

Accessories for portable appliance testers

# **PATent for safety**









**Sonel**® we measure globally

measurements

labeling

transportation

software



# measurements

# Adapters for single phase industrial sockets

With their help, you can perform safety tests of devices that are powered from single-phase 16 A and 32 A industrial sockets. They ensure the availability of all tests that are carried out using the measuring socket on the face of the meter (provided that the rated current of the tested object does not exceed 16 A).

Туре	Usage	Index
Unswitchable	Sockets 16 A, 1-phase 3-pole	WAADAPAT16F1
Unswitchable	Sockets 32 A, 1-phase 3-pole	WAADAPAT32F1



### Accessories dedicated for:

PAT-2

PAT-2E

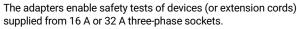
PAT-10

PAT-820 PAT-80

PAT-85

PAT-86

# Adapters for three phase industrial sockets



- The unswitchable versions have permanently shorted lines L1, L2, L3 of a three-phase socket, connected to the L line of a single-phase plug.
- The switchable versions are equipped with a rotary switch shorting L of the measuring socket on the face of the meter with adapter phases - individually or collectively.

The use of a set of adapters allows testing of 3-phase extension cords, including polarization test.



Adapter Unswitchable

Adapter Switchable

Туре	Usage	Index			
Unswitchable	Carlinto 16 A 2 mbana 4 mala	WAADAPAT16C			
Switchable	Sockets 16 A, 3-phase 4-pole	WAADAPAT16CPR			
Unswitchable	Cookete 16 A 2 phase E pole	WAADAPAT16P			
Switchable	Sockets 16 A, 3-phase 5-pole	WAADAPAT16PR			
Unswitchable	Cookete 22 A 2 phase 4 pole	WAADAPAT32C			
Switchable	Sockets 32 A, 3-phase 4-pole	WAADAPAT32CPR			
Unswitchable	Carlinta 20 A 2 abana 5 ania	WAADAPAT32P			
Switchable	Sockets 32 A, 3-phase 5-pole	WAADAPAT32PR			
Switchable	Plugs 16 A, 3-phase 5-pole	WAADAPAT16PRIEC			
Switchable	Plugs 32 A, 3-phase 5-pole	WAADAPAT32PRIEC			





### Accessories dedicated for:

PAT-2

PAT-2E

PAT-10

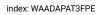
PAT-820

PAT-80

PAT-85

PAT-86

# PAT-3F-PE adapter for leakage current measurement





- leakage current of a welding machine's primary circuit in a situation when it is supplied from a single-phase or three-phase mains (16 A or 32 A),
- PE leakage current for devices supplied from a three-phase mains with a maximum current of 16 A or 32 A.

## Accessories dedicated for:









# **IEC Test adapter (Schuko)**

index: WAADAPATIEC1

The adapter allows testing wires with IEC C5 plug (so-called "cloverleaf " or "Mickey Mouse"). The available test kit is the same as for standard IEC

### Accessories dedicated for:

PAT-2	

PAT-820

PAT-86





index: WAADAPATIEC2

The adapter is terminated with IEC and Schuko plugs. It allows measurements of single-phase extension cords.



### Accessories dedicated for:



PAT-820





index: WACEGC30KR

With the help of this clamp, a number of tests can be carried out on devices that are permanently connected to the mains:

- measurement of PE leakage current,
- measurement of differential leakage current in L and N wires,
- measurement of power consumption.

### Accessories dedicated for:











# measurements

# **Test probes**

The probe is often a necessary of a test - it provides a galvanic connection between the meter and the tested object. In standard cases, a 1 kV probe is sufficient. A 5 kV probe is required for HV tests (high voltage insulation tests). When measuring continuity, to eliminate the resistance of the test leads, a high current probe comes in handy. The brush probe allows testing when the measurement is performed on a movable element, e.g. a drill spindle.

Name	Features	Index				
Pin probe red	1 kV	WASONREOGB1				
Pin probe blue	I KV	WASONBUOGB1				
Pin probe red	5 kV	WASONREOGB2				
Hight-current probe	1 kV	WASONSPGB1				
Brush probe	1 kV	WASONSZ1				



### Accessories dedicated for:



















Hight-current probe 1 kV



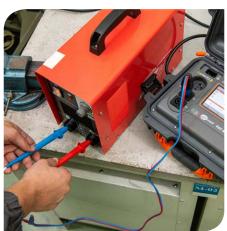


Brush probe



PAT-820

PAT-85 PAT-80 PAT-86



# **Crocodile clips**

What a crocodile clip is for - everyone can see. This is an important element of the measuring system. It is worth using when the use of probes is impossible or inconvenient.

Name	Features	Index
Crocodile clip red	1 14/	WAKRORE20K02
Crocodile clip blue	1 kV	WAKROBU20K02
Kelvin's Crocodile clip	1 kV 25 A	WAKROKELK06

### Accessories dedicated for:











## **Test leads**

There are no measurements without test leads. Their selection depends on the test method, but also on the tested object. If probes are needed, but they are not around, a crocodile terminated test lead can be used instead.

Name	Features	Index
Test lead 1,2 m	1 kV	WAPRZ1X2REBB2X5
Test lead 1,2 m terminated in a crocodile clip	1 kV	WAPRZ1X2REBK
Test lead 1,8 m terminated in a crocodile clip	Plug PAT, 10 A / 25 A	WAPRZ1X80RKS
Test lead 1,5 m double-wire	Plug PAT / bananas	WAPRZ1X5DZBB
Test lead 2,1 m double-wire	Plug IEC13 / bananas	WAPRZ2X1DZIECB



### Accessories dedicated for:



Test lead 1,2 m





Test lead 1,2 m





Test lead 1,8 m terminated in a crocodile clip









Test lead 1,5 m double-wire, plug PAT



PAT-80 PAT-





Test lead 2,1 m double-wire, plug IEC13

PAT-820

# Create your own kit:





Pin probe 1 kV



Pin probe 5 kV



Hight-current probe 1 kV



Brush probe



Crocodile clip 1 kV



Kelvin's Crocodile clip 1 kV 25 A



Test lead 1,2 m



Test lead 1,2 m terminated in a crocodile clip



Test lead 1,8 m terminated in a crocodile clip



Test lead 1,5 m double-wire, plug PAT



Test lead 2,1 m double-wire, plug IEC13



# 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.



## **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:

PAT-820 PAT-80 PAT-85 PAT-86



# Report / barcode Brother printer

index: WAADAD3

Communicates with the meter via Wi-Fi and USB.



# **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:

PAT-2E

# **OR** 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

Accessory dedicated for:

PAT-80





# transportation



# L11 carrying case

index: WAFUTL11

The case can fit the meter and the accessories. It protects the contents from dirt and damage. It's durable and easy to spot, thanks to brightt orange colour. When there is a lot of equipment to move, a solid case is the best solution.



### Accessory dedicated for:





PAT-86



# M12 carrying case

index: WAFUTM12

The case allows to perform the measurements while hanging around the user's neck. The lower pocket can hold the report printer, so the examined object can be marked as "working" or "out of order". This provides user high mobility. When the meter, accessories and printer are at hand, the measuring station is located where the tested device is.



### Accessory dedicated for:

PAT-2

PAT-2E





# software

### **Sonel PAT Server**



### This software:

- allows for smooth data management,
- · enables work through a web browser,
- · enables work in the task ordering mode,
- stores a copy of data on the server.

### Using PAT Server, the user may:

- work with a permanent connection to the system,
- · have unlimited access to the software,
- · have immediate access to reporting,
- · look after the crew and fleet,
- · control access.

### Software dedicated for:

PAT-2

PAT-2E

PAT-10

PAT-80

PAT-85

PAT-86

# **Sonel PAT Analysis**



index: WAPROSONPAT3

The software allows reading and storing data from PAT meters, as well as instrument configuration. Based on the measurement data, test reports are generated.

- Perfect for production plants, power tools rentals, services etc.
- The hierarchical structure of data allows to assign tested device to a specific company or department.
- The ability to collect information about tested devices and track their test history.
- Label printing on standard adhesive paper.
- The ability to schedule measurements. Each device contains a list of "Measurement cycle" - the software automatically displays devices which test date is approaching or has already expired.
- Possibility to create your own measurement standard thanks to the protocol editor.

# The Report General report Desirated report Seminary report Codes Labels | Control | Code | C

### Software dedicated for:

PAT-2

PAT-2E

PAT-10

PAT-820

PAT-80

PAT-85

PAT-86

## **Sonel PAT Analysis Mobile**



The mobile application expands the capabilities of the meters. It is designed for devices with the Android operating system.

### Sonel PAT Analysis Mobile:

- · connects wirelessly to the selected meter,
- downloads measurement results and saves them to the meter's memory structure (customer, device, measurement data),
- · prints reports,
- · reads QR codes of the PAT system,
- · transfers data via Internet,
- complete meter control (selected models only)\*.

### Software dedicated for:

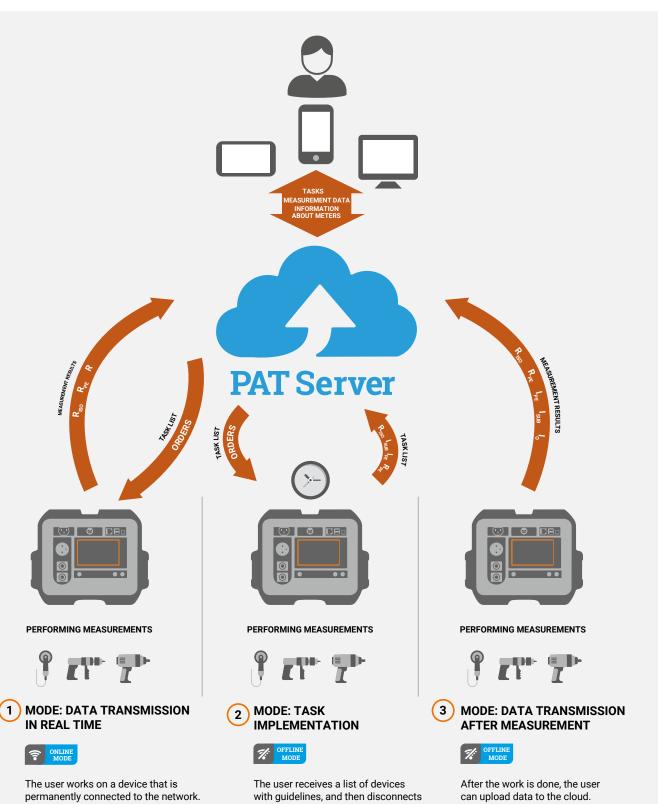


AT-10 PAT-80

PAT-85



<sup>\*</sup> Option available in the future.



from the Internet. After measurements

are taken, it connects to the network and sends the test results to a server

with the cloud function.

In this mode, data, orders and information

are sent continuously.

Photo	Name	Index	PAT-820	PAT-86	PAT-85	PAT-80	PAT-10	PAT-2E	PAT-2	Photo	Name	Index	PAT-820	PAT-86	PAT-85	PAT-80	PAT-10	PAT-2E	PAT-2
	Adapter for an industrial socket 16 A	WAADAPAT16F1	•	•	•	•	•	•	•		D2 portable USB report / barcode printer (Sato)	WAADAD2	•	•	•	•			
	Adapter for an industrial socket 32 A	WAADAPAT32F1	•	•	•	•	•	•	•		D3 portable Wi-Fi / USB report / barcode printer (Brother)	WAADAD3		•	•	•	•	•	•
U	Adapter for three-phase socket 16 A (5P)	WAADAPAT16P	•	•	•	•	•	•	•		L11 carrying case	WAFUTL11		1	1	1			
<b>%</b>	Adapter for three-phase socket 16 A Switchable (5P)	WAADAPAT16PR	•	•	•	•	•	•	•		M12 carrying case	WAFUTM12					1	1	1
V	Adapter for three-phase socket 32 A (5P)	WAADAPAT32P	٠	•	•	•	•	•	•		Crocodile clip red 1 kV 20 A	WAKRORE20K02	•	1	•	•	•	•	•
	Adapter for three-phase socket 32 A switchable (5P)	WAADAPAT32PR	٠	٠	•	٠	•	•	•		Crocodile clip blue 1 kV 20 A	WAKROBU20K02	•	1	•	•			
U	Adapter for three-phase socket 16 A (4P)	WAADAPAT16C	•	•	•	•	•	•	•	#	Kelvin clamp 1 kV, 25 A	WAKROKELK06	•	•	•	•			
42)	Adapter for three-phase socket 16 A switchable (4P)	WAADAPAT16CPR	•	•	•	•	•	•	•		PC software: Sonel PAT Analysis	WAPROSONPAT3	•	•	•	•	•	•	•
U	Adapter for three-phase socket 32 A (4P)	WAADAPAT32C	•	•	•	•	•	•	•	<b>\$</b>	PC software: Sonel Reader	WAPROREADER	1	1	1	1	1	1	1
	Adapter for three-phase socket 32 A switchable (4P)	WAADAPAT32CPR	٠	٠	٠	•	٠	•	•		IEC Test adapter (Shuko)	WAADAPATIEC1	•	•	•	•	•	•	•
	Battery for Brother printer	WAAKU19		•	•	•	•	•	•		IEC C6 to C13 adapter	WAADAPATIEC2	٠	•	•	•	•	•	•
	Fuse 6.3 x 32 mm, 15 A	WAPOZB15PAT	2							1	Test lead 1.2 m, red, 1 kV (2.5 mm2, banana plugs)	WAPRZ1X2REBB2X5					•	•	•
27	Fuse 5 x 20 mm, 16 A	WAPOZB16PAT		2	2	2	2	2		Me	Test lead 1.2 m, red, 1 kV (terminated in a crocodile clip)	WAPRZ1X2REBK					1	1	1
<b>(20)</b>	C-3 current clamp (Ø52 mm)	WACEGC30KR		•	•						Test lead 1.8 m, red, 5 kV (banana plugs)	WAPRZ1X8REBB	2						
70	Barcode scanner 2D (USB)	WAADACK2D	•	•	•	•					Test lead 1.8 m, orange, (10 A / 25 A, terminated in a crocodile clip)	WAPRZ1X80RKS	1	1	1	1			

Photo	Name	Index	PAT-820	PAT-86	PAT-85	PAT-80	PAT-10	PAT-2E	PAT-2
X	Double-wire test lead 2.1 m (IEC C13 / banana plug)	WAPRZ2X1DZIECB	•	1	•	•			
-\$	Double-wire test lead 1.5 m (PAT/banana plug)	WAPRZ1X5DZBB	•	1	•	•			
	USB cable	WAPRZUSB	1	1	1	1	1	1	1
*	Power cord 1.8 m (orange IEC plug)	WAPRZ1X8REIEC					1	1	1
6	Mains cable with IEC C19 plug	WAPRZZAS1	1	1	1	1			
-	Pin probe, red 1 kV (banana socket)	WASONREOGB1	•	•	•	•	•	•	•
-	Pin probe, blue 1 kV (banana socket)	WASONBUOGB1		•	•	•			
	Pin probe, red 5 kV (banana socket)	WASONREOGB2	2						
	Brush probe	WASONSZ1	•	•	•	•	•	•	•
+	High-current pin probe 1 kV (banana sockets)	WASONSPGB1	•			•			
	Ribbon for printer Brother D1 (with glue)	WANAKD1		•	•	•			
	Label Roll – Black on White for D2 printer SATO (with glue)	WANAKD2	•	•	•	•			
No.	Label Roll – Black on White for Brother D3 (with glue)	WANAKD3		•	•	•	•	•	•
<u></u>	Ribbon for D2 printer (SATO)	WANAKD2BAR	•	•	•	•			
20	PAT-3F-PE adapter for leakage current testing	WAADAPAT3FPE		•	•	•			



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

SONEL S.A.

Wokulskiego 11 58-100 Świdnica Poland

sonel.com