GOSSEN METRAWATT

SECUTEST PSI
Memory, Input and Printer Module

- **Matrix printer**
- **Real-time clock with date function**
  battery buffered
- **Data memory** only SECUTEST.../SECULIFE ST
  Measurement values can be stored for up to 300 protocols
- **Alphanumeric keyboard**
  Test results can be annotated for the SECUTEST.../
  SECULIFE ST, METRISO 5000 D-PI and PROFITEST 204
  test instruments, e.g. specific data on system, DUT, customer
  and repair

Applications

The PSI (Printer Storage Interface) module SECUTEST PSI is a special accessory for the test instruments of the SECUTEST.../ SECULIFE ST, PROFITEST 204 and MAVOWATT series.

It is installed in the lid of the test instrument and fastened with two knurled screws.

The test results determined with the test instruments are directly transferred to the PSI module via the RS232 interface.
The test results can be printed on site with the respective time and date in the form of clear and document-safe measuring and test protocols.

Transmission of stored data to the PC (only SECUTEST.../SECULIFE ST)

The PSI module is equipped with an RS232 interface. The interface allows for subsequent uploading of stored data to a PC independent of the test instrument, where they can be processed with the **PS⎮3**, PC.doc-WORD™/EXCEL™, ELEKTROmanager, PROTOKOLLmanager or PATmanager software programs.

Barcode scanner option (only SECUTEST.../SECULIFE ST)

Barcode or RFID scanner (accessory) can be linked to the RS232 connection of the PSI module. The information available in the form of barcodes or RFID tags can be safely integrated in the test protocols in an efficient and easy manner. This kind of data input enables the user to record substantial data quantities in a timesaving and cost-effective manner, e.g. for series measurements of instruments provided with barcodes or RFID tags.

Comparison of Memory Adapters / Testers with memory option

Features	SECUSTORE (Z745U)	SECUTEST ⎮ S I (M702F)	SECUTEST PSI (GTM5016000R0001)	SECUTEST SIII +... Feature KB01 SECULIFE ST	SECUTEST S2N + Option DBmed
Integrated printer for recording charts	—	—	•	—	—
Annotations via keyboard	—	•	•	—	—
Data memory (flash)	•	—	—	—	—
Data memory (battery buffered)	—	•	•	•	•
Protocol functions	•	•	•	—	—
Statistical evaluation of up to 8 instrument classes	—	•	•	—	—
Data transmission to PC	•	•	•	•	•
Connection of a barcode scanner	•	•	•	•	•
Connection of an RFID scanner	•	•	•	•	•
Storage of function test values	•	•	•	—	—
Storage of comments on DUT	—	•	•	—	—

* only function when used with PROFITEST 204 und METRISO 5000 D-PI

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Applied rules and standards

IEC/EN 61 010-1:2001 VDE 0411-1:2002	Safety requirements for electrical measurement, control and laboratory devices – General requirements
DIN EN 60 529/ VDE 0470 Part 1	Test instruments and test procedures, 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

Printer

Print mechanism	4-pin matrix printer
Printing width	40 characters per line
Real-time clock with date function	battery buffered

Data memory (only SECUTEST.../SECULIFE ST)

RAM (Data)	100 kByte up to 300 tests, depending on the scope of master data

Data interface

Type	RS232, serial, per DIN 19241
Baudrate	9600 bauds
Parity	No
Data bits	8
Stop bit	1

Reference conditions

Battery voltage	6 V ±0.5 V
Auxiliary power	9 V ±0.5 V DC or 8 V ±0.5 V rectified
Ambient temperature	+23 °C ±2 K
Relative humidity	50 % ±5%

Ambient conditions

Operating Temp.	0 °C ... 40 °C
Storage Temp.	- 20 °C ...+ 60 °C; except: batteries, paper and ribbon
Relative Humidity	max. 75%, no condensation allowed
Elevation	max. 2000 m
Deployment	indoors

Auxiliary power

Voltage supply

With connection to the test instruments	across PIN 9 of the RS232 interface 6.5 V ... 12 V typically 9 V
With battery operation	4 each 1.5 V-mignon cells (alkaline-manganese) according to IEC LR 6

Power consumption

Standby (Data buffering),	5 µA ... 200 µA
Protocol printing	< 500 mA
Paper feed	< 200 mA
Data transmission to PC	< 100 mA

Mechanical configuration

Protection type	IP20 for the case
Dimensions	240 mm x 81 mm x 40 mm (without knurled screws and ribbon cables)
Weight	approx. 0.8 kg

Scope of supply

1 PSI module
2 Rolls of paper (one as spare)
1 Ribbon
1 Copy of operating instructions incl. interface description

Accessories

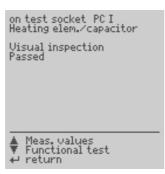see order information

Recording of the measured results
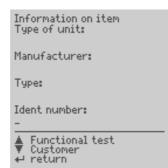## (only SECUTEST.../SECULIFE ST)

The result of the last test at a time can be entered into the PSI module where it can be stored under an ident number and annotated. In addition, the measured results as well as further information can be shown on the LC display of the test instrument and printed out on the PSI module.
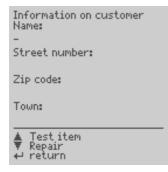
Example of a complete test protocol

```
To Socket CL I
Test Results

      MEAS. VALUES | LIMITS

RPE    0.315Ω     <1.000Ω
RINS   2.00MΩ     >1.000MΩ
UINS    523V        500V
IEHL   0.115mA    <3.500mA


Passed!
↵ New   ▲▼ Page   ⊕ Fnc.
```

```
on test socket PC I
Heating elem./capacitor

Visual inspection
Passed




        ▲ Meas. values
        ▼ Functional test
        ↵ return
```

```
Functional test

  Pmax      18 W
  LF        0.34
  Imax      0.23 A
  W        0.000 kWh
  t       00:00:01


  ▲ Visual inspection
  ▼ Test item
  ↵ return
```

```
Information on item
Type of unit:

Manufacturer:

Type:

Ident number:
-

  ▲ Functional test
  ▼ Customer
  ↵ return
```

```
Information on customer
Name:
-
Street number:

Zip code:

Town:

  ▲ Test item
  ▼ Repair
  ↵ return
```

```
Information on repair
-






  ▲ Customer
  ↵ return
```

Example of a protocol printout of a VDE measurement

```
09.07.10                    12:00

Test Item:   on test socket PC I

             Meas. val.   Limits
RSL          0.167 Ω      < 0.300 Ω
RISO         > 310.0 MΩ   > 1.000 MΩ
UISO         0543 V       > 0500 V
IEA          00.14 mA     < 03.50 mA
ΔI           00.22 mA     < 03.50 mA

VDE measurements passed
Functional test passed
Visual inspection passed

  Functional test
  Pmax    20    W
  LF      0.55
  Imax    0.16    A
  W       0.000 kWh
  t     00:00:50
```
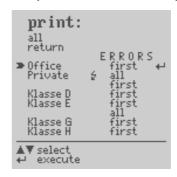
Statistical evaluation of the measured results
(only SECUTEST.../SECULIFE ST)

All together, statistical data of a maximum of eight instrument classes can be recorded.
The statistical data includes the number of the errors occurred as well as their percentage of the total measurement within one class.
After recording, this data can be shown on the LC display of the SECUTEST.../SECULIFE ST and printed out on the SECUTEST PSI.

Example of statistical results on display and printout

```
print:
all
return
              ERRORS
➤ Office      first    ↵
  Private  6  all
              first
  Klasse D    first
  Klasse E    first
              all
  Klasse G    first
  Klasse H    first

▲▼ select
↵  execute
```

```
Office - first error

              Number:    %
Test items:      18     100

Visual error:     1     5.5
RPE:             16     88.8
Sum ISO:          0      0
  RINS       0
  IELC       0
  IPROBE     0
  ΔI         0

SUM OF ERRORS:   17     94.4

↵ to statistics menu
```

```
09.07.10                    12:00

< Top lines 1 to 5 settable via PSI >

TEST STATISTICS:

Test period:
  01.07.10 11:11 - 08.07.10 14:21

Class B / first error

                     Number     %

Devices under Test:    119      100

Visual error:            5      4.2
Rsl:                    17     14.2
Total ISO:               0      0
  Riso       0
  Iea        0
  Isonde     0
  ΔI         0

ERROR TOTAL:            22     18.4

< Bottom lines 1 - 5 via PSI, 6 - 7 via PC >
```

PC evaluation software

Report and List Generation and/or Test Data Management

The following software packages are optionally available for read-out, documentation and further processing of stored data:

- PC.doc-WORD™/EXCEL™
- PROTOKOLLmanager
- ELEKTROmanager
- PS3
- PATmanager

An overview of the performance features provided by the software is given in a separate data sheet.

SECUTEST PSI
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Order Information

Designation	Type	Article number
PSI module with the languages D (German), GB (English), F (French), NL (Dutch), I (Italian), E (Spanish) and CZ (Czech), including 2 rolls of paper, 1 ribbon cassette, batteries and operating instructions	SECUTEST PSI	GTM5016000R0001
Accessories		
Set with 10 rolls of paper for SECUTEST PSI (1 roll approx. 6.7 m)	PS-10P	GTZ3229000R0001
Set with 10 ribbon cassettes for SECUTEST PSI	Z3210	GTZ3210000R0001
Accessories		
Barcode scanner, printer and RFID scanner see separate datasheet ID systems		
PC Analysis Software		
For further information on software, please refer to our website http://www.gossenmetrawatt.com (→ Products → Electrical Testing → Testing of Electr. Appliances → SECUTEST ...) *or* http://www.gossenmetrawatt.com (→ Products → Software → Software for Testers)		

For additional information on accessories, please refer to:

- our Measuring Instruments and Testers catalogue
- our website www.gossenmetrawatt.com