



Accessories for Earth Resistance and Resistivity Meters Good equipment is essential

















measurements

test leads

communication

software

power supply

transportation

Sonel[®] we measure globally



measurements



Flexible coil

Flexible current coil, also known as a Rogowski coil, is useful for testing objects, on which hard clamps cannot be attached. In the measurements of alternating current, flexible coils are connected directly to the meter, whereas for earth resistance testing - the operators additionally use ERP-1 adapter. The coil is terminated with a 5-pin plug. It is available with different levels of the output signal and different lengths.





FSX-3 coil

Name	Max. diameter of measured conductor	Output signal level	Index
F-1A	360 mm		WACEGF1A0KR
F-2A	235 mm	38.8 µV / 1 A	WACEGF2A0KR
F-3A	120 mm		WACEGF3A0KR
F-4	630 mm		WACEGF40KR
FS-2	1260 mm	100 µV / 1 A	WACEGFS20KR
FSX-3	630 mm	300 µV / 1 A	WACEGFSX30KR

Accessories dedicated for:

ERP-1 adapter

quick and easy.

MRU-200-GPS	MRU-200	ERP-1





WAADAERP1



WAADAERP1V2 set



WAADAERP1V3 set

Set	Index
ERP-1 adapter	WAADAERP1
FPD 1 - denter with FO 0 (leville and a series of a series	

The measurements are carried out with flexible coil, available in

several length options and electrical parameters.

The adapter is designed to work with earth resistance meters with test current of 200 mA, which provide the user with a choice of performing the measurement using 3-wire method or measurement clamps. Ergonomic, handy casing and ease of use make the resistance testing (e.g. earthing of transmission towers)

ERP-1 adapter with FS-2 flexible coil and carrying case	WAADAERP1V2
ERP-1 adapter with FSX-3 flexible coil and carrying case	WAADAERP1V3

Accessories dedicated for:

MRU-200-GP

MRU-200 MRU-120HD









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:





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:



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.









measurements



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.



Plug	banana, 4 mm
Measurement category	1000 V, CAT III
Maximum current	20 A
Color	Index
Black	WASONBLOGB1
Red	WASONREOGB1
Blue	WASONBUOGB1
Yellow	WASONYEOGB1

Accessories dedicated for:

MRU-200-GPS	MRU-200	MRU-120HD	MRU-120
MRU-30	MRU-21	MRU-12	MRU-10

Crocodile clips

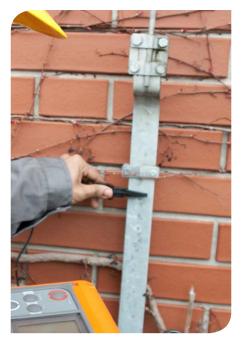
Secure, insulated crocodile clips with Ø 4 mm socket, intended for connecting test leads with plugs and a guard. Their jaws have a wide range of opening that enables them to be attached tu conductors with a diameter of 16 mm. In addition to the serrated jaw surface, the clips have flat surfaces for grasping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

WAKRUBLZUKUT
WAKRORE20K02
WAKROBU20K02
WAKROYE20K02

MRU-200-GPS	MRU-200	MRU-120HD	MRU-120
MRU-30	MRU-21	MRU-12	MRU-10









25 cm rod

30 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.

Туре	Length	Index
Bent	25 cm	WASONG25
Straight with a reel holder	30 cm	WASONG30
Straight with a reel holder	80 cm	WASONG80V2









MRU-10

Cramp



80 cm rod

index: WAZACIMA1

MRU-30

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			bar	nana, 4 mm
Spread range				50 mm
Accessory de	dicated for:			
MRU-200-GPS	MRU-200	MRU-120HD	MRU-120	

MRU-12

MRU-21



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.



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 ²	
Color	Length	Index	
Black	1.2 m	WAPRZ1X2BLBB	
Red		WAPRZ1X2REBB	
Blue		WAPRZ1X2BUBB	
Yellow		WAPRZ1X2YEBB	
Black		WAPRZ2X2BLBB	
Red	2.2 m	WAPRZ2X2REBB	
Blue	2.2 m	WAPRZ2X2BUBB	
Yellow		WAPRZ2X2YEBB	
Black	4 m	WAPRZ004BLBB	
Blue		WAPRZ004BUBB	



... . . .

Accessories d	ledicated for	r:			2 10 MAY 40 10 18 18	
MRU-200-GPS	MRU-200	MRU-120HD	MRU-120	MRU-30	MRU-21	MRU-12



Test lead on a H-frame



Test lead on a reel



Test lead on a reel. shielded

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
Red		15 m, H-frame	WAPRZ015REBBN
Blue		15 m, H-frame	WAPRZ015BUBBN
Yellow		30 m, H-frame	WAPRZ030YEBBN
Red		30 m, H-frame	WAPRZ030REBBN
Blue		15 m, reel	WAPRZ015BUBBSZ
Red		25 m, reel	WAPRZ025REBBSZ
Blue		25 m, reel	WAPRZ025BUBBSZ
Red		30 m, reel	WAPRZ030REBBSZ
Yellow		40 m, reel	WAPRZ040YEBBSZ
Yellow		50 m, reel	WAPRZ050YEBBSZ
Yellow		60 m, reel	WAPRZ060YEBBSZ
Yellow Accessories d	edicated fo	80 m, reel or:	WAPRZ080YEBBSZ
MRU-200-GPS	MRU-200	MRU-120HD	MRU-120

IRU-200-GPS	MRU-200	MRU-120HD	MRU-120
MRU-30	MRU-21	MRU-12	MRU-10

The test leads are also available with shielding and this version is dedicated for testing with the impact method, where the results are strongly influenced by interference from ambient electromagnetic field. One end of the test lead has two terminals - one for the working conductor and the other for shielding.

Color	Features	Index
Yellow	50 m, reel, shielded	WAPRZ050YEBBSZE

Accessory dedicated for:







Test leads on a drum reel

The test leads on a drum reel are designed for measurements performed over large areas with significant distances between connecting point of the tested object and probes driven into ground. The reel is equipped with a terminal of banana type (4 mm) to provide two functions. The first one is connecting multiple drum cables into series. The second function involves connecting the reel with the meter - an additional short cable is used for this purpose. The entire device is completed with a metal, stabilizing stand.

Color	Features	Index
Red	75 m	WAPRZ075REBBSZ
Blue	75 m	WAPRZ075BUBBSZ
Yellow	75 m	WAPRZ075YEBBSZ
Red	100 m	WAPRZ100REBBSZ
Blue	100 m	WAPRZ100BUBBSZ
Yellow	100 m	WAPRZ100YEBBSZ
Red	200 m	WAPRZ200REBBSZ
Blue	200 m	WAPRZ200BUBBSZ
Yellow	200 m	WAPRZ200YEBBSZ

Accessories dedicated for:



Test leads on a drum reel, shielded

The shielded test leads are dedicated for testing the earthing systems with the impact method, where the results may be strongly influenced by interference from ambient electromagnetic field. The test lead wound on the drum has one end terminated with 4 mm lamella. The other end of the lead has two terminals (measuring terminals/sockets) - one for the working conductor and the other for shielding - installed on the side of the reel. The set includes also additional leads for connecting the reel to the meter.

Color	Features	Index
Yellow	75 m, shielded	WAPRZ075YEBBSZE
Yellow	100 m, shielded	WAPRZ100YEBBSZE
Yellow	200 m, shielded	WAPRZ200YEBBSZE

Accessories dedicated for:





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.











test leads



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:







communication



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:

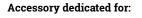




OR-1 adapter

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 MRU meters.



MRU-200-GPS	MRU-200
up to serial	up to serial
number	number
BU9999	709999

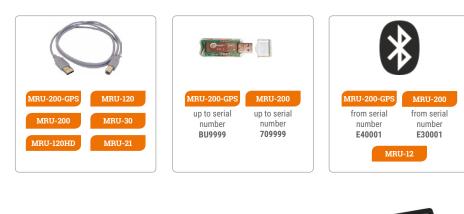






software

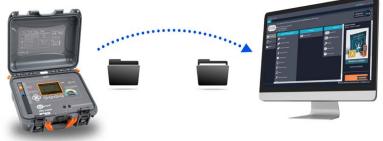
Manage YOUT **data!**





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.







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



software



Sonel Reports PLUS

index: WAPROREPORTSPLUS

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:



stomer	Grid and testin	ng Visual check/Testing	Equipotential bond	ling Remarks	Installation structs
	SI	R	Fax:+00		i.
ustomer	No. [Order No.:	Customer no.	Contractor	
ostomen	1	Under No.:	-	Contractor:	
ustomer			Objects		
		~			0



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	ep INSTROM Import from Import from epiNSTROM	
Data and software function	s			
Inspectors Inspectors	Test labels			
Manufacturer				
www.sonel.pl				



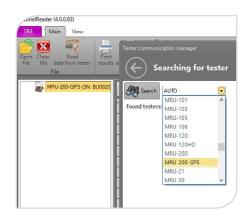
Sonel Reader

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:

MRU-200-GPS	MRU-200	MRU-120HD	MRU-120
MRU-30	MRU-21	MRU-12	



R4 Main View									
R.									
p.									
Test functions									
MRU-200-GPS (SN: BU0020)	N ²	Bank	Cell	ρ	1	Rн	Rs	UN	fn
	82	4	11	33.7 Ωm	5 m	401 Ω	399 Ω	0 V	0.00 H
	83	4	12	33.5 Ωm	5 m	401 Ω	399 Q	ov	0.00 H
	84	4	13	33.5 Ωm	5 m	401 Ω	400 Ω	0 V	0.00 1
	85	4	14	33.5 Ωm	5 m	401 Ω	399 Q	0 V	0.00 H
	86	4	15	302 Ωm	10 m	401 Ω	400 Ω	ov	0.00 H
	87	4	16	302 Ωm	10 m	4 01 Ω	399 Ω	0 V	0.00 H
	88	4	17	305 Ωm	10 m	401 Ω	399 Q	0 V	0.00 H
	89	4	18	305 Om	10 m	401 Q	399 Q	OV	0.00 H
	90	4	19	305 Ωm	10 m	401 Ω	400 Ω	0 V	0.00 H
	91	4	20	5.90 kΩm	20 m	401 Ω	399 Q	ov	0.00 H
	92	4	21	5.91 kOm	20 m	401 O	399 O	0 V	0.00 H
	93	4	22	5.91 kΩm	20 m	401 Ω	399 Ω	0 V	0.00 H
1	94	4	23	5.85 kΩm	20 m	401 Ω	400 Q	ov	0.00 H
	95	4	24	5.85 kOm	20 m	401 O	400 O	0 V	0.00 H
	96	4	25	5.85 kΩm	20 m	401 Ω	400 Ω	0V	0.00 H
	157	7	16	33.5 Ωm	5 m	401 Ω	400 Ω	0 V	0.00 H
	158	7	17	33.5 Om	5 m	401 O	400 O	0 V	0.00 H
	159	7	18	33.5 Ωm	5 m	401 Ω	399 N	0 V	0.00 H
	160	7	19	33.5 Ωm	5 m	401 Ω	400 Ω	0 V	0.00 H
	161	7	20	302 Om	10 m	401 Q	400 Q	0 V	0.00 H
	162	7	21	302 Ωm	10 m	401 Ω	400 Ω	0 V	0.00 H
	163	7	22	302 Ωm	10 m	401 Ω	400 Ω	0 V	0.00 H
	164	7	23	302 Om	10 m	415 O	400 O	0 V	0.00 H
Q	165	7	24	302 Ωm	10 m	401 Ω	400 Ω	0 V	0.00 H

	Main View	_	_	_	_	_	
2	Open file	🔿 📻 Polski					
Contraction in the local data		🖲 👬 English					
	Read from tester	(?) Pусский					
	Close file	🔘 🌉 English_U	S				
		🔿 🚺 Français					
Export	results to:	Nederland	s				
100	Text file (txt))	💮 🏧 Español					
(CA)	Excel file (xls)	🔘 🔛 Turkçe 🔘 🚍 Magyar					
	EXCELTING (XIS)	🕐 📥 Český					
	Check updates	@ = German					
-							
Nº1	Language	5					
-							
	Configuration catalog						
	Configuration catalog About						
						×	
		14	1	14	28.30 0	×	
		14	1	14 15	28.30 Ω 28.31 Ω		
						1.00 kO	
		15	1	15	28.31 Ω	1.00 kΩ 1.00 kΩ	
		15	1	15 16	28.31 Ω 28.29 Ω	1.00 kΩ 1.00 kΩ 1.00 kΩ	
		15 16 17	1	15 16 17	28.31 Ω 28.29 Ω 28.30 Ω	1.00 kΩ 1.00 kΩ 1.00 kΩ 1.00 kΩ	
		15 16 17 18	1 1 1	15 16 17 18	28.31 Ω 28.29 Ω 28.30 Ω 28.29 Ω	1.00 kO 1.00 kΩ 1.00 kΩ 1.00 kΩ 1.00 kΩ	
		15 16 17 18 19	1 1 1 1	15 16 17 18 19	28.31 Ω 28.29 Ω 28.30 Ω 28.29 Ω 28.03 Ω	1.00 kΩ 1.00 kΩ 1.00 kΩ 1.00 kΩ 1.00 kΩ 999 Ω	
		15 16 17 18 19 20	1 1 1 1 1 1 1	15 16 17 18 19 20	28.31 Ω 28.29 Ω 28.30 Ω 28.29 Ω 28.03 Ω 28.02 Ω	1.00 kΩ 1.00 kΩ 1.00 kΩ 1.00 kΩ 1.00 kΩ 999 Ω 999 Ω	
		15 16 17 18 19 20 21	1 1 1 1 1 1 1 1	15 16 17 18 19 20 21	28.31 Ω 28.29 Ω 28.30 Ω 28.29 Ω 28.03 Ω 28.02 Ω 28.02 Ω	1.00 kΩ 1.00 kΩ 1.00 kΩ 1.00 kΩ 1.00 kΩ 999 Ω 999 Ω 1.32 kΩ	



Sonel MRU Mobile

This app enables the user to **connect directly to the device** via Bluetooth and download measurement data from the meter. After reading the measurement results from the device, they can be easily and quickly **browsed** and **transferred from the measurement site** to a person who can help to interpret them or prepare the measurement report.

This app may be also used to add a photo, comment or voice note to the measurement results. The app provides also **access to the manual of the meter** and "Help" section, which facilitates the use of various measurement methods.

Users without the meter can use a set of **sample data**, implemented in demo mode.

Software dedicated for:

IRU-200-GPS MRU-200 from serial from serial number number E40001 E30001





power supply



Rechargeable battery

The recheargeable NiMH (nickel metal hydride) 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
Accessory dedicated for	or:	
MRU-200-GPS MRU-200	MRU-120	
Name	Features	Index
NiMH rechargeable battery	4.8 V 3 Ah	WAAKU08
Accessory dedicated for	or:	
MRU-120		





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.









Z-7 power supply

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	100240 V AC
Output voltage	12 V DC
Maximum output power	30 W
Accessory dedicated for:	
MRU-200-GPS MRU-200 MRU-120HD	MRU-120





230 V mains cable (IEC C7 plug)

index: WAPRZLAD230

MRU-30

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 ²
Nominal voltage	250 V AC/DC
Accessory dedicated for:	

MRU-120

MRU-200-GPS MRU-200 MRU-120HD







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.







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:

MRU-200-GPS	MRU-200	MRU-120





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.









L-7 backpack

index: WAFUTL7

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.



Accessory dedicated for:

MRU-120HD



L-10 carrying case

index: WAFUTL10

Designed for storage and transport of the meter and its accessories. The case has two main compartments closed with a zipper and one pocket on the flap. The compartments are equipped with additional elastic bands for fixing accessories and a pocket for documents. 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:





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.







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 two feet.

Accessory dedicated for:

MRU-12 MRU-10	MRU-12	MRU-10
---------------	--------	--------



M-9 carrying case

index: WAFUTM9

This case is designed for storage and transport of the meter and its accessories. It is provided with two flaps locked with a zipper in places for measuring and communication inputs. The bottom of the case is protected against the contact with the ground by four feet. The case is provided with the strap for hanging the meter on the shoulder (during transport) or around the neck (during the measurement).

Accessory dedicated for:

MRU-30



XL-3 hard carrying case

index: WAWALXL3

This case is designed for storage and transport of the meter and its accessories. It is made of a break-resistant plastic. It has a carrying handle and a strap for hanging it on the shoulder. The case is provided with a special insert, which is cut precisely to match the shape of equipment supplied with MRU meters.

Accessory dedicated for:

MRU-200-GPS MRU-200 MRU-120



XL-8 hard carrying case

index: WAWALXL8

The case is designed for storage and transportation of ERP-1 adapter with the measuring clamps. It is made of a break-resistant plastic. It has a carrying handle and a strap for hanging it on the shoulder. The case is provided with a special insert, which is cut precisely to match the shape of the adapter and flexible clamps.











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:







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:







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.







Photo	Name	Index	MRU-200-GPS (L-2)	MRU-200-GPS (XL-3)	MRU-200 (L-2)	MRU-200 (XL-3)	MRU-120HD	MRU-120 (L-2)	MRU-120 (XL-3)	MRU-30	MRU-21	MRU-12	MRU-10	ERP-1
	ERP-1 adapter for earth resistance measurements	WAADAERP1	٠	٠	٠	٠	٠	٠	٠					
Å.	ERP-1 adapter for earth resistance measurements with FS-2 flexible coil	WAADAERP1V2	•	٠	٠	•	•	٠	•					
Å.	ERP-1 adapter for earth resistance measurements with FSX-3 flexible coil	WAADAERP1V3	•	٠	•	•	•	•	•					
Ö	F-1A flexible coil (Ø360 mm)	WACEGF1AOKR	•	٠	٠	•								•
Ö	F-2A flexible coil (Ø235 mm)	WACEGF2AOKR	•	٠	•	•								•
00	F-3A flexible coil (Ø120 mm)	WACEGF3AOKR	•	٠	٠	٠								٠
Ó	F-4 flexible coil (Ø630 mm)	WACEGF40KR	•	٠	٠	•								•
Ø	FS-2 flexible coil (Ø1260 mm)	WACEGFS20KR	•	٠	۰	٠								•
Ô,	FSX-3 flexible coil (Ø630 mm)	WACEGFSX30KR	•	٠	•	•								•
	N-1 transmitting clamp (Ø52 mm)	WACEGN1BB	•	٠	٠	•	•	•	•	٠				
	C-3 current clamp (Ø52 mm)	WACEGC30KR	•	٠	•	•	•	•	•	•				
1	Crocodile clip, black, 1 kV, 20 A	WAKROBL20K01	1	1	1	1	•	1	1	1	1	1	1	
1	Crocodile clip, red, 1 kV, 20 A	WAKRORE20K02	1	1	1	1	•	•		•	•	•	•	
de la	Crocodile clip, blue, 1 kV, 20 A	WAKROBU20K02	•	٠	•	•	•	•	•	•	1	1	•	

Photo	Name	Index	MRU-200-GPS (L-2)	MRU-200-GPS (XL-3)	MRU-200 (L-2)	MRU-200 (XL-3)	MRU-120HD	MRU-120 (L-2)	MRU-120 (XL-3)	MRU-30	MRU-21	MRU-12	MRU-10	ERP-1
4	Crocodile clip, yellow, 1 kV, 20 A	WAKROYE20K02	•	•	•	•	•	•	•	•		•	•	
1	Test lead 1.2 m, black, 1 kV (banana plugs)	WAPRZ1X2BLBB	•	•	ø	•	•	•	•	•	•	•	•	
1	Test lead 1.2 m, red, 1 kV (banana plugs)	WAPRZ1X2REBB	1	1	1	1	•	1	1	1	•	•	•	
1	Test lead 1.2 m, blue, 1 kV (banana plugs)	WAPRZ1X2BUBB	•	•	•	•	٠	•	•	٠	1	٠	•	
/~	Test lead 1.2 m, yellow, 1 kV (banana plugs)	WAPRZ1X2YEBB	•	•	•	•	•	•	•	•	•	•	•	
	Double-wire test lead 2 m, for N-1 clamps (banana plugs)	WAPRZ002DZBB	•	•	•	•	٠	•	•	٠				
	Test lead 2.2 m, black, 1 kV (banana plugs)	WAPRZ2X2BLBB	1	1	1	1	•	1	1	1	1	1	1	
6	Test lead 2.2 m, red, 1 kV (banana plugs)	WAPRZ2X2REBB	•	•	ø	•	•	•	•	•	•	٠	•	
0	Test lead 2.2 m, blue, 1 kV (banana plugs)	WAPRZ2X2BUBB	•	•	•	•	•	•	•	•	•	1	•	
10	Test lead 2.2 m, yellow, 1 kV (banana plugs)	WAPRZ2X2YEBB	•	•	ø	•	٠	•	•	٠	•	٠	•	
1	Test lead 4 m black 1 kV (banana plugs)	WAPRZ4X0BLBB	•	•	•	•	1	•	•	•	•	•	•	
1	Test lead 4 m blue 1 kV (banana plugs)	WAPRZ4X0BUBB	•	•	•	•	1	•	•	•	•	٠	•	
۲	Test lead 15 m, blue (on a reel)	WAPRZ015BUBBSZ	•	•	•	•	•	•	•	•	1	•	•	
	Test lead with banana plug; 15 m; red	WAPRZ015REBBN	•	•	•	•	٠	•	•	٠		1	1	

Photo	Name	Index	MRU-200-GPS (L-2)	MRU-200-GPS (XL-3)	MRU-200 (L-2)	MRU-200 (XL-3)	MRU-120HD	MRU-120 (L-2)	MRU-120 (XL-3)	MRU-30	MRU-21	MRU-12	MRU-10	ERP-1
	Test lead with banana plug; 15 m; blue	WAPRZ015BUBBN	•	•	•	•	•	•	•	•	•	1	•	
@ ~,	Test lead 25 m, red (banana plugs, on a reel)	WAPRZ025REBBSZ	1	1	1	1	٠	1	1	1	٠	٠	•	
	Test lead 25 m, blue (banana plugs, on a reel)	WAPRZ025BUBBSZ	1	1	1	1	1	1	1	•	•	•	•	
@ _	Test lead 30 m, red (banana plugs, on a reel)	WAPRZ030REBBSZ	•	•	•	•	•	•	•		1	٠	•	
	Test lead with banana plugs; 30 m; red	WAPRZ030REBBN	•	•	٠	•	•	•	•	•	•	•	•	
· tel	Test lead with banana plugs; 30 m; yellow	WAPRZ030YEBBN	•	•	•	•	•	•	•		•	1	1	
<u>@</u>	Test lead 40 / 60 / 80 m, yellow (banana plugs, on a reel)	WAPRZ040YEBBSZ WAPRZ060YEBBSZ WAPRZ080YEBBSZ	•	•	•	•	•	•	•		•	•	•	
9	Test lead 50 m, yellow (banana plugs, on a reel)	WAPRZ050YEBBSZ	•	٠	٠	•	1	1	1	1	•	•	•	
٩	Test lead 50 m, yellow (banana plugs, on a reel, shielded)	WAPRZ050YEBBSZE	1	1	1	1								
١	Test lead 75 / 100 / 200 m, red (banana plugs, on a reel)	WAPRZ075REBBSZ WAPRZ100REBBSZ WAPRZ200REBBSZ	•	•	•	•	•	•	•		•	•	•	
١	Test lead 75 / 100 / 200 m, blue (banana plugs, on a reel)	WAPRZ075BUBBSZ WAPRZ100BUBBSZ WAPRZ200BUBBSZ	•	•	•	•	•	•	•	•	•	•	•	
١	Test lead 75 / 100 / 200 m, yellow (banana plugs, on a reel)	WAPRZ075YEBBSZ WAPRZ100YEBBSZ WAPRZ200YEBBSZ	o	•	ø	•	•	•	•	٠	٠	٠	•	
١	Test lead 75 / 100 / 200 m, yellow (banana plugs, on a reel, shielded)	WAPRZ075YEBBSZE WAPRZ100YEBBSZE WAPRZ200YEBBSZE	•	•	•	•								
	Pin probe, black 1 kV (banana socket)	WASONBLOGB1	•	•	•	•	•	•	•	•	•	•	•	

Photo	Name	Index	MRU-200-GPS (L-2)	MRU-200-GPS (XL-3)	MRU-200 (L-2)	MRU-200 (XL-3)	MRU-120HD	MRU-120 (L-2)	MRU-120 (XL-3)	MRU-30	MRU-21	MRU-12	MRU-10	ERP-1
	Pin probe, red 1 kV (banana socket)	WASONREOGB1	•	•	•	•	•	1	1	1	•	•	•	
	Pin probe, blue 1 kV (banana socket)	WASONBUOGB1	•	•	•	•	•	•	•	•	•	•	•	
	Pin probe, yellow 1 kV (banana socket)	WASONYEOGB1	•	•	•	•	•	•	•	•	•	•	•	
	Earth contact test probe (rod), 25 cm	WASONG25	•	•	•	•	•	•	•	•	•	4	2	
	Earth contact test probe (rod), 30 cm	WASONG30	4	4	4	4	4	4	4	2	2	•	•	
~	Earth contact test probe (rod), 80 cm	WASONG80V2	•	•	٠	•	•	•	٠	•	٠	•	•	
Ø,	Cramp	WAZACIMA1	1	1	1	1	2	1	1	1	•	•		
	NiMH battery 4.8 V 4.2 Ah	WAAKU07	1	1	1	1		٠	٠					
	NiMH battery 4.8 V 3.2 Ah	WAAKU08						1	1					
	NiMH battery 4.8 V 4.2 Ah (replaceable in the SONEL S.A. service)	WAAKU28					1							
	Battery pack	WAP0J1									1			
))	Z-7 power supply	WAZASZ7	1	1	1	1	1	1	1	1				
100	Mains cable with IEC C7 plug	WAPRZLAD230	1	1	1	1	1	1	1	1				
15	Cable for battery charging from car cigarette lighter socket (12 V)	WAPRZLAD12SAM	1	1	1	1	•	٠	·	•				

Photo	Name	Index	MRU-200-GPS (L-2)	MRU-200-GPS (XL-3)	MRU-200 (L-2)	MRU-200 (XL-3)	MRU-120HD	MRU-120 (L-2)	MRU-120 (XL-3)	MRU-30	MRU-21	MRU-12	MRU-10	ERP-1
	Test wire reel	WAP0ZSZP1	•	•	•	•	•	•	•	•	•	•	•	
TT.	Test wire H-frame	WAP0ZSZP3	٠	•	•	•	•	•	•		•			
Ð	L-2 hanging straps (set)	WAPOZSZEKPL	1	1	1	1		1	1		1			
A	M-1 hanging straps	WAPOZSZE4										1	1	
	W-1 hanging straps	WAPOZSZE5					1							
~	M-1 hanging hook straps	WAP0ZUCH1										1	1	
	Cover (universal)	WAPOZUCH12	•	•	•	•		•	•		٠			
	L-2 carrying case	WAFUTL2	1	•	1	•		1	•					
	L-3 carrying case for a 80 cm rods	WAFUTL3	•	•	•	•	•	•	•	•	•		•	
	L-4 carrying case	WAFUTL4					1				1			
۹Ĵ-	L-7 backpack	WAFUTL7					•							
	L-10 carrying case	WAFUTL10								1				
S	L-19 backpack	WAFUTL19	٠		٠			٠		•	•			
	M-6 carrying case	WAFUTM6										1	1	

Photo	Name	Index	MRU-200-GPS (L-2)	MRU-200-GPS (XL-3)	MRU-200 (L-2)	MRU-200 (XL-3)	MRU-120HD	MRU-120 (L-2)	MRU-120 (XL-3)	MRU-30	MRU-21	MRU-12	MRU-10	ERP-1
	M-9 carrying case	WAFUTM9								1				
	XL-3 carrying case	WAWALXL3		1		1			1					
Ø	XL-8 carrying case	WAWALXL8												•
\bigcirc	USB cable	WAPRZUSB	1	1	1	1	1	1	1	1	1			
SR	PC software: Sonel Reports PLUS	WAPROREPORTSPLUS	•	•	•	•	•	•			•	•		
Ş	PC software: Sonel Reader	WAPROREADER		•	•	•	•	•	•		•	•		

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



SONEL S.A.

Wokulskiego 11 58-100 Świdnica Poland

sonel.com