

Test Instrument for DIN VDE 0100

3-349-329-03
3/9.06

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 trip 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 trip current

Testing of Special RCCBs

- Selective **S**, SRCBs, PRCDs (Schukomat, Sidos etc.), type G

Testing of RCD Protection in IT Systems



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 60 to 500 V, and frequencies from 15 to 70 Hz.

Loop and System Impedance Measurement

Measurement of loop and system impedance can be performed within a range of 65 to 250 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.

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

Test Instrument for DIN VDE 0100

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** | **SI-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** | **ONE** test instrument
- 1 3-pole measuring adapter
- 1 carrying strap
- 1 set of batteries
- 1 operating instructions
- 1 PC software WinProfi for communication with **PROFITEST** | **ONE**. The PS3 CD-ROM includes the software WinProfi with the following content and functions:
 - up-to-date test instrument software
 - for loading other languages for the user interface
 - for loading updated firmware versions
 - Transmission of measured data from PSI module to PC

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)
DIN EN 61326 VDE 0843 Part 20	Electrical equipment for measurement, control and laboratory use – EMC requirements

Nominal Ranges of Use

Voltage U_N	120 V (108 ... 132 V) 230 V (196 ... 253 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)
Overall Voltage Range U_Y	60 ... 253 V
Overall Frequency Range	15 ... 70 Hz
Waveshape	sine
Temperature Range	0 °C ... + 40 °C
Battery Voltage	6 ... 10 V
Line Impedance Angle	corresponds to $\cos\varphi = 1 \dots 0.95$
Probe Resistance	< 50 k Ω

Test Instrument for DIN VDE 0100

Characteristic Values

Function	Measured Quantity	Display Range	Resolution	Input Impedance / Test Current	Measuring Range	Nominal Values	Operating Error	Intrinsic Error	Connections				
									Plug Insert ²⁾	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 ... 253 V ²⁾			±(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 ... 70 Hz		±(0.2% rdg.+1D)	±(0.1% rdg.+1D)	●				
	U _{3-Δ}	0 ... 99.9 V 100 ... 500(850) ¹⁾ V	0.1 V 1 V		108 ... 440 V ²⁾		±(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)				●	
	T ¹⁾	-10.0 ... +50.0 °C			0 ... +40 °C			±2 °C					
F _{rel} ¹⁾	10.0 ... 90.0%			20 ... 80%			±5%						
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 ... 70 Hz		±(0.2% rdg.+1D)	±(0.1% rdg.+1D)					
I _{ΔN}	U _{IΔN}	0 ... 70.0 V	0.1 V	0.3 · I _{ΔN}	5 ... 70 V		+10% rdg.+1D	+1% rdg.-1D ... +9% rdg.+1D					
	R _E / I _{ΔN} = 10 mA	10 Ω ... 6.51 kΩ	10 Ω		calculated value from U _{IΔN} / I _{ΔN}	U _N = 120/230 V f _N = 50/60 Hz U _L = 25/50 V			●	●	●	as desired	
	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	3.0 ... 13.0 mA	I _{ΔN} = 10/30/ 100/300/500 mA		±(5% rdg.+1D)	±(3.5% rdg.+2D)	●	●	●	as desired
	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 _{IΔ} / U _L = 25 V	0 ... 25.0 V	0.1 V	same as I _Δ	0 ... 25.0 V	I _{ΔN} = 10/30 mA		+10% rdg.+1D	+1% rdg.-1D ... +9% rdg.+1 D	●	●	●	as desired
	U _{IΔ} / U _L = 50 V	0 ... 50.0 V			0 ... 50.0 V								
t _Δ / I _{ΔN}	0 ... 1000 ms	1 ms	1.05 · I _{ΔN}	0 ... 1000 ms									
t _Δ / 5 · I _{ΔN}	0 ... 40 ms	1 ms	5 · I _{ΔN}	0 ... 40 ms			±4 ms	±3 ms					
Z _{Schl} Z _I	Z _{Schl} (full-waves) Z _I	0.01 ... 9.99 Ω	10 mΩ	0.83 ... 4.0 A	0.35 ... 0.49 Ω 0.50 ... 0.99 Ω 1.0 ... 9.99 Ω	U _N = 120/230 V f _N = 50/60 Hz	±(15% rdg.+5D) ±(15% rdg.+5D) ±(10% rdg.+5D)	±3 D ±(4% rdg.+3D) ±(3% rdg.+3D)	●	●			
	Z _{Schl} (+/- half-waves)				0.35 ... 0.99 Ω 1.00 ... 9.99 Ω			±(15% rdg.+5D) ±(10% rdg.+5D)					±(6% rdg.+5D) ±(4% rdg.+3D)
	I _k	0 A ... 999 A 1.00 kA ... 9.99 kA 10.0 kA ... 50.0 kA ³⁾	1 A 10 A 100 A	—	120 (108 ... 132) V 230 (196 ... 253) V 400 (340 ... 440) V			calculated value from Z _{Schl}					
R _E	R _E (R _{ESchl} without probe)	0 ... 10 Ω	10 mΩ	0.83 ... 3.4 A	0.35 Ω ... 0.49 Ω	U _N = 120/230 V f _N = 50/60 Hz	±(15% rdg.+2D) ±(15% rdg.+3D) ±(5% rdg.+3D)	±3 D ±(4% rdg.+3D) ±(3% rdg.+3D)	●	●	●		
		0 ... 10 Ω	10 mΩ	0.83 ... 3.4 A	0.50 Ω ... 0.99 Ω			±(10% rdg.+3D) ±(3% rdg.+3D)					
		0 ... 100 Ω	10 mΩ	400 mA	10 Ω ... 99.9 Ω			±(10% rdg.+3D) ±(3% rdg.+3D)					
	U _E	0 ... 253 V	1 V	—	calculated value			±(10% rdg.+2D) ±(5% rdg.+3D)					
Z _{ST}	0 ... 1 MΩ	1 kΩ	2.3 mA at 230 V	10 kΩ ... 199 kΩ 200 kΩ ... 999 kΩ 10 kΩ ... 199 kΩ	U ₀ = U _{L-N}		±(20% rdg.+2D) ±(20% rdg.+2D)	±(10% rdg.+3D) ±(10% rdg.+3D)					
R _{ISO}	R _{ISO} , R _{EISO}	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	10 kΩ 100 kΩ										
		100 ... 200 MΩ	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	0.35 Ω ... 6 Ω	U ₀ = 4.5 V	±(5% rdg.+3D)	±(2% rdg.+2D)		●			

¹⁾ with external probe (accessory)

²⁾ L-PE: 250 V, L-L: 440 V

³⁾ 100 U_N · 1/Ω

Test Instrument for DIN VDE 0100

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 φ = 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

Voltage Measurement Inputs	300 V _Y continuous
Z _{schl} , Z _i	440 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
Test Voltage	3.7 kV 50 Hz
Measuring Category	CAT III, 300 V
Contamination Factor	2
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)

Electromagnetic Compatibility (EMC)

Product standard	EN 61326-1:1997 EN 61326:1997/A1:1998
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Interference Emission		Class
EN 55022		A
Interference Immunity	Test Value	
EN 61000-4-2	Contact/air - 4 kV/8 kV	
EN 61000-4-3	10 V/m	
EN 61000-4-4	Mains Connection- 2 kV	

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 EN 60529/DIN VDE 0470 Part 1

Extract from table on the meaning of IP codes

IP XY (1 st digit X)	Protection against foreign object entry	IP XY (2 nd digit Y)	Protection against the penetration of water
0	not protected	0	not protected
1	≥ 50.0 mm Ø	1	vertically falling drops
2	≥ 12.5 mm Ø	2	vertically falling drops with enclosure tilted 15°
3	≥ 2.5 mm Ø	3	spraying water
4	≥ 1.0 mm Ø	4	splashing water

Dimensions (without SI module)	w x l x d = 240 mm x 340 mm x 62 mm
Weight (without SI module)	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

Test Instrument for DIN VDE 0100

Accessories for the PROFITEST | ONE

PROFITEST | SI-BC

The SI (Storage Interface) module **PROFITEST | SI-BC** reads data out from the **PROFITEST | ONE** test instrument and is 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 | ONE** are stored to the SI module after having been transmitted via infrared light.

Up to 4400 values from 200 circuits can be stored to the memory at the SI 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 SI module.

The measurement values from all of the stored circuits can be displayed at the instrument in tabular form.



The SI 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 PS3, WinProfi, PC.doc-WORD™ or PC.doc-ACCESS™ software.

Feature	PROFITEST SI-BC
Entry of buildings	6 place alphanumeric
Entry of distribution cabinets	3 place alphanumeric
Entry of circuits	3 place alphanumeric
Entry of identification numbers via barcode scanner	with B3261 as accessory scanner
Number of measurement values per circuit for insulation resistance measurement	2
Entry of faults	3 selectable possibilities
Entry of number of existing circuits	3 place numeric
Report generating software	PS3, WinProfi, PC.doc-WORD™, PC.doc-ACCESS™

DA-II

Printer adapter for the connection of a printer with Centronics interface* to the **PROFITEST | SI-BC** for immediate printing of measured and stored values to a predefined report in A4 format.

*) this implies that the printer must be capable of interpreting symbols, mere Windows printers are not appropriate.

ISO Calibrator 1

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



PROFITEST® DC-II

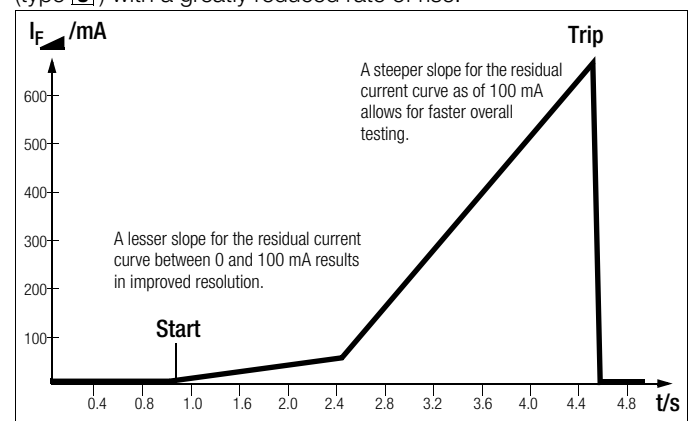


Applications

- Trip test of the DC characteristics for AC-DC sensitive RCCBs
 - for measuring trip 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 | ONE** by suppressing tripping of RCCBs which are sensitive to pulsating currents.

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

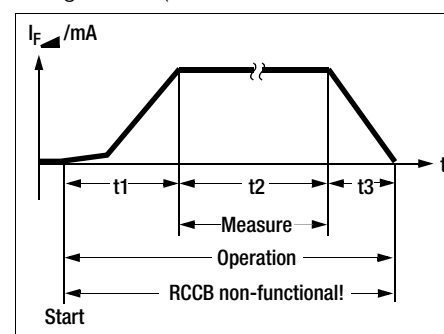


Trip Test Operating Mode for AC-DC Sensitive RCCBs with Constant DC Residual Current and Measurement of Trip Current

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 | ONE 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 | ONE** which demonstrates half-waves only of like polarity. The RCCB can no longer detect the measuring

current and is not tripped during testing.

Test Instrument for DIN VDE 0100

PC Software for PROFITEST | ONE

Comparison of analysis software programs	PC.doc-WORD™ PC.doc-ACCESS™	PS 3	PS3 compact
Self-sufficiency	requires WINWORD/ACCESS	✓ platform independent	✓
Design	always complete	modular	—
Embedded test instruments by GMC-I Gossen-Metrawatt GmbH	SECUTEST® ... METRATEST® 5/5-F PROFITEST® 0100S-II/C, PROFITEST ONE, PROFITEST 204 METRISO® C GEOHM® C (standard)	SECUTEST® ..., SECUSTAR FM, PROFITEST® 0100S-II/C, PROFITEST ONE, PROFITEST 204, METRISO® C individual module for each instrument	SECUTEST® ..., PROFITEST® 0100S-II/C, PROFITEST ONE, METRISO® C
Master data management	✓ complete in combination with WINWORD/ACCESS	✓ completely self-sufficient	✓
Search functions	✓ under ACCESS functions	✓ self-sufficient	✓
List generator	✓ with ACCESS query functions	✓ self-sufficient	✓ cannot be stored
Automatic monitoring of deadlines	✓ standard	✓ included in add-on module	✓
Form generator	✓ under WINWORD/ACCESS	✓ included in add-on module	—
Statistics	✓ error statistics, fault statistics	✓ optional	—
Navigator	—	✓ (module)	—
Client compatibility	—	✓ (module)	—
Outdoor function	—	✓ (module)	—
Barcode generation	✓ (standard)	✓ (module)	✓
Network compatible	✓ (standard)	✓ (module)	—
Inventory management	—	✓ (module)	—
Viewer	—	✓ (module)	—
Repair function	—	✓ (module)	—
Document management	—	✓ (module)	—
Fault indicator module	—	✓ (module)	—

Generation of Reports and Lists with PC.doc-WORD™

Prerequisite: Microsoft® WORD™

PC.doc-WORD™ inserts test results and data entered at the test instrument input module into test or list forms. These can then be supplemented and printed out with WORD™.

Test Data Management with PC.doc-ACCESS™

Prerequisite: Microsoft® ACCESS™

PC.doc-ACCESS™ manages device, machine, equipment, master and test data. Available test instrument data are automatically entered to master data and test data lists which are assigned to individual customers. Data are represented in accordance with the respective test regulation. Data are displayed as lists or in data sheet format, and can be sorted and filtered in a variety of different ways. Complete test data management is thus made possible. Reports and deadline lists can be printed out for selectable ID number ranges.

A separate data sheet gives you an overview of the features and functions of PC.doc-WORD™ and PC.doc-ACCESS™.

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 the PS3 software is available on our homepage.

Software for the communication between test instruments and PC – Winprofi

The software serves to update the following test instruments: PROFITEST® 0100S-II, PROFITEST | ONE, PROFITEST® C, METRISO® C, GEOHM® C, PROFITEST 204 and METRAtest 36ASi.

It is freeware and runs under Windows 95, 98, NT4 and 2000. It fulfills the following functions:

- update of test instrument firmware
- download of measured values
- upload of test reports (PROFITEST 204 only)
- creation of simple reports (PROFITEST 204 only)
- can be installed free of charge from every PS3 CD-ROM.

Test Instrument for DIN VDE 0100

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 allowable 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.



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} .

Various Accessories



TR25 reel, telescoping rod, Telearm 1 SP350 earth drill

F2000 Carrying Pouch



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

K2000 Carrying Case



As compared with the F2000 carrying pouch, the K2000 carrying case has additional room for three different three-phase current adapters, reel with measurement cable, telescoping rod, earth drills and 1081 probe.

Test Instrument for DIN VDE 0100

Order Information

Designation	Type	Article Number
Basic Instruments		
Universal test instrument for simple protective measures and tests per DIN VDE 0100	PROFITEST ONE	M 520G
Expansions		
Memory and RS232 interface with entry and/or report generating options, alphanumeric and barcode entry in addition to PROFITEST ONE , batteries, operating instructions	PROFITEST SI-BC	M522E
Barcode scanner	B3261	Z720A
Barcode and label printer, including software	Z721D	Z721D
Printer adapter for the connection of a printer with Centronics interface to the PROFITEST SI-BC	DA-II	Z745M
Sensor for temperature and relative humidity for PROFITEST ONE	T/F Sensor	Z541A
Test instrument, as described on page 5, including connector cable and operating instructions	PROFITEST®DC-II ^{D)}	M523A
Adapter for PROFITEST®DC-II in systems without earthing contact sockets	3-Pol-Adapter	Z523A
Differential current monitor	DI-Mon 1	M662B
IR interface for connection to the RS232 port at a PC to transmit data between PC and PROFITEST ONE , e.g. for software updates to the instrument or display of measurement values at the PC	IrDa 0100S	Z501C
same as IrDa 0100S, but for connection with the USB interface of a PC	IrDa-USB Converter	Z501J
for connecting the RS232 interface of the PROFITEST SI-BC with the USB interface of a PCs	RS232-USB Converter	Z501L
Plug Inserts and Adapters		
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 protective conductor and insulation testing with PROFITEST ONE	Adapter 701	Z501F
Accessories		
4 m extension cable	KS24	GTZ 3201 000 R0001
Telescoping rod for PE measurement	Telearn 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

Designation	Type	Article Number
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 ONE	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
Cable for the connection of current clips (e.g. Z3512A) with banana plugs to the jack plug of the PROFITEST ONE	CLIP-ON Adapter Cable	Z501G
Universal carrying pouch for PROFITEST ONE	F2000 ^{D)}	Z700D
Carrying case	K2000	Z504K
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	
Report generation and test data management of electrical devices and systems with the SECUTEST® ..., PROFITEST®0100S-II, PROFITEST ONE , PROFITEST®C and METRISO®C test instruments	PS3-compact	Z530K
Basic module and device driver for read-out of measured values from the test instruments (same instruments as for PS3-compact, plus PROFITEST 204)	PS3 GM	Z530E
Device modules, basic module and add-on module extended by the following modules – Electronic equipment management – Remote – Repair management – Barcode printing	PS3 AM	Z531N
Documentation and management software as accessory equipment for MS-Word, user language: German/English	PC.doc-WORD™ ^{D)}	Z714A
Documentation and management software as accessory equipment for MS-Access, user language: German/English	PC.doc-ACCESS™ ^{D)}	Z714B
Upgrade of PC.doc win/med ... to PC.doc-WORD™	PC.doc upgrade ^{D)}	Z714C
Consumable Materials		
Label set for barcode and label printer	Z722D	Z722D

^{D)} Data sheet available

For additional information on accessories please refer to

- our *Measuring Instruments and Testers catalog*
- our *website www.gossenmetrawatt.com*