



Accessories for  
Multi-function Meters of Electrical System Parameters

## Expand the range of applications



measurements



test leads



installation



communication



software



power supply



labeling



transportation

**Sonel®** we measure globally



# measurements

## PV system measurements

A test instrument is not sufficient to perform photovoltaic system measurements - accessories dedicated for this type of systems are also needed.



### PVM-1 adapter

index: WAADAPVM1

Necessary to conduct selected measurements in photovoltaic systems. Short-circuits a circuit under voltage (DC). Moreover, it protects the user from electric arc.

**Accessory dedicated for:**

MPI-540-PV

### MC4-banana sockets adapter

Connects banana jacks of the test instrument with the PV system utilizing MC4 connectors. The kit consists of 2 adapters.

Measurement category	Index
CAT III 1000 V	WAADAMC4
CAT III 1500 V	WAADA5KVMC4KPL

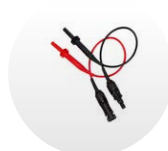
**Accessory dedicated for:**



CAT III 1000 V

MPI-540-PV

PVM-1021



CAT III 1500 V

PVM-1530

### MC4 splitter

Connects banana jacks of the test instrument with the PV system utilizing MC4 connectors. Enables power measurement. The kit consists of 2 splitters.

Maximum operating voltage	Index
1000 V DC	WAADAMC4SKPL
1500 V DC	WAADAMC4SV2KPL

**Accessory dedicated for:**



1000 V DC

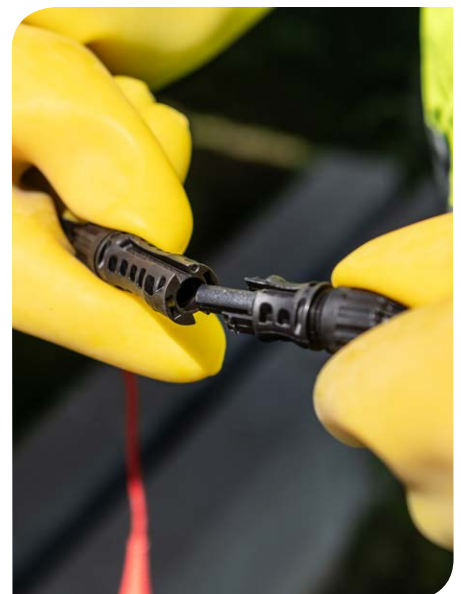
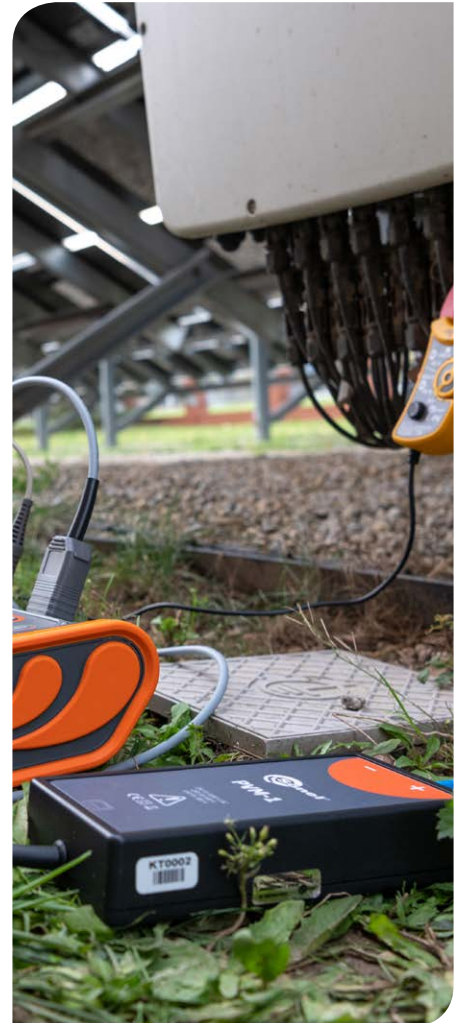
MPI-540-PV

PVM-1021



1500 V DC

PVM-1530





## Cable 2 m with MC4 plugs

index: WAPRZ002MC4KPL

Cable 2 m with MC4 plugs (set of 2 pcs). Maximum operating voltage: 1500 V DC.

**Accessory dedicated for:**

PVM-1530



## Key for MC4 connectors

index: WAP0ZKEYMC4

Key for opening MC4 connectors.

**Accessory dedicated for:**

MPI-540-PV

PVM-1530

PVM-1021



## Solar radiation measurement



### IRM-1 meter

index: WMGBIRM1

IRM-1, small, but indispensable for testing PV systems. By measuring solar radiation values, as well as panel and ambient temperatures, it provides the necessary data to convert the results into STC conditions. The kit consists of:

- IRM-1 solar radiation and temperature meter,
- IRM-1 mounting&measuring set,
- Z-24 power supply, M14 carrying case.

**Accessory dedicated for:**

MPI-540-PV

PVM-1530

PVM-1021



### Solar radiation measurement set

index: WMGBIRM1MPI

It enables cooperation between the IRM-1 and the MPI-540-PV meter. The kit consists of:

- IRM-1 solar radiation and temperature meter,
- IRM-1 mounting&measuring set,
- LORA-S1 adapter for data transmission,
- Z-24 power supply, M14 carrying case.

**Accessory dedicated for:**

MPI-540-PV





# measurements

## Mounting the solar radiation meter



### IRM-1 mounting&measuring set

index: WASONTPVCKPL

The set is used to attach the IRM-1 meter to the PV panel. It consists of:

- IRM-1 mounting kit for PV panels,
- probe for measuring the temperature of PV panels and the ambient temperature.

**Accessories dedicated for:**

IRM-1



### IRM-1 mounting kit for PV panels

index: WAPOZUCHPV

The set is used to attach the IRM-1 meter to the PV panel. It consists of:

- mounting frame,
- mounting clamp.

**Accessories dedicated for:**

IRM-1



### Mounting clamp

index: WAZACPV

Presses the mounting frame to the PV panel.

**Accessory dedicated for:**

IRM-1



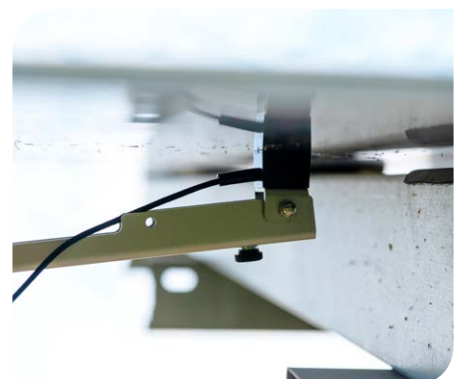
### Temperature measurement probe

index: WASONTPVC

Thanks to two sensors, the probe measures the temperature of a photovoltaic panel and the ambient temperature. It is attached to the mounting frame.

**Accessory dedicated for:**

IRM-1





## EVSE-01 adapter

index: WAADAEVSE01

Adapter allows to perform comprehensive **measurements of electric vehicle charging stations** - quickly and in accordance with applicable regulations. Simulating the charging cable (proximity pilot line - PP) and vehicle connection status (control pilot line - CP), it will bring the station into different operating states. This will enable **measurements in the field of electric shock protection**:  $Z_s$  fault loop impedance,  $R_{iso}$  insulation resistance and checking the parameters of RCD residual current devices. To facilitate diagnostics, one of the EVSE-01 sockets is provided with pulse width modulation signal (PWM).

The EVSE-01 adapter enables measurements of AC electric vehicle charging stations with **type 2 connector**. Tests for 1-phase and 3-phase stations are available - both with and without ventilation.

### Accessory dedicated for:

MPI-540-PV

MPI-540

MPI-536

MPI-535

MPI-530-IT

MPI-530

MPI-525

MPI-520

MPI-507

MPI-506

MPI-502F



## TWR-1J adapter

index: WAADATWR1J

Adapter for testing residual current devices not installed and not operating in the electrical system. The device cooperates with any Sonel test instrument with implemented measurements of RCD parameters.

### Accessory dedicated for:

MPI-540-PV

MPI-540

MPI-536

MPI-535

MPI-530-IT

MPI-530

MPI-525

MPI-520

MPI-507

MPI-506

MPI-502F

MRP-201



## AC-16 line splitter

index: WAADAC16

AC-16 has been designed to simplify current and voltage measurements: it eliminates the need to remove the electrical sockets. It is dedicated for use in earthed networks. The unit is equipped with a 1:1 (X1) ratio and 10:1 (X10) ratio. The maximum current load is 16 A. The adapter can be used with any type of clamps offered by SONEL S.A.

### Accessory dedicated for:

MPI-540-PV

MPI-540

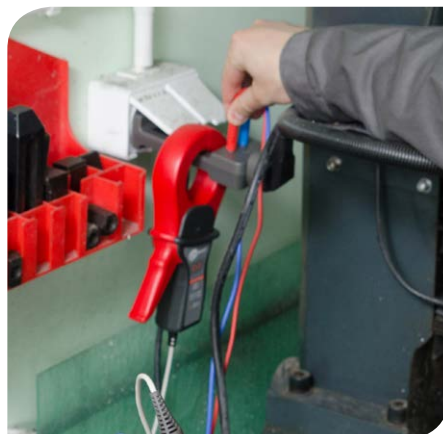
MPI-530-IT

MPI-530

MPI-520

PVM-1530

PVM-1021





# measurements

## Measurements of multi-core cables

Depending on the measurement facility and the established standards (each conductor to each or conductor to other shorted and grounded conductors), the measurement of the insulation resistance of wires or multi-core cables requires several connections. In order to shorten the measurement time and eliminate the inevitable connection errors, Sonel recommends an adapter that switches between individual pairs of conductors for the operator.



### AutoISO-1000C adapter

index: WAADAAISO10C

Designed to measure the insulation resistance of cables and multi-core wires with a measuring voltage of up to 1000 V. The use of the adapter eliminates the possibility of making a mistake, and significantly reduces the time needed to measure the insulation resistance between pairs of conductors. For instance, for 4-core cables, the user will perform only one connection operation (i.e. connect the adapter to the facility), while AutoISO-1000C will perform crossing for six consecutive connections.

#### Accessory dedicated for:

MPI-540-PV

MPI-540

MPI-535

MPI-530-IT

MPI-530

MPI-520



### AutoISO-2500 adapter

index: WAADAAISO25

Designed to measure the insulation resistance of cables and multi-core wires with a measuring voltage of up to 2500 V. The use of the adapter eliminates the possibility of making a mistake, and significantly reduces the time needed to measure the insulation resistance between pairs of conductors. For instance, for 4-core cables, the user will perform only one connection operation (i.e. connect the adapter to the facility), while AutoISO-2500 will perform crossing for six consecutive connections.

#### Accessory dedicated for:

MPI-536

MPI-525



## Adapter AEV-100

index: WAADAAEV100

Adapter with a type 2 male EV plug on one side and banana sockets on the other. It allows you to connect test leads with 4 mm banana plugs to the meter.



#### Accessory dedicated for:

EVSE-100





## Adapters for 230 V sockets

Type WS adapters are highly valued and practical accessories. They enable user a quick and easy measurement in a UNI-Schuko socket without the use of probes or measuring cords. Interaction with the measuring device is possible through a multi-plug connector. Depending on the type and model, we can use a straight or angled plug. By means of a dedicated button on the housing, some adapters have the function of automatic measurement triggering and saving the result to the memory.

Name	Features	Index
WS-01	Triggering the measurement, UNI-Schuko straight plug	WAADAWS01
WS-03	Triggering the measurement, UNI-Schuko straight plug	WAADAWS03
WS-04	Not triggering the measurement, UNI-Schuko angled plug	WAADAWS04
WS-05	Not triggering the measurement, UNI-Schuko angled plug	WAADAWS05



### Accessories dedicated for:



WS-01 adapter

MPI-502F

MRP-201



WS-03 adapter

MPI-540-PV

MPI-540

MPI-536

MPI-535

MPI-530-IT

MPI-530

MPI-525

MPI-520

MPI-507

MPI-506

MPI-502F



WS-04 adapter

MPI-540-PV

MPI-540

MPI-536

MPI-535

MPI-530-IT

MPI-530

MPI-525

MPI-520

MPI-507

MPI-506

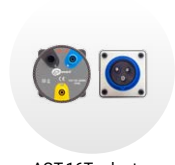
MPI-502F



WS-05 adapter

MPI-502F

MRP-201



AGT-16T adapter



AGT-32P adapter



AGT-63P adapter

## Industrial socket adapters

Adapters enabling the connection of instruments to single-phase or three-phase sockets in industry environments. Offered in three current load versions – 16 A, 32 A and 63 A – as well as variants with 4 and 5 pins for the 3-phase outlets.

Name	Intended use	Index
AGT-16T	16 A, 1-phase, 3-pole sockets	WAADAAGT16T
AGT-16C	16 A, 3-phase, 4-pole sockets	WAADAAGT16C
AGT-16P	16 A, 3-phase, 5-pole sockets	WAADAAGT16P
AGT-32T	32 A, 1-phase, 3-pole sockets	WAADAAGT32T
AGT-32C	32 A, 3-phase, 4-pole sockets	WAADAAGT32C
AGT-32P	32 A, 3-phase, 5-pole sockets	WAADAAGT32P
AGT-63P	63 A, 3-phase, 5-pole sockets	WAADAAGT63P

### Accessories dedicated for:

MPI-540-PV

MPI-540

MPI-536

MPI-535

MPI-530-IT

MPI-530

MPI-525

MPI-520

MPI-507

MPI-506

MPI-502F

MRP-201

PVM-1530

PVM-1021





## measurements



### Voltage adapters

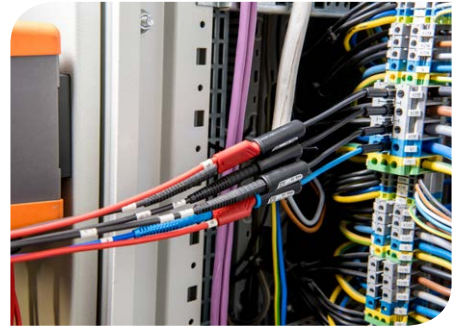
index: WAADAM4M64

They enable the test instrument to be connected directly to the terminal block in the electrical switchboard. Each adapter has M4 / M6 thread. Versatility of this solution is unique on the global scale. The set includes 4 adapters.

**Accessories dedicated for:**

MPI-540-PV

MPI-540



### Illuminance measurements

LP probes cooperate with test instruments via a multi-plug connector. They enable measurements of illuminance with different resolution and in a different class, depending on the probe used.



#### LP-1 light meter probe

index: WAADALP1

<b>Class</b>	B
<b>Resolution</b>	from 0.1 lx



#### LP-10B light meter probe

index: WAADALP10B

<b>Class</b>	B
<b>Resolution</b>	from 0.01 lx



#### LP-10A light meter probe

index: WAADALP10A

<b>Class</b>	A
<b>Resolution</b>	from 0.001 lx



#### WS-06 adapter

index: WAADAWS06

Sonel miniDIN-multi-plug lead. Dedicated for the connection of a light meter probe with the test instrument.



#### Set: light meter probe+adapter

Includes measurement probe and WS-06 adapter.

Set	Index
LP-1 light meter probe + WS-06 adapter	WAADALP1KPL
LP-10B meter probe + WS-06 adapter	WAADALP10BKPL
LP-10A meter probe + WS-06 adapter	WAADALP10AKPL

**Accessories dedicated for:**

MPI-540-PV

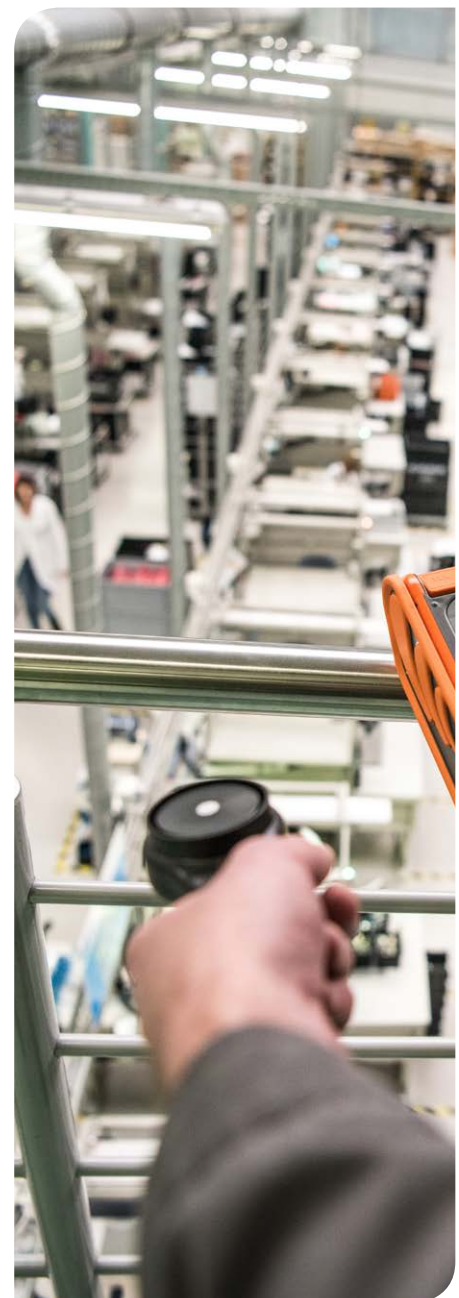
MPI-540

MPI-536

MPI-535

MPI-530-IT

MPI-530





## Flexible coil



Flexible current coil, also known as a Rogowski coil, is useful for testing objects, on which hard clamps cannot be attached. The coil is terminated with a 5-pin plug. It is available with different levels of the output signal and different lengths.

Name	Max. diameter of measured conductor	Rated current	Output signal level	Index
F-1A	380 mm	3 kA AC	38.8 $\mu$ V / 1 A	WACEGF1AOKR
F-2A	250 mm	3 kA AC		WACEGF2AOKR
F-3A	140 mm	3 kA AC		WACEGF3AOKR

Accessories dedicated for:

MPI-540-PV

MPI-540

MPI-530-IT

MPI-530



## Current clamps

Split-Core current clamps are used for measuring alternating and direct currents. They are available in four variants of different diameters of the clamped conductor and the type of current to be measured. All models are terminated with a 5-pin connector.

Name	Max. diameter of measured conductor	Rated current	Index
C-4A	Ø 52 mm	1000 A AC	WACEG4AOKR
C-5A	Ø 39 mm	1000 A AC 1400 A DC	WACEG5AOKR
C-6A	Ø 20 mm	10 A AC	WACEG6AOKR
C-7A	Ø 24 mm	100 A AC	WACEG7AOKR
C-PV	Ø 30 mm	40 A / 400 A AC 40 A / 400 A DC	WACEGCPVOKR

Accessories dedicated for:



C-4A current clamp

MPI-540-PV

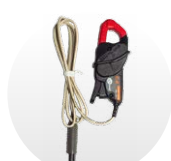
MPI-540



C-5A current clamp

MPI-540-PV

MPI-540



C-6A current clamp

MPI-540-PV

MPI-540

MPI-530-IT

MPI-530



C-7A current clamp

MPI-540-PV

MPI-540



C-PV current clamp

MPI-540-PV

PVM-1021





# measurements



## C-3 current clamp

index: WACEGC30KR

The clamp is used to measure alternating currents. The maximum diameter of the tested conductor is 52 mm. It is terminated with a 5-pin plug, compatible with Sonel devices. Using of the clamp eliminates the need to disconnect control connections, significantly reducing the testing time. This clamp allows user to determine the type of current flowing through the tested earthing element and to check the resulting voltage drop.

### Accessory dedicated for:

MPI-540-PV

MPI-540

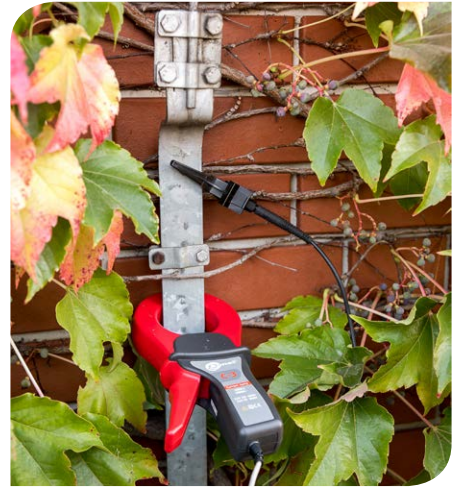
MPI-536

MPI-535

MPI-530-IT

MPI-530

MPI-520



## N-1 transmitting clamp

index: WACEGN1BB

The transmitting clamp is used to measuring current for earth resistance measurements. Together with C-3 current clamp (hard) they are used in the two-clamp method, and in many cases they eliminate the need for driving the auxiliary probes into the ground. The maximum diameter of the tested conductor is 52 mm. The clamp is powered by a removable two-wire lead, terminated with 4 mm banana plugs.

### Accessory dedicated for:

MPI-540-PV

MPI-540

MPI-536

MPI-535

MPI-530-IT

MPI-530

## Test lead for N-1 clamp

index: WAPRZ002DZBB

Two-wire test lead with a length of 2 meters. It connects N-1 transmitting clamp with measuring terminals of the meter used for earth resistance measurements.

The test lead is factory-fitted with two pairs of „H” and „E” tags, which indicate the correct way of connecting it to the meter terminals and clamps.

### Accessory dedicated for:

MPI-540-PV

MPI-540

MPI-536

MPI-535

MPI-530-IT

MPI-530



## Adapter for C-PV clamp

index: WAADACPV

The cable serves as an adapter connecting the C-PV clamp with the test socket of the test instrument.

### Accessory dedicated for:

MPI-540-PV



## Pin probes

Secure pin probes with Ø 4 mm socket, intended for test leads with plugs and a guard. The probe insulated tips with a length of 4 mm, ensure safe measurements on a various objects.

The probes have a guard ring and a grooved surface, providing stable and secure hand grip - also with dielectric gloves.



### Pin probes 1 kV

Plug	banana, 4 mm
Measurement category	1000 V, CAT III
Maximum current	20 A

Color	Index
Black	WASONBLOGB1

#### Accessories dedicated for:

PVM-1530

PVM-1021

Color	Index
Blue	WASONBUOGB1

#### Accessories dedicated for:

MPI-540-PV

MPI-540

MPI-536

MPI-535

MPI-530-IT

MPI-530

MPI-525

MPI-520

MPI-507

MPI-506

MPI-502F

MRP-201

PVM-1530

Color	Index
Red	WASONREOGB1
Yellow	WASONYEGB1

#### Accessories dedicated for:

MPI-540-PV

MPI-540

MPI-536

MPI-535

MPI-530-IT

MPI-530

MPI-525

MPI-520

MPI-507

MPI-506

MPI-502F

MRP-201

PVM-1530

PVM-1021



### Pin probes 5 kV

Plug	banana, 4 mm
Measurement category	5000 V, CAT III
Maximum current	32 A

Color	Index
Black	WASONBLOGB2

#### Accessories dedicated for:

MPI-536

MPI-525

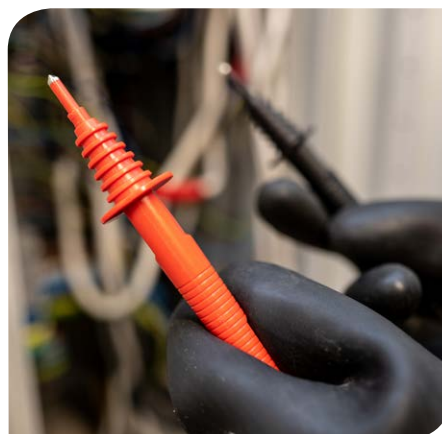
PVM-1530

Color	Index
Red	WASONREOGB2

#### Accessories dedicated for:

MPI-536

MPI-525







# measurements



## Foldable pin probe

index: WASONSP2M

The probe is used to measure the short circuit loop impedance of lighting fixtures or other objects that are out of reach of the hand. It can also be used to measure the insulation resistance of objects up to 1 kV.

The probe is adjustable in length from 1 to 2 m. The measuring tip fits into a 16 A three-phase socket.

**Plug**

banana, 4 mm

**Measurement category**

1000 V, CAT III

### Accessory dedicated for:

MPI-540-PV

MPI-540

MPI-536

MPI-535

MPI-530-IT

MPI-530

MPI-525

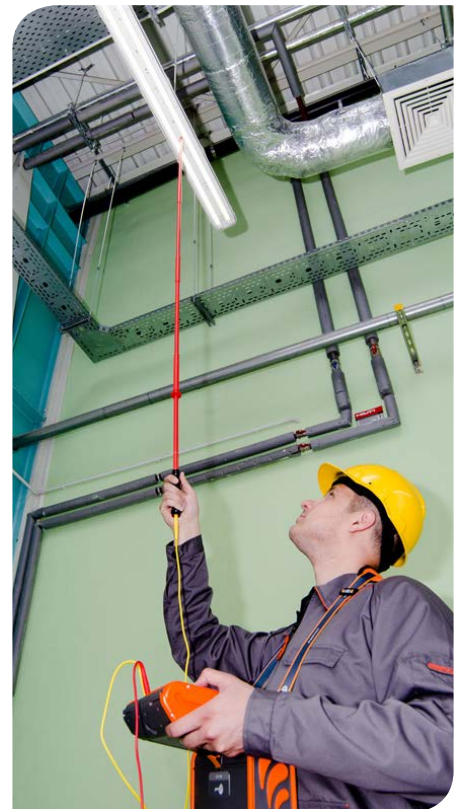
MPI-520

MPI-507

MPI-506

MPI-502F

MRP-201



## Adapter with pin probe

index: WAADAWS09

The WS-09 adapter is an automatic three-wire pin probe. It provides much faster measurements by its start button located on the adapter housing. The adapter also has a button that allows user to save the measurement result in the memory of the meter. The probe used during measurements in electrical installations reduces to a minimum the operations performed on the meter itself, significantly improving the efficiency of work.

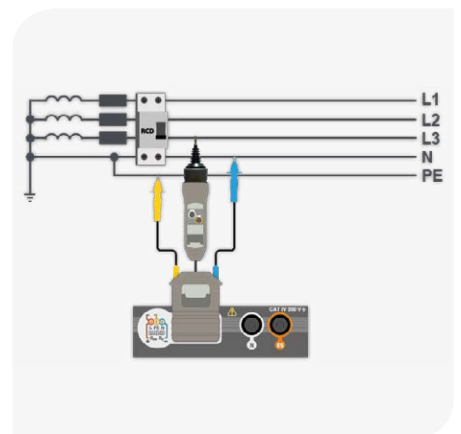
### Accessory dedicated for:

MPI-540-PV

MPI-540

MPI-536

MPI-535





25 cm rod



30 cm rod



80 cm rod



## Earth contact test probes (rods)

The test probes are designed for measuring earth resistance with 3- and 4-wire method. The probes are made of impact-resistant alloy and have an opening for direct connection of test leads with plugs without a guard.

Type	Length	Index
Straight	25 cm	WASONG25

### Accessories dedicated for:

EVSE-100

MPI-507

Type	Length	Index
Straight with a reel holder	30 cm	WASONG30
Straight with a reel holder	80 cm	WASONG80V2

### Accessories dedicated for:

MPI-540-PV

MPI-540

MPI-536

MPI-535

MPI-530-IT

MPI-530

MPI-525

MPI-520

MPI-507



## PRS-1 probe

index: WASONPRS1

If the site insulation is used as a means of protection against electric shock, the insulation resistance of floors and walls should be checked with an appropriate measuring instrument using a probe dedicated for this purpose.

PRS-1 has the shape of an equilateral triangle and has been made according to the guidelines provided in for in the HD 60364-6 and EN 1081 standards. Legs of the probe were made with a special rubber mix – volume resistance of a single leg does not exceed 5 kΩ, and the hardness is in the range between 50 to 70 IRHD. With appropriate pressure on the probe, such a design solution will ensure approx. 900 mm<sup>2</sup> contact surface area with the tested plane.

### Accessory dedicated for:

MPI-540-PV

MPI-540

MPI-536

MPI-535

MPI-530-IT

MPI-530

MPI-525

MPI-520



## Adapter for impedance measurement

index: WAADAWS07

Sonel adapter for measuring loop impedance  $Z_{L-N}$ .

### Accessory dedicated for:

MPI-507

MPI-506

MPI-502F





# measurements



## Crocodile clips 1 kV

Secure, insulated crocodile clips with Ø 4 mm socket, intended for connecting test leads with plugs and a guard. Their jaws have a wide range of opening that enables them to be attached to conductors with a diameter of 16 mm. In addition to the serrated jaw surface, the clips have flat surfaces for grasping small objects. They are available in many colors.

Plug	banana, 4 mm
Spread range	25 mm
Measurement category	1000 V, CAT III
Maximum current	20 A

Color	Index
Black	WAKROBL20K01

### Accessory dedicated for:

MPI-540-PV	MPI-540	MPI-525	EVSE-100
PVM-1530	PVM-1021		

Color	Index
Red	WAKRORE20K02

### Accessory dedicated for:

MPI-540-PV	MPI-540	MPI-536	MPI-535
MPI-530-IT	MPI-530	MPI-525	MPI-520
MPI-507	MPI-506	MPI-502F	MRP-201
PVM-1530	PVM-1021		

Color	Index
Yellow	WAKROYE20K02

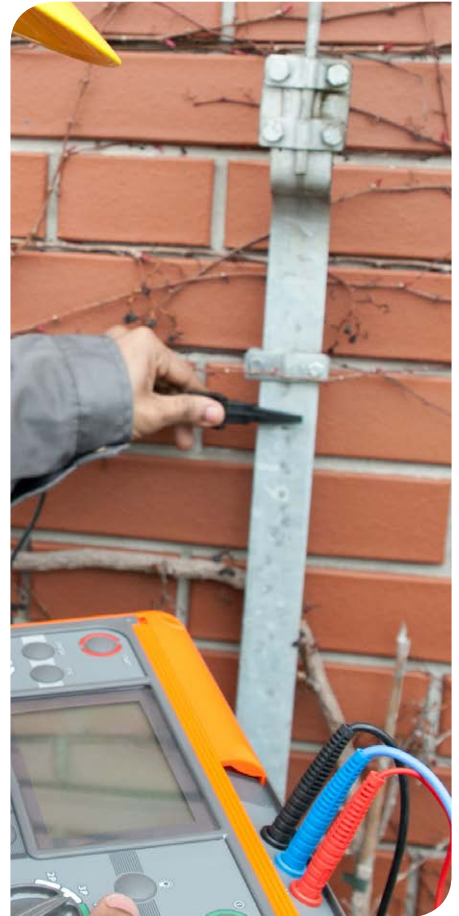
### Accessory dedicated for:

MPI-540-PV	MPI-540	MPI-536	MPI-535
MPI-530-IT	MPI-530	MPI-525	MPI-520
MPI-507	MPI-506	MPI-502F	EVSE-100
MRP-201	PVM-1530	PVM-1021	

Color	Index
Blue	WAKROBU20K02

### Accessory dedicated for:

MPI-540-PV	MPI-540	MPI-536	MPI-535
MPI-530-IT	MPI-530	MPI-525	MPI-520
MPI-507	MPI-506	MPI-502F	EVSE-100
MRP-201	PVM-1530		







## Crocodile clips 11 kV

Secure, insulated crocodile clips with Ø 4 mm socket, intended for connecting test leads with plugs and a guard. Their jaws have a wide range of opening that enables them to be attached to conductors with a diameter of 43 mm. In addition to the serrated jaw surface, the clips have flat surfaces for grasping small objects. They are available in many colors.

Plug	banana, 4 mm
Spread range	43 mm
Measurement category	11000 V, CAT IV
Maximum current	32 A

Color	Index
Black	WAKROBL32K09
Red	WAKRORE32K09

Accessories dedicated for:

MPI-536

MPI-525





# measurements



## Cramp

index: WAZACIMA1

Professional cramp designed for use in situations when strong and durable metal connection is required. The cramp is provided with a thumbscrew for secure tightening it to the object. The terminal with a diameter of 4 mm is compatible with test leads with plugs and a guard.

Plug	banana, 4 mm
Spread range	50 mm

### Accessory dedicated for:

MPI-540-PV	MPI-540	MPI-536	MPI-535
MPI-530-IT	MPI-530	MPI-525	MPI-520
MPI-507			



## CS-1 cable simulator

index: WAADACS1

Designed for insulation resistance simulation of power cables. Equipped with highly accurate resistors. Intended for training, presentation and auxiliary purposes – for instance in a situation, where general estimation of the measurement correctness is needed.

CS-1 enables the measurement of four resistance values and their combination. The device utilizes 4 mm banana plugs. Its casing is characterized by high resistance to mechanical damage.

### Accessory dedicated for:

MPI-540-PV	MPI-540	MPI-536	MPI-535
MPI-530-IT	MPI-530	MPI-525	MPI-520



## CS-5kV calibration box

index: WAADACS5KV

The calibration box has been designed to verify indications of insulation resistance meters. The use of high-quality resistors with a very high degree of accuracy makes the CS-5kV an ideal tool for cooperation with devices with a test voltage of up to 5 kV DC.

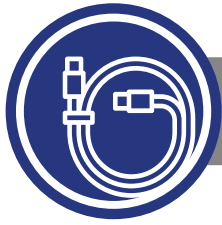
The box enables the measurement of four resistance values and their combination. The device utilizes 4 mm banana plugs.

### Accessory dedicated for:

MPI-536	MPI-525
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# test leads

## Test leads

Universal test leads, which are safe and resistant to damage. They can be used with a wide range of measuring accessories, such as crocodile clips, probes or cramps. The plug of the test lead is shielded ensuring safe operation.



### Test leads 1 kV

Plug	banana, 4 mm, safe, straight, nickel plated	
Measurement category	CAT III 1000 V / CAT IV 600 V	
Insulation material	silicon	
Insulation type	double	
Cross-section area of the wire	1 mm <sup>2</sup>	

Color	Length	Index
Black	1.2 m	WAPRZ1X2BLBB

#### Accessory dedicated for:

[EVSE-100](#)[PVM-1021](#)

Color	Length	Index
Black, with markers	1.2 m	WAPRZ1X2BLBBN

#### Accessory dedicated for:

[MPI-540-PV](#)[MPI-540](#)

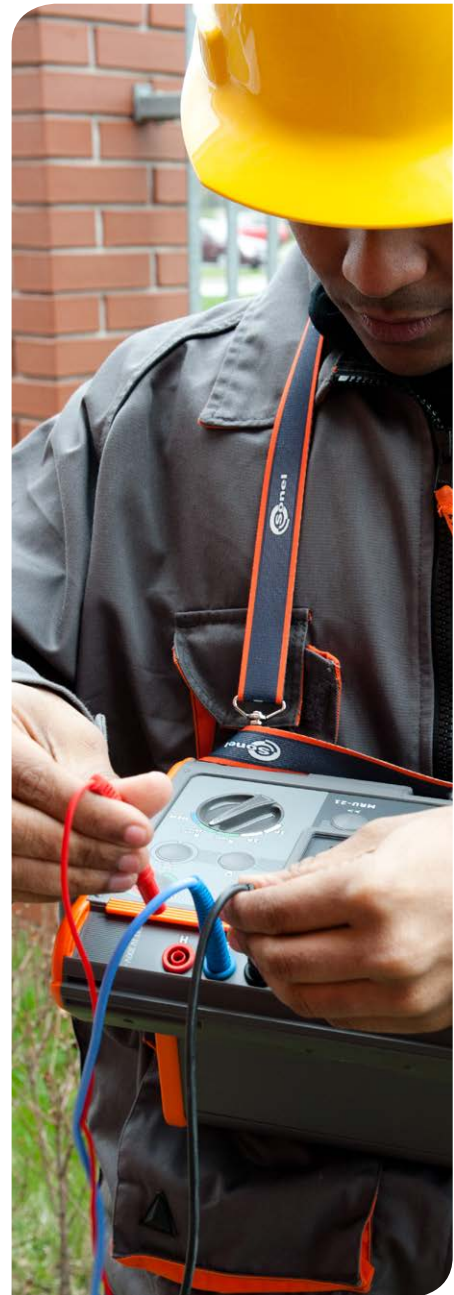
Color	Length	Index
Red	1,2 m	WAPRZ1X2REBB

#### Accessory dedicated for:

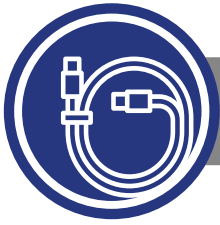
[MPI-540-PV](#)[MPI-540](#)[MPI-536](#)[MPI-535](#)[MPI-530-IT](#)[MPI-530](#)[MPI-525](#)[MPI-520](#)[MPI-507](#)[MPI-506](#)[MPI-502F](#)[MRP-201](#)[PVM-1021](#)

Color	Length	Index
Red	5 m	WAPRZ005REBB
Red	10 m	WAPRZ010REBB
Red	20 m	WAPRZ020REBB

#### Accessories dedicated for:

[MPI-540-PV](#)[MPI-540](#)[MPI-536](#)[MPI-535](#)[MPI-530-IT](#)[MPI-530](#)[MPI-525](#)[MPI-520](#)[MPI-507](#)[MPI-506](#)[MPI-502F](#)[MRP-201](#)





## test leads



### Test leads 1 kV

Plug	banana, 4 mm, safe, straight, nickel plated
Measurement category	CAT III 1000 V / CAT IV 600 V
Insulation material	silicon
Insulation type	double
Cross-section area of the wire	1 mm <sup>2</sup>

Color	Length	Index
Blue	1,2 m	WAPRZ1X2BU8B

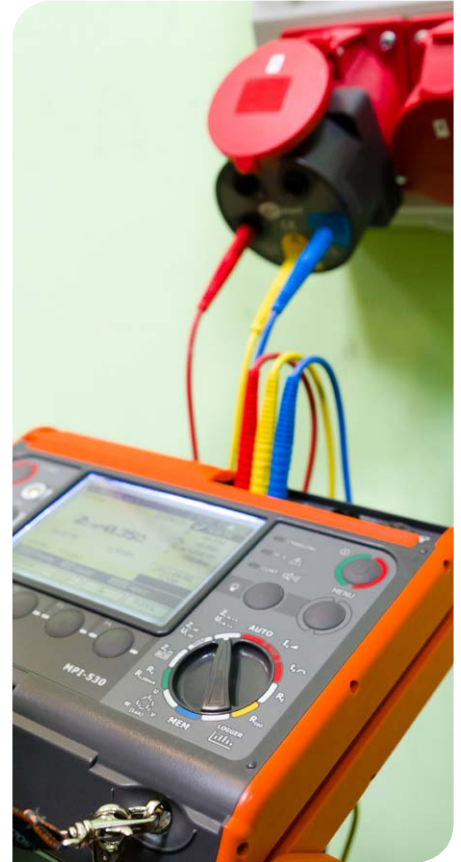
#### Accessory dedicated for:

MPI-540-PV	MPI-540	MPI-536	MPI-535
MPI-530-IT	MPI-530	MPI-525	MPI-520
MPI-507	MPI-506	MPI-502F	EVSE-100
MRP-201			

Color	Length	Index
Yellow	1,2 m	WAPRZ1X2YE8B

#### Accessory dedicated for:

MPI-540-PV	MPI-540	MPI-536	MPI-535
MPI-530-IT	MPI-530	MPI-525	MPI-520
MPI-507	MPI-506	MPI-502F	EVSE-100
MRP-201	PVM-1021		



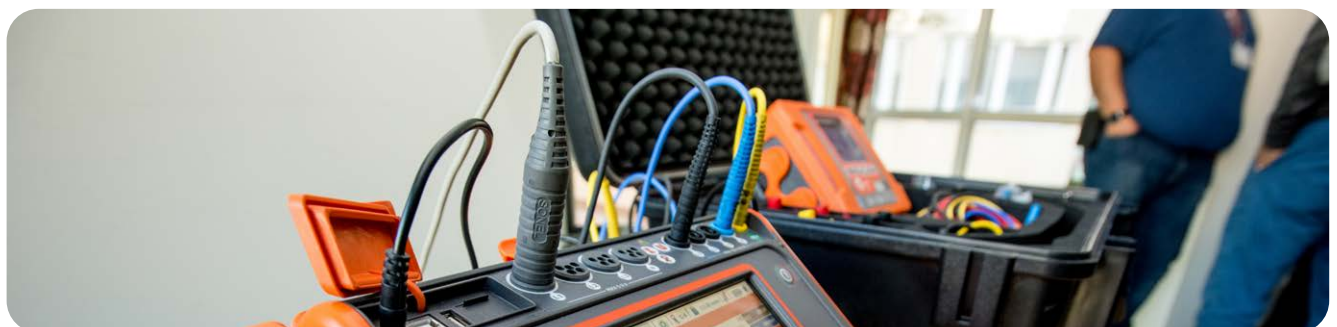
### Test leads 1.5 kV

Plug	banana, 4 mm, safe, straight, nickel plated
Measurement category	CAT III 1500 V
Insulation material	silicon
Insulation type	double
Cross-section area of the wire	1 mm <sup>2</sup>

Color	Length	Index
Yellow	3 m	WAPRZ003YEBB1K5V

#### Accessories dedicated for:

PVM-1530
----------

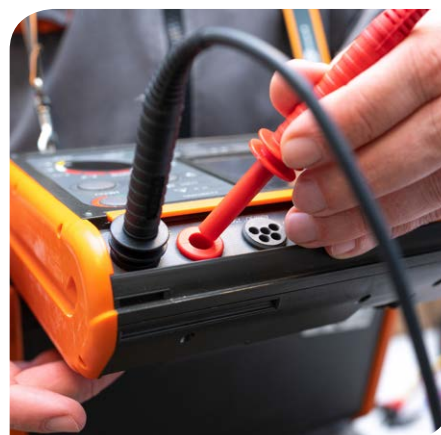




## Test leads 5 kV

<b>Plug</b>	banana, 4 mm, safe, straight, nickel plated	
<b>Measurement category</b>	CAT III 1000 V / CAT IV 600 V	
<b>Insulation material</b>	silicon	
<b>Insulation type</b>	double	
<b>Cross-section area of the wire</b>	1 mm <sup>2</sup>	

Color	Length	Index
Black	1.8 m, shielded	WAPRZ1X8BLBB
Black	1.8 m	WAPRZ1X8BLBB5K
Red	1.8 m	WAPRZ1X8REBB
Blue	3 m	WAPRZ003BUBB5K



### Accessories dedicated for:



Black 1.8 m, shielded

MPI-536

MPI-525



Black 1.8 m

PVM-1530



Red 1.8 m

MPI-536

MPI-525

PVM-1530



Blue 3 m

PVM-1530



Test lead on a H-frame

## Test leads on reels

They are designed specifically for outdoor work - they have increased resistance to mechanical damage. One end of the test leads is terminated with a secure banana plug (4 mm), while the other end has a 4 mm lamella for connecting it to the reel and directly to the probe driven into the ground.

Color	Features	Index
Blue	15 m, H-frame	WAPRZ015BUBBN
Red	30 m, H-frame	WAPRZ030REBBN

### Accessories dedicated for:

EVSE-100

MPI-507



Test lead on a reel

Color	Features	Index
Blue	15 m, reel	WAPRZ015BUBBSZ
Red	25 m, reel	WAPRZ025REBBSZ
Blue	25 m, reel	WAPRZ025BUBBSZ
Red	30 m, reel	WAPRZ030REBBSZ
Yellow	50 m, reel	WAPRZ050YEBBSZ

### Accessories dedicated for:

MPI-540-PV

MPI-540

MPI-536

MPI-535

MPI-530-IT

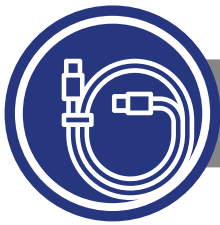
MPI-530

MPI-525

MPI-520

MPI-507





## test leads



### Test wire reel

index: WAPOZSZP1

It is used for winding leads. The reel is made of a material resistant to cracking, even at low temperatures. It is provided with an opening with a switching spring, enabling the reel to be directly inserted onto the probe driven into the ground. In order to improve the winding the leads, the reel is equipped with a folding handle. It also has a side terminal for connecting the test lead or a lead connecting a few wires.

**Accessory dedicated for:**

MPI-540-PV

MPI-540

MPI-536

MPI-535

MPI-530-IT

MPI-530

MPI-525

MPI-520



### Test wire H-frame

index: WAPOZSZP3

It is used for winding leads. It is used for winding wires. It has a convenient carrying handle and a lead clip. The H-frame is lightweight, made of plastic with a high degree of durability and resistance to mechanical damage.

**Accessory dedicated for:**

MPI-540-PV

MPI-540

MPI-536

MPI-535

MPI-530-IT

MPI-530

MPI-525

MPI-520



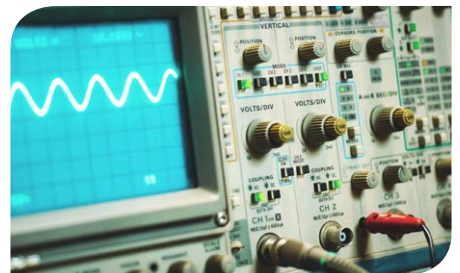
### BNC transmission cable

index: WAPRZBNC

The cable is used to connect an oscilloscope to the EVSE meter in order to obtain information about the PWM modulation of the control signal in an electric vehicle charging station.

**Accessory dedicated for:**

EVSE-100







## installation



### Hanging hook straps

index: WAPOZUCH1

The straps are designed for hanging the meters in safe locations to free the operator's hands. Their one end is provided with a hook, while the other with a Velcro strap used to attach the device.

**Accessory dedicated for:**

MPI-507

MPI-506

MPI-502F

MRP-201



### Universal magnetic hanging strap

index: WAPOZUCH6

Universal magnetic holder for mounting the meter to metal surfaces, e.g. switchgear doors, etc.

**Accessory dedicated for:**

MPI-507

MPI-506

MPI-502F



### Universal cover

index: WAPOZUCH12

Protective cover for meters.

**Accessory dedicated for:**

MPI-540-PV

MPI-540

MPI-536

MPI-535

MPI-530-IT

MPI-530

MPI-525

MPI-520





## communication



### Mini Bluetooth keyboard - S--4 case

index: WAFUTS4

A mini keyboard enabling more comfortable data entry during measurement performance. Communication with the test instrument is wireless via Bluetooth. Protective case is equipped with hand fastening.

#### Accessories dedicated for:

MPI-530-IT

MPI-530



### USB cable

index: WAPRZUSB

The cable with connectors of A and B type, compatible with USB 1.1 and 2.0. It is intended to connect the computer to Sonel devices equipped with USB sockets of B type. The cable is used to transfer the measurement results, configurations and updating the firmware of many meters.

#### Accessory dedicated for:

MPI-540-PV

MPI-540

MPI-536

MPI-535

MPI-530-IT

MPI-530

MPI-525

MPI-520

EVSE-100

PVM-1530



### OR-1 adapter

index: WAADAUSBOR1

The adapter is designed for wireless data transmission between a PC and meters equipped with a corresponding transceiver module. It provides two-way communications between the measuring device and computer. To use this feature, the computer must have SONEL S.A. software installed, compatible with MPI meters.

#### Accessory dedicated for:

MPI-525

MPI-520

MRP-201



### LORA-S1 adapter

index: WAADAUSBLORA

The adapter is designed for wireless data transmission between the IRM-1 meter and the master meter.

#### Accessory dedicated for:

MPI-540-PV

PVM-1530





## software

Manage  
your  
data!



MPI-540-PV

MPI-540

MPI-536

MPI-535

MPI-530-IT

MPI-530

MPI-525

MPI-520

EVSE-100

PVM-1530

IRM-1



MPI-525

MPI-520

MRP-201



MPI-507

MPI-506

MPI-502F

EVSE-100

PVM-1530

PVM-1021



### Sonel Reports PLUS

Download data from memory of test instruments and create necessary documentation.



### Sonel Reader

Read the measurement data and save them on your computer.



MPI-530-IT

MPI-530



### Sonel MPI Mobile

Read the measurement data. Add photographs, comments and voice memo - and share it.





## software



### Sonel Reports PLUS

index: WAPROREPORTSPPLUS

Sonel Reports Plus supports creation of documentation after testing of electrical installation. The software communicates with Sonel test instruments, downloads data from memory of the devices and creates necessary documentation. Many useful functions are included in order to help creating documentation of the measurements. Sonel Reports Plus supports the meter by reading, downloading and uploading test structure from/to test instrument.

#### Features:

- every report can contain description page,
- tree structure presents a clear picture of the tested building and its rooms. Test structure can be uploaded to the meter and downloaded from it together with test results,
- user can print labels for test points,
- for every room user can add picture or scheme of electrical installation,
- software contains library of fuses,
- for every room user can create separate table with test results.

#### Software dedicated for:

MPI-540-PV

MPI-540

MPI-536

MPI-535

MPI-530-IT

MPI-530

MPI-525

MPI-520

MPI-507

MPI-506

MPI-502F

MRP-201

EVSE-100

PVM-1530

PVM-1021

The screenshot shows the 'Customer' tab of the Sonel Reports PLUS software. It includes fields for 'No.', 'Customer no.', 'Customer', 'Order No.', 'Contractor', and 'Objects'. There is also a section for 'DEMO' data: 'u: DEMO 1', '00-00 DEMO', 'm: +00 00 000 000', 'Fax: +00 00 000 000', and 'e-mail: DEMO@DEMOK.pl'. A Sonel Reports PLUS logo is displayed on the left.

The screenshot shows the 'Reports' section of the Sonel Reports PLUS software. It features a 'Tester communication manager' and a 'Searching for tester' progress bar. A search icon and the text 'Searching... please wait' are visible.

#### Reports

Read data from test instrument Search and save data from instrument in file	Open Report Open existing report in order to edit	New Report Create new empty Report	Import from Import from epiINSTROM
--	--	---------------------------------------	---------------------------------------

#### Data and software functions

Inspectors	Owners of installation	Test points	Fuses	Test labels
------------	------------------------	-------------	-------	-------------

#### Manufacturer

www.sonel.pl	Register for full version	Help
--------------	---------------------------	------



## Sonel Reader

index: WAPROREADER

This software is designed for downloading data from the meters. It enables data transfer to the PC, data saving in popular formats and printing.

Software dedicated for:

MPI-540-PV

MPI-540

MPI-536

MPI-535

MPI-530-IT

MPI-530

MPI-525

MPI-520

MPI-507

MPI-506

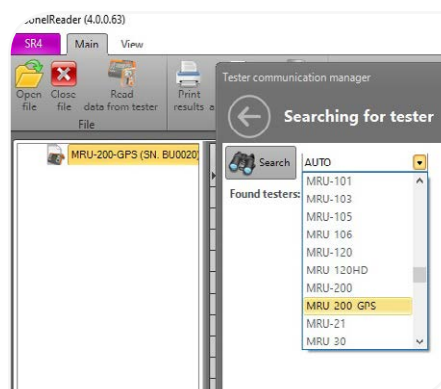
MPI-502F

MRP-201

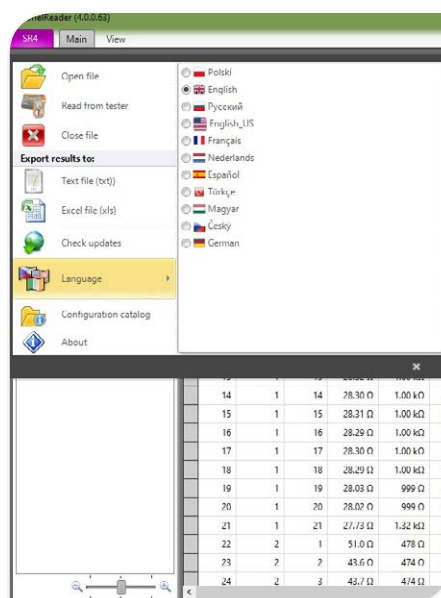
EVSE-100

PVM-1530

PVM-1021



Nr	Bank	Cell	p	l	R <sub>W</sub>	R <sub>S</sub>	U <sub>N</sub>	f <sub>N</sub>
82	4	11	33.7 Ωm	5 m	401 Ω	399 Ω	0 V	0.00 Hz
83	4	12	33.5 Ωm	5 m	401 Ω	399 Ω	0 V	0.00 Hz
84	4	13	33.5 Ωm	5 m	401 Ω	400 Ω	0 V	0.00 Hz
85	4	14	33.5 Ωm	5 m	401 Ω	399 Ω	0 V	0.00 Hz
86	4	15	302 Ωm	10 m	401 Ω	400 Ω	0 V	0.00 Hz
87	4	16	302 Ωm	10 m	401 Ω	399 Ω	0 V	0.00 Hz
88	4	17	305 Ωm	10 m	401 Ω	399 Ω	0 V	0.00 Hz
89	4	18	305 Ωm	10 m	401 Ω	399 Ω	0 V	0.00 Hz
90	4	19	305 Ωm	10 m	401 Ω	400 Ω	0 V	0.00 Hz
91	4	20	5.90 kΩm	20 m	401 Ω	399 Ω	0 V	0.00 Hz
92	4	21	5.91 kΩm	20 m	401 Ω	399 Ω	0 V	0.00 Hz
93	4	22	5.91 kΩm	20 m	401 Ω	399 Ω	0 V	0.00 Hz
94	4	23	5.85 kΩm	20 m	401 Ω	400 Ω	0 V	0.00 Hz
95	4	24	5.85 kΩm	20 m	401 Ω	400 Ω	0 V	0.00 Hz
96	4	25	5.85 kΩm	20 m	401 Ω	400 Ω	0 V	0.00 Hz
157	7	16	33.5 Ωm	5 m	401 Ω	400 Ω	0 V	0.00 Hz
158	7	17	33.5 Ωm	5 m	401 Ω	400 Ω	0 V	0.00 Hz
159	7	18	33.5 Ωm	5 m	401 Ω	399 Ω	0 V	0.00 Hz
160	7	19	33.5 Ωm	5 m	401 Ω	400 Ω	0 V	0.00 Hz
161	7	20	302 Ωm	10 m	401 Ω	400 Ω	0 V	0.00 Hz
162	7	21	302 Ωm	10 m	401 Ω	400 Ω	0 V	0.00 Hz
163	7	22	302 Ωm	10 m	401 Ω	400 Ω	0 V	0.00 Hz
164	7	23	302 Ωm	10 m	415 Ω	400 Ω	0 V	0.00 Hz
165	7	24	302 Ωm	10 m	401 Ω	400 Ω	0 V	0.00 Hz



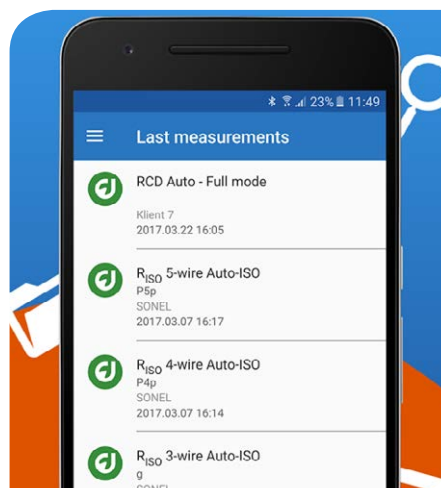
## Sonel MPI Mobile

With the application you can **connect directly to the device** via Bluetooth and download the measurement data from the meter. After reading the measurements from the instrument, they can be easily and quickly **viewed**, but also **sent from the measurement place** to a person who can help interpret the data or perform a measurements documentation. To each measurement we can add, voice memo, note, GPS data, or photo. From the application level we also have **access to the meter's user manual**.

Software dedicated for:

MPI-530-IT

MPI-530





## labeling

The label with the measurement result allows you to quickly and clearly assess whether the device is working correctly. Such a marker can be obtained without moving from the measuring stand - just use printers dedicated to PAT meters. The report includes the test result and its assessment, as well as a QR code to identify the device in the future.



### Report / barcode SATO printer

index: WAADAD2

Communicates with the meter via USB.

**Accessory dedicated for:**

EVSE-100

PVM-1530



#### Label Roll for SATO printer

index: WANAKD2

Adhesive paper for prints 50 mm wide.



#### Ribbon for SATO printer

index: WANAKD2BAR

Toner cartridge.

**Accessories dedicated for:**

WANAKD2



### Report / barcode Brother printer

index: WAADAD3

Communicates with the meter via Wi-Fi and USB.

EVSE-100

PVM-1530



#### Label Roll for Brother printer

index: WANAKD3

Cassette containing 24 mm wide adhesive paper and toner.



#### Battery for Brother printer

index: WAAKU19

Li-Ion rechargeable battery 7.2 V, 1.85 Ah.

**Accessory dedicated for:**

WANAKD3



### QR code scanner

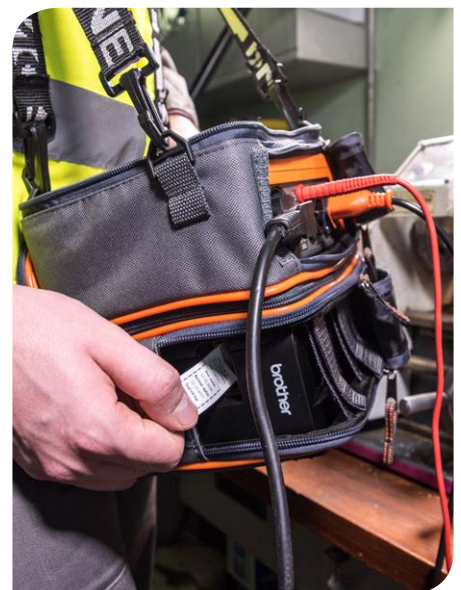
index: WAADACK2D

During the tests, it is good to know which device you are dealing with. This information is carried by the QR code on the label. The QR code scanner allows to identify the device and assign test results to it, building the history of measurements in the tester's memory.

**Accessory dedicated for:**

EVSE-100

PVM-1530







## power supply

### Rechargeable battery

The rechargeable battery for Sonel measuring devices. Its advantages include full leak-tightness, high capacity, low memory effect and high energy density. The battery may be charged even when it is not completely discharged. It is suitable as a backup energy bank in situations where the meter cannot be recharged.

Name	Features	Index
NiMH rechargeable battery	4.8 V 4.2 Ah	WAAKU07
Li-Ion rechargeable battery	11.1 V 3.4 Ah	WAAKU15

Accessory dedicated for:



WAAKU07

MPI-530-IT

MPI-530

MPI-525

MPI-520



WAAKU15

MPI-540-PV

MPI-540

MPI-536

MPI-535



### Battery pack

index: WAPOJ1

A container for the set of batteries for Sonel meters. It enables user to replace the battery pack with four LR14 alkaline batteries. It is suitable as a backup energy bank in situations where the meter cannot be recharged.

Accessory dedicated for:

MPI-530-IT

MPI-530

MPI-525

MPI-520



### Cable for battery charging from car cigarette lighter socket (12 V)

index: WAPRZLAD12SAM

It is connected directly to the meter. It allows user to charge the battery when the only power source is the car cigarette lighter socket. Discharged battery? No outlet? With this accessory you will complete your measurements without interruptions. The cable may be also used for other devices offered by SONEL S.A.

Accessory dedicated for:

MPI-540-PV

MPI-540

MPI-536

MPI-535

MPI-530-IT

MPI-530

MPI-525

MPI-520





## power supply



### Z-7 power supply + 230 V mains cable (IEC C7 plug)

index: WAZASZ7

It is designed to power a number of Sonel measuring devices. It is equipped with IEC C8 male connector for connecting the power cord.

Input voltage	100...240 V AC
Output voltage	12 V DC
Maximum output power	30 W

Accessory dedicated for:

MPI-540-PV

MPI-540

MPI-536

MPI-535

MPI-530-IT

MPI-530

MPI-525

MPI-520



### Z-24 power supply

index: WAZASZ24

5 V power supply with USB 2.0 output and a detachable micro-USB cable.

Input voltage	100...240 V AC
Output voltage	5 V DC
Maximum output power	5 W

Accessory dedicated for:

IRM-1



### 230 V mains cable (IEC C7 plug)

index: WAPRZLAD230

It is designed to power a number of Sonel measuring devices. One of its ends is terminated with C7 plug, while the other with the mains plug of CEE 7/16 type („Europlug”).

Cross-section area of the wire	2 x 0.75 mm <sup>2</sup>
Nominal voltage	250 V AC/DC

Accessory dedicated for:

WAZASZ7





## 230 V mains cable (IEC C13 plug)

index: WAPRZ1X8BLIEC

It is designed to power a number of Sonel measuring devices. One of its ends is terminated with C13 plug, while the other with the mains plug of CEE 7/16 type („Europlug“).

Cross-section area of the wire	2 x 0.75 mm <sup>2</sup>
Nominal voltage	250 V AC

Accessory dedicated for:

PVM-1530



## Charging set

index: WAKPLLADMPI520

Power supply and charging set for batteries in selected MPI series test instruments.

Name	Index
NiMH rechargeable battery	WAAKU07
Cable for battery charging from car cigarette lighter socket (12 V)	WAPRZLAD12SAM
Z-7 power supply + 230 V mains cable (IEC C7 plug)	WAZASZ7

Accessory dedicated for:

MPI-530-IT

MPI-530

MPI-525

MPI-520



## Mains power cable 230 V (16 A 5P socket)

index: WAPRZZAS16P

It is designed to power Sonel measuring devices. Terminated on one side with a 5-pole 16 A three-phase socket and on the other with a straight Schuko mains plug.

Cross-section area of the wire	3 x 2.5 mm <sup>2</sup>
Nominal voltage	250 V AC

Accessory dedicated for:

EVSE-100



## Three-phase mains cable (16 A 5P socket)

index: WAPRZZAS16P3F

It is designed to power Sonel measuring devices. Terminated on one side with a 5-pole 16 A three-phase socket and on the other with a 5-pole 16 A three-phase plug.

Cross-section area of the wire	5 x 2.5 mm <sup>2</sup>
Nominal voltage	400 V AC

Accessory dedicated for:

EVSE-100







## power supply



### Adapter zasilania AZ-2

index: WAADAAZ2

Designed for charging the analyzer battery directly from the electrical switchgear. It is particularly useful during long-term monitoring on facilities, where using the grid socket is not possible. Safety stackable plugs enable the charging of the analyzer while still having the option to perform measurements. Connected to the power supply adapter with an IEC C8 connector, AZ-2 does not require any additional adapters to function properly.

**Accessory dedicated for:**

MPI-540-PV

MPI-540

MPI-536

MPI-535



### Fuse

index: WAPOZB05A1000V

Fuse 0.5 A, 1000 V AC/DC, 6.3x32 mm.

**Accessory dedicated for:**

PVM-1530



### EVCAB cable 2.2 m (type 2 male/type 2 female)

index: WAKABEVT2T2

The cable is used to connect the EVSE meter to electric vehicle charging stations with a type 2 connector that do not have their own charging cable.

**Accessory dedicated for:**

EVSE-100





## transportation



### L-2 carrying case

index: WAFUTL2

This case is designed for storage and transport of the meter and its accessories. The case has two main compartments, two pockets closed with the zipper and two Velcro pockets. It is also provided with a special pocket for documents and an insert for storing reels with test leads. The bottom of the case is protected against the contact with the ground by four feet. It is provided with a carrying handle and a strap for hanging it on the shoulder.

#### Accessory dedicated for:

MPI-540-PV

MPI-540

MPI-536

MPI-535

MPI-530-IT

MPI-530

MPI-525

MPI-520



### L-3 carrying case

index: WAFUTL3

The case specially designed for the safe storage and transport of long (80 cm) probes driven into the ground. It is provided with a strap for hanging it on the shoulder. Strong seams prevent tearing of the material. Parts of the case exposed to puncturing by the probe tip/blade are reinforced.

#### Accessory dedicated for:

WASONG80V2



### L-4 carrying case

index: WAFUTL4

This case is designed for storage and transport of the meter and its accessories. It has three main compartments closed with a zipper and one pocket on the flap. The compartments are equipped with elastic bands for fixing the accessories. The case is provided with a strap for hanging it on the user's shoulder. Its bottom part is protected against contact with the ground by two feet.

#### Accessory dedicated for:

MPI-520

EVSE-100

PVM-1530

PVM-1021



### L-19 backpack

index: WAFUTL19

The backpack designed especially for comfortable carrying the meter with accessories. It is particularly useful when you want to have your hands free when moving with the equipment, e.g. when climbing a ladder. Equipped with a tablet pocket, it can accommodate a meter and a set of accessories. It is made of high-quality materials and has reinforced zippers and buckles.

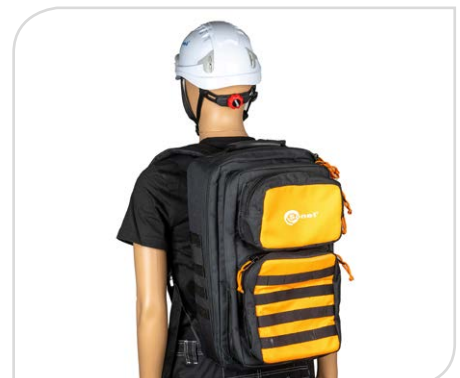
#### Accessory dedicated for:

MPI-540-PV

MPI-540

MPI-536

MPI-535





## transportation



### M-6 carrying case

index: WAFUTM6

This case is designed for storage and transport of the meter and its accessories. It has one main compartments closed with a zipper and one pocket on the flap. The main compartment is provided with an insert dividing it into smaller parts. It also has additional elastic bands for fixing the accessories. The case is provided with a strap for hanging it on the user's shoulder. Its bottom part is protected against contact with the ground by four feet.

**Accessory dedicated for:**

MPI-507

MPI-506

MRP-502

MRP-201



### M-13 carrying case

index: WAFUTM13

This case is designed for storage and transport of the meter and its accessories. Protects the contents against soil and damage. Equipped with a shoulder strap.

**Accessory dedicated for:**

MPI-540-PV



### M-14 carrying case

index: WAFUTM14

This case is designed for storage and transport of the meter and its accessories. Protects the contents against soil and damage. Equipped with a shoulder strap.

**Accessory dedicated for:**

IRM-1



### Hard carrying case

It ensures the safe transport and storage of the instrument together with its accessories. A large number of compartments allows for effective protection of a large amount of equipment.

Set	Index
XL-12 hard carrying case	WAWALXL12
XL-13 hard carrying case	WAWALXL13

**Accessories dedicated for:**



XL-12 carrying case

MPI-540-PV

MPI-540

MPI-536

MPI-535



XL-13 carrying case

MPI-530-IT

MPI-530







## Strap

index: WAPOZPAS6

It is designed for carrying Sonel meters.

**Accessory dedicated for:**

PVM-1021



## L-2 hanging straps

index: WAPOZSZEKPL

The set includes a strap for carrying the meter in the hand, and a strap for hanging the device on the shoulder and around the neck. The longer strap is adjustable.

**Accessory dedicated for:**

MPI-540-PV

MPI-540

MPI-536

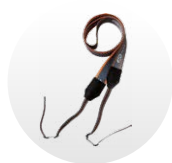
MPI-535

MPI-530-IT

MPI-530

MPI-525

MPI-520



## M-1 hanging straps

index: WAPOZSZE4

The hanging straps are designed for carrying and hanging Sonel meters. Their length is adjustable. The straps may be used to hang the meter around the neck or on the shoulder.

**Accessory dedicated for:**

MPI-507

MPI-506

MPI-502F

MRP-201

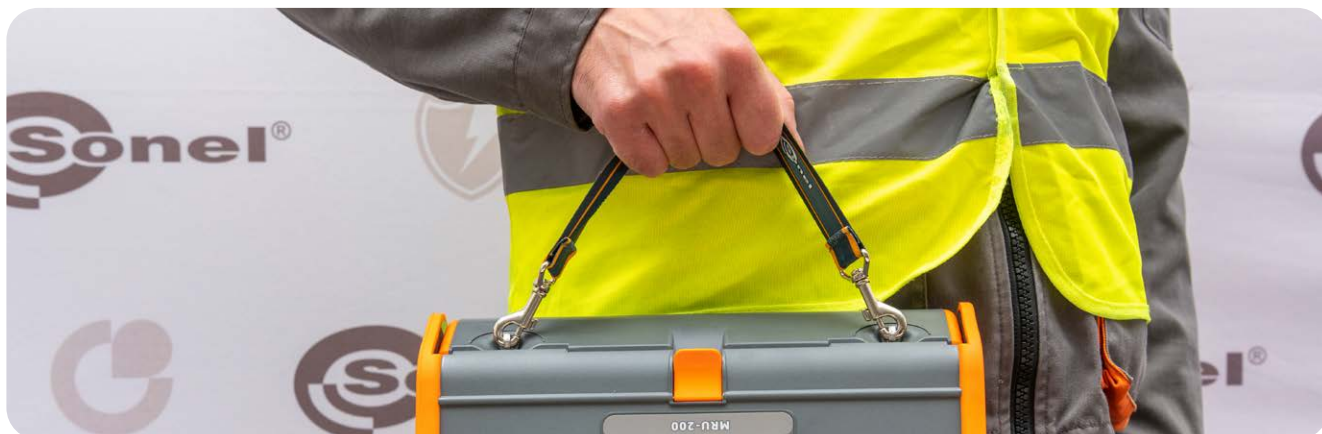
























Photo	Name	Index	MPI-540-PV Solar	MPI-540-PV Solar Start	MPI-540-PV	MPI-540-PV Start	MPI-540	MPI-540 Start	MPI-536	MPI-535	MPI-530/530-IT	MPI-525	MPI-520	MPI-520 Start	MPI-507	MPI-506	MPI-502F	EVSE-100	MRP-201	PVM-1530 Max	PVM-1530 Pro	PVM-1530	PVM-1021 Pro	PVM-1021	IRM-1
	PVM-1021 photovoltaic meter	WMGBPV1021																					1	1	•
	PVM-1530 photovoltaic meter	WMGBPV1530																		1	1	1			
	IRM-1 solar radiation and temperature meter	WMGBIRM1	1	1	•	•														2	1	•	1	•	1
	CMP-100 clamp meter + standard accessories	WMGBCMP100																•							
	CMP-1015-PV clamp meter + standard accessories	WMGBCMP1015PV																		1	1	•			
	Optional accessories for CMP-1015-PV	-																		•	•				
	AC-16 line splitter	WAADAAC16	•	•	•	•	•				•		•	•						•	•		•	•	
	AEV-100 adapter	WAADAAEV100																1							
	AGT-16C three-phase socket adapter 16 A	WAADAAGT16C	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•			•	•	•	•	•	•
	AGT-16P three-phase socket adapter 16 A	WAADAAGT16P	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•			•	•	•	•	•	•
	AGT-16T industrial socket adapter 16 A	WAADAAGT16T	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•			•	•	•	•	•	•
	AGT-32C three-phase socket adapter 32 A	WAADAAGT32C	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•			•	•	•	•	•	•
	AGT-32P three-phase socket adapter 32 A	WAADAAGT32P	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•			•	•	•	•	•	•
	AGT-32T industrial socket adapter 32 A	WAADAAGT32T	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•			•	•	•	•	•	•
	AGT-63P three-phase socket adapter 63 A	WAADAAGT63P	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•			•	•	•	•	•	•
	AutoISO-1000C adapter	WAADAAISO10C	•	•	•	•	•			•	•		•	•											
	AutoISO-2500 adapter	WAADAAISO25							•			•													
	EVSE-01 adapter	WAADAEVSE01	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•								
	PVM-1 adapter	WAADAPVM1	1	1	1	1																			
	IRM-1 mounting&measuring set (solar radiation meter mounting kit for PV panels + probe for measuring the temperature of PV panels and the ambient temperature)	WASONTPVCKPL	1	1	•	•														2	1		1		1
	Solar radiation measurement set (IRM-1 solar radiation and temperature meter + IRM-1 mounting&measuring set + Z24 power supply + LORA-S1 adapter for data transmission + M14 carrying case)	WMGBIRM1MPI	•	•	•	•																			
	TWR-1J - RCD breaker testing adapter	WAADATWR1J	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		•						

























Photo	Name	Index	MPI-540-PV Solar	MPI-540-PV Solar Start	MPI-540-PV	MPI-540-PV Start	MPI-540	MPI-540 Start	MPI-536	MPI-535	MPI-530/530-IT	MPI-525	MPI-520	MPI-520 Start	MPI-507	MPI-506	MPI-502F	EVSE-100	MRP-201	PVM-1530 Max	PVM-1530 Pro	PVM-1530	PVM-1021 Pro	PVM-1021	IRM-1
	WS-01 adapter with START button with UNI-Schuko plug	WAADAWS01															•		•						
	WS-03 adapter with START button with UNI-Schuko plug	WAADAWS03	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1								
	WS-04 adapter with UNI-Schuko plug	WAADAWS04	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•								
	WS-05 adapter with UNI-Schuko plug	WAADAWS05													•	•	•		1						
	WS-06 adapter (miniDIN-4P plug)	WAADAWS06	•	•	•	•	•	•	•	•	•														
	WS-07 adapter for measuring Z(L-N)	WAADAWS07													•	•	•								
	WS-09 adapter (pin probe)	WAADAWS09	•	•	•	•	•	•	•	•															
	Voltage adapters with M4/M6 thread (set of 4 pcs.)	WAADAM4M64	1	1	1	1	1	1																	
	MC4-banana sockets adapter (set of 2 pcs.)	WAADAMC4	1	1	1	1																1	1		
	MC4-banana sockets adapter 1.5 kV (set of 2 pcs.)	WAADA5KVMC4KPL																		1	1	1			
	MC4 splitter for power measurement in PV systems (set of 2 pcs.)	WAADAMC4SKPL	•	•	•	•																•	•		
	MC4 splitter for power measurement in PV installations 1500 V (set of 2 pcs.)	WAADAMC4SV2KPL																		•	•	•			
	Cable 2 m with MC4 plugs (set of 2 pcs.)	WAPRZ002MC4KPL																		1	1	1			
	Adapter for C-PV clamp	WAADACPV	1	1	1	1																			
	Double-wire test lead 2 m, for N-1 clamps (banana plugs)	WAPRZ002DZBB	•	•	•	•	•	•	•	•	•														
	F-1A flexible coil (Ø360 mm)	WACEGF1AOKR	•	•	•	•	•	•			•														
	F-2A flexible coil (Ø235 mm)	WACEGF2AOKR	•	•	•	•	•	•			•														
	F-3A flexible coil (Ø120 mm)	WACEGF3AOKR	3	•	3	•	3	•			•														
	N-1 transmitting clamp (Ø52 mm)	WACEGN1BB	•	•	•	•	•	•	•	•	•														
	C-3 current clamp (Ø52 mm)	WACEGC3OKR	•	•	•	•	•	•	•	•	•		•	•											
	C-4A current clamp (Ø52 mm)	WACEGC4AOKR	•	•	•	•	•	•																	
	C-5A current clamp (Ø39 mm)	WACEGC5AOKR	•	•	•	•	•	•																	
	C-6A current clamp (Ø20 mm)	WACEGC6AOKR	•	•	•	•	•	•			•														
	C-7A current clamp (Ø24 mm)	WACEGC7AOKR	•	•	•	•	•	•																	



























Photo	Name	Index	MPI-540-PV Solar	MPI-540-PV Solar Start	MPI-540-PV	MPI-540-PV Start	MPI-540	MPI-540 Start	MPI-536	MPI-535	MPI-530/530-IT	MPI-525	MPI-520	MPI-520 Start	MPI-507	MPI-506	MPI-502F	EVSE-100	MRP-201	PVM-1530 Max	PVM-1530 Pro	PVM-1530	PVM-1021 Pro	PVM-1021	IRM-1
	C-PV clamp	WACEGCPVOKR	1	1	1	1																	1	1	
	Crocodile clip, black, 1 kV, 20 A	WAKROBL20K01	1	1	1	1	1					1								2	2	2	1	1	
	Crocodile clip, red, 1 kV, 20 A	WAKRORE20K02	1	1	1	1	1	1	1	1	1	•	1	1	1	1	•		•	•	•	•	1	1	
	Crocodile clip, blue, 1 kV, 20 A	WAKROBU20K02	1	1	1	1	1	1	1	1	1	•	•	•	•	•	•		•	•	•	•			
	Crocodile clip, yellow, 1 kV, 20 A	WAKROYE20K02	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		1	•	•	•	1	1	
	Crocodile clip, black, 11 kV, 32 A	WAKROBL32K09							1			1													
	Crocodile clip, red, 11 kV, 32 A	WAKRORE32K09							•			•													
	Test lead 1.2 m, black, 1 kV (banana plugs)	WAPRZ1X2BLBB																					1	1	
	Test lead 1.2 m, black, 1 kV with N marker (banana plugs)	WAPRZ1X2BLBBN	1	1	1	1	1	1																	
	Test lead 1.2 m, red, 1 kV (banana plugs)	WAPRZ1X2REBB	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		1				1	1	
	Test lead 1.2 m, blue, 1 kV (banana plugs)	WAPRZ1X2BUBB	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		1						
	Test lead 1.2 m, yellow, 1 kV (banana plugs)	WAPRZ1X2YEBB	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		1				1	1	
	Test lead 3 m yellow CAT III 1500 V (banana plugs)	WAPRZ003YEBB1K5V																		1	1	1			
	Test lead 5 m, red, 1 kV (banana plugs)	WAPRZ005REBB	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		•						
	Test lead 10 m, red, 1 kV (banana plugs)	WAPRZ010REBB	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		•						
	Test lead 20 m red 1 kV (banana plugs)	WAPRZ020REBB	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		•						
	Test lead 30 m, red, 1 kV (banana plugs)	WAPRZ030REBBN													1										
	Test lead 15 m, blue, 1 kV (banana plugs)	WAPRZ015BUBBN													1										
	Test lead 15 m, blue (on a reel)	WAPRZ015BUBBSZ	1	1	1	1	1	1	1	1	1	1	1	•	•										
	Test lead 25 m, red (banana plugs, on a reel)	WAPRZ025REBBSZ	•	•	•	•	•	•	•	•	•	•	•	•	•										
	Test lead 25 m, blue (banana plugs, on a reel)	WAPRZ025BUBBSZ	•	•	•	•	•	•	•	•	•	•	•	•	•										
	Test lead 30 m, red (banana plugs, on a reel)	WAPRZ030REBBSZ	1	1	1	1	1	1	1	1	1	1	1	•	•										
	Test lead 50 m, yellow (banana plugs, on a reel)	WAPRZ050YEBBSZ	•	•	•	•	•	•	•	•	•	•	•	•	•										
	Test lead 1.8 m, black, 5 kV (banana plugs, shielded)	WAPRZ1X8BLBB							1			1													

























Photo	Name	Index	MPI-540-PV Solar	MPI-540-PV Solar Start	MPI-540-PV	MPI-540-PV Start	MPI-540	MPI-540 Start	MPI-536	MPI-535	MPI-530/530-IT	MPI-525	MPI-520	MPI-520 Start	MPI-507	MPI-506	MPI-502F	EVSE-100	MRP-201	PVM-1530 Max	PVM-1530 Pro	PVM-1530	PVM-1021 Pro	PVM-1021	IRM-1
	Test lead 1.8 m, black, 5 kV (banana plugs)	WAPRZ1X8BLBB5K																		1	1	1			
	Test lead 1.8 m, red, 5 kV (banana plugs)	WAPRZ1X8REBB						1			1									1	1	1			
	Test lead 3 m blue 5 kV (banana plugs)	WAPRZ003BUBB5K																		1	1	1			
	BNC transmission cable	WAPRZBNC																1							
	PRS-1 resistance test probe	WASONPRS1	•	•	•	•	•	•	•	•	•	•	•	•											
	LP-1 light meter probe (miniDIN-4P plug)	WAADALP1	•	•	•	•	•	•	•	•	•														
	LP-1 light meter probe for MPI (set, WS-06 plug)	WAADALP1KPL	•	•	•	•	•	•	•	•	•														
	LP-10A light meter probe (miniDIN-4P plug)	WAADALP10A	•	•	•	•	•	•	•	•	•														
	LP-10A light meter probe for MPI (set, WS-06 plug)	WAADALP10AKPL	•	•	•	•	•	•	•	•	•														
	LP-10B light meter probe (miniDIN-4P plug)	WAADALP10B	•	•	•	•	•	•	•	•	•														
	LP-10B light meter probe (set, WS-06 plug)	WAADALP10BKPL	•	•	•	•	•	•	•	•	•														
	Foldable pin probe, 1 kV, 2 m (banana socket)	WASONSP2M	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•						
	Pin probe, black 1 kV (banana socket)	WASONBLOGB1																		•	•	•	•	•	
	Pin probe, red 1 kV (banana socket)	WASONREOGB1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	•	•	•	•	1	1
	Pin probe, blue 1 kV (banana socket)	WASONBUOGB1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	•	•	•	•				
	Pin probe, yellow 1 kV (banana socket)	WASONYEGB1	1	1	1	1	1	1	1	1	1	1	1	•	1	1	•	•	•	•	•	•	•		
	Pin probe, black 5 kV (banana socket)	WASONBLOGB2							•		•									2	2	2			
	Pin probe, red 5 kV (banana socket)	WASONREOGB2						1			1														
	Probe for measuring the temperature of PV panels and the ambient temperature	WASONT PVC	•	•	•	•																	•	•	
	Earth contact test probe (rod), 25 cm	WASONG25												2											
	Earth contact test probe (rod), 30 cm	WASONG30	2	2	2	2	2	2	2	2	2	2	2	•	•										
	Earth contact test probe (rod), 80 cm	WASONG80V2	•	•	•	•	•	•	•	•	•	•	•	•	•										
	Cramp (banana socket)	WAZACIMA1	•	•	•	•	•	•	•	•	•	•	•	•	•										
	CS-1 cable simulator	WAADACS1	•	•	•	•	•	•	•	•	•	•	•	•											
















































Photo	Name	Index	MPI-540-PV Solar	MPI-540-PV Solar Start	MPI-540-PV	MPI-540-PV Start	MPI-540	MPI-540 Start	MPI-536	MPI-535	MPI-530/530-IT	MPI-525	MPI-520	MPI-520 Start	MPI-507	MPI-506	MPI-502F	EVSE-100	MRP-201	PVM-1530 Max	PVM-1530 Pro	PVM-1530	PVM-1021 Pro	PVM-1021	IRM-1
	CS-5kV calibration box	WAADACS5KV							•			•													
	Fuse 0.5 A, 1000 V AC/DC, 6.3x32 mm	WAPQZB05A1000V																		1	1	1			
	NiMH battery 4.8 V 4.2 Ah	WAAKU07									1	1	•	•											
	Li-Ion battery 11.1 V 3.4 Ah	WAAKU15	1	1	1	1	1	1	1	1															
	Battery container	WAPQJ1									•	•	1	1											
	Z-7 power supply + 230 V mains cable (IEC C7 plug)	WAZASZ7	1	1	1	1	1	1	1	1	1	1	•	•											
	Z-24 5 V power supply with USB 2.0 output and a detachable micro-USB cable	WAZASZ24	1	1																2	1		1		1
	230 V mains cable (IEC C13 plug)	WAPRZ1X8BLIEC																		1	1	1			
	Mains power cable 230 V (16 A 5P socket)	WAPRZZAS16P																1							
	Three-phase mains cable (16 A 5P socket)	WAPRZZAS16P3F																•							
	MPI charging set (charger + battery)	WAKPLLADMPI520									•	•	•	•											
	AZ-2 power supply adapter (IEC C7 plug/banana connectors)	WAADAAZ2	•	•	•	•	•	•	•	•															
	Cable for battery charging from car cigarette lighter socket (12 V)	WAPRZLAD12SAM	1	1	1	1	1	1	1	1	1	•	•	•											
	EVCAB cable 2.2 m (type 2 male/type 2 female)	WAKABEVT2T2																1							
	Test wire reel	WAPQZSZP1	•	•	•	•	•	•	•	•	•	•	•	•											
	Test wire H-frame	WAPQZSZP3	•	•	•	•	•	•	•	•	•	•	•	•											
	Strap	WAPQZPAS6																					1	1	
	L-2 hanging straps (set)	WAPQZSZEKPL	1	1	1	1	1	1	1	1	1	1	1	1											
	M-1 hanging straps	WAPQZSZE4													1	1	1		1						
	M-1 hanging hook straps	WAPQZUCH1													1	1	1	•				•	•		
	Magnetic hanging strap	WAPQZUCH6													•	•	•								
	Cover (universal)	WAPQZUCH12	•	•	•	•	•	•	•	•	•	•	•	•											
	Solar radiation meter mounting kit for PV panels	WAPQZUCHPV	•	•	•	•																	1		1
	Clamp for mounting the solar radiation meter to the solar panels	WAZACPV	•	•	•	•																	•		•



Photo	Name	Index	MPI-540-PV Solar	MPI-540-PV Solar Start	MPI-540-PV	MPI-540-PV Start	MPI-540	MPI-540 Start	MPI-536	MPI-535	MPI-530/530-IT	MPI-525	MPI-520	MPI-520 Start	MPI-507	MPI-506	MPI-502F	EVSE-100	MRP-201	PVM-1530 Max	PVM-1530 Pro	PVM-1530	PVM-1021 Pro	PVM-1021	IRM-1
	Key for MC4 connectors	WAPOZKEYMC4	•	•	•	•														1	1	1	•	•	
	L-2 carrying case	WAFUTL2	•	•	1	1	1	1	1	1	1	1	•												
	L-3 carrying case for a 80 cm rods	WAFUTL3	•	•	•	•	•	•	•	•	•	•	•	•	•										
	L-4 carrying case	WAFUTL4											•	1						1	1	1	1	1	
	L-19 backpack	WAFUTL19	1	1	•	•	•	•	•	•															
	M-6 carrying case	WAFUTM6													1	1	1		1						
	M-13 carrying case	WAFUTM13	•	•	1	1																			
	M-14 carrying case	WAFUTM14																							1
	XL-12 hard carrying case	WAWALXL12			•	•	•	•	•	•															
	XL-13 hard carrying case	WAWALXL13									•														
	S-4 armband case for mini Bluetooth keyboard	WAFUTS4									•														
	USB cable	WAPRZUSB	1	1	1	1	1	1	1	1	1	1	1	1						1	1	1			
	LORA-S1 USB adapter for data transmission	WAADAUSBLORA	1	1	•	•														1	1				
	OR-1 USB wireless receiver	WAADAUSBOR1										•	•	•					1						
	Barcode scanner 2D (USB)	WAADACK2D																•	•	•	•				
	Portable report / barcode printer D-2 SATO (USB, portable)	WAADAD2																•	•	•	•				
	Portable report / barcode printer D-3 Brother (Wi-Fi / USB, portable)	WAADAD3																•	•	•	•				
	Battery for D-3 Brother printer	WAAKU19																•	•	•	•				
	Label Roll – Black on White for D-2 SATO (with glue)	WANAKD2																•	•	•	•				
	Ribbon for D-2 SATO printer	WANAKD2BAR																•	•	•	•				
	Label Roll – Black on White for D-3 Brother (with glue)	WANAKD3																•	•	•	•				
	Touchscreen pen	WAPOZTPEN	1	1	1	1	1	1	1	1															
	PC software: Sonel Reports Plus	WAPROREPORTSPLUS	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
	PC software: Sonel Reader	WAPROREADER	1	1	1	1	1	1	1	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

1, 2, 4 - the number of standard accessories  
• - optional accessory

