

Workshop Test Panels – VDE 0104

METRATESTER® 5-3P



Workshop Test Panel for Testing Devices in Accordance with DIN VDE 0701/0702, DIN VDE 0104

The METRATESTER 5-3P test panel can be used as a portable or a stationary device for the measurement and testing of electrical devices after repair or modification in accordance with DIN VDE 0701, as well as for periodic testing per DIN VDE 0702. According to these regulations, protective conductor resistance, insulation resistance, differential current, equivalent leakage current and, for data processing systems and office machinery, absence of voltage at exposed parts accessible to the user must be measured.

Measurement of operating voltage and current at the DUT, as well as testing of extension cables for conductor continuity and polarity reversal represent further applications for the substantiation of correct functioning of electrical equipment. The VL2 test adapter allows for quick, safe testing of extension cables. The protective conductor at the mains connection can also be tested for the absence of voltage, and line voltage can be measured. Protective conductor measurement is performed correctly in accordance with DIN VDE 0104.

- Dimensions: 380 x 300 x 220 mm (with lid)
- Weight: approx. 8 kg

See page 53 for further details and accessories.

Type	Data Sheet No.	Article Number		
METRATESTER 5-3P	–	M700S		
VL2 test adapter	3-349-241-03	Z600B		

SECUTEST® 15P-II



Workshop Test Panel for Testing Devices in Accordance with DIN VDE 0701/0702, DIN VDE 0104

The SECUTEST 15P-II portable or stationary test panel with an expanded scope of plug connectors is capable of performing the same measurements and tests as the METRATESTER 5-3P test panel.

With the help of a multi-position switch, extension cables can also be tested for conductor continuity, short-circuit and reversed wiring (phase sequence), efficiently at a single glance.

The test panel is equipped with terminals for connecting an external emergency stop button.

- Dimensions: 580 x 300 x 190 mm (with lid)
- Weight: approx. 9.5 kg

Type	Data Sheet No.	Article Number		
SECUTEST 15P-II	–	M600E		

SECUTEST® 21F



Workshop Test Panel for Testing Devices in Accordance with DIN VDE 0701/0702

The SECUTEST 21F test panel has been designed for the set-up of test stations at shops specialized in electrical work. It is used for measurement and testing of electrical devices after repair or modification in accordance with DIN VDE 0701, as well as for periodic testing per DIN VDE 0702. The test panel is designed for wall mounting. It is equipped with a mains switch with undervoltage trigger and lock.

Load currents of up to 25 A and line voltages of up to 500 V can be measured.

Compliance with DIN VDE 0104 also assures flawless protective conductor measurements.

- Dimensions: 532 x 792 x 179 mm
- Weight: approx. 24 kg

Type	Data Sheet No.	Article Number		
SECUTEST 21F	–	M601A		

**In accordance with guidelines for
“workshop equipment for electrical installation operations”
issued by the ZVEH / VDEW**

Technical Data: METRATESTER 5-3P, SECUTEST 15P-III, 21F

Measured Quantity	Line voltage	Device Protective Conductor Resistance	Insulation Resistance	Equivalent Leakage Current	Absence of Voltage	Load Voltage via the Mains Outlet	Residual Current (15P-III only)
Measuring Range	207 ... 253 V ~	0 ... 19.99 Ω	0 ... 19.99 MΩ	0 ... 19.99 mA	0 ... 1.999 mA≡	0 ... 16.00 A ~	0 ... 19.99 mA~
Resolution	1 V	10 mΩ	1 kΩ, 10 kΩ	10 μA	1 μA	10 mA	10 μA
Open-circuit voltage	–	approx. 20 V	600 V ≡	28 V ~	–	–	–
Internal resistance	–	–	approx. 100 kΩ	2 kΩ		–	–
Short-circuit current	–	–	<10 mA	<20 mA	–	–	–
Nominal current	–	210 mA const.	–	–	–	–	–
Max. error under reference conditions	± (1.5% rdg. + 1 d)	± (2.5% rdg. + 2 d)	± (2.5% rdg. + 2 d) as of 10 d				± (2.5% rdg. + 2 d)

PROFITEST S1



Simulation Model for Testing Effectiveness of Safety Measures in Power Installations per DIN VDE 0100

For testing the effectiveness of safety measures in electrical systems with up to 500 V, we recommend the PROFITEST S1 DIN VDE 0100 simulation model. TT and TN systems with overcurrent protection and RCDs can be simulated with this model (systems with overcurrent protection may be equipped with standard RCCBs as well as with selective RCCBs). In combination with appropriate measuring and test instruments, all measurements and tests can thus be performed which are required for safety testing of electrical systems with up to 500 V including various types of networks and safety devices.

Measurements include:

- Insulation resistance measurements
- Low-resistance measurements at equipotential bonding conductors
- Measurements for testing RCDs
- Loop impedance measurements
- Earthing resistance measurements
- Line voltage measurements

Accessories:

S1A-4/10 contact protected jumper (package of 10)

Type	Data Sheet No.	Article Number		
PROFITEST S1	–	GTM5101000R0001		
S1A-4/10	–	GTZ3216000R0001		

Voltage Testers, Cable Detection System

Voltage Testers

2-Pole Voltage Meters and Multiple Measuring Instruments with Analog or Digital Display

ProfiSafe 1



METRAVOLT 5



METRAVOLT 12D

These 2-pole voltage meters and multiple measuring instruments fulfill requirements for voltage testers per DIN EN 61243-3 / VDE 682, part 401 (previously DIN VDE 0680, part 5).

- Easy to operate, VDE GS approved
- Measuring category III devices, double indication reliability with LEDs

ProfiSafe 1

This voltage, phase, continuity and polarity tester plus phase sequence indicator has been equipped with a long-life, rechargeable lithium battery for the display of continuity and phase test results. The battery is continuously recharged with a high performance solar cell, even with minimal ambient light. This maintenance-free voltage source assures long service life and reliable operation.

- 9 LEDs for the display of voltage, continuity, phase and direction of rotation
- Phase testing, display of direction of rotation and continuity testing
- Rugged housing, hazard-free use even under damp conditions, IP 65 protection

METRAVOLT 5

- LED indicates dangerous contact voltages as of 50 V
- Phase and direction of rotation indicated with LED, single pole voltage testing
- Rugged housing, hazard-free use even under damp conditions, IP 65 protection
- Insulation mark (manufactured per DIN 48699), class 2.5

METRAVOLT 12D

- Fully automated measuring sequence, self-test, measurement value storage, battery saving circuit
- Rugged housing, hazard-free use even under damp conditions, IP 65 protection
- Inherent error: 0.5% of reading + 1 digit

Type	ProfiSafe 1	METRAVOLT 5	METRAVOLT 12D
Complies with DIN VDE 0680	●	●	●
Voltage	12 ... 690 V \approx	50 ... 500 V \approx	0 ... 1200 V \approx
Dielectric strength	> 5 kV (1.2 / 50 μ s pulse wave)	> 10 kV (1.2 / 50 μ s pulse wave)	
Test voltage	5 kV	5 kV (routine test)	
Phase testing	●	●	●
Phase sequence indicator	●	●	●
Resistance	–	–	0 ... 750 k Ω
Continuity test	●	–	●
Frequency range	0 ... 2000 Hz	0 ... 100 Hz	15 ... 10,000 Hz
Power supply	Lithium battery + solar cell	–	9 V flat cell battery, IEC 6F 22
Battery test	–	–	●
Dimensions	50 x 230 x 35 mm + 1 m cable	78 x 285 x 48 mm	60 x 240 x 40 mm
Weight	0.17 kg	0.43 kg	0.29 kg (with battery)

Type	Data Sheet No.	Article Number		
ProfiSafe 1	–	M630B		
METRAVOLT 5	–	GTM525000R0001		
METRAVOLT 12D	3-349-201-03	M630C		

CableCop 300

Cable Detection System for Current and Voltage-Free Cables, and Current and Voltage Conducting Cables

Current and voltage-free, as well as current and voltage conducting cables in electrical circuits with up to 300 V can be pinpointed with the cable detection system. Cables and conductors, electrical circuits, short-circuits and earth faults can be located, and protective conduits and coaxial cable can be traced as well without interrupting power or shutting down sensitive electronic components. Detection is possible in walls and concrete, as well as underground.



Voltage range	9 ... 300 V \approx
Measuring frequency	32,768 kHz
Display / signal	LED / buzzer
Typical applications	Location of cables, switches, short-circuits and earth faults Tracing of protective conduits and coaxial cables
Range of applications	Walls, ground, concrete
Standard equipment	Case with T320 transmitter, S330 signal generator, R300 receiver, two 9 V batteries, 2 measurement cables, 2 alligator clips, 2 test probes, operating instructions
Dimensions / weight	310 x 200 x 85 mm / case and contents: approx. 1.95 kg

Type	Data Sheet No.	Article Number		
CableCop 300	–	GTM5292000R0001		