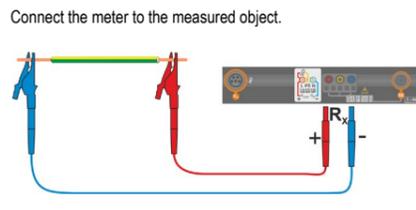


Resistance measurement



The measurement will start automatically.

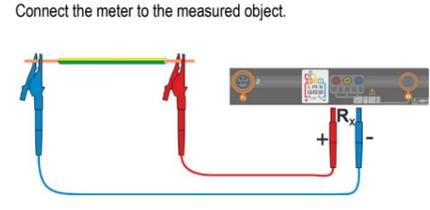


Find more information in the user manual and on our website www.sonel.pl/en

R measurement with I=±200 mA



Enter settings
• limit to evaluate the result

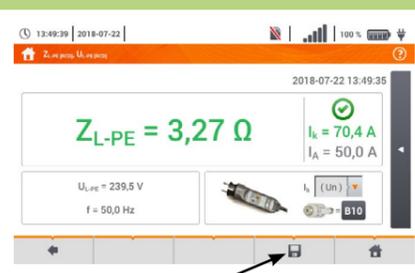


The measurement will start automatically.



Main result
Evaluation of the result
Additional results
To run new measurement press START.

Saving a result to the memory

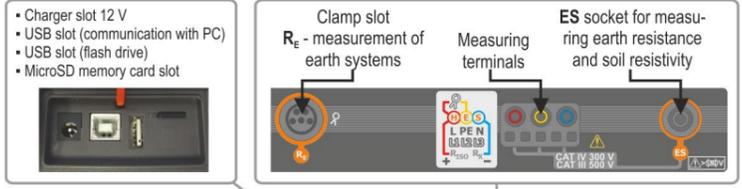


Finish the measurement and select .
Go to location you want to save the result in.



Save the result with icon .

Sonel MPI-535 Meter for Electrical Installation Parameters



- ### Function icons
- Back
 - Save
 - Show last measurement
 - Return to main menu
 - Select item
 - Show more icons
 - Add item
 - Edit item
 - Search
 - Remove item
 - Close menu

Touchscreen

Z _{L-N} L-N fault loop impedance	RCD I _A RCD tripping current	R _E Resistance-to-earth
Z _{L-PE} L-PE fault loop impedance	RCD t _A RCD tripping time	Ω _m Soil resistivity
Z _{L-PE(RCD)} L-PE fault loop impedance with RCD	RCD AUTO Automatic RCD measurements	ΔU Voltage drop
R _{ISO} Insulation resistance	R _x Resistance measurement	Lux Illuminance
	R _{CONT} Resistance measurement with I=±200 mA	
	1-2-3 Phase sequence	
	U-V-W Motor rotation direction	

Auto measurements

Proceeding auto measurements



Select an appropriate folder and measurement sequence from the list.

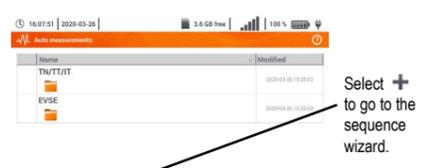


In each setting field, enter the type of measuring accessory, installation parameters and other required data.



In the end, a screen with a summary of the measurements will be displayed.

Creating measurement procedures



Select + to go to the sequence wizard.



Select + to add the desired measurement procedure.



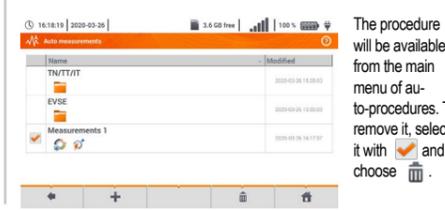
From the available items select the one, which is to be a part of the procedure. In addition to standard measurements, the following are also available:
• text message,
• visual test.



After each selection, the menu with step parameters will be shown.



Changing the order of the steps is performed by using . Delete the step by using .



Save the procedure by using . A window will be shown re-requesting the name of the procedure.



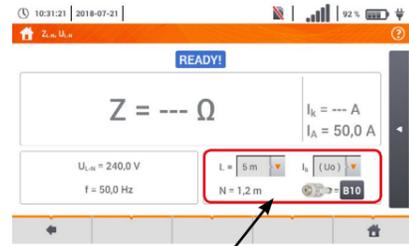
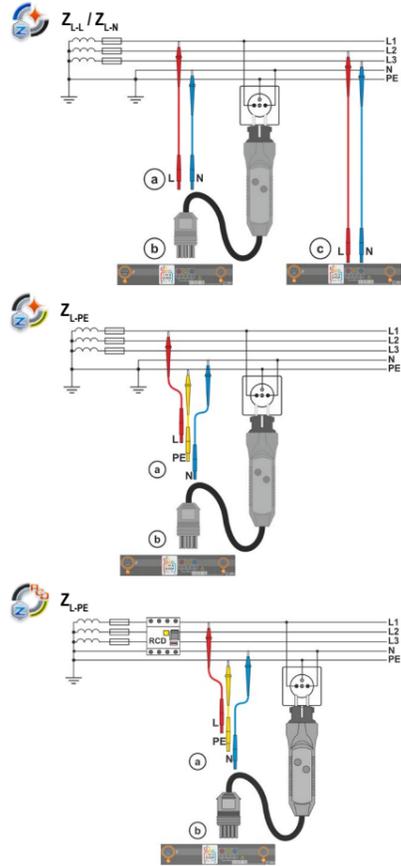
First steps

- 1 Turn on the meter
- 2 Measure
- 3 Save to the memory



Fault loop impedance

Connect the meter to the measured circuit.



Enter settings

- test leads length L
- basis of calculating I_k current
- type and rated current of the circuit breaker

Run the measurement with START button.



Main result

Evaluation of the result

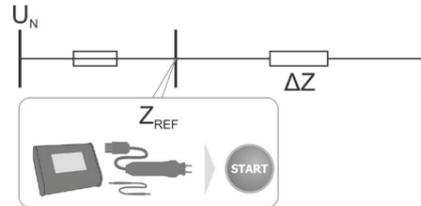
Additional results



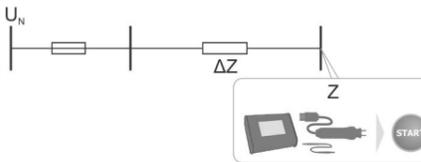
Voltage drop



- Use setting $Z_{ref} = \dots$ to reset previous measurement, if it has not been done yet.
- Enter the limit of voltage drop ΔU_{MAX} .
- Enter the fuse type, which protects the tested circuit.



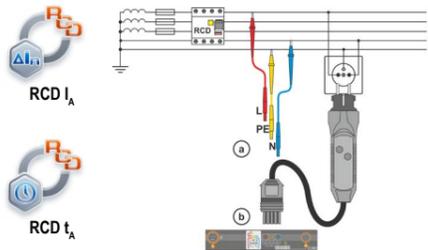
- Connect the meter to the reference point of the tested network, as for Z_{L-N} measurement.
- Press START.



- Change the setting from Z_{ref} to Z .
- Connect the meter to the reference point, as for Z_{L-N} measurement.
- Press START.

RCD test

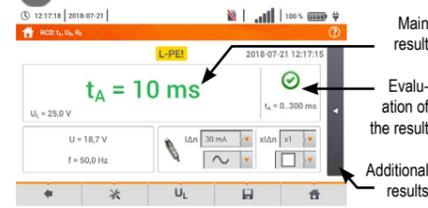
Connect the meter to the measured circuit and choose the measurement mode.



Enter settings

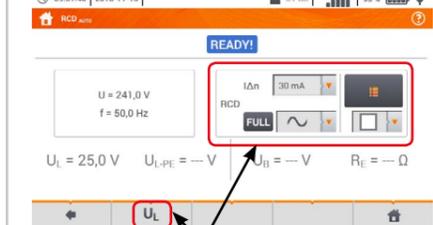
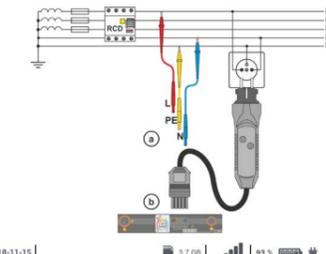
- residual operating current $I_{\Delta n}$
- forced current
- waveform of the measuring current
- type of the RCD
- measuring voltage U_i

Run the measurement with START button.



Auto measurements of RCDs

Connect the meter to the measured circuit.



Enter settings - measurement mode (full / standard) and:

- residual operating current $I_{\Delta n}$
- a multiplicity of RCD rated current
- RCD type / waveform of the measuring current
- type of the RCD
- measuring voltage U_i

Run the measurement with START button. Tested RCD switch must be turned on after each triggering, until measurements are completed.



Eventually, measured parameters are displayed. The list of results may be scrolled on the screen.

Motor rotation direction



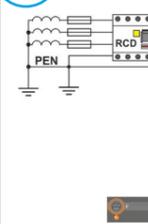
Connect the meter to the examined motor.

Vigorously rotate the motor shaft to the right.

Arrows on the screen rotating to the right mean that the motor connected to a 3-phase network will rotate the shaft to the right.

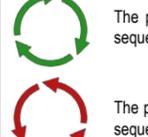
Arrows on the screen rotating to the left mean that the motor connected to a 3-phase network will rotate the shaft to the left.

Phase sequence



Connect the meter to the measured object.

The check will start automatically.

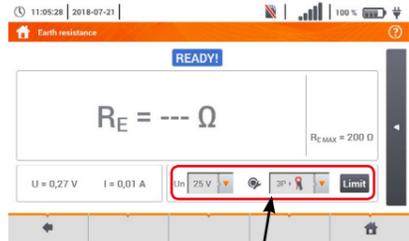
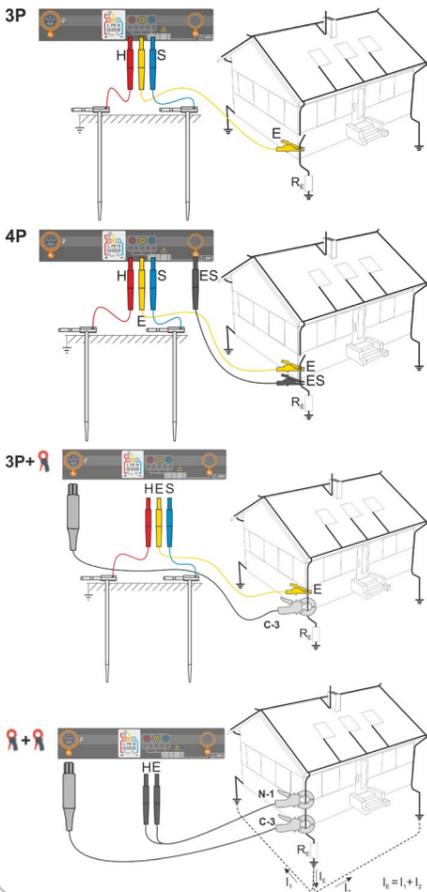


The phase sequence is correct, i.e. the phase sequence is in clockwise direction.

The phase sequence is incorrect, i.e. the phase sequence is in anticlockwise direction.

Resistance-to-earth

Choose the measurement method.



Enter settings

- measuring voltage
- measurement method
- resistance limit to evaluate the result

Run the measurement with START button.



Main result

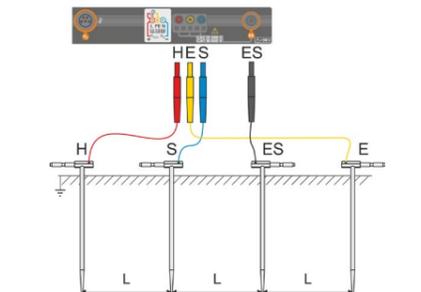
Evaluation of the result

Additional results



Soil resistivity

Connect the meter to the measured soil.



Enter settings

- measuring voltage
- L distance between electrodes
- resistivity limit to evaluate the result

Run the measurement with START button.



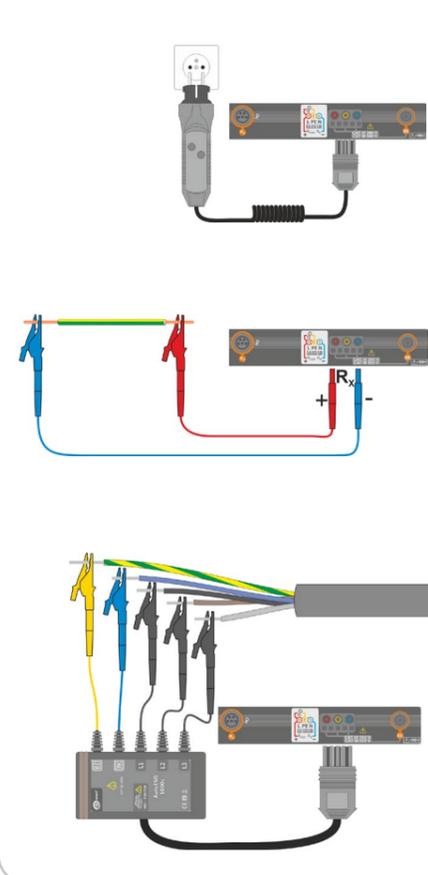
Main result

Evaluation of the result

Additional results

Insulation resistance

Choose the measurement method.



Enter settings

- measurement method
- measuring voltage
- duration of the measurement
- resistance limit to evaluate the result

Run the measurement with START button.



Main result

Evaluation of the result

Additional results

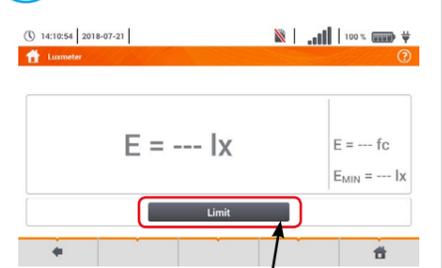


Main result

Evaluation of the result

Additional results

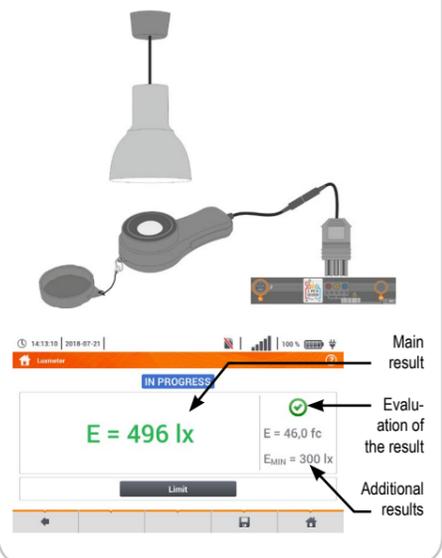
Illuminance



Enter settings

- illuminance limit to evaluate the result

Connect measuring probe to the meter.



Main result

Evaluation of the result

Additional results