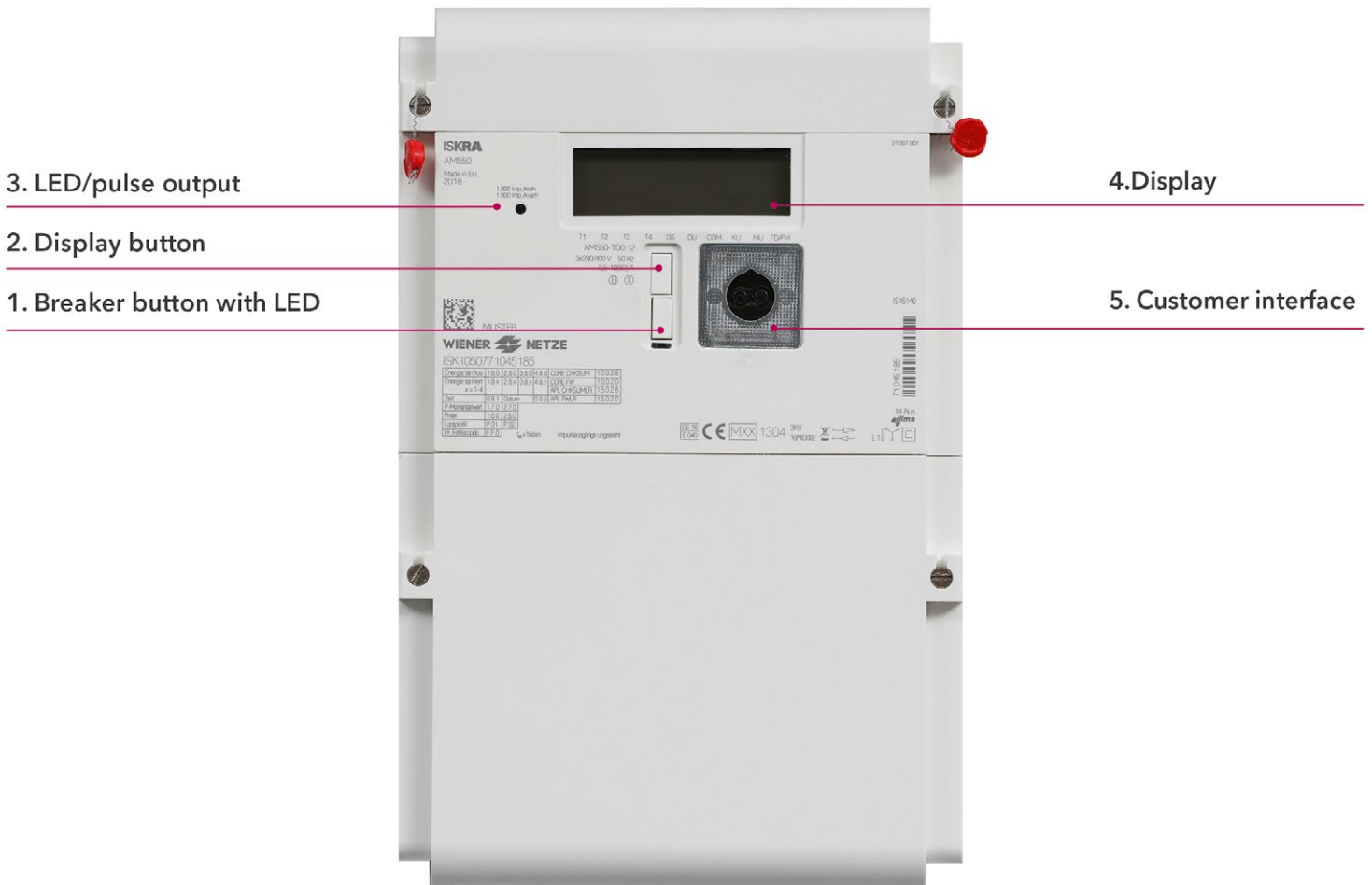# Smart Meter User Manual

ISKRAEMECO **Three-Phase Meter** (AM550-TD0)
and **Single-Phase Meter** (AM550-ED0)

The future is here: Your new electronic electricity meter from Wiener Netze has arrived.
The smart meter helps save electricity and opens the door to a range of helpful applications.
Below is an overview of the most important functions of your electricity meter.

Your smart meter:

3. LED/pulse output

2. Display button

1. Breaker button with LED

4. Display

5. Customer interface

Elements and functions of your smart meter:

1. Breaker button with LED
The breaker button turns on your electricity meter.
There is a light emitting diode (LED) under this button, which indicates the status of the electricity meter.

Is your electricity meter ready for use but not yet switched on? This is how you switch on the electricity meter:

1. Check that the electricity meter is connected to the mains: The breaker LED (1) must be flashing.
2. When "ConnEct" appears on the display, the device is ready to be switched on.
3. Press and hold the breaker button (1) for at least 5 seconds.
   Release the button when "EntEr" appears on the display. Your electricity meter is now active.

Status	Display	Symbol
Offline	LED illuminated	
Online	LED not illuminated	
Ready to connect	LED flashes	

2. Display button
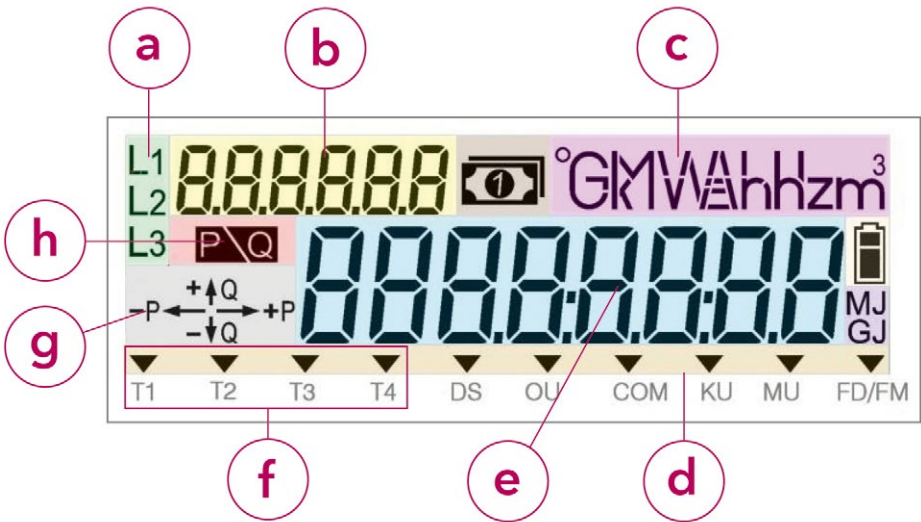The display button can be used to scroll between different display views.

3. LED /pulse output
The light emitting diodes (LED) indicate the current status of the electricity meter.
– LED: flashing = power consumption
– LED: illuminated = no power consumption

4. Display
The demonstration display below shows all symbols:

a) Phases
b) OBIS-Code
c) Units of measurement
d) Multifunction triangles
e) Display screen
 f) Tariff
g) Energy direction
h) Meter below start-up limit

a) Phases
Here you can see which phases (current-carrying lines) of the electricity grid are live.

b) OBIS-Code
The OBIS code is an internationally standardised identifier on the energy market.
An example: Code 1.8.0 stands for "Positive active energy (A+) total in kilowatt hours (kWh)".

c) Units of measurement
This field displays the physical unit, e.g. kilowatt hours (kWh).

d) Multifunction triangles
The illuminated multifunction triangles show the current electricity meter mode. From the left:

– DS: "Displaysperre" (display lock) is activated.
– OU: The electricity meter is in opt-out mode.
– COM: The electricity meter is communicating with the grid operator.
– KU: Rreserved for later applications.
– MU: The multi-utility interface (for gas or electricity meters) is activated.
– FD/FM: This symbol is used for analysis by the network operator.

e) Display-screen
Standard view (scrolling display)

The standard view (scrolling display) switches between the following values every five seconds
– OBIS code 1.7.0: Instantaneous power in kilowatts (kW)
– OBIS code 1.8.0: Positive active energy (A+) in kilowatt hours (kWh) (The value for 1.8.0
                refers to the meter reading as it was read on your old Ferraris meter.)
– OBIS code F.F.0: Fatal error meter status
– OBIS code 2.8.0: Negative active energy total (A-) in kilowatt hours (kWh) only for
                production systems (e.g. photovoltaic installations).

Billing view
If you would like to see other billing-relevant values on your electricity meter, you have to activate this function on Wiener Netze's Smart Meter web portal or Smart Meter business portal. Select the desired meter under the "Anlagendaten" (System data) section then click on the "Abrechnung" (Billing) option under the "Zähler-Displayanzeige" (Display) item.
Only then will your electricity meter display the required OBIS codes in the register.

The electricity meter displays the following values (depending on the tariff):
– OBIS code 1.6.0: Positive active maximum demand (A+) total in kilowatts (kW)
– OBIS code 1.8.1: Positive active energy (A+) in tariff T1 in kilowatt hours (kWh)
– OBIS code 1.8.2: Positive active energy (A+) in tariff T2 in kilowatt hours (kWh)
– OBIS code 2.6.0: Negative active maximum demand (A-) total in kilowatts (kW)
– OBIS code 2.8.1: Negative active energy (A+) in tariff T1 in kilowatt hours (kWh)
– OBIS code 2.8.2: Negative active energy (A+) in tariff T2 in kilowatt hours (kWh)
– OBIS code 3.8.0: Positive reactive energy (Q+) total in kilovolt-ampere reactive hours (kVArh)
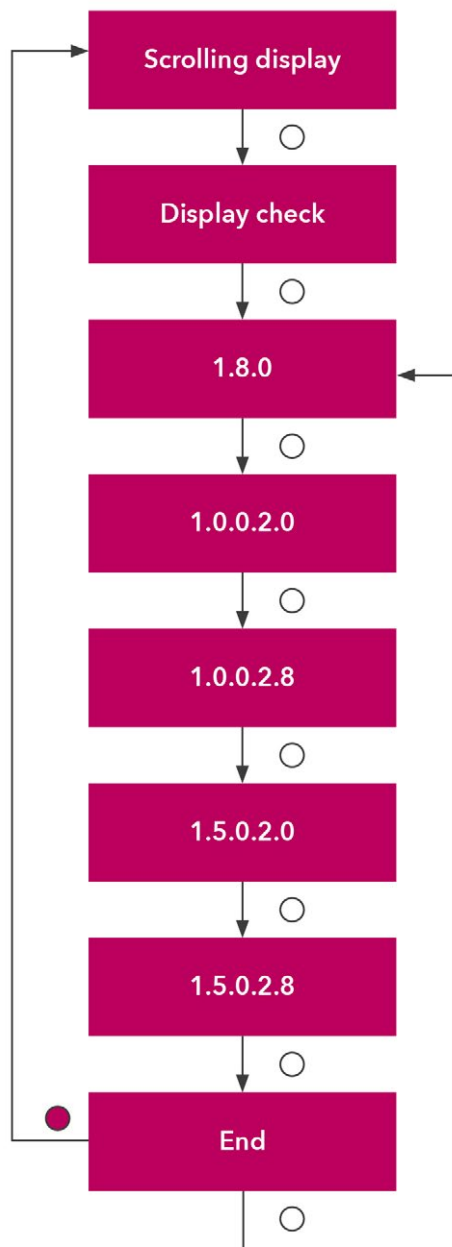
Opt-out view
The opt-out view (scrolling display) switches between the following values every five seconds:
– OBIS code 1.7.0: Instantaneous power in kilowatts (kW)
– OBIS code 1.8.0: Positive active energy (A+) in kilowatt hours (kWh)
– OBIS code F.F.0: Error meter status

If you have selected the opt-out option, this is shown on the display ("oPt-out").
The multifunction triangles DS and OU are also illuminated.

Scrolling display

```
Scrolling display
        ↓ ○
Display check
        ↓ ○
      1.8.0  ←
        ↓ ○
   1.0.0.2.0
        ↓ ○
   1.0.0.2.8
        ↓ ○
   1.5.0.2.0
        ↓ ○
   1.5.0.2.8
        ↓ ○
       End
        ↓ ○
```

Display when pressing the button

Pressing the display button once illuminates the display, with all elements being shown.

Pressing the button briefly (< 1 second) takes you to the next displayed values.

Each time you press the button, the next OBIS code is displayed. Pressing and holding the button (> 5 seconds) takes you to the second last level (OBIS code 1.5.0.2.8.).

– OBIS code 1.8.0: Positive active energy (A+) in kilowatt hours (kWh)
– OBIS code 1.0.0.2.0: Firmware (must be calibrated)
– OBIS code 1.0.0.2.8: Checksum (must be calibrated)
– OBIS code 1.5.0.2.0: Firmware (country-specific part that must be calibrated)
– OBIS code 1.5.0.2.8: Checksum (country-specific part that must be calibrated)

Do you want to return to the standard view or opt-out view?
The display will change back automatically after ten minutes.

f) Tarif

This symbol indicates which tariff is currently active.
This is relevant for customers with e.g a heat pump, for which there are high and low tariffs.
T1: low tariff
T2: high tariff
T3, T4: currently not in use

g) Energy direction

The energy form and the energy flow are displayed here:
+Q: Positive reactive energy (cannot be used)
–Q: Negative reactive energy (cannot be used)
+P: Positive active energy
–P: Negative active energy

h) Meter below start-up limit

Power consumption is below the start-up limit. The start-up limit is the point at which the electricity meter can detect a flow of current.

5. Customer interface

You can connect a device or system (e.g. your smart home system) to the electricity meter via the customer interface and a suitable read-out adapter. The customer interface is deactivated by default. You can activate it in the Smart Meter web portal or Smart Meter business portal as well as via Wiener Netze's customer service portal.