GOSSEN METRAWATT

SECUTEST ST BASE / PRO and SECULIFE ST BASE(25)

Test Instruments for Measuring Electrical Safety of Devices per VDE 0701-0702, IEC 62353 and IEC 60974-43

3-447-080-03
1/10.20

- Preconfigured test sequences for quickly testing simple operating equipment
- One test sequence executed with individual measurements
- Suitable for use by instructed persons
- Comprehensive data management and storage concept for test results and individual measurements (up to 50,000 data records*) – assignment of measurements/tests to devices and clients.
- Fast access to measurement and test functions with double rotary switch, direct selection keys and softkeys
- High-resolution, brilliant 4.3" TFT color display
- Unique multiple measurement allows for the convenient recording of several measuring points.
- Automatic DUT connection and protection class detection
- Compact, impact-resistant housing with integrated rubber protector
- Comprehensive, legally secure preparation of test reports
- Interfaces for data entry (2x USB A) and data exchange (1x USB B)
- Extensive setting options for international use (language, keyboard, character set, date, time)
- Testing of different PRCD types, e.g. PRCD-S/PRCD-K (also with protective conductor resistance measurement for variants with connected PE) with the integrated test sequence “VDE 0701-0702-PRCD”

IQ optimiert für IZYTRONIQ

product design award 2014

i-NOVO AWARDS 2015 DESIGN

MADE IN GERMANY

ilac-MRA

DAkkS Deutsche Akkreditierungsstelle D-K-15080-01-01

optional

Database Expansions for SECUTEST DB+ (Z853R)

- **Remote control** via PC software (**IZYTRONIQ**) possible.
- **Additional database elements** for property, building, floor and room for a better structuring of large data volumes and additional fields for department and cost center
- **Multiprint** – **print-out of several / all test reports** (to a connected Z721S thermal printer) which are available for a device under test by pressing just one key
- Create user-defined **report templates** and manage them in the SECUTEST, including company logo
- **Data export** of all data (master data and measured values) as a file to a USB flash drive
- **Data import** of all DUT master data (except measured values) from **IZYTRONIQ** or a USB flash drive into the SECUTEST
- Create **user-defined test sequences** in **IZYTRONIQ** and upload them to the SECUTEST
- Database field **test interval**

Database Expansions for SECUTEST DB COMFORT (Z853S)

- New **database object Medicine** – Device with extended entry options
- The search function via the **“Search all” softkey** also allows for searching in the new field “UDI” (Unique Device Identification) of medical devices.
- **User-defined test sequences** – the number of user-defined sequences has now been increased to 24
- **Shifting** of test objects – the “shifting” of a (medical) device within the tree can be initiated by pressing and holding onto the tree symbol in the main display.
- **Touchedit** – the “editing” of a (medical) device can be opened by pressing and holding onto the detailed view in the main display.
- **Autostore** – the Autostore function can be activated in the setup so that test results of the automatic test can be stored immediately under the selected test object.
- **PushPrint** – A PC connected with the test instrument can put the SECUTEST in another operating mode in which the data are sent directly to the connected PC instead of saving them.
- **QuickEdit** – When entering a new DUT, the QuickEdit option can be activated, thus enabling the user to enter all other fields in one go after entry of the ID numbers.
- Database field **Test interval**

* 1 data record = 1 DUT or location node or customer or individual measurement

SECUTEST ST BASE / PRO and SECULIFE ST BASE(25)
Test Instruments for Measuring Electrical Safety of Devices

Features Included with SECUTEST ST BASE, SECUTEST ST PRO and SECULIFE ST BASE(25) Test Instruments

Measurement Functions

Switch Setting	Measuring Function, Test Current/Voltage		Measurement Type Connection Type
Single measurements, *rotary switch level: green*			
RPE	R_{PE}	**Protective conductor resistance**	PE(TS) - P1 passive PE(TS) - P1 active PE(Mains) - P1 PE(Mains) - P1 Clamp [2] P1 - P2 [3]
	I	Test current (200 mA) **SECUTEST ST BASE10/PRO**: and **SECULIFE ST BASE 10 A** [1] (Feature G01) & **SECULIFE ST BASE25**: 25 A [1)] (Feature G02)	
RINS	R_{ISO}	**Insulation resistance**	LN(TS) - PE(TS) LN(TS) - P1 P1 - P2 [3] PE(Mains) - P1 PE(TS) - P1 LN(TS) - P1//PE(TS)
	U_{ISO}	Test voltage	
IPE	$I_{PE\simeq}$	**Protective conductor current, RMS value**	Direct Differential Alternative AT3-Adapter [2] Clamp [2]
	$I_{PE\sim}$	AC component	
	$I_{PE=}$	DC component	
	U_{LN}	Test voltage	
IT	$I_{T\simeq}$	**Touch current, RMS value**	Direct Differential Alternative (P1) Permanent connection Alternative (P1–P2)
	$I_{T\sim}$	AC component	
	$I_{T=}$	DC component	
	U_{LN}	Test voltage	
IE	$I_{E\simeq}$	**Device leakage current, RMS value**	Direct Differential Alternative AT3-Adapter [2] Clamp [2]
	$I_{E\sim}$	AC component	
	$I_{E=}$	DC component	
	U_{LN}	Test voltage	
IA	$I_{A\simeq}$	**Leakage current from the application part, RMS value**	Direct (P1) Alternative (P1) Permanent conn. (P1)
	U_A	Test voltage	
IP	$I_{P\simeq}$	**Patient leakage current, RMS value**	Direct (P1) Permanent conn. (P1)
	$I_{P\sim}$	AC component	
	$I_{P=}$	DC component	
	U_{LN}	Test voltage	
U	$U_{\simeq}$	**Probe voltage, RMS**	PE - P1 PE - P1 (with mains*) * polarity preset
	$U_{\sim}$	Alternating voltage component	
	$U_{=}$	Direct voltage component	
	$U_{\simeq}$	**Measurement Voltage RMS** [2]	V – COM V – COM (with mains)
	$U_{\sim}$	Alternating voltage component [2]	
	$U_{=}$	Direct voltage component [2]	
tPRCD [4]	t_B	PRCD time to trip for 30 mA PRCDs	
	U_{LN}	Line voltage at the test socket	
P	**Function test at the test socket**		Polarity preset
	I	Current between L and N	
	U	Voltage between L and N	
	f	Frequency	
	P	Active power	
	S	Apparent power	
	PF	Power factor	
Probe measuring functions			
EL1	Extension cords with adapter: continuity, short-circuit, polarity (wire reversal [5])		EL1 adapter EL1 adapter (continuity only) AT3-IIIE adapter VL2E adapter
EXTRA	Reserved for expansion during the course of software updates		
	°C	Temperature measurement [2] with Pt100/Pt1000	V – COM
	IZ	Measurement of current at clamp with current clamp sensor	V – COM

[1] 10 A/25 A-R_{PE} measurements are only possible with line voltages of 115/230 V and line frequencies of 50/60 Hz.
[2] Voltage measurement inputs only with **SECUTEST ST PRO** (or device with Feature I01) and **SECULIFE ST BASE(25)**
[3] Terminal for 2nd test probe for 2-pole measurement only with **SECUTEST ST PRO** (or device with Feature H01) and **SECULIFE ST BASE(25)**
[4] Measurement of time to trip not possible in IT systems
[5] No checking for reversed polarity takes place when the EL1 adapter is used.

Key

Alternative = alternative measurement (equivalent leakage current measurement)
Differential = differential current measurement
Direct = direct measurement
LN(TS) = short-circuited conductors L and N of test socket
P1 = measurement with test probe P1
P1-P2 = 2-pole measurement with test probe P1 & P2
PE-P1 = measurement between PE and test probe P1
PE(TS) = protective conductor of test socket
PE(Mains) = protective conductor of mains terminal

Switch Setting	Standard	Measurement Type, Connection Type
Automated test sequences, *rotary switch level: orange*		
Preconfigured (freely configurable) test sequences – Delivery Status		
A1	**VDE 0701-0702**	Passive measuring method, test socket
A2	**VDE 0701-0702**	Active measurement type, test socket
A3	**VDE 0701-0702-IT**	Parameters configuration for EDP (active)
A4	**IEC 62353** (VDE 0751)	Passive measurement type
A5	**IEC 62353** (VDE 0751)	Active measurement type
A6	**IEC 60974-4**	Connection type: test socket
A7	**IEC 60974-4**	Connection type: AT16-DI/AT32-DI
A8	**VDE 0701-0702**	VDE 0701-0702, measurement type Extension Cord test (RPE, RISO), EL1/VL2E/AT3-IIIE adapter
A9	**VDE 0701-0702**	Connection type, measurement type, protection category – in each case automatic

Mains Connection Analysis

Line voltage and frequency are measured and compared with the data specified in the setup menu. Momentary voltage or nominal voltage in accordance with the standard is required, for instance in order to extrapolate measured values for the leakage current measurement.

Automatic Detection of Mains Connection Errors

The device automatically recognizes mains connection errors if the conditions in the following table have been fulfilled. The user is informed of the type of error, and all measuring functions are disabled in the event of danger.

Type of Connection Error	Message	Condition	Measurements
Voltage at protective conductor PE to finger contact (**START**/STOP key)	Display at the instrument	Press **START**/STOP button U > 25 V Button → PE: < 1 MΩ [2]	All measurements disabled
Protective conductor PE & phase conductor L reversed and/or neutral conductor N interrupted		Voltage at PE > 100 V	Impossible (no supply power)
Line voltage < 180 V / < 90 V (depending on mains)		U_{L-N} < 180 V U_{L-N} < 90 V	Possible under certain circumstances [1]
Test on IT/TN system	Display at the instrument	Connection N → PE > 20 kΩ	Possible under certain circumstances

[1] 10 A/25 A-R_{PE} measurements are only possible with line voltages of 115/230 V and line frequencies of 50/60 Hz.
[2] if the test person is highly insulated, the following error message may appear: „Interference voltage at PE of mains connection“

Analysis of DUT Connection and Condition

Depending on the measurement or how the DUT is connected, the following states are checked and displayed before measurement is begun.

Control Function		Condition
Short-circuit test L–N	Short-circuit / starting current	R ≤ 2,5 Ω
	No short-circuit (AC test)	R > 2,5 Ω
Open-Circuit Voltage U_0 4.3 V, Short-Circuit Current I_K < 250 mA		
Short-circuit test N–PE	Short-circuit	R ≤ 2 kΩ
	No short-circuit (AC test)	R > 2 kΩ
Open-Circuit Voltage U_0 230 V, AC, Short-Circuit Current I_K < 1.5 mA		
On test	On (passive DUT)	R < 250 kΩ
	Off (active DUT)	R > 300 kΩ
Open-Circuit Voltage U_0 230 V AC, Short-Circuit Current I_K < 1,5 mA		
Switchable control	Mains power on	R < 500 Ω
	Popup	R > 500 Ω
Probe test	No probe	R > 2 MΩ
	Probe detected	R < 500 kΩ
Protection class detection (only for country-specific (earth-contact) plug variant) [1]		
	Protective conductor exists: PC I	R < 1 Ω
	No protective conductor: PC II	R > 10 Ω
Safety shutdown [1]		
Triggered at following residual current value (selectable)		> 10 mA / > 30 mA
Triggered at following probe current values	during leakage current measurement	> 12 mA
	during protective conductor resistance measurement	> 250 mA
Connection test (only for country-specific (earth-contact) plug variant) [1]		
Checks whether the DUT is connected to the test socket.		
	Power line of DUT exists	R < 1 Ω
	No power line of DUT	R > 10 Ω
Insulation test	DUT set up in a well-insulated fashion	R ≥ 500 kΩ
	DUT set up in a poorly insulated fashion	R < 500 kΩ
PELine – PETestsocket: Open-Circuit Voltage U_0 50 V DC , I_K < 2 mA		
Overcurrent protection (shutdown)		
Shutdown in the event of a continuous flow of current via the test socket: Our test instruments **SECUTEST ST BASE10**/PRO and **SECULIFE ST BASE(25)** allow for the active testing of devices with a nominal current (load current) of up to 16 A. The test socket of the respective test instrument is equipped with 16 A fuses and the switching capacity of the internal relays also amounts to 16 A. Starting currents of up to 30 A are permissible. For devices under test which are expected to feature a starting current of more than 30 A, we strongly recommend the application of a test adapter for higher starting currents: e. g. test adapter of the AT3 series.		I > 16.5 A

[1] applies to M7050 with feature B00, B09

Features

SECUTEST ST BASE, **SECUTEST ST PRO**, **SECULIFE ST BASE** and **SECULIFE ST BASE25** test Instruments are available with various features. These can be selected when placing an order. The basic instruments include the following features:

SECUTEST...	ST BASE	ST PRO	ST PRO BT comfort	—
SECULIFE...	—	ST BASE	—	ST BASE25
Touch screen / keyboard		■	■	■
10 A RPE test current		■	■	
25 A RPE test current				■
2nd test probe		■	■	■
Voltage meas. inputs*		■	■	■
SECUTEST DB+	□	■	■	■
SECUTEST DB comfort	□	□	■	■
Bluetooth®			■	
Antimicrobial housing		ST BASE		■

* for voltage measurements or connecting current clamp sensors or AT3 adapter as well as for temperature measurement via RTD

Key: ■ Included □ Optional

Detailed information regarding features and accessories can be found under “Order Information” on page 11.

Display with Selectable Language

The display panel consists of a backlit, color multi-display at which menus, setting options, measurement results, instructions and error messages, as well schematic and wiring diagrams appear. Sample pictures are shown on the next page.

The display and user prompting can be set to the desired language depending on the country in which the test instrument is used.

Data Entry

Data can be entered, for example, via a barcode reader connected to the USB port, a RFID scanner, a USB keyboard, or via the softkey keyboard when it appears at the display.

The touch screen of **SECUTEST ST PRO** (or devices with Feature E01) and **SECULIFE ST BASE(25)** allows for the convenient entry of data and comments while menu control is still based on softkeys.

Creating a Database

A complete test structure with data regarding customers, buildings*, floors*, rooms* and test objects can be created in the test instrument. This structure makes it possible to assign single measurements or test sequences to devices under test belonging to various customers. Manual single measurements can be grouped together into a so-called “manual sequence”.

The **SECUTEST ST PRO** and **SECULIFE ST BASE(25)** test instruments and those instruments with database expansion (Feature KB01) enable the user to prepare a test structure by means of the **IZYTRONIQ** software at the PC for subsequent transmission to the test instrument.

* only with **SECUTEST ST PRO** or with database expansion (Feature KB01) and **SECULIFE ST BASE(25)**

Data Interfaces

Structures set up in, and measurement data saved to the test instrument can be imported to **IZYTRONIQ** report generating software via the USB slave port. Data can then be archived at the PC, comments can be added with the software and reports can be generated.

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The following input and output devices can be connected to the two integrated USB master ports:

- An external keyboard and a barcode or RFID reader,
- USB stick for data backup, import, export and reporting
- A printer

Software Update

The test instrument can always be kept current thanks to firmware which can be updated via the USB slave port.

Report Generating Functions

All of the values required for approval reports or device logbooks for electrical equipment (e.g. per ZVEH) can be measured with this instrument. The measured data can be documented and archived thanks to the measurement and test report that can be printed with a thermal printer connected to the USB port, or stored to a USB flash drive as HTML protocol.

Automatic Detection of Measuring Point Changes

During protective conductor measurement, the test instrument recognizes whether or not the test probe is in contact with the protective conductor, which is indicated by means of two different acoustic signals. This function is very useful where several protective conductor connections need to be tested.

Software – IZYTRONIQ

IZYTRONIQ is a database-based test software that has been newly developed from scratch. It enables the user to visualize and manage the entire testing procedure for all our test instruments and to document it in an audit-proof manner. For the first time, it is thus possible to combine the test and measurement data from a great variety of test instruments and multimeters in one test and generate one report thereof. The intuitive user guidance and modern design provide for quick access to all functions.

The software is available in different sizes and versions for trades, industry and vocational training purposes.

Depending on which instrument variant you order, IZYTRONIQ is included in the scope of delivery – for example with standard models and instrument sets (see “Order Information” on page 11).If this is not the case or if you would like to take advantage of a variant with a larger scope of functions, you can purchase IZYTRONIQ separately.Detailed information can be found on our website:

https://www.gmc-instruments.de/en/products/software-and-accessories/software/

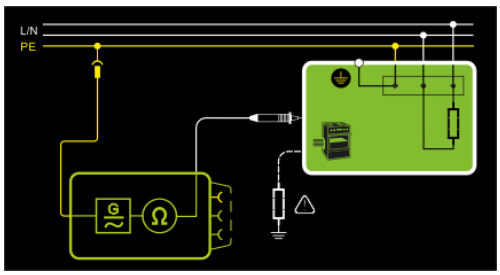
Scope of Delivery

The scope of delivery varies depending on which instrument variant has been ordered, and is country-specific. Information concerning the scope of delivery can be found under “Order Information” on page 11.

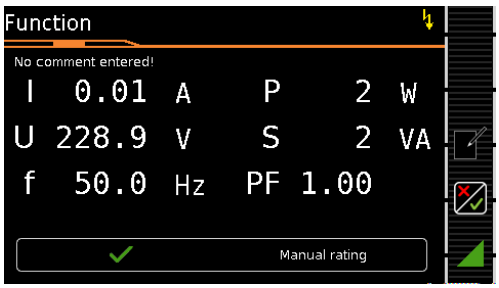
Backlit Multi-Display Samples

Single Test – Initial Screen with Parameters Display

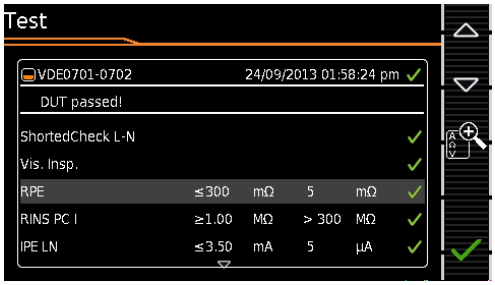
Help – Schematic and Wiring Diagram



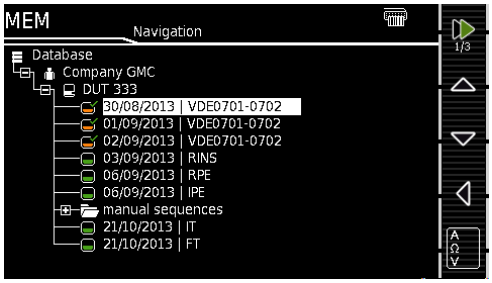
Test Function for Test Step in the Test Sequence



Results of a Test Sequence per VDE 0701-0702



Database Structure – List of Test Results



Characteristic Values

Function	Measured Quantity	Display Range / Nominal Range of Use	Resolution	Nominal Voltage U_N	Open-Circuit Voltage U_0	Nom. Current I_N	Short-Circuit Current I_K	Internal Resistance R_I	Reference Resistance R_{REF}	Measuring Uncertainty	Intrinsic Error	Overload Capacity Value	Overload Capacity Time
Tests, DIN VDE 0701-0702) / IEC 62353 (VDE 0751)	Protective conductor resistance [12] **RPE**	1 … 999 mΩ	1 mΩ	—	< 24 V AC or DC	—	>200 mA AC or DC [>10 A AC 5]; >35 AAC [11]	—	—	±(15% rdg. + 10 D) > 10 D > 10.0 Ω : ±(10% rdg.+ 10 d)	±(10% rdg.+ 10 d) > 10 d	264 V 250 mA / 16 A [5]	Cont.
		1.00 ... 999 Ω	10 mΩ									>42 AAC [11]	15 s
		10.0 … 27.0 Ω	100 mΩ										
	Insulation resistance [9] **RINS**	10 … 999 kΩ	1 kΩ	50 … 500 V DC	1.0 • U_N … 1.5 • U_N	> 1 mA	> 2 mA	—	—	±(5% rdg.+ 4 d) > 10 d	±(2.5% rdg.+2 d) > 10 d	264 V	Cont.
		1.00 … 9.99 MΩ	10 kΩ										
		10.0 … 99.9 MΩ	100 kΩ							≥ 20 MΩ: ±(10% rdg.+ 8 d)	≥ 20 MΩ: ±(5% rdg.+4 d)		
		100 … 300 MΩ	1 MΩ										
	Leakage current, alternative measurement [2] **IPE, V IA**	0.0 ... 99 µA	1 µA	—	50 ... 250 V~ – 20/+10%	—	> 1.5 mA	> 150 kΩ	1 kΩ ±10 Ω	±(5% rdg.+ 4 d) > 10 d > 15 mA: ±(10% rdg.+ 8 d)	±(2% rdg.+2 d) > 10 d > 15 mA: ±(5% rdg.+ 4 d)	264 V	Cont.
		100 ... 999 µA	1 µA										
		1.00 ... 9.99 mA	10 µA										
		10.0 ... 30.0 mA	100 µA										
	Leakage current, direct measurement [3] **IPE, IT, IE, IA, IP**	Only Ip: 0.0 ... 99.9 µA	100 nA	—	—	—	—	1 kΩ ±10 Ω	1 kΩ	±(5% rdg.+ 4 d) > 10 d	±(2.5% rdg.+2 d) > 10 d	264 V	Cont.
		0.0 ... 99 µA	1 µA										
		100 ... 999 µA	1 µA										
		1.00 ... 9.99 mA	10 µA										
		10.0 ... 30.0 mA	100 µA										
	Leakage current, differential current measurement [4] **IPE, IT, IG**	0 ... 99 µA	1 µA	—	—	—	—	—	—	±(5% rdg.+ 4 d) > 10 d	±(2.5% rdg.+2 d) > 10 d	264 V	Cont.
		100 ... 999 µA	1 µA										
		1.00 ... 9.99 mA	10 µA										
		10.0 ... 30.0 mA	100 µA										
Function test at test socket	Line voltage $U_{L–N}$ [10]	100.0 … 240.0 V~	0.1 V	—	—	—	—	—	—	—	±(2% rdg.+2 d)	264 V	Cont.
	Load current I_L	0 … 16.00 A_{RMS}	10 mA	—	—	—	—	—	—	—	±(2% rdg.+2 d)	16 A	Cont.
	Active power P	0 … 3700 W	1 W	—	—	—	—	—	—	—	±(5% rdg.+10 d) > 20 d	264 V	Cont.
												20 A	10 min
	Apparent power S	0 … 4000 VA	1 VA	Calculated value, $U_{L–N}$ • I_V							±(5% rdg.+10 d) > 20 d	264 V	Cont.
	Power factor PF with sinusoidal waveform: cosφ	0.00 … 1.00	0.01	Calculated value, P / S, display > 10 W							±(10% rdg.+5 d)	264 V	Cont.
	Line frequency	0 ... 420.0 Hz	0.1 HZ	—	—	—	—	—	—	—	±(2% rdg.+2 d)	264 V	Cont.
t PRCD	Time to trip	0.1 ... 999.0 ms	0.1 ms	—	—	30 mA	—	—	—	±5 ms	—	264 V	Cont.
Voltage measurement	Probe voltage (test probe P1 to PE) ⎓, ~ and ≂	0.0 ... 99.9 V	100 mV	—	—	—	—	3 MΩ	—	—	±(2 % v.M.+2 D)	264 V	Cont.
		100 ... 264 V											
	Meas. voltage (sockets V–COM [6]) ⎓, ~ and ≂	0,0 ... 99.9 V	1 V					1 MΩ			±(2 % rdg. +2 d) > 45 Hz ... 65 Hz ±(2 % rdg.+5 d) > 65 Hz ... 10 kHz ±(5 % rdg. +5 d) > 10 kHz ... 20 kHz	300 V ⎓, ~ and ≂	
		100 ... 300 V											
I_L	Leakage current via AT3-IIIE adapter Z745S [6] [8]	0,00 ... 0.99 mA ~	0.01 mA	—	—	—	—	—	—	—	±(2 % rdg.+2 d) > 10 D without adapter	253 V	Cont.
		1,0 ... 9.9 mA ~	0.1 mA										
		10 ... 20 mA ~	1 mA										
Temp	Temperature with Pt100 sensor	– 200.0 ... +850.0 °C	0.1 °C	—	< 20 V –		1.1 mA	—	—	—	±(2 % rdg.+1 °C)	10 V	Cont.
	Temperature with Pt1000 sensor	– 150.0 ... +850.0 °C											

Test Instruments for Measuring Electrical Safety of Devices

Function	Measured Quantity	Display Range / Nominal Range of Use	Resolution	Nominal Voltage U_N	Open-Circuit Voltage U_0	Nom. Current I_N	Short-Circuit Current I_K	Internal Resistance R_I	Reference Resistance R_{REF}	Measuring Uncertainty	Intrinsic Error	Overload Capacity	
												Value	Time
I_{Clamp}	Current via current clamp sensor [1 mV : 1 mA] (V–COM sockets [6] [7])	1 ... 99 mA ∼	1 mA (1 mV)	—	—	—	—	—	—	—	±(2 % rdg.+2 d) > 10 d 20 Hz ... 20 kHz without clamp	253 V	Cont.
		0.1 ... 0.99 A ∼	0.01 A (10 mV)										
		1.0 ... 9.9 A ∼	0.1 A (100 mV)										
		10 ... 300 A ∼	1 A (1 V)										
	Current via current clamp sensor [10 mV : 1 mA] (V–COM sockets [6] [7])	0.1 ... 9.9 mA ∼	0.1 mA (1 mV)	—	—	—	—	—	—	—			
		10 ... 99 mA ∼	1 mA (10 mV)										
		0.10 ... 0.99 A ∼	0.01 A (100 mV)										
		1.0 ... 30.0 A ∼	0.1 A (1 V)										
	Current via current clamp sensor [100 mV : 1 mA] (V–COM sockets [6] [7])	0.01 ... 0.99 mA ∼	0.01 mA (1 mV)	—	—	—	—	—	—	—			
		1.0 ... 9.9 mA ∼	0.1 mA (10 mV)										
		10 ... 99 mA ∼	1 mA (100 mV)										
		0.10 ... 3.00 A ∼	0.01 A (1 V)										
	Current via current clamp sensor [1000 mV : 1 mA] (V–COM sockets [6] [7])	1 ... 99 µA ∼	1 µA (1 mV)	—	—	—	—	—	—	—			
		0.10 ... 0.99 mA ∼	0.01 mA (10 mV)										
		1.0 ... 9.9 mA ∼	0.1 mA (100 mV)										
		10 ... 300 mA ∼	1 mA (1 V)										

[2] Known as equivalent leakage current or equivalent patient leakage current from previous standards
[3] Protective conductor current, touch current, device leakage current, patient leakage current
[4] Protective conductor current, touch current, device leakage current
[5] Only with feature G01, p. e. **SECUTEST ST BASE10/SECUTEST ST PRO** and **SECULIFE ST BASE**
[6] Only with feature I01, p. e. **SECUTEST ST PRO** and **SECULIFE ST BASE**
[7] Measurement type IPE clamp and IG clamp
[8] Measurement type IPE AT3 adapter and IG AT3 adapter
[9] The measuring range upper limit depends on the selected test voltage.
[10] Due to inrush current limiting components, the voltage at the test socket may be lower than the measured line voltage.
[11] only with feature G02, p. e. **SECULIFE ST BASE25**
[12] Details for measurement type PE(mains) – P1 after offset balancing

Key: rdg. = reading (measured value), d = digit(s)

Test Times, Automated Sequence

The test times (parameter “Measurement duration ...”) can be adjusted in the sequence parameter setting menu for each rotary switch position separately. The test times are not tested and calibrated.

Emergency Shutdown During Leakage Current Measurement

As of 10 mA of differential current (can also be set to 30 mA), automatic shutdown ensues within 500 ms. This shutdown is not effected during leakage current measurement with clamp or adapter.

Influencing Quantities and Influence Error

Influencing Quantity / Sphere of Influence	Designation per IEC 61557-16	Influence Error ± … % rdg.
Change of position	E1	—
Change to test equipment supply voltage	E2	2.5
Temperature fluctuation	E3	Specified influence error valid starting with temperature changes as of 10 K:
0 … 40 °C		2.5
Amount of current at DUT	E4	2.5
Low frequency magnetic fields	E5	2.5
DUT impedance	E6	2.5
Capacitance during insulation measurement	E7	2.5
Waveform of measured current	E8	
49 … 51 Hz		2 with capacitive load (for equivalent leakage current)
45 … 100 Hz		1 (for touch current)
		2.5 for all other measuring ranges

Reference Ranges

Line voltage	230 V AC ±0.2%
Line frequency	50 Hz ±2 Hz
Waveform	
Sine (deviation between effective and rectified value < 0.5%)	
Ambient temperature	+23 °C ±2 K
Relative humidity	40 … 60%
Load resistance	Linear

Nominal Ranges of Use

Nominal line voltage	100 V … 240 V AC
Nominal line frequency	50 Hz ... 400 Hz
Line voltage waveform	Sinusoidal
Temperature	0 °C … + 40 °C

Ambient Conditions

Storage temperature	– 20 °C … + 60 °C
Relative humidity	Max. 75%, no condensation allowed
Elevation	Max. 2000 m
Deployment	Indoors, except within specified ambient conditions

Power Supply

Electrical system	TN, TT or IT
Line voltage	100 V … 240 V AC
Line frequency	50 Hz ... 400 Hz
Power consumption	200 mA test: approx. 32 VA 10 A test: approx. 105 VA 25 A test: approx. 280 VA
Mains to test socket (e. g. function test)	Continuous max. 3600 VA, power is conducted through the instrument only, switching capacity ≤ 16 A, ohmic load; for currents > 16 A AC please use the adapter AT3-IIS32 (Z745X)

Electrical Safety

Protection class	I per IEC 61010-1/EN 61010-1/ VDE 0411-1
Nominal voltage	230 V
Test voltage	2.3 kV AC 50 Hz or 3.3 kV DC (mains circuit / test socket to mains PE terminal, USB, finger contact, probe, test socket)
Measuring category	250 V CAT II
Pollution degree	2
Safety shutdown	At DUT differential current of > 10 mA, shutdown time: < 500 ms, can also be set to > 30 mA with following probe current during: – Leakage current meas.: > 10 mA~/< 500 ms – Protective conductor resistance meas.: > 250 mA~/< 1 ms At continuous flow of current I > 16,5 A
Fuse links	Mains fuses: 2 ea. FF 500V/16A Probe fuse: M 250V/250mA **SECUTEST ST BASE10/PRO/ SECULIFE ST BASE**: Additionally (Feature G01) 10 A RPE test current 1 ea. FF 500V/16A

Database

Number of data records	50,000 (1 data record = 1 DUT or location node or customer or individual measurement)

Bluetooth® 2.1 + EDR Data Interface
(SECUTEST ST PRO BT comfort or feature M01 only)

USB Data Interface

Type	USB slave for PC connection
Type	2 ea. USB master for data input devices* with HID-Boot interface, for USB stick for data backup, for USB stick for storing reports as BMP files, for printer*

* compatible devices see next page

In the remote operating mode, the test instrument can be controlled with **IZYTRONIQ** via the USB slave data interface.

Electromagnetic Compatibility

Product standard	DIN EN 61326-1:2013 DIN EN 61326-2-2:2013

Interference Emission		**Class**
EN 55011		B
IEC 61000-3-2		B
IEC 61000-3-3		B
Interference Immunity	**Test Value ***	**Evaluation Criterion**
EN 61000-4-2	Contact/atmos. - 4 kV/8 kV	B
EN 61000-4-3	10 V/m (80 MHz ... 1 GHz)	A
EN 61000-4-4	Mains connection - 2 kV	B
EN 61000-4-5	Mains connection 1 kV (LN), 2 kV (LPE)	B
EN 61000-4-6	Mains connection 3 V	A
EN 61000-4-8	30 A/m	A
EN 61000-4-11	0%: 1 period	B
	0%: 250/300 periods	C
	40%: 10/12 periods	C
	70%: 25/30 periods	C

Mechanical Design

Display	4.3" color display (9.7 x 5.5 cm), backlit, 480 x 272 pixels at 24 bit color depth, (true color)
Touch screen	with **SECUTEST ST PRO/SECULIFE ST BASE(25)** or feature E01 (touch-sensitive user interface)
Dimensions	W x H x D: 295 x 145 x 150 mm Height with handle: 170 mm
Weight	**SECUTEST ST BASE(10)/PRO**: approx. 2.5 kg **SECULIFE ST BASE25**: approx. 4.0 kg
Protection	Housing: IP 40 Test socket: IP 20 per DIN VDE 0470, part 1/EN 60529, **SECULIFE ST BASE(25)**: Housing with antimicrobial properties in accordance with the JIS-Standard Z 2801:2000

Regulations and standards in accordance with which the test instrument is manufactured and tested:

DIN EN 61010-1:2011 **VDE 0411-1:2011**	Safety requirements for electrical equipment for measurement, control and laboratory use – General requirements
DIN EN 60529/ **VDE 0470, part 1**	Test instruments and test procedures Degrees of protection provided by enclosures (IP code)
DIN EN 61326-1 **VDE 0843-20-1**	Electrical equipment for measurement, control and laboratory use – EMC requirements – Part 1: General requirements
DIN EN 61326-2-2 **VDE 0843-20-2-2**	Part 2-2: Particular requirements – Test configurations, operational conditions and performance criteria for portable test, measuring and monitoring equipment used in low-voltage distribution systems
IEC 61557-16 **DIN EN 61557-16** **VDE 0413-16**	Electrical safety in distribution systems up to 1000 V a.c and 1500 V d.c – Equipment for testing, measuring or monitoring of protective measures - Part 16: Equipment for testing the safety of electrical equipment and medical electrical equipment

Accessories

The accessories listed below are usually not included in the scope of delivery. This does not apply in the case of instrument sets which include accessories. Order information for accessories can be found under “Order Information” on page 11.

Z751A Barcode Reader

For connection to the USB master port at the test instrument, and for reading in barcodes. This makes it possible to conveniently insert the ID numbers of DUTs into single measurements and test sequences.

This device is based upon the concept of an instinctive scanning distance and provides best possible reading performance. Green Spot technology provides a “good-read” projection directly on the code. The device is equipped with a USB port.

Barcode printer Z721E

For connection to the USB master port at the test instrument, and for printing out barcode labels.

Coding: Code39, Code128, EAN13, Text, QR Code*, Micro QR Code, DataMatrix, Aztec

* QR Code is a registered trademark of DENSO WAVE INCORPORATED

Z721S Thermal Printer

For connection to the USB master port at the test instrument, and for printing out test reports.

SCANBASE RFID (Z751E) (RFID read / write)

Compact write/read device with USB interface for programming and reading of 13.56 MHz transponders per ISO 15693.

SECUTEST ST BASE10/PRO/ SECULIFE ST BASE(25) enable the user to populate the RFID tags directly from the test instrument with the help of the programmer.

CEE Adapter (Z745A) for Testing Single and 3-Phase Electrical Devices

The Z745A CEE adapter allows for quick and efficient testing of devices equipped with a CEE plug. The adapter is equipped with the following CEE flush-type socket outlets: 5-pole 16 A, 5-pole 32 A and 3-pole 16 A. Furthermore, the adapter includes five 4 mm safety sockets to which 3-phase devices without permanently attached plug or conventional measurement cables can be connected, e.g. by means of quick clamp terminals (not included).

The following tests can be performed on devices with CEE plugs with the help of the adapter:

- Testing of protective conductor continuity
- Insulation resistance, alternatively leakage current (equivalent leakage current)
- Function test (3-pole CEE outlet only)

The Z745A CEE adapter may also be used as an adapter for connecting devices with 3-pole CEE plugs to common earthing contact outlets.

VL2 E (Z745W)

Test adapter with single-phase and 3-phase plug connectors up to CEE 32A

AT16-DI (Z750A) 3-Phase 16 A Differential Current Adapter

Devices which are equipped with a 5-pole, 16 A / 6 h CEE plug can be quickly and efficiently tested with the AT16-DI CEE adapter.

The following tests can be performed on devices with CEE plugs with the help of the AT16-DI CEE adapter:

- Testing of protective conductor continuity
- Insulation resistance, alternatively leakage current (equivalent leakage current)
- Measurement of protective conductor resistance with the following methods: equivalent leakage current / differential current / direct
- Function test

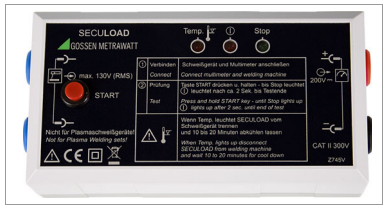
This differential current adapter is also available in a variant with a 5-pole 32 A / 6 h CEE plug with the designation AT32-DI CEE adapter.

SECU-cal 10 (Z715A) Calibration Adapter

The calibration adapter is used for testing the measuring uncertainty of test instruments in accordance with DIN VDE 0701-0702 / IEC 62353 (VDE 0751). As a rule, these instruments must be tested once each year, as well as for certification in accordance with the ISO 9000 quality standard, as set forth by accident prevention regulation DGUV provision 3 (previously BGV A3).

All limit values for the required tests per DIN VDE, as well as protective conductor resistance, insulation resistance, equivalent leakage current, differential and/or touch as well as housing leakage current, must be tested.

SECULOAD-N (Z745R) Test Adapter



Test Adapter for testing open-circuit voltage at welding units per IEC / EN 60974.

In combination with the test instrument, the test adapter is used for testing welding units in accordance with the IEC/EN 60974-4 standard. This standard stipulates that peak values for open-circuit voltage may not exceed the limit values, regardless of the utilized settings.

SECUTEST ST BASE(10)/PRO/SECULIFE ST BASE(25) test instrument includes a test sequence for testing welding instruments with this adapter.

The peak value rectifier of the SECULOAD-N uses rectifier diode 1N 4007 recommended by the standard. This diode is a power rectifier diode and, due to its design principle, only suitable for voltage sources with a low clock rate in the line frequency range or for voltage sources with conventional transformers.

EL1 (Z723A) Adapter for Testing Single-Phase Extension Cables

AT3-III-E (Z745S) 3-phase Current Adapter

Test adapter for active and passive testing of Single and 3-Phase Electric Devices and Extension Cables in Combination with SECUTEST... Test Instruments

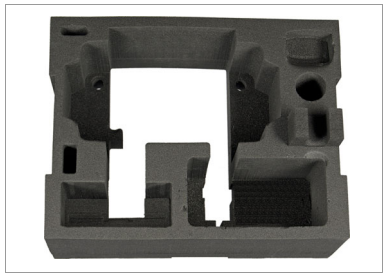
Operation is simple and safe. The test adapter is connected to a 3-phase 16 A mains outlet, and to the respective test instrument. Testing is performed without reversing polarity at the device under test, either automatically or manually, and is controlled by the test sequence of the utilized test instrument. Safety shutdown occurs if the factory preset residual current value is exceeded.

SORTIMO L-BOXX (Z503D)

Plastic system case Outside dimensions:
W x H x D
450 x 255 x 355 mm

Foam insert Z701D for tester and accessories, has to be ordered separately, see below.

Foam insert for SORTIMO L-BOXX (Z701D)



SECUTEST ST BASE / PRO and SECULIFE ST BASE(25)
Test Instruments for Measuring Electrical Safety of Devices

Universal carrying pouch F2000 (Z700D)

Outside dimensions:
W x H x D
380 x 310 x 200 mm
(without buckles, handle and carrying strap)

Universal carrying pouch (small) F2010 (Z700G)

Outside dimensions:
W x H x D
380 x 230 x 270 mm
(without carrying strap)

Universal carrying pouch (large) F2020 (Z700F)

Outside dimensions:
W x H x D
430 x 310 x 300 mm
(without buckles, handle and carrying strap)

Sample Contents

For additional information regarding accessories please refer to

- Measuring Instruments and Testers catalog
- our website
- www.gmc-instruments.de/en/

Order Information

SECUTEST ST BASE, SECUTEST ST PRO, SECULIFE ST BASE and SECULIFE ST BASE25 test instruments are available with various features and accessories, and can be ideally matched to your requirements. When ordering you can select from amongst:

- A standard model (frequently selected combinations of basic instruments and features)
- An instrument set (instrument with features and accessories which are ideally matched to a specific application
- A customized variant (instrument with features you select yourself)

Accessories can of course be purchased individually along with your instrument or at a later point in time.

Standard Models

Standard Model	Article Number	Features
SECUTEST ST BASE	M707A	Schuko variant (test socket and mains plug), selectable user interface language (default setting: German), Protective conductor test current: 200 mA
SECUTEST ST PRO	M707B	Same as M705A but with 10 A protective conductor test current, with touchscreen, voltage measuring inputs, connection for 2nd test probe and DB+ database expansion
SECUTEST ST PRO BT comfort	M707C	Same as M705C but with Bluetooth® port and Database Comfort
Scope of Delivery for each tester: Mains power cable, test probe, USB cable, plug-on alligator clip, cable set KS17-ONE for voltage measuring inputs (for SECUTEST PRO and SECULIFE ST BASE(25 only), printed condensed operating instructions in German**, complete operating instructions (for download from the Internet), DAkkS calibration certificate** in D-GB-F**, card with registration key for PC database and report software IZYTRONIQ BUSINESS Starter** included in the scope of supply (for download from the Internet)		

Device Kits

Type	Designation					Article number
Starter Package SECUTEST ST BASE	See scope of delivery below. **Including IZYTRONIQ BUSINESS ADVANCED**					M708A
PROFI PACKAGE SECUTEST ST PRO	See scope of delivery below. **Including IZYTRONIQ BUSINESS PROFESSIONAL**					M708B
COMFORT PACKAGE SECUTEST PRO	See scope of delivery below. **Including IZYTRONIQ BUSINESS PROFESSIONAL**					M708C
WELDER's/ 3-PHASE CURRENT PACKAGE SECUTEST ST PRO	See scope of delivery below. **Including IZYTRONIQ BUSINESS PROFESSIONAL**					M708D
Accessories	For use with the following test packages:	**STARTER PACKAGE**	**PROFI PACKAGE**	**COMFORT PACKAGE**	**WELDER's/ 3-PHASE CURRENT PACKAGE**	
SECUTEST ST BASE	SECUTEST variant	■				
SECUTEST ST PRO	SECUTEST variant		■		■	
SECUTEST ST PRO BT comfort	SECUTEST variant			■		
SORTIMO L-BOXX	Plastic system case	■	■	■	**2 x** ■	Z503D
Foam SORTIMO L-BOXX Secutest4	Foam insert for SORTIMO L-BOXX with compartment for SECUTEST BASE(10) or PRO	■	■	■	■	Z701D
FOAM SORTIMO L-BOXX adapter	Foam insert for SORTIMO L-BOXX with compartment for adapter				■	Z701E
EL1	Adapter for testing single-phase extension cables	■	■	■	■	Z723A
Brush probe	Probe for measuring protective conductor resistance, e.g. at rotating devices under test	■	□	□	□	Z745G
SECULOAD N	Test adapter for testing welding units in accordance with DIN EN 60974-4:2007	□	□	□	■	Z745R
AT16-DI	3-phase 16 A differential current adapter	□	□	□	■	Z750A
PC2	Probe with test probe and 2 m probe cable	□	■	■	■	Z745D
Adapter cable CEE16/CEE32	Adapter cable, red CEE 5-pole 16 A plug to red CEE 5-pole 32 A coupling	□	□	□	■	Z750F
Barcode reader	Barcode reader with USB port for 1D and 2D codes, e.g. Code 39, Code 128, EAN 13	□	■	■	■	Z751A
		Key: ■ Included □ Optional				

* Database expansion DB+ included

SECU**TEST ST** BASE / PRO and SECU**LIFE ST** BASE(25)
Test Instruments for Measuring Electrical Safety of Devices

Order Features

Device Variants			SECUTEST ST BASE (M7050 AA01 E00 G00 H00 I00 J00 KB00 M00)	SECUTEST ST BASE10 (M7050 AA02 E00 G01 H00 I00 J00 KB00 M00)	SECUTEST ST PRO (M7050 AA03 E01 G01 H01 I01 J00 KB01 M00)	SECULIFE ST BASE (M7050 A01 AA11 E01 G01 H01 I01 J00 KB01 KC00 M00)	SECULIFE ST BASE 25 (M7050 A01 AA12 E01 G02 H01 I01 J00 KB01 KD01 M00)
	Article Number for Basic Instrument		M7050				
		Article number/ feature	**AA01**	**AA02**	**AA03**	**AA11**	**AA12**
Connections – plug for mains power supply and test socket is country-specific in each case							
	Germany with detection of terminals and safety classes	B00	■	■	■	■	■
	UK	B01	▷	▷	▷	▷	▷
	FR/CZ/PL	B03	▷	▷	▷	▷	▷
	China	B04	▷	▷	▷	▷	▷
	USA	B05	▷	▷	▷	▷	▷
	AUS	B06	▷	▷	▷	▷	▷
	DK	B07	▷	▷	▷	▷	▷
	IT	B08	▷	▷	▷	▷	▷
	CH with detection of terminals and safety classes	B09	▷	▷	▷	▷	▷
User interface language (preset language upon delivery, can be subsequently changed to any of the other languages listed below)							
	German	C00	■	■	■	■	■
	English	C01	▷	▷	▷	▷	▷
	French	C02	▷	▷	▷	▷	▷
	Italian	C03	▷	▷	▷	▷	▷
	Spanish	C04	▷	▷	▷	▷	▷
	Czech	C05	▷	▷	▷	▷	▷
	Dutch	C06	▷	▷	▷	▷	▷
	Polish	C07	▷	▷	▷	▷	▷
Data entry via touchscreen							
	without	E00	■	■			
	with	E01			■	■	■
R-PE test current for protective conductor measurement							
	200 mA	G00	■				
	200 mA and 10 A [1] (not in combination with G02)	G01		■	■	■	
	200 mA and 25 A	G02					■
Connection for 2nd test probe							
	without	H00	■	■			
	with	H01			■	■	■
DVM function (digital voltmeter) with 2 additional measurement inputs, COM–V							
	without	I00	■	■			
	with	I01			■	■	■
Connection for application parts							
	without	J00	■	■	■	■	■
Additional test sequences							
	without	KA00	■	■	■	■	■
Database expansion	without	KB00	■	■			
	with (corresponds to Z853R – SECUTEST DB+)	KB01	□	□	■	■	■
Database Comfort	without	KD00					
	with (corresponds to Z853S – SECUTEST DB COMFORT)	KD01	□	□	□	□	■
Bluetooth®	without	M00	■	■	■	■	■
	with	M01	□	□	□	□	□
DAkkS calibration certificate (language combinations)							
	D-GB-F	P00	■	■	■	■	■
	D-GB-PL	P01	▷	▷	▷	▷	▷
	D-GB-IT	P02	▷	▷	▷	▷	▷

Key: ■ Default □ Optional ▷ Alternative Unchangeable standard feature

[1] 10 A/25 A-R_{PE} measurements are only possible with line voltages of 115 V/230 V and line frequencies of 50 Hz/60 Hz.

Sample order

SECUTEST ST BASE10 with English user guidance = M7050 AA02 C01 G01

AA02: Device variant SECUTEST BASE10;
C01: user interface, keyboard layout and test sequences in English;
G01: R-PE test current for protective conductor measurement: 200 mA and 10 A

Accessories

Designation	Type	Article number
Mains power cable		
Cable set for connecting test instruments to the mains without using a an earthing contact outlet, and for connecting DUTs. Consists of coupling socket with 3 permanently connected cables, 3 measurement cables, 3 plug-on pick-up clips and 2 plug-on test probes.	KS13	GTY3624065P01
Adapter for testing 3-phase current consumers		
Adapter for connecting DUTs: 3-pole 16 A, 5-pole 16 A + 32 A, 5 ea. 4 mm socket – For all tests without line voltage at single and 3-phase electrical devices – for differential current measurements (direct or differential current method)	CEE Adapter	Z745A
16 A / 32 A 3-phase current adapter (test case) – For all tests without line voltage at single and 3-phase electrical devices – For tests at single and 3-phase extension cords – For differential current measurements (direct method) – for leakage current measurements in accordance with differential current method [1]	AT3-III-E [D]	Z745S
Test adapter for tests on devices with CEE16 and CEE32 connections (load rating of max 20 A)	AT3-IIS [D 1]	Z745T
same as AT3-II-S, however, with a load rating of 32 A	AT3-II S32 [D 1]	Z745X
3-phase 16 A differential current adapter	AT16-DI	Z750A
3-phase 32 A differential current adapter	AT32-DI	Z750B
Test adapter with single and 3-phase plug connectors up to CEE 32A – For all tests without line voltage at single and 3-phase electrical devices – For tests at single and 3-phase extension cords	VL2E	Z745W
Adapter cable CEE 16 A 5-pin plug red on CEE 32 A 5-pin coupling red, 0.5 m, 5 x 1.5 sq. mm	Adapter cable CEE16/CEE32	Z750F
Adapter for testing single-phase extension cables		
Leakage current clamp meter (current clamp) for SECUTEST ST PRO 0.1 mA ... 25 mA AC, frequency range: 50 Hz … 1 MHz, transformation ratio: 100 mV / mA, clamp opening:: ∅ 40 mm max. cable dia.	SECUTEST CLIP	Z745H
Adapter for testing single-phase extension cables including earth contact and inlet plug inserts	EL1	Z723A
Plug insert for using adapter EL1 in Switzerland	PRO-CH	GTZ3225000R0001
Adapter for testing welding units		
Test adapter in combination with SECUTEST... for testing welding units per DIN EN 60974-4:2007. The peak-value rectifier in the SECULOAD-N uses the 1N4007 rectifier diode recommended in the standard. This is a mains rectifier diode which, due to its design, is only suitable for voltage sources with low cycle rates within the range of the line frequency, or voltage sources with conventional transformer. Includes 4 measurement cables and 2 alligator clips.	SECULOAD-N	Z745R

Designation	Type	Article number
Calibration adapter		
Calibration adapter for test instruments per DIN VDE 0701-0702/IEC 62353 (VDE 0751) (max. 200 mA) **cannot be used for 10 A protective conductor test current**	SECU-cal 10	Z715A
Probe cable		
Probe cable with test probe and 2 m probe cable (not coiled), 300 V CAT II 16 A	SK2	Z745D
Probe cable with test probe and 2 m probe cable (coiled), 300 V CAT II 16 A	SK2W	Z745N
5 m probe cable for protective conductor measurement, 300 V CAT II 16 A	SK5	Z745O
Brush probe	Z745G	Z745G
Multiple probe connector for connecting 5 • 4 mm and 5 • 2 mm test probes to measure multiple touchable housing parts or application parts.	SV5	Z745J
Cable set (1 pair of measuring cables) 1.2 m, with VDE-GS sign 1000 V/CAT III 1 A, 600 V/CAT IV 1 A, 1000 V/CAT II 16 A*	KS17-2	GTY3620034P0002
2 each in plastic bag, diameter 4 mm, length 1.0 m, 1000 V CAT III, 19 A, blue	Cable set blue	Z746A
2 each in plastic bag, diameter 4 mm, length 1.0 m, 1000 V CAT III, 19 A, black/red	Cable set bw/rd	Z746B
Clip-on current sensor for SECUTEST ST PRO/SECULIFE ST BASE(25)		
Clip-on current sensor, can be set to 1 mA to 15 A or 1 A to 150 A, frequency range: 45 … 65 …500 Hz, 1 mV/mA and 1 mV/A	WZ12C [D)]	Z219C
Leakage current clamp 0.1 mA ... 25 mA, 100 mV/mA	SECUTEST CLIP [D)]	Z745H
Temperature sensors for SECUTEST ST PRO/SECULIFE ST BASE(25)		
Pt100 temperature sensor for surface and immersion measurement, –40 to + 500 °C	Z3409	GTZ3409000R0001
Pt1000 temperature sensor for measurement in gases and liquids, –50 ... +220 °C	TF220	Z102A
Pt100 oven sensor, Pt100, –50 ... +550 °C	TF550	GTZ3408000R0001
Sounding pipe oil temperature sensor, Pt1000 class B, –50...+500 °C, sensor 3 mm dia. x 810 mm length	TF400CAR	Z102C
Pouches and Cases		
Carrying pouch for **SECUTEST ST BASE(10)/PRO/SECULIFE ST BASE(25)**	F2000 [D]	Z700D
Carrying pouch big for tester sets	F2020	Z700F
Universal carrying pouch with flexible divider and display protection for **SECUTEST ST BASE(10)/PRO/SECULIFE ST BASE(25)**	F2010	Z700G
Plastic system case	SORTIMO L-BOXX	Z503D
Foam insert for SORTIMO L-BOXX with divider for **SECUTEST ST BASE(10)/PRO/SECULIFE ST BASE(25)**	Foam SORTIMO L-BOXX Secutest4	Z701D
Foam insert for SORTIMO L-BOXX GM with divider for adapters	Foam SORTIMO L-BOXX Adapter	Z701E

SECUTEST ST BASE / PRO and SECULIFE ST BASE(25)
Test Instruments for Measuring Electrical Safety of Devices

Designation	Type	Article number
Data Storage		
Database expansion for **SECUTEST ST BASE(10)**: data import, sequence import, Remote	SECUTEST DB+	Z853R
"Comfort" database extension for **SECUTEST ST BASE(10)/PRO/SECULIFE ST BASE(25)** Entry option for test interval and medical device, shifting of test objects, TouchEdit, QuickEdit, PushPrint (sending of test result to interface), Autostore Please indicate the SECUTEST serial number for placing an order.	SECUTEST DB comfort	Z853S
Report Generating Accessories		
RFID-System		
RFID read/write for USB connection (frequency: 13.56 MHz)	SCANBASE RFID	Z751E
RFID tags per ISO 15693, dia. approx. 22 mm, self-adhesive, 500 pcs.	Z751R	Z751R
RFID tags per ISO 15693, dia. approx. 30 mm, thickness 2 – 3 mm with 3 – 4 mm hole 500 pcs.	Z751S	Z751S
RFID tags per ISO 15693, pigeon ring, dia. approx. 7.5 mm, 250 pcs.	Z751T	Z751T
Barcode reader		
Barcode scanner for USB connection	Z751A	Z751A
Barcode printer		
Barcode and label printer including software, for USB connection to the PC or test instrument Coding: Code39, Code128, EAN13, Text, QR code, Micro QR Code, DataMatrix, Aztec	Z721E	Z721E
Label set for Z721D barcode and label printer (quantity x width: 3 x 24, 1 x 18, 1 x 9 mm, length: 8 m each)	Z722D	Z722D
Label set for Z721D barcode and label printer (qty. x width: 5 x 18 mm, 8 m long each)	Z722E	Z722E
Thermal printer		
Thermal printer for printing out test reports; incl. manual on CD, lithium battery, power supply adapter, mains cable, USB cable, 1 role of thermal paper	Z721S	Z721S
Thermo paper for Z721S; 10 roll of thermal paper, Ø 12/50mm, 30 m x 112 mm, coating outside	Z722S	Z722S
See also separate ID systems data sheet regarding RFID scanners, barcode scanners and printers.		

D data sheet available
1 only with SECUTEST ST PRO (Feature I01) or **SECULIFE ST BASE**

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