

PROFiTEST[®] 0100S-II

Test Instrument for DIN VDE 0100

3-348-888-03
4/6.01

Testing of Residual-Current Protective Devices (RCCBs)

- Measurement of contact voltage without tripping the RCCB
Contact voltage with reference to nominal residual current is measured with 1/3 of nominal residual current.
- Trip test with nominal residual current, measurement of time to trip

Special Testing for Systems and RCCBs

- Testing of systems and RCCBs
with rising residual current and display of tripping current, as well as contact voltage at the moment tripping occurs
- Testing of RCCBs (10 and 30 mA) with $5 \cdot I_{\Delta N}$
- Testing of RCCBs
which are suitable for pulsating DC fault current, testing is conducted with positive or negative half-waves
- Testing of RCCBs with adjustable residual current
for the determination of contact voltage and tripping current

Testing of Special RCCBs

- Selective  SRCDs, PRCDs (Schukomat, Sidos etc.), type G

Testing of RCD Protection in IT Systems

QUALITÄTSMANAGEMENTSYSTEM



DQS-zertifiziert nach
DIN EN ISO 9001 Reg.-Nr.1262



Large Voltage and Frequency Range

An extended-range measuring system allows for use of the test instrument for all AC and three-phase systems with voltages ranging from 65 to 500 V, and frequencies from 15.4 to 420 Hz.

Loop and System Impedance Measurement

Measurement of loop and system impedance can be performed within a range of 65 to 550 V. Conversion to short-circuit current is based upon respective line voltage, as long as the measured line voltage is within the prescribed range. Short-circuit current is calculated from actual line voltage and measured impedance for line voltages outside of this range.

With a test current of 15 mA the loop impedance can also be determined after RCCBs with a nominal residual current of at least 30 mA without the RCCB being tripped.

Insulation Resistance Measurement with Nominal Voltage and Variable or Rising Test Voltage

Insulation resistance is usually measured with the nominal voltages 500 V, 250 V or 100 V. For measurements at sensitive components, as well as within systems with voltage limiting devices, 22 different test voltages ranging from 20 to 500 V can be selected, which deviate from, and are generally lower than nominal voltage. Measurements can be performed with continuously rising voltage for the detection of weak points in insulation, as well as for the determination of response voltages for voltage limiting devices.

Voltage at the device under test, any detected response or breakdown voltage, as well as insulation resistance appear at the instrument's display, and an LED indicates violation of an (adjustable) limit value.

Low-Resistance Measurements

Bonding conductor resistance and protective conductor resistance can be measured with a measuring current of ≥ 200 mA DC, automatic measuring voltage polarity reversal and selectable conduction direction. Violation of an (adjustable) limit value is signaled with an LED.

Standing-Surface Insulation Measurement

Measurement of standing-surface insulation is performed with actual line frequency and line voltage.

Universal Connector System

The interchangeable plug inserts and the plug-on 2-pole adapter (can be expanded to a 3-pole adapter for phase sequence measurements) allow for use of the test instrument all over the world.

Special Features

- Display of allowable fuse types for electrical systems
- Start-up testing for energy consumption meters
- Calculation of cable lengths for common copper conductor cross-sections
- Measurement of biasing, leakage and circulating current up to 1 A, as well as working current to 150 A with the Clip 0100S accessory clip-on current sensor
- Phase sequence measurement
(phase sequence, highest line-to-line voltage)
- Temperature and humidity measurement
with adapter Z541A as accessory equipment

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Display

The LCD field consists of a backlit dot matrix at which menus, possible settings, measurement results, tables, tips and error messages, as well as wiring diagrams are displayed.

Selectable Language

An appropriate language can be selected for the country in which the test instrument is used.

Several instrument versions are available which include various language combinations.

Operation

The instrument is very easy to operate with its rotary function selector switch and 5 keys. Two of the keys located at the instrument have the same functions as the keys at the test plug, which allows for convenient measuring at difficult to access locations. Wiring diagrams and online help can be displayed at the LCD for all basic functions and sub-functions.

Phase Tester

Protective conductor potential is tested by contacting the contact surface with the contact finger. If a potential difference of greater than 100 V is detected between the contact surface and the protective contact at the earthing contact plug, the PE signal lamp lights up.

Signal Lamps

Faults within the system are recognized automatically by the instrument, and are indicated by means of four lamps.

Battery or Rechargeable Battery Test and Self-Test

The battery test is performed under load. The results are displayed both numerically and with a symbol. Test patterns can be queried one after the other during the self-test, and LEDs and relays can be tested as well. The instrument is shut down automatically if the batteries are depleted. The instrument includes an integrated charge control circuit for reliable charging of NiMH or NiCd batteries.

Data Interface

Data are transmitted to the PROFiTEST®PSI-E/BC accessory module (optional) via the integrated IRDA interface, which provides for three advantages:

- Immediate print-out of all measurement data to recording chart paper
- Storage of all data to memory for later processing
- Transmission of stored data to a PC for archiving, or for the preparation of reports

Software Updates

The test instrument will always be up to date, because its software can be updated via the IRDA interface. Software updates can be performed within the framework of instrument re-calibration by our service department, or by the user.

Standard Equipment

- 1 PROFiTEST®0100S-II test instrument
- 1 insert for earthing contact plug (PRO-Schuko)
- 1 two-pole measuring adapter
- 1 cable for expansion to three-pole adapter
- 2 alligator clips
- 1 carrying strap
- 1 set batteries
- 1 operating instructions

Applicable Regulations and Standards

IEC 61010-1/EN 61010-1/ VDE 0411-1	Safety requirements for electrical equipment for measurement, control and laboratory use
IEC 61557/ EN 61557/ VDE 0413	Part 1: General requirements Part 2: Insulation resistance measuring instruments Part 3: Loop resistance measuring instruments Part 4: Instruments for the measurement or resistance at earth conductors, protective conductors and bonding conductors Part 5: Earth resistance measuring instruments Part 6: Instruments for testing for correct functioning of residual-current protective devices (RCDs) and the effectiveness of protective measures in TT and TN systems Part 7: Phase sequence indicators
DIN 43751 Part 1, 2	Digital measuring instruments
VDE 0106 Part 1	Protection against electrical shock, classifications for electrical and electronic equipment
EN 60529 VDE 0470 Part 1	Test instruments and test procedures – Protection provided by enclosures (IP code)
IEC 61326 EN 61326	Electromagnetic Compatibility (EMC)

Nominal Ranges of Use

Voltage U_N	120 V	(108 ... 132 V)
	230 V	(196 ... 253 V)
	400 V	(340 ... 440 V)
Frequency f_N	16 2/3 Hz	(15.4 ... 18 Hz)
	50 Hz	(49.5 ... 50.5 Hz)
	60 Hz	(59.4 ... 60.6 Hz)
	200 Hz	(190 ... 210 Hz)
	400 Hz	(380 ... 420 Hz)
Overall Voltage Range	65 ... 550 V	
Overall Frequency Range	15.4 ... 420 Hz	
Waveshape	sine	
Temperature Range	0 °C ... + 40 °C	
Battery Voltage	6 ... 10 V	
Line Impedance Angle	corresponds to $\cos\phi = 1 \dots 0.95$	
Probe Resistance	< 50 k Ω	

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Characteristic Values

Function	Measured Quantity	Measuring Range (Display Range I _κ)	Resolution	Input Impedance / Test Current	Nominal Range of Use	Nominal Values	Operating Error	Intrinsic Error	Connections				
									Plug Insert ²⁾	2-Pole Adapter	3-Pole Adapter	Probe	Clip
U _{L-PE}	U _{L-PE}	0 ... 99.9 V 100 ... 500 V	0.1 V 1 V	terminal L-N-PE 500 kΩ	108 ... 253 V		±(2% rdg. +1D)	±(1% rdg. +5D) ±(1% rdg. +1D)	●	●			
		0 ... 99.9 V 100 ... 500 V	0.1 V 1 V		108 ... 500 V			±(1% rdg. +5D) ±(1% rdg. +1D)					
	f	15.0 ... 99.9 Hz 100 ... 1000 Hz	0.1 Hz 1 Hz	terminal L-PE 500 kΩ	15.4 ... 420 Hz		±(0.2% rdg. +1D)	±(0.1% rdg. +1D)	●				
	U _{3~}	0 ... 99.9 V 100 ... 500(850) ¹⁾ V	0.1 V 1 V		108 ... 500 V		±(3% rdg. +1D)	±(2% rdg. +1D)			●		
	U _{SONDE}	0 ... 99.9 V 100 ... 253 V	0.1 V 1 V	probe-PE 1MΩ	0 ... 253 V		±(3% rdg. +5D)	±(2% rdg. +4D)				●	
	I _L	0 ... 1 A	0.1 mA		5 mA ... 1.0 A		±(5% rdg. +5D)	±(3% rdg. +3D)					●
I _{AMP}	0 ... 99.9 A 100 ... 199 A	0.1 A 1 A		10 A ... 150 A		±(10% rdg. +5D)	±(5% rdg. +3D)						●
U _{L-N}	U _{L-N}	0 ... 99.9 V 100 ... 300 V	0.1 V 1 V	330 kΩ	108 ... 253 V		±(2% rdg. +1D)	±(1% rdg. +5D) ±(1% rdg. +1D)	●				
	f	15.0 ... 99.9 Hz 100 ... 1000 Hz	0.1 Hz 1 Hz		15.4 ... 420 Hz		±(0.2% rdg. +1D)	±(0.1% rdg. +1D)					
I _{ΔN}	U _{ΔN}	0 ... 70.0 V	0.1 V	0.3 · I _{ΔN}	5 ... 70 V		+10% rdg. +1D	+1% rdg. -1D ... +9% rdg. +1D	●	●		●	as desired
	R _E / I _{ΔN} = 10 mA	10 Ω ... 6.51 kΩ	10 Ω		calculated value	U _N = 120/230 V f _N = 50/60 Hz U _L = 25/50 V I _{ΔN} = 10/30/ 100/300/500 mA	±(5% rdg. +1D)	±(3.5% rdg. +2D)					
	R _E / I _{ΔN} = 30 mA	3 Ω ... 999 Ω 1 kΩ ... 2.17 kΩ	3 Ω 10 Ω										
	R _E / I _{ΔN} = 100 mA	1 Ω ... 651 Ω	1 Ω										
	R _E / I _{ΔN} = 300 mA	0.3 Ω ... 99.9 Ω 100 Ω ... 217 Ω	0.3 Ω 1 Ω										
	R _E / I _{ΔN} = 500 mA	0.2 Ω ... 9.99 Ω 100 Ω ... 130 Ω	0.2 Ω 1 Ω										
	I _Δ / I _{ΔN} = 10 mA	3.0 ... 13.0 mA	0.1 mA	3.0 ... 13.0 mA									
	I _Δ / I _{ΔN} = 30 mA	9.0 ... 39.0 mA		9.0 ... 39.0 mA	9.0 ... 39.0 mA								
	I _Δ / I _{ΔN} = 100 mA	30 ... 130 mA	1 mA	30 ... 130 mA	30 ... 130 mA								
	I _Δ / I _{ΔN} = 300 mA	90 ... 390 mA	1 mA	90 ... 390 mA	90 ... 390 mA								
	I _Δ / I _{ΔN} = 500 mA	150 ... 650 mA	1 mA	150 ... 650 mA	150 ... 650 mA								
	U _Δ / U _L = 25 V	0 ... 25.0 V	0.1 V	same as I _Δ	0 ... 25.0 V		+10% rdg. +1D	+1% rdg. -1D ... +9% rdg. +1 D					
U _Δ / U _L = 50 V	0 ... 50.0 V	0 ... 50.0 V											
t _A / I _{ΔN}	0 ... 1000 ms	1 ms	1.05 · I _{ΔN}	0 ... 1000 ms		±4 ms	±3 ms						
t _A / 5 · I _{ΔN}	0 ... 40 ms	1 ms	5 · I _{ΔN}	0 ... 40 ms	I _{ΔN} = 10/30 mA								
Z _{Schl} Z _I	Z _{Schl} (full-waves) Z _I	0.01 ... 9.99 Ω	10 mΩ	0.83 ... 4.0 A	0.15 ... 0.5 Ω 0.5 ... 1.0 Ω 1.0 ... 10 Ω	U _N = 120/230 V U _N ²⁾ = 400 V/ 500 V at Z _{Schl} f _N = 50/60 Hz	±(10% rdg. +8D) ±(10% rdg. +5D) ±(5% rdg. +3D)	±5 D ±(4% rdg. +3D) ±(3% rdg. +3D)	●	●	Z _{Schl}		
	Z _{Schl} (+/- half-waves)				0.25 ... 1.0 Ω 1.0 ... 10 Ω		±(20% rdg. +5D) ±(10% rdg. +3D)	±(6% rdg. +5D) ±(4% rdg. +3D)					
	I _K	0 A ... 999 A 1.00 kA ... 9.99 kA 10.0 kA ... 50.0 kA ⁴⁾	1 A 10 A 100 A	—	120 (108 ... 132) V 230 (196 ... 253) V 400 (340 ... 440) V		—	—					
R _E	R _E (R _E Schl without probe)	0 ... 10 Ω 0 ... 10 Ω 0 ... 10 Ω	10 mΩ 10 mΩ 10 mΩ	0.83 ... 3.4 A 0.83 ... 3.4 A 0.83 ... 3.4 A	0.15 Ω ... 0.5 Ω 0.5 Ω ... 1.0 Ω 1.0 Ω ... 10 Ω	U _N = 120/230 V U _N = 400 V f _N = 50/60 Hz	±(10% rdg. +5D) ±(10% rdg. +5D) ±(5% rdg. +3D)	±5 D ±(4% rdg. +3D) ±(3% rdg. +3D)	●	●		●	
		0 ... 100 Ω 0 ... 1 kΩ 1 kΩ ... 10 kΩ	10 mΩ 1 Ω 1 Ω	400 mA 40 mA 4 mA	10 Ω ... 100 Ω 100 Ω ... 1 kΩ 1 kΩ ... 10 kΩ		±(10% rdg. +3D) ±(10% rdg. +3D) ±(10% rdg. +3D)	±(3% rdg. +3D) ±(3% rdg. +3D) ±(3% rdg. +3D)					
		U _E	0 ... 253 V	1 V	—		calculated value						
	Z _{ST}	0 ... 1 MΩ	1 kΩ	2.3 mA at 230 V	10 kΩ ... 200 kΩ 200 kΩ ... 1 MΩ 10 kΩ ... 200 kΩ	U ₀ = U _{L-N}	±(10% rdg. +3D) ±(20% rdg. +3D) ±(30% rdg. +3D)	±(5% rdg. +3D) ±(10% rdg. +3D) ±(20% rdg. +3D)					
R _{ST}													
R _{ISO}	R _{ISO} , R _{E ISO}	0.01 ... 9.99 MΩ 10.0 ... 99.9 MΩ	10 kΩ 100 kΩ	I _K = 1.5 mA	50 kΩ ... 100 MΩ	U _N = 100 V I _N = 1 mA	±(5% rdg. +1D)	±(3% rdg. +1D)	●	●			
		0.01 ... 9.99 MΩ 10.0 ... 99.9 MΩ 100 ... 200 MΩ	10 kΩ 100 kΩ 1 MΩ										
		0.01 ... 9.99 MΩ 10.0 ... 99.9 MΩ 100 ... 300 MΩ	10 kΩ 100 kΩ 1 MΩ										
U	25 ... 600 V-	1 V	500 kΩ	25 ... 600 V		±(3% rdg. +1D)	±(1.5% rdg. +1D)						
R _{LO}	R _{LO}	0.01 Ω ... 9.99 Ω 10.0 Ω ... 99.9 Ω	10 mΩ 100 mΩ	I _m ≥ 200 mA	0.5 Ω ... 6 Ω	U ₀ = 4.5 V	±(4% rdg. +3D)	±(2% rdg. +2D)		●			

¹⁾ Only for systems with overvoltage category II, fouling factor 2, max. 5 min

²⁾ U > 253 V with 2-pole adapter only

³⁾ 500 mA RCCB, max. U_N = 230 V

⁴⁾ 100 U_N · 1/Ω

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Reference Conditions

Line Voltage	230 V ± 0.1%
Line Frequency	50 Hz ± 0.1%
Meas. Qty. Frequency	45 Hz ... 65 Hz
Meas. Qty. Waveshape	sine (deviation between RMS and rectified value ≤ 0.1%)
Line Impedance Angle	$\cos \varphi = 1$
Probe Resistance	≤ 10 Ω
Battery Voltage	8 V ± 0.5 V
Ambient Temperature	+ 23 °C ± 2 K
Relative Humidity	45% ... 55%
Finger Contact	potential difference test at earth potential
Standing-Surface Insulation	purely ohmic

Power Supply

Batteries	6 ea. 1.5 V mignon cells (alkaline manganese per IEC-LR6 or ANSI-AA or JIS-AM3) or 6 rechargeable NiMH batteries
Number of Measurements (with one set of batteries)	
– for R _{ISO}	1 measurement – 25 s pause 1500 measurements
– for R _{LO}	automatic polarity reversal (1 measuring cycle) – 25 s pause: 1500 measurements
Battery Test	battery voltage displayed numerically and as symbol 6.0 ... 10.0 V
Battery Saving Circuit	Display illumination can be deactivated. The instrument switches itself off 15 ... 90 seconds after last key operation. ON-time can be selected by the user.
Safety Shut-Down	The instrument is switched off, or cannot be switched on, if the supply voltage drops to below a given level.
Charging Socket	Rechargeable batteries can be directly charged within the instrument by connecting the Z501D charger to the charging socket.

Overload Capacity

R _{ISO}	600 V continuous
U _{L-PE} , U _{L-N}	600 V continuous
F _i , R _E , R _F	440 V continuous
Z _{Schl} , Z _i	550 V (limits the number of measurements and pause duration, a thermal protector switches the instrument off if overload should occur.)
R _{LO}	Electronic protection prevents the instrument from being switched on if interference voltage is present.
Fine-Wire Fuse Protection	3.15 A 10 s, > 5 A – fuse blows

Electrical Safety

Protection Class	II per IEC 61010-1/EN 61010-1/VDE 0411-1
Nominal Voltage	230/400 V (300/500 V)
Test Voltage	3.7 kV 50 Hz
Overvoltage Category	III
Contamination Factor	2
Interference Emission (EMC)	IEC 61326-1
Interference Immunity (EMC)	IEC 61326/A1
Fuses	
Terminals L and N	1 ea. fuse link M 3.15/500G 6.3 mm x 32 mm (safety fuse: FF 3.15/500G)

Ambient Conditions

Operating Temperature	–10 ... + 50° C
Storage Temperature	–20 ... + 60° C (without batteries)
Relative Humidity	max. 75%, no condensation
Elevation	max. 2000 m above sea level

Mechanical Design

Display	multiple display with dot matrix 64 x 128 pixels
Protection	housing: IP 40 test probe: IP 40 per DIN VDE 0470 part 1/EN 60529
Dimensions	240 mm x 340 mm x 62 mm
Weight	approx. 2.5 kg with batteries

Data Interface

Type	infrared interface (SIR/IrDa) bidirectional, half-duplex
Format	9600 baud, 1 start bit, 1 stop bit, 8 data bits, no parity, no handshake
Range	max. 30 cm recommended distance: < 10 cm

PROFITEST® 0100S-II

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Accessories for the PROFITEST® 0100S-II

PROFITEST® PSI-E and PSI-BC

The PROFITEST® PSI-E module (Printer L storage Interface) reads data out from the PROFITEST® 0100S-II test instrument and is a printer, a memory and an interface all in one. It is attached to the test instrument and secured by means of two snap hooks.

Values measured with the PROFITEST® 0100S-II are transmitted and stored to the PSI module via infrared light.

Up to 4400 value from 200 circuits can be stored to the memory at the PSI module. In order to be able to assign measurement values to buildings (construction sites, floors etc.) and circuits in an unambiguous fashion, identification numbers can be entered with the keys at the PSI module.

The measurement values from all of the stored circuits can be displayed at the instrument in tabular form, and can be printed out with a time and date stamp to a recording chart by pressing a key. The measurement value table can, for example, be directly attached to an approval report.



The PSI module is equipped with an RS232 interface, via which stored data can be transmitted at a later point in time to a PC, fully independently of the test instrument,

where they can be processed with PC.doc-win and PS3 software.

For further information please request our data sheet: PROFITEST® PSI-E/BC.

Modules Comparison, PSI versus PSI-T

Feature	PROFITEST® PSI-E	PROFITEST® PSI-BC
Entry of buildings	3 place numeric	6 place alphanumeric
Entry of distribution cabinets	—	3 place alphanumeric
Entry of RCD identification	—	2 place alphanumeric
Entry of circuits	3 place numeric	3 place alphanumeric
Entry of identification numbers via barcode scanner	—	with B3261 as accessory
Number of measurement values per circuit for insulation resistance measurement	1	2
Entry of faults	none	3 selectable possibilities
Entry of number of existing circuits	none	3 place numeric
Report generating software	PS3, PC.doc-win	PS3, PC.doc-win

DA-II

Printer adapter for the connection of a printer with Centronics interface to the PROFITEST® PSI-E/BC for immediate printing of measured and stored values to a predefined report in A4 format.

PROFITEST® DC-II

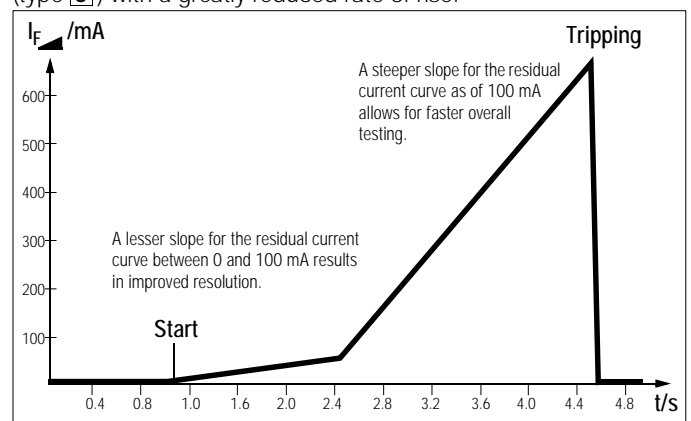


Applications

- Trip test for AC-DC sensitive RCCBs
 - for measuring tripping current
 - for measuring time to trip
 - for the testing of undelayed and delayed RCCBs
- Loop resistance measurement with a resolution of 0,01 Ω with the PROFITEST® 0100S-II by suppressing tripping of RCCBs which are sensitive to pulsating currents.

Tripping Test Operating Mode for AC-DC Sensitive RCCBs with Rising DC Residual Current and Measurement of Tripping Current

In selector switch position I_F , a slowly rising direct current flows via N and PE. The measurement value for current is continuously displayed. When the RCCB is tripped, the last measured current value appears. Measurement is performed for delayed RCCBs (type) with a greatly reduced rate of rise.

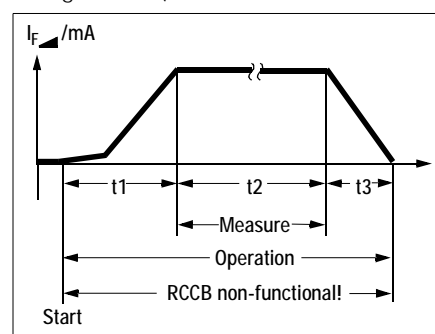


Tripping Test Operating Mode for AC-DC Sensitive RCCBs with Constant DC Residual Current and Measurement of Tripping Current

In the selector switch position for the respective nominal residual current, twice the nominal current flows via N and PE. Time required until RCCB tripping occurs is measured and displayed.

Loop Impedance Measurement Operating Mode with the PROFITEST® 0100S-II by means of Suppressing RCCB Tripping

The PROFITEST® DC-II allows for the measurement of loop impedance in TN systems with RCCBs which are sensitive to pulsating current (10/30/100/300/500 mA nominal residual current).



The instrument generates a DC residual current which saturates the RCCB's magnetic circuit. A measuring current is superimposed by the PROFITEST® 0100S-II which demonstrates half-waves only of like polarity. The RCCB can no longer detect the measuring current and is not tripped during testing.

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PROFiKALIBRATOR 1

The PROFiKALIBRATOR 1 is a calibration adapter for test instruments in accordance with DIN VDE 0100. It is used in combination with a test standard and a multimeter (e.g. METRAHit®28S) for the testing of protective device test instruments such as the PROFiTEST®0100S/S-II, M5010, M5011 and M5012.

The various functional values which must be determined in accordance with DIN VDE 0100, part 610, are first compared with the test standard and then with the measurement values from the device under test. The measurement values from the test standard serve as reference values.



ISO Calibrator 1

Calibration adapter for quick and efficient testing of the accuracy of test instruments for insulation resistance and low-value resistors.



PS3 Intelligent Modular Software for Test Instruments

Measurement data acquired with test instruments is transferred to PS3 and are then automatically assigned to activities such as testing, maintenance or inspection. Ready-to-sign test and work reports can thus be prepared with a minimum of effort.

The basic module and the device module are sufficient for standard requirements such as reading in measurement data and report printing.

Additional requirements such as following up on deadlines, test data history, data selection and list generation, right on up to complete object management (devices and buildings) with inventory management, errors indication, work orders and repairs are handled with the expansion module and with add-on modules. An overview of all of the features included with this software is available in the PS3 brochure.

PC.doc-win Standard Software for DIN VDE 0100

(Windword 6.0 and/or ACCESS required in both cases)

Report and database software based on MICROSOFT WINWORD and ACCESS.

In WINWORD, reports are produced from measurement results as well as data entered to the PSI module, following the recommendations of the ZVEH (German Central Electrical Trade Association) in accordance with DIN VDE 0100.

Complete device and system management is made possible with the help of ACCESS, as well as documentation and management of master data and test data.

- Standard forms and device lists
- Automatic initialization of WINWORD and ACCESS
- Management of master data for customers, work orders and devices
- Automatic allocation to the selected master data
- Search function

3-Phase Current Adapters



The A3-16, A3-32 and A3-63 three-phase current adapters are used for the convenient connection of test instruments to 5-pole CEE outlets. The three different versions have different sized plugs which correspond to 5-pole CEE outlets with current ratings of 16 A, 32 A and 63 A. Phase sequence is indicated

with lamps.

Testing for the effectiveness of protective devices is accomplished via five 4 mm, contact protected jacks.

Variable Plug Set



Three contact protected, self-retaining test probes for connection to measurement cables with 4 mm banana plugs, or with contact protected plugs for connection to sockets with openings ranging from 3.5 to 12 mm, e.g. CEE or Perilex outlets etc.

The test probes also fit into, for example, the square PE jack at Perilex outlets. Maximum allow-

able operating voltage: 600 V per IEC 61010.

Floor Probe



The 1081 floor probe allows for the measurement of resistance at insulating floor coverings in accordance with DIN VDE 0100, part 610 and EN 1081.

KS24 Cable Set



The KS 24 cable set consists of a 4 m extension cable with permanently attached test probe at one end, and a contact protected jack at the other end, as well as two alligator clips which can be plugged onto the test probe.

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Drum with TR50 Measurement Cable

50 m measurement cable wound onto a metal drum. Connection to one end of the cable is accomplished with a jack which is integrated into the drum. The other end is equipped with a banana plug. The drum axle with handle can be removed for space saving storage.

Cable resistance can be compensated for in selector switch position R_{LO}.

compensated for in selector switch position R_{LO}.

Various Accessories



Clockwise:
TR25 reel,
SP350 earth drill,
Telearn 1
telescoping rod,
PRO-UNI and
PRO-RLO plug
inserts

F2000 Carrying Pouch



The test instrument, the PSI module, plug inserts, measuring adapter, replacement batteries, recording chart paper etc., can all be conveniently stored and transported with the F2000 carrying pouch.

K100 Carrying Case



As compared with the F2000 carrying pouch, the K100 carrying case has additional room for three different three-phase current adapters, reel with measurement cable, telescoping rod, earth drills and 1081 probe.

Order Information

Designation	Type	Article Number
Basic Instruments		
Universal, protective device test instrument for DIN VDE 0100 per DIN VDE 0413, parts 1+3+4+6+7+9	PROFiTEST 0100S-II	M 520A
Same as PROFiTEST®0100S-II with languages English, Danish, Swedish, Finnish and German, no plug insert, with English operating instructions	PROFiTEST 0100 S-UK-II	M 520B
Same as PROFiTEST®0100S-II with Iberian languages (Castilian, Catalan, Galician, Basque, Portuguese, English)	PROFiTEST 0100 S-E-II	M 520C
Same as PROFiTEST®0100S-II with Slavic languages (Czech, Slovenian, Hungarian and German)	PROFiTEST 0100 S-Ost-II	M 520D
Test Instrument Sets		
Test set in K100 carrying case: PROFiTEST®0100S-II, PROFiTEST®PSI-E, SP350, Telearn 1, PS-10P, A3-16 and TR25	PGS110	M509H
Test set in F2000 carrying pouch: PROFiTEST®0100S-II, PROFiTEST®PSI-E	PGS113	M509J
Same as PGS113 with PROFiTEST®PSI-BC instead of PROFiTEST®PSI-E and PC.doc-win.	PGS115	M509K
Same as PGS115, but with PC.doc-win in Dutch instead of in German	PGS116	M509N
Test set in K100 carrying case: PROFiTEST®0100S-II, PROFiTEST®PSI-E, PC.base-m, SP350, Telearn 1, PS-10P, variable plug set, PRO-RLO and TR25	PGS210	M509L
Same as PGS210 with PROFiTEST®PSI-BC instead of PROFiTEST®PSI-E and with PC.base-m+204 instead of PC.base-m	PGS211	M509M
Test set in metal case: METRMax 12, PROFiTEST®0100S-II, PROFiTEST®PSI-E, DA-II, SP530, Z500A, PRO-R _{LO} , TR25	PGS2000	M509P
Expansions		
Printer, memory, RS232 as expansion module for PROFiTEST®0100S-II including 2 rolls of recording chart, 1 ink ribbon, batteries, operating instructions	PROFiTEST®PSI-E ^{D)}	M522A
Same as PROFiTEST®PSI-E, series BC, but with expanded data entry and report generating, alphanumeric and barcode entry options	PROFiTEST®PSI-BC ^{D)}	M522D
Printer adapter for the connection of a printer with Centronics interface to the PROFiTEST®PSI-E/BC	DA-II	Z745M
Sensor for temperature and relative humidity for PROFiTEST®0100S-II and METRISO [®] C	T/F Sensor	Z541A

PROFiTEST® 0100S-II

Test Instrument for DIN VDE 0100

Designation	Type	Article Number
Test instrument, as described on page 5, including connector cable and operating instructions	PROFi TEST DC-II ^{D)}	M523A
Differential current monitor	DI-Mon 1	M662B
IR interface for connection to the RS232 port at a PC to transmit data between PC & PROFiTEST®0100S-II, e.g. for software updates to the instrument or display of measurement values at the PC	IrDa 0100S	Z501C
Plug Inserts and Adapters		
Measuring adapter for three-phase current and poly-phase systems	PRO-A3 ¹⁾	GTZ 3214 000 R0001
Schuko or equivalent	PRO-Schuko	GTZ 3228 000 R0001
For Switzerland per SEV	PRO-CH	GTZ 3225 000 R0001
For GB per BS	PRO-GB	GTZ 3226 000 R0001
For GB ring measurement	PRO-GB/ring	GTZ 3226 000 R0002
For Italy per IMQ	PRO-I	GTZ 3227 000 R0001
For Denmark	PRO-DK	GTZ 3219 000 R0001
For South Africa	PRO-RSA	Z501A
With 3 connector cables for any standards	PRO-UNI	GTZ 3214 000 R0003
With 10 m cable for PE measurements etc.	PRO-RLO	GTZ 3214 000 R0002
5-pole three-phase current adapter for 16 A CEE outlets	A3-16	GTZ 3602 000 R0001
5-pole three-phase current adapter for 32 A CEE outlets	A3-32	GTZ 3603 000 R0001
5-pole three-phase current adapter for 63 A CEE outlets	A3-63	GTZ 3604 000 R0001
Variable plug set	Z500A	Z500A
Adapter for PROFiTEST®DC-II in systems w/o earth contact outlets	3-Pole-Adapter	Z523A
Adapter for protective conductor and insulation testing with PROFiTEST®0100S-II	Adapter 701	Z501F
Accessories		
4 m extension cable	KS24	GTZ 3201 000 R0001
Telescoping rod for PE measurement	Telearm 1	GTZ 3232 000 R0001
Reel with 25 m measurement cable	TR25 Reel	GTZ 3303 000 R0001
Drum with 50 m measurement cable	TR50 Drum	GTY 1040 014 E34
35 cm earth drill for earth measurement	SP350 Earth Drill	GTZ 3304 000 R0001
Triang. probe for floor measurement per EN 1081 and DIN VDE 0100	1081 Probe	GTZ 3196 000 R0001
6 special NiM rechargeable mignon batteries with holder (1300 mAh)	Akku-Set 0100S	Z501B
Charger for recharging 0100S battery set in the PROFiTEST®0100S-II	NA 0100S	Z501D
Clip-on current sensor for leakage current, adjustable: 1 mA ... 15 A, 3% and 1 A ... 150 A, 2%	CLIP 0100S	Z501E

Designation	Type	Article Number
Cable for the connection of current clips with banana plugs to the jack plug of the PROFiTEST®0100S-II	CLIP-ON Adapter Cable	Z501G
Universal carrying pouch for PROFiTEST®0100S-II, 204 or METRISO®5000A	F2000 ^{D)}	Z700D
Carrying pouch	K100	GTZ 3318 000 R0001
Calibration Adapters		
Comparator for calibration of the PROFiTEST®0100S/S-II	PROFi KALIBRATOR 1	M661A
Calibration adapter for testing the accuracy of instruments for the measurement of insulation resistance and low-value resistors	ISO-Kalibrator 1	M662A
Software		
Software for maintenance and electronic equipment management	PS3	
Device driver, allows for read-out of measured values from the test instruments of the PROFiTEST 0100S-II series	PS3 Device Module	Z530A
Protocol management	PS3 Basic Module	Z531A
Electronic equipment management (Prerequisite: device module and basic module)	PS3 Expansion Module ²⁾	Z531B
LH Navigator + LH Viewer	PS3 Add-on Module ³⁾	Z531C
Client compatibility	PS3 Add-on Module ³⁾	Z531D
Outdoor and network	PS3 Add-on Module ³⁾	on request
Inventory management	PS3 Add-on Module ³⁾	Z531E
Barcode printing	PS3 Add-on Module ³⁾	Z531J
Repair management	PS3 Add-on Module ³⁾	Z531K
WINDOWS software for the preparation of protocols and lists. Data transfer from the test instrument and/or PSI module (WINDOWS software on floppy disk including interface cable for RS232)	PC.doc-win	Z710F
Software update for PROFiTEST®0100S-II on floppy disc (one-time update only, not a subscription)	SW-Update 0100S-II	Z520A
Consumable Materials		
Package of 10 rolls of recording chart for the PSI module	PS-10P	GTZ 3229 000 R0001
Package of 10 ink ribbon cartridges for the PSI module	Z3210	GTZ 3210 000 R0001
Label set for barcode and label printer	Z722D	Z722D

^{D)} Data sheet available

¹⁾ Included with the PROFiTEST®0100S-II

²⁾ Prerequisite: Device module and basic module

³⁾ Prerequisite: Device module and basic module and expansion module

For further information concerning accessories, see our *Measuring Instruments and Testers catalog*.

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