh	T1 reactive energy 123456.78 Σ T1 k varh	T2 reactive energy 123456.78 Σ T2 k varh	Total FW reactive 123456.78 Σ 1 k varh	T1 FW reactive energy 123456.78 T1 k varh	T2 FW reactive energy 123456.78 T2 k varh
Total RV reactive 123456.78 REV Σ 2 k varh	T1 RV reactive energy 123456.78 REV T1 k varh	T2 RV reactive energy 123456.78 REV T2 k varh	L1 total reactive 123456.78 Σ L1 k varh	L1 FW reactive energy 123456.78 L1 k varh	L1 RV reactive energy 123456.78 REV L1 k varh
L2 total reactive 123456.78 Σ L2 k varh	L2 FW reactive energy 123456.78 L2 k varh	L2 RV reactive energy 123456.78 REV L2 k varh	L3 total reactive 123456.78 Σ L3 k varh	L3 FW reactive energy 123456.78 L3 k varh	L3 RV reactive energy 123456.78 REV L3 k varh

Total active power 123456.78 Σ 0 kW	L1 active power 123456.78 L1 kW	L2 active power 123456.78 L2 kW	L3 active power 123456.78 L3 kW	Total apparent power 123456.78 Σ 0 kVA	L1 apparent power 123456.78 L1 kVA
L2 apparent power 123456.78 L2 kVA	L3 apparent power 123456.78 L3 kVA	Total COS 1 L 01.00 Σ 0 COSφ	L1 COS 1 L 01.00 L1 COSφ	L2 COS 1 L 01.00 L2 COSφ	L3 COS 1 L 01.00 L3 COSφ
Grid frequency 50.00 Hz	Total reactive power 00001.000 Σ 0 k var	L1 reactive 00001.000 L1 k var	L2 reactive 00001.000 L2 k var	L3 reactive 00001.000 L3 k var	L1 Voltage 230.0 L1 V
L2 Voltage 230.0 L2 V	L3 Voltage 230.0 L3 V	L1 Current 0100.00 L1 A	L2 Current 0100.00 L2 A	L3 Current 0100.00 L3 A	

Resettable kWh
 123456.70
 kW h
To reset the register, hold the right button for 5 seconds.

CT rate (CT Version only) CT5 0005	Forward S0 output S0 10000	Reverse S0 output S0 10000 REV	Combinationscode CODE 10	Modbus/Mbus ID ① addr 001	LCD cycle time rt 10
Baud rate ① bd 9600	Resettable kWh 123456.70 kW h	Backlight bl on	Parity ② PAR-EvEn	Power down counter P00-0006	

Modbus/Mbus ID ① addr 001 <small>Scroll with the buttons to select 3 digits. Confirm each digit by holding both buttons for 3 seconds.</small>	LCD cycle time rt 10 <small>Scroll with the buttons to select 1-30. Hold both buttons for 3 seconds to confirm.</small>	Backlight bl on <small>Scroll with the buttons to select on/off/button. Hold both buttons for 3 seconds to confirm.</small>
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Forward S0 output S0 10000	Reverse S0 output S0 10000 REV	Combination code Code 10	Baudrate ① bd 9600	Parity ② PAR-EvEn
<small>Scroll with the buttons to select: 10.000/2.000/1.000/ 100/10/1/0.1/0.01</small>	<small>Scroll with the buttons to select: 10.000/2.000/1.000/ 100/10/1/0.1/0.01</small>	<small>Scroll with the buttons to select: 01(F)/04(R)/05(F+R)/ 06(R-F)/09(F-R)/ 10(F-R)/11(F-R) CAN ONLY SET ONCE! Hold both buttons for 3 seconds to confirm.</small>	<small>Scroll with the buttons to select: 300/600/1200/4800/ 9600</small>	<small>Scroll with the buttons to select: even / none / odd</small>
<small>Hold both buttons for 3 seconds to confirm.</small>	<small>Hold both buttons for 3 seconds to confirm.</small>	<small>Hold both buttons for 3 seconds to confirm.</small>	<small>Hold both buttons for 3 seconds to confirm.</small>	<small>Hold both buttons for 3 seconds to confirm.</small>
Power down counter P00-0006	Program password PAS_0000 <small>Select the new 4 digit password by choosing each digit (0-9). Default: 0000</small>			
<small>Hold both buttons for 3 seconds to reset.</small>	<small>Hold both buttons for 3 seconds to confirm.</small>			

enter submenu:
right arrow key

hold 3 sec

submenu

Display shows:
⇄

Or

back to main menu:
left arrow key

hold 3 sec

main menu

Display shows:
⇄

Or

remove:

OT in

Or

remove:

OT out

enter program mode:
right arrow key

hold > 5 sec