Manuals+ — User Manuals Simplified.

Fronius Smart Meter IP User Guide

Contents

Fronius Smart Meter IP

Product Information

The Fronius Smart Meter IP is a radio equipment type device that is compliant with Directive 2014/53/EU. It is manufactured by Fronius International GmbH. The product allows for communication through WLAN and LAN, and operates at a frequency band of 2.4 GHz. It has an IP20/IP30 rating for housing and connections and has a footprint of 3 TE (3 Modules DIN 43880). The Smart Meter has LEDs to indicate connection status and a boot process. It is compatible with Fronius GEN24, Tauro, Datamanager 2.0 (SnapInverter), and Symo Hybrid.

Technical Data

- **Permitted ambient temperature:** 100 – 240 V
- **Nominal frequency:** 208 – 480 V
- **Voltage phase/neutral:** max. 5 W
- **Voltage phase/phase:** 5 kA
- **Self-consumption:** IP20/IP30
- **Primary current:** 3 TE (3 Modules DIN 43880)

Product Usage Instructions

1. **Mounting:** Install the Fronius Smart Meter IP in the desired location.
2. **Power wiring:** Connect the appropriate voltage phase/neutral and voltage phase/phase to the Smart Meter.
3. **Data wiring:**
    - For LAN (GEN24 & Tauro), connect the LAN cable to the Smart Meter.
    - For WLAN (GEN24 & Tauro), connect to the access point using the provided SSID and password.
    - For Modbus RTU (SnapInverter, GEN24 & Tauro), connect the Modbus RTU cable to the Smart Meter.
4. **Load/Source:** Depending on your setup, connect the load/source wires to the appropriate terminals on the Smart Meter.
5. **CT (Current Transformer) Wiring:**

- **For 1 Phase, 2 Wires – CT:** Connect CT1 to the appropriate terminals on the Smart Meter.
- **For 3 Phases, 4 Wires – CT:** Connect CT1, CT2, and CT3 to the appropriate terminals on the Smart Meter.
- **For 2 Phases, 3 Wires – CT:** Connect CT1 and CT2 to the appropriate terminals on the Smart Meter.

6. **Modbus RTU BIAS:** Set the Modbus RTU BIAS to ON or OFF depending on your requirements.
7. **Battery:** Set the Battery switch to ON or OFF depending on your setup.
8. **Modbus RTU Terminating Resistor:** Set the Modbus RTU Terminating Resistor to ON or OFF depending on your requirements.
9. **Outside Setup:**
   - Using a mobile phone, scan the QR-Code on the Smart Meter.
   - Follow the instructions provided.
   - The initial password for UI is 123.
10. **Inside Setup:**
   - On a PC, connect to the access point using the provided SN and PW.
   - The SSID is FroniusMeter_xxxxx (xxx = Seriennummer) and the password can be found on the Smart Meter.

Fronius International GmbH declares that the radio equipment type Fronius Smart Meter IP is in compliance with Directive 2014/53/EU. The full text of the EU declaration of conformity is available at the following internet address: **www.fronius.com**.

Technical Data

Technical Data	
Permitted ambient temperature	from -25° to +55°C
Nominal frequency	50- 60 Hz
Voltage phase / neutral	100 – 240 V
Voltage phase / phase	208 – 480 V
Self-consumption	max. 5 W
Primary current	5 kA
IP range	IP20 / IP30 (Housing / Connections)
Footprint	3 TE (3 Modules DIN 43880)

Communication

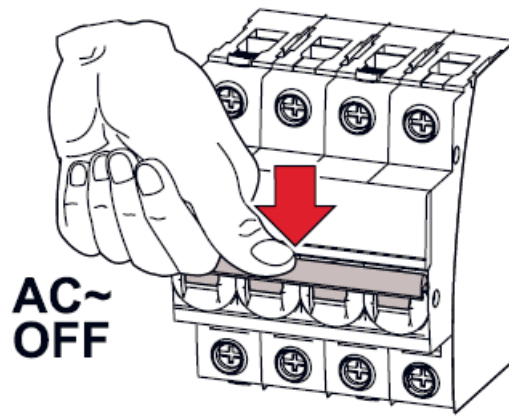| Communication	
WLAN / LAN	Modbus TCP
WLAN frequency band	2,4 GHz
RS 485	Modbus RTU
Terminating resistor for RS 485	Configurable 0-1
BIAS Network for RS 485	Configurable 0-1
Multimetering	Yes – up to 2 Smart meters (RTU) Modbusinterface
Addressing (Modbus RTU)	In UI
Update possibility	Yes
CTs can be sourced by Fronius	100 A, 250 A, 400 A

LEDs
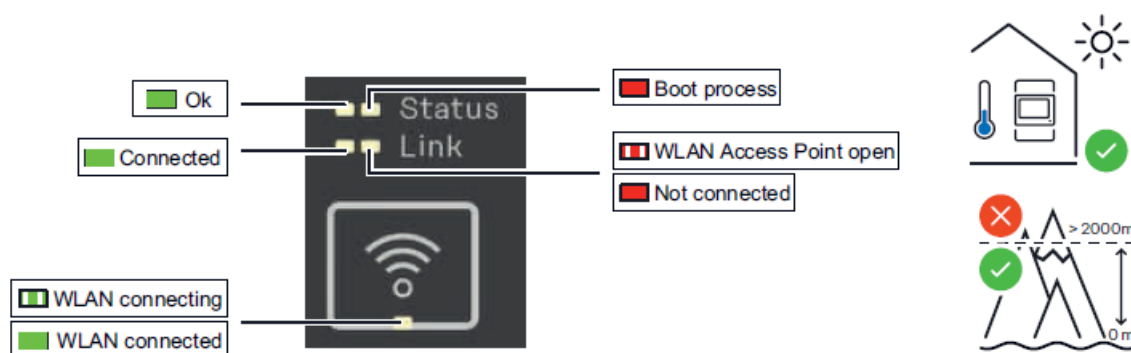
Software-Version:

- Fronius GEN24 & Tauro
- Full Compatibility (Version ≥ 1.24.1)
- Fronius Datamanager 2.0 (SnapInverter)
- Modbus RTU (Version ≥ 3.25.1)
- Fronius Symo Hybrid
- Modbus RTU (Version ≥ 1.25.1)

AC~
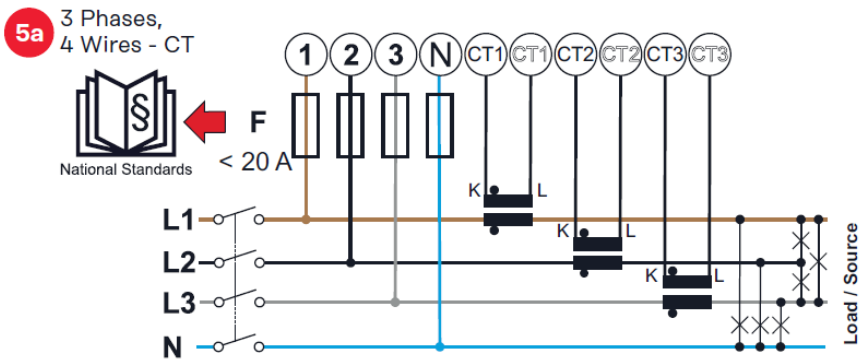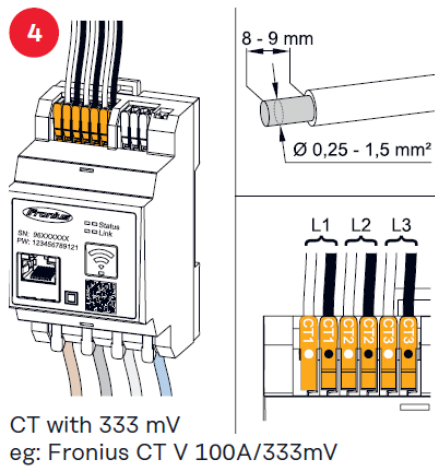
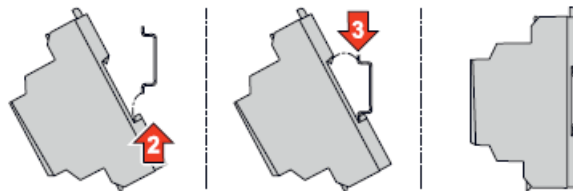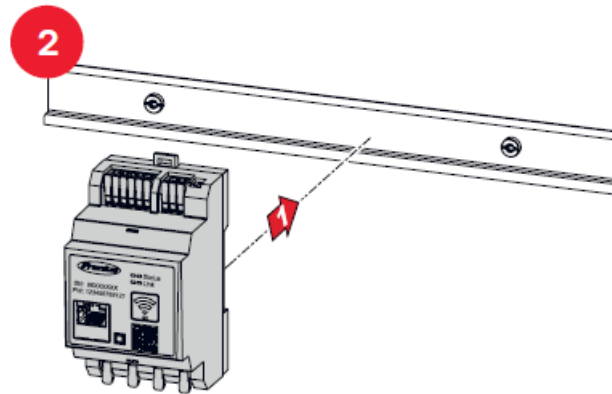**AC~ OFF**
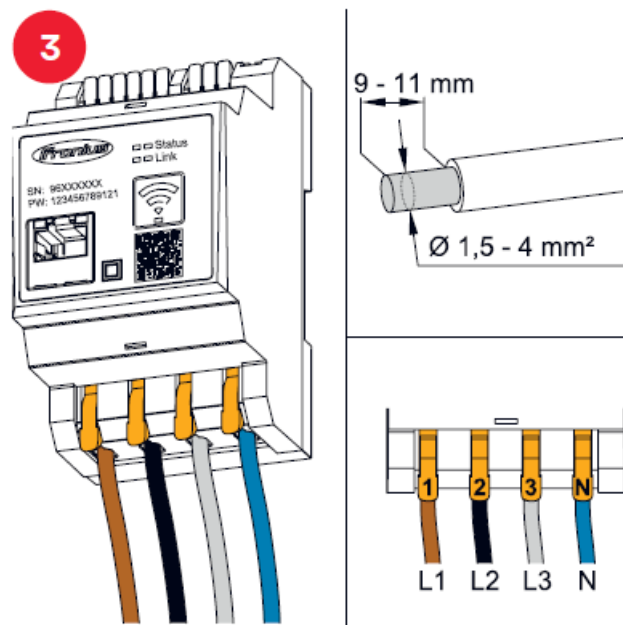
Mounting

Power wiring

9 - 11 mm

Ø 1,5 - 4 mm²

1	2	3	N
L1	L2	L3	N

4

8 - 9 mm

Ø 0,25 - 1,5 mm²

L1 L2 L3

CT with 333 mV
eg: Fronius CT V 100A/333mV

5a 3 Phases, 4 Wires - CT

① ② ③ N CT1 CT1 CT2 CT2 CT3 CT3

National Standards

F
< 20 A

L1
L2
L3
N

K L

Load / Source

5b 1 Phase, 2 Wires - CT

① N CT1 CT1

National Standards

F
< 20 A

L1

N

K L

Load / Source

5c 2 Phases, 3 Wires - CT

① ② N CT1 CT1 CT2 CT2

National Standards

F
< 20 A

L1
L2
N

K L

Load / Source

Data wiring

6a LAN (GEN24 & Tauro)

Static IP recommended

SN: 96XXXXXX
PW: 123456789121

Status
Link
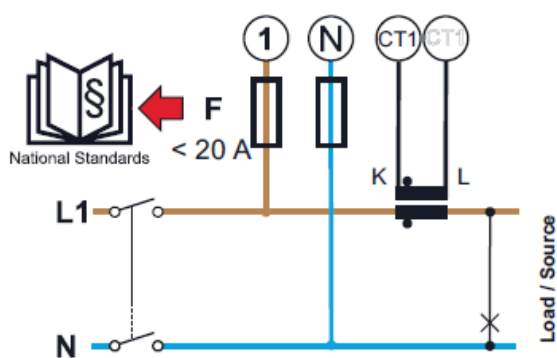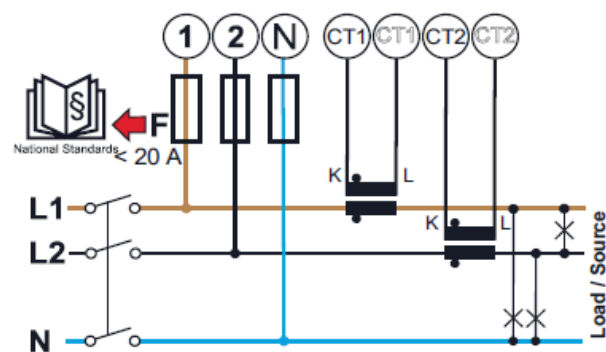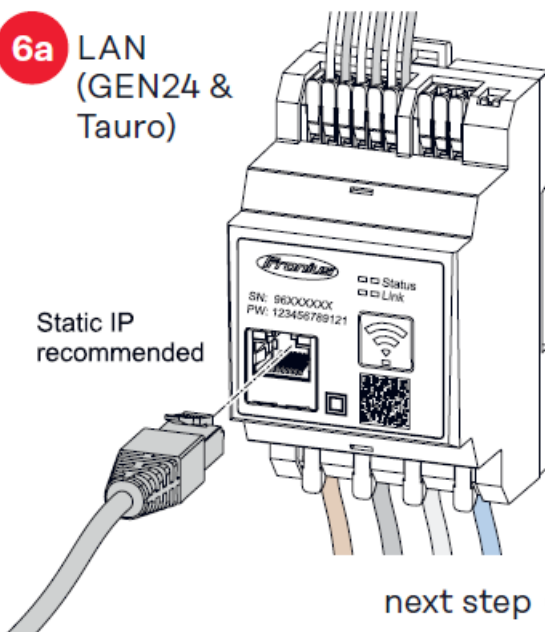
next step **9**

WLAN
6b (GEN24 & Tauro)

Static IP recommended

Check signal strength

Technical Data (WLAN)
Frequency band: channel 1-14 (2412-2472 MHz)
Radio-frequency power: <100 mW (<20 dBm)

next step **9**

Modbus RTU
6c (SnapInverter, GEN24 & Tauro)

CU Wire (min CAT 5)

8 - 9 mm

Ø 0,25 - 1,5 mm²

SnapInverter		
	Smart Meter	Modbus
▨	M+	D+
▨	M-	D-
▨	GND	-

GEN24		
	Smart Meter	Modbus
▨	M+	M0+
▨	M-	M0-
▨	GND	GND

Modbus TCP
Port: 502

Modbus RTU BIAS

7

Battery ✓

Term | Bias
ON
OFF

1 = ON ✓
0 = OFF

Battery ✗

Term | Bias
ON
OFF

1 = ON
0 = OFF ✓

Modbus RTU Terminating Resistor

8a

Term | Bias
ON
OFF

8b

Manufacturer manual ↑ ✓
e. g. Ohmpilot, Battery

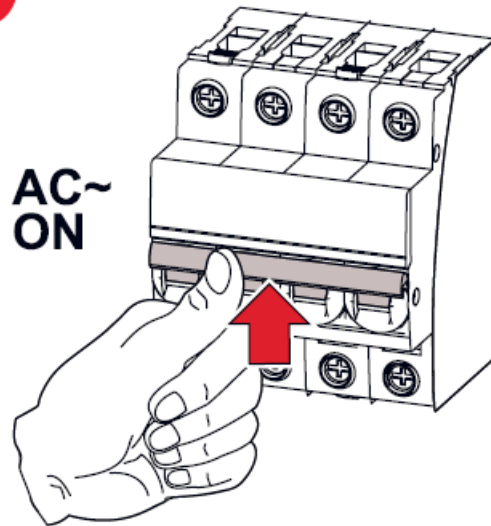Manufacturer manual ↑ ✗
Inverter

Term | Bias
ON
OFF
1 = ON ✓
0 = OFF
↑ ✓
Smart Meter
0019

max. 300 m

Outside — Inside — Outside

AC~

9 AC~ ON

Setup

Mobile phone

10a Mobile phone

Scan QR-Code

Follow instructions
Initial password for UI: **123**

1   2

press 2 sec
open access point

10b PC

Connect to access point

SSID = *FroniusMeter_xxxxx*
(xxx = Seriennummer)
Passwort = *see Smart Meter (PW)*

Open
IP WLAN:
192.168.250.181

Follow instructions
Initial password for UI: **123**

SN: 96XXXXXX
PW: 123456789121

press 2 sec
open access point

FroniusMeter_xxxxx

1   2   192.168.250.181   3
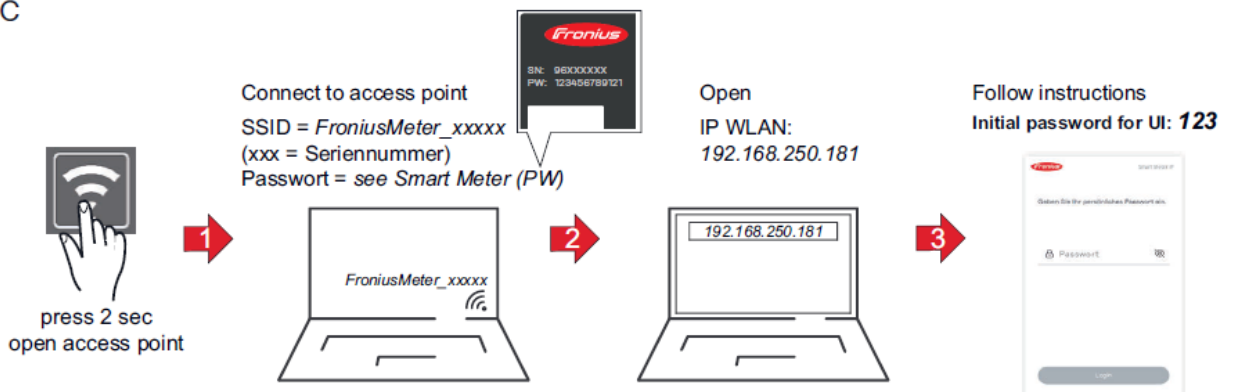
Warranty

Detailed, country-specific warranty terms are available on: **www.fronius.com/solar/warranty**.

Documents / Resources

Fronius Smart Meter IP [pdf] User Guide
MAXSEL, 3400200421, Smart Meter IP, Smart IP, Meter IP, IP

References

- ![icon] **Download Search - Fronius**
- ![icon] **Fronius International**
- ![icon] **Our warranty models for your Fronius products**