

# Measuring/Testing



Testing plays a crucial role in setting up, maintaining and repairing electrical installations and devices.

Tests are crucial when setting up, servicing and repairing electrical installations and equipment. Please apply and adhere to the accident prevention and safety regulations relevant to your installation, which call for repeat tests after modifications and maintenance work in addition to the tests required before using the installation for the first time.

The person responsible for setting up the installation is required to check that the installation or individual components function perfectly. They must also ensure the compliance with the technological regulations, in particular the VDE regulations and

technical connection requirements (TAB) issued by the power supply companies.

It is also important to check that all precautionary measures to prevent extremely excessive contact voltage work perfectly in order to guarantee and comply with the necessary safety standard.

Using voltage and continuity testers from Weidmüller ensures that all tests are performed according to the relevant regulations.



### Testing

Tests are crucial when installing, maintaining and repairing electrical systems and equipment. The voltage and continuity testers from Weidmüller help you to test in compliance with the international standards.



### 2-pole voltage testers

The main purpose of the voltage tester is to check the presence or absence of a voltage. The 2-pole voltage tester is an approved testing instrument that satisfies the requirements of the Industrial Safety Act.



### Digital multimeters

Multimeters are able to measure a number of different parameters. The measuring options for voltage and resistance, plus continuity testing and the diode test are available on every instrument as standard.



### Digital clamp-on meters

Digital clamp-on meters and clamp-on meter attachments and adapters are used for measuring AC and DC currents. The important advantage of these devices is that the measurements can be undertaken without interrupting the flow of current.



### Infrared thermometer

The 610 LC infrared thermometer enables the temperature of a surface to be determined exactly, reliably, quickly – and without contact.



### Continuity testers

The fully insulated plastic housings of our continuity testers are shockproof and unbreakable, and hence ideal for daily use in tough conditions. The integral lamp helps to find faulty lines quickly and safely. The continuity test can be indicated audibly and optically.



### Contact-less testers

This category includes contact-less voltage testers for AC voltages and contact-less magnetic field testers. They are used to check the function of solenoid valves, coils, relays and contactors.



### Power socket and residual-current circuit-breaker tester

This device combines two functions in one unit.

## Overview of applications and testing functions



6 V voltage test –  
e.g. models



400 V voltage test –  
3-phase voltage systems



Semiconductor check



12 V voltage test –  
e.g. car batteries



3-48 V measuring range



Frequency check



24 V voltage test –  
e.g. HGV batteries



Plug-in test probe



Capacitance check



50 V – limit of the dangerous voltage  
range for the human body



Car Check



Resistance check



120 V voltage test – customary voltage  
in some countries, e.g. USA



Test probe illumination



Phase sequence check



230 V/240 V voltage test – customary  
voltage in the majority of European  
countries



Polarity check



Continuity check

## Digital voltage tester

### Digi-Check 5.2

#### Digital voltage tester



- LCD incl. bar chart
- one-hand operation possible
- protection for test probe
- continuity test
- low-battery indicator
- HOLD function
- backlit display
- test probe illumination
- phase sequence test
- audible signal for voltage and continuity
- polarity detection
- single-pole phase test possible
- including protective pouch

#### Technical specification

|                                  |   |
|----------------------------------|---|
| Rated voltage, min.              | 5 V AC/DC                                     |
| Rated voltage, max.              | 690 V AC/DC                                   |
| Input resistance                 | ≥ 300 kΩ ; +2.5 kΩ upon pressing the LOAD key |
| Peak resistance voltage          | 5 kV  |
| Frequency range, min.            | 0 Hz  |
| Frequency range, max.            | 2000 Hz                                       |
| Function indicator               | LCD   |
| Measured resistance value, min.  |   |
| Measured resistance value, max.  | 2 Ω   |
| Measured capacitance value, min. | 1 µF  |
| Measured capacitance value, max. | 50 µF   |
| Operating temperature, min.      | -10 °C  |
| Operating temperature, max.      | 55 °C   |
| Ingress protection class         | IP 50   |
| Approval                         | EN/ IEC 61010                                 |
| Weight                           | 162 g   |

#### Ordering data

| Type                  | Qty.        | Order No.  |
|-----------------------|-------------|------------|
| DIGI-CHECK 5.2        | 1           | 9918870000 |
| DIGI-CHECK 5.2        | 2 mm Probes | 9201580000 |
| incl. protective case |             |            |

#### Accessories

| Type            | Qty. | Order No.  |
|-----------------|------|------------|
| Protective case | 1    | 9201520000 |
| 9V BATTERY      | 1    | 9004810000 |

### Digi-Check 3.2

#### Digital voltage tester



- LCD incl. bar chart
- one-hand operation possible
- protection for test probe
- continuity test
- low-battery indicator
- HOLD function
- backlit display
- test probe illumination
- audible signal for voltage and continuity
- polarity detection
- single-pole phase test possible

#### Technical specification

|                             |                                    |
|-----------------------------|------------------------------------|
| Rated voltage, min.         | 5 V AC/DC                          |
| Rated voltage, max.         | 690 V AC/DC                        |
| Input resistance            | ≥ 300 kΩ                           |
| Peak resistance voltage     | 6 kV                               |
| Frequency range, min.       | 0 Hz                               |
| Frequency range, max.       | 100 Hz                             |
| Function indicator          | LCD                                |
| Operating temperature, min. | -10 °C                             |
| Operating temperature, max. | 55 °C                              |
| Ingress protection class    | IP 50                              |
| Approval                    | EN/IEC 61243-3 (VDE 0682 part 401) |
| Weight                      | 142 g                              |

#### Ordering data

| Type           | Qty.        | Order No.  |
|----------------|-------------|------------|
| DIGI-CHECK 3.2 | 1           | 9918850000 |
| DIGI-CHECK 3.2 | 2 mm Probes | 9201590000 |

#### Accessories

| Type               | Qty. | Order No.  |
|--------------------|------|------------|
| Protective case    | 1    | 9201520000 |
| 1,5V MICRO BATTERY | 2    | 9201310000 |

**Multi-Check 5.2**

**Digital voltage tester**



- LCD incl. bar chart
- one-hand operation possible
- protection for test probe
- continuity test
- low-battery indicator
- HOLD function
- backlit display
- polarity detection
- single-pole phase test possible

**Technical specification**

|                             |                                    |
|-----------------------------|------------------------------------|
| Rated voltage, min.         | 5 V AC/DC                          |
| Rated voltage, max.         | 500 V AC/DC                        |
| Input resistance            | ≥ 300 kΩ                           |
| Peak resistance voltage     | 6 kV                               |
| Frequency range, min.       | 0 Hz                               |
| Frequency range, max.       | 100 Hz                             |
| Function indicator          | LCD                                |
| Operating temperature, min. | -10 °C                             |
| Operating temperature, max. | 55 °C                              |
| Ingress protection class    | IP 50                              |
| Approval                    | EN/IEC 61243-3 (VDE 0682 part 401) |
| Weight                      | 142 g                              |

**Ordering data**

| Type                        | Qty. | Order No.  |
|-----------------------------|------|------------|
| MULTI-CHECK 5.2             | 1    | 9918920000 |
| MULTI-CHECK 5.2 2 mm Probes | 1    | 9201570000 |

**Accessories**

| Type               | Qty. | Order No.  |
|--------------------|------|------------|
| Protective case    | 1    | 9201520000 |
| 1,5V MICRO BATTERY | 2    | 9201310000 |

**LSP 1**

**2-pole voltage tester**



- Automatic testing, identification and displays the large voltage range and types (AC/DC) and the polarity
- Concisely arranged LED display
- Phase testing to earth
- Polarity testing
- Continuity- and semiconductor testing
- Touch protection due to high input impedance
- Large voltage range
- Phase-sequence indicator
- High-performance solar cell combined with rechargeable lithium battery

**Technical specification**

|                             |                                    |
|-----------------------------|------------------------------------|
| Rated voltage, min.         | 12 V AC/DC                         |
| Rated voltage, max.         | 690 V AC/DC                        |
| Input resistance            | 500 kΩ                             |
| Peak resistance voltage     | 12 kV                              |
| Frequency range, min.       | 0 Hz                               |
| Frequency range, max.       | 2000 Hz                            |
| Function indicator          | LED                                |
| DC voltage                  | 12, 50, 120, 230, 400, 690 V       |
| AC voltage                  | 12, 50, 120, 230, 400, 690 V       |
| Operating temperature, min. | -10 °C                             |
| Operating temperature, max. | 55 °C                              |
| Ingress protection class    | IP 65                              |
| Approval                    | EN/IEC 61243-3 (VDE 0682 part 401) |
| Weight                      | 170 g                              |

**Ordering data**

| Type  | Qty. | Order No.  |
|-------|------|------------|
| LSP 1 | 1    | 9006880000 |

**Accessories**

| Type            | Qty. | Order No.  |
|-----------------|------|------------|
| Protective case | 1    | 9201520000 |

## 2-pole voltage tester

## Combi-Check 1.3

## 2-pole voltage tester



- One-hand operation possible
- Protection for test probe
- Continuity test
- Low-battery indicator
- Audible signal for voltage and continuity
- Polarity detection
- Single-pole phase test possible
- Test probe illumination
- Phase sequence test

## Technical specification

|                             |                                     |
|-----------------------------|-------------------------------------|
| Rated voltage, min.         | 6 V AC/DC                           |
| Rated voltage, max.         | 690 V AC/DC                         |
| Input resistance            | ≥ 300 kΩ                            |
| Peak resistance voltage     | 6 kV                                |
| Frequency range, min.       | 0 Hz                                |
| Frequency range, max.       | 100 Hz                              |
| Function indicator          | LED                                 |
| DC voltage                  | 6, 12, 24, 50, 120, 230, 400, 690 V |
| AC voltage                  | 6, 12, 24, 50, 120, 230, 400, 690 V |
| Operating temperature, min. | -10 °C                              |
| Operating temperature, max. | 55 °C                               |
| Ingress protection class    | IP 50                               |
| Approval                    | EN/IEC 61243-3 (VDE 0682 part 401)  |
| Weight                      | 135 g                               |

## Ordering data

| Type                           | Qty. | Order No.  |
|--------------------------------|------|------------|
| COMBI-CHECK 1.3                | 1    | 9918860000 |
| COMBI-CHECK 1.3<br>2 mm Probes | 1    | 9201270000 |

## Accessories

| Type               | Qty. | Order No.  |
|--------------------|------|------------|
| Protective case    | 1    | 9201520000 |
| 1,5V MICRO BATTERY | 2    | 9201310000 |

## Master-Check 3.2

## 2-pole voltage tester



- One-hand operation possible
- Protection for test probe
- Continuity test
- Low-battery indicator
- Polarity detection

## Technical specification

|                             |                                    |
|-----------------------------|------------------------------------|
| Rated voltage, min.         | 6 V AC/DC                          |
| Rated voltage, max.         | 400 V AC/DC                        |
| Input resistance            | ≥ 300 kΩ                           |
| Peak resistance voltage     | 4 kV                               |
| Frequency range, min.       | 0 Hz                               |
| Frequency range, max.       | 100 Hz                             |
| Function indicator          | LED                                |
| DC voltage                  | 6, 12, 24, 50, 120, 230, 400 V     |
| AC voltage                  | 6, 12, 24, 50, 120, 230, 400 V     |
| Operating temperature, min. | -10 °C                             |
| Operating temperature, max. | 55 °C                              |
| Ingress protection class    | IP 50                              |
| Approval                    | EN/IEC 61243-3 (VDE 0682 part 401) |
| Weight                      | 135 g                              |

## Ordering data

| Type                            | Qty. | Order No.  |
|---------------------------------|------|------------|
| MASTER-CHECK 3.2                | 1    | 9918880000 |
| MASTER-CHECK 3.2<br>2 mm Probes | 1    | 9201260000 |

## Accessories

| Type               | Qty. | Order No.  |
|--------------------|------|------------|
| Protective case    | 1    | 9201520000 |
| 1,5V MICRO BATTERY | 2    | 9201310000 |

**Volt-Check 3.1**

**2-pole voltage tester**



- LED indicator for voltage and phase
- PTC controlled
- polarity detection

**Car-Check**

**2-pole voltage tester for cars**



- Test probe
- Pin with sliding mechanism
- cable 130 cm long
- polarity detection

**Technical specification**

|                             |                   |
|-----------------------------|-------------------|
| Rated voltage, min.         | 6 V AC/DC         |
| Rated voltage, max.         | 400 V AC/DC       |
| Input resistance            | 4...50 kΩ         |
| Peak resistance voltage     | 5 kV              |
| Frequency range, min.       | 0 Hz              |
| Frequency range, max.       | 100 Hz            |
| Function indicator          | LED               |
| DC voltage                  | 6, 50, 120, 400 V |
| AC voltage                  | 6, 50, 120, 400 V |
| Operating temperature, min. | -10 °C            |
| Operating temperature, max. | 50 °C             |
| Ingress protection class    | IP 40             |
| Approval                    | EN/ IEC 61010     |
| Weight                      | 70 g              |

**Technical specification**

|                             |         |
|-----------------------------|---------|
| Rated voltage, min.         | 3 V DC  |
| Rated voltage, max.         | 48 V DC |
| Function indicator          | LED     |
| Operating temperature, min. | -10 °C  |
| Operating temperature, max. | 50 °C   |
| Weight                      | 57 g    |

**Ordering data**

| Type                            | Qty. | Order No.  |
|---------------------------------|------|------------|
| VOLT-CHECK 3.1                  | 1    | 9918950000 |
| VOLT-CHECK 3.1      2 mm Probes | 1    | 9201560000 |

**Accessories**

| Type            | Qty. | Order No.  |
|-----------------|------|------------|
| Protective case | 1    | 9201520000 |

**Ordering data**

| Type      | Qty. | Order No.  |
|-----------|------|------------|
| CAR-CHECK | 1    | 9918970000 |

**Accessories**

| Type            | Qty. | Order No.  |
|-----------------|------|------------|
| Protective case | 1    | 9201520000 |

## Digital multimeter

### Temphaser

#### Digital multimeter



- Measures voltages up to 600 V
- Resistance measurement and semiconductor test
- Capacitance measurement
- Frequency measurement
- Temperature measurement
- Phase sequence measurement possible
- Battery condition indicator

### Multimeter 125S

#### Digital multimeter



- Measures voltages up to 600 V
- Resistance measurement and semiconductor test
- Automatic measuring range selection
- Battery condition indicator

#### Technical specification

|                                   |   |
|-----------------------------------|---|
| DC voltage measuring range        | 0-600 V   |
| Resolution, DC voltage            | ± 1.2%  |
| AC voltage measuring range        | 0-600 V   |
| Resolution, AC voltage            | ± 2%  |
| Measured resistance value, min.   | 0.2 Ω   |
| Measured resistance value, max.   | 2000 MΩ   |
| Measured capacitance value, min.  | 20 μF   |
| Measured capacitance value, max.  | 20 mF   |
| Frequency range, min.             | 10 Hz   |
| Frequency range, max.             | 40 kHz  |
| Measured temperature value, min.  | -20 °C  |
| Temperature measuring range, max. | 750 °C  |
| Operating temperature, min.-max.  | 0 °C-50 °C  |
| Approval                          | EN/ IEC 61010   |
| Weight                            | 340 g   |
| incl. accessories (contents)      | 1x optional fuse ; 1x belt clip ;<br>1x test wire with alligator clip ;<br>1x temperature sensor ; 2x alligator clip;<br>2x test wire with test probe |

#### Technical specification

|                                 |  |
|---------------------------------|--|
| DC voltage measuring range      | 0-600 V                                    |
| Resolution, DC voltage          | ± 1.2%                                     |
| AC voltage measuring range      | 0-600 V                                    |
| Resolution, AC voltage          | ± 1,5%                                     |
| Measured resistance value, min. | 0.3 Ω                                      |
| Measured resistance value, max. | 30 MΩ                                      |
| Operating temperature, min.     | 0 °C                                       |
| Operating temperature, max.     | 50 °C                                      |
| Approval                        | EN/ IEC 61010                              |
| Weight                          | 323 g                                      |
| incl. accessories (contents)    | 2x test wire with test probe; 1x belt clip |

#### Ordering data

| Type      | Qty. | Order No.  |
|-----------|------|------------|
| TEMPHASER | 1    | 9427300000 |

#### Ordering data

| Type            | Qty. | Order No.  |
|-----------------|------|------------|
| MULTIMETER 125S | 1    | 9428250000 |

#### Accessories

| Type                  | Qty. | Order No.  |
|-----------------------|------|------------|
| Accessories TEMPHASER | 1    | 9428220000 |
| 9V BATTERY            | 1    | 9004810000 |

Ordering information for accessories: temperature sensor not included

#### Accessories

| Type             | Qty. | Order No.  |
|------------------|------|------------|
| Accessories 125S | 1    | 9428250000 |
| 9V BATTERY       | 1    | 9004810000 |

Ordering information for accessories: belt clip not included



## Digital multimeter / Digital clamp-on measuring instrument

## Multimeter 1037

## Digital multimeter



- Measures voltages up to 1000 V
- Current measurement with clamp-on attachment.
- Resistance measurement and semiconductor test
- Capacitance measurement
- Contactless voltage test possible
- MAX/MIN memory
- HOLD function
- Extensive accessories
- Battery condition indicator
- Incl. carry case

## Technical specification

|                                      |  |
|--------------------------------------|--|
| DC voltage measuring range           | 0-1000 V   |
| Resolution, DC voltage               | ± 0.5%   |
| AC voltage measuring range           | 0-750 V  |
| Resolution, AC voltage               | ± 0.5%   |
| AC current                           | 200 A  |
| Opening width of clamp-on attachment | 23 mm  |
| Measured resistance value, min.      | 200.0 mΩ   |
| Measured resistance value, max.      | 200 kΩ   |
| Measured capacitance value, max.     | 200 μF   |
| Operating temperature, min.          | 0 °C   |
| Operating temperature, max.          | 50 °C  |
| Approval                             | EN/ IEC 61010  |
| Weight                               | 258 g  |
| incl. accessories (contents)         | 1x carry case; 1x adapter for pliers;<br>2x test cable with alligator clip, wide;<br>2x test wire with alligator clip, small;<br>2x test wires; 2x test probe, short;<br>2x test probe, long |

## Ordering data

| Type            | Qty. | Order No.  |
|-----------------|------|------------|
| MULTIMETER 1037 | 1    | 9423580000 |

## Accessories

| Type             | Qty. | Order No.  |
|------------------|------|------------|
| Accessories 1037 | 1    | 9423570000 |
| 9V BATTERY       | 1    | 9004810000 |

Ordering information for accessories: clamp-on attachment and carrying case not included

## Multimeter C 2606

## Digital clamp-on measuring instrument



- Measures voltages up to 1000 V,
- currents up to 1000 A with clamp-on attachment.
- Resistance measurement and semiconductor test
- Capacitance measurement
- Frequency measurement
- MAX/MIN memory
- HOLD function
- PEAK function
- Battery condition indicator
- incl. carry case

## Technical specification

|                                      |   |
|--------------------------------------|---|
| DC voltage measuring range           | 0-1000 V                                    |
| Resolution, DC voltage               | ± 0.5%                                      |
| AC voltage measuring range           | 0-1000 V                                    |
| Resolution, AC voltage               | ± 0.5%                                      |
| AC current                           | 1000 A                                      |
| Opening width of clamp-on attachment | 57 mm                                       |
| Measured resistance value, min.      | 0.4 Ω                                       |
| Measured resistance value, max.      | 40 MΩ                                       |
| Measured capacitance value, min.     | 40 nF                                       |
| Measured capacitance value, max.     | 4 μF  |
| Frequency range, min.                | 0 kHz                                       |
| Frequency range, max.                | 400 kHz                                     |
| Operating temperature, min.-max.     | 0 °C-50 °C                                  |
| Approval                             | EN/ IEC 61010                               |
| Weight                               | 540 g                                       |
| incl. accessories (contents)         | 1x carry case; 2x test wire with test probe |

## Ordering data

| Type              | Qty. | Order No.  |
|-------------------|------|------------|
| MULTIMETER C 2606 | 1    | 9428240000 |

## Accessories

| Type             | Qty. | Order No.  |
|------------------|------|------------|
| Accessories 2606 | 1    | 9428240000 |
| 9V BATTERY       | 1    | 9004810000 |

Ordering information for accessories: carrying case not included





**Testboy® 10**

**Contactless voltage tester**



- Reacts from a distance of 4 mm
- No current flow necessary thanks to capacitive method
- Detects concealed broken wires with a tolerance of just a few millimetres
- Detects voltage-conducting wires in sockets, cable reels, distributors, etc.
- Visual indication

**Technical specification**

|                          |               |
|--------------------------|---------------|
| Rated voltage, min.      | 120 V         |
| Rated voltage, max.      | 1000 V        |
| Function indicator       | visual        |
| Ingress protection class | IP 44         |
| Approval                 | EN/ IEC 61010 |
| Weight                   | 22 g          |
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**Ordering data**

| Type       | Qty. | Order No.  |
|------------|------|------------|
| TESTBOY 10 | 1    | 9201370000 |

**Accessories**

| Type               | Qty. | Order No.  |
|--------------------|------|------------|
| 1,5V MICRO BATTERY | 2    | 9201310000 |

**Testboy® 11**

**Contactless voltage tester**



- Reacts from a distance of 4 mm
- No current flow necessary thanks to capacitive method
- Detects concealed broken wires with a tolerance of just a few millimetres
- Detects voltage-conducting wires in sockets, cable reels, distributors, etc.
- Voltage can be detected even at inaccessible areas due to audible signal
- Visual and acoustic indication

**Technical specification**

|                          |                   |
|--------------------------|-------------------|
| Rated voltage, min.      | 120 V             |
| Rated voltage, max.      | 1000 V            |
| Function indicator       | visual & acoustic |
| Ingress protection class | IP 44             |
| Approval                 | EN/ IEC 61010     |
| Weight                   | 22 g              |
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**Ordering data**

| Type       | Qty. | Order No.  |
|------------|------|------------|
| TESTBOY 11 | 1    | 9201340000 |

**Accessories**

| Type               | Qty. | Order No.  |
|--------------------|------|------------|
| 1,5V MICRO BATTERY | 2    | 9201310000 |



**Schuki® 1**

**Socket and RCD tester**



- Residual-current circuit-breaker tester with defined trip behaviour
- real-time display testing device for wiring to sockets, cable reels and extension cables
- also suitable for bridged earth-neutral earthing

**Technical specification**

|                       |               |
|-----------------------|---------------|
| Rated voltage, min.   | 230 V         |
| Rated voltage, max.   | 230 V         |
| Frequency range, min. | 50 Hz         |
| Frequency range, max. | 50 Hz         |
| Function indicator    | visual        |
| Rated fault current   | 30 mA         |
| Release time          | 200 ms        |
| Approval              | EN/ IEC 61010 |
| Weight                | 80 g          |
|                       |               |
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**Ordering data**

| Type     | Qty. | Order No.  |
|----------|------|------------|
| SCHUKI 1 | 1    | 9201350000 |

**Accessories**

| Type | Qty. | Order No. |
|------|------|-----------|
|      |      |           |
|      |      |           |
|      |      |           |

**Schuki® 3**

**Socket tester**



- Real-time display testing device for wiring to sockets, cable reels and extension cables
- also suitable for bridged earth-neutral earthing

**Technical specification**

|                       |               |
|-----------------------|---------------|
| Rated voltage, min.   | 230 V         |
| Rated voltage, max.   | 230 V         |
| Frequency range, min. | 50 Hz         |
| Frequency range, max. | 50 Hz         |
| Function indicator    | visual        |
| Approval              | EN/ IEC 61010 |
| Weight                | 100 g         |
|                       |               |
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**Ordering data**

| Type     | Qty. | Order No.  |
|----------|------|------------|
| SCHUKI 3 | 1    | 9200870000 |

**Accessories**

| Type | Qty. | Order No. |
|------|------|-----------|
|      |      |           |
|      |      |           |
|      |      |           |