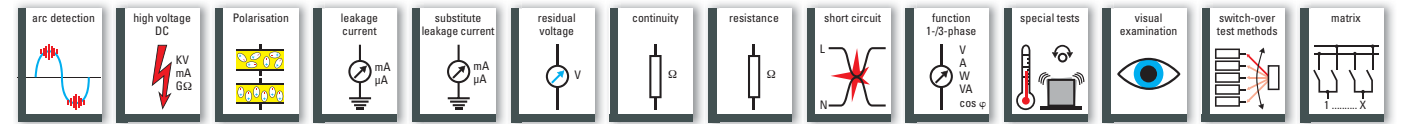
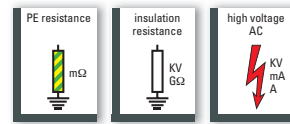


Universal safety and functional tester



- RS232
- CAN
- Ethernet
- LabView®
- PC
- SPS
- I/O
- Analog
- Print



GLP2-e in a 19"-cabinet with integrated test cover



GLP2-e in a system solution



GLP2-e in a rolling container with test cover



GLP2-e with accessories



GLP2-e as resistance tester in 4-wire configuration

Highlights

- tester for all safety tests
- automatic switch-over between high-voltage tests and low-voltage tests
- single-phase and three-phase functional test with apparent-power and active-power measurement
- single tests with large display of the measured values – ideal for manual testing
- additional analog inputs and outputs
- additional digital inputs and outputs
- additional programmable processes for digital outputs and inputs
- large graphic LCD with 256 x 128 pixels and touch screen
- test-program database and result storage
- integrated statistics
- standard PC printer connection
- thermal-transfer printer for printing labels
- connection for standard PC keyboard or connection for bar-code reader
- Windows® software for remote control, administration of databases for test programs and test results and for printing test protocols
- network (wired or wireless) with testing devices and a central PC
- ideal pre-conditions for OEM applications (integration in automatic lines)

GLP2-e testing devices are the basis for single or combination testers of all kinds. Having an extremely compact design, they offer a large number of test features with intelligent test processes.

The integrated automatic switch-over between all low-voltage tests and high-voltage tests is a special feature of the GLP2-e. With this, the test object can be tested automatically in one test run without reconnection. Therefore, GLP2-e testers are ideal for serial production, no matter whether you document the test results or not. In laboratories, these testers can be used for type tests and for material tests.

Due to the intuitive operation via integrated touch-display, GLP2-e testers are very user-friendly universal testing devices. Of course, the testers can also be operated via an additional standard PC keyboard and/or a bar-code scanner.

GLP2-e testers have an integrated test program database for more than 200 test programs and a separate result database. The results can be stored, printed or transmitted to a PC. To print labels for your products directly after testing, GLP2-e testers can also control thermal-transfer printers.

These testers offer the unique feature to be operated in a server-based network. It is possible to transmit test programs to the testers and send the test results to the PC for storing and further processing. The complete data traffic is organized by our PC software NetCom Xi.

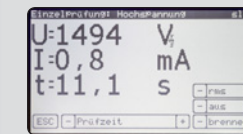
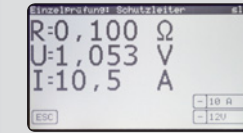
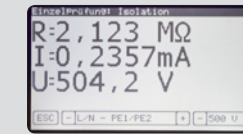
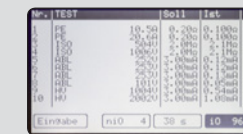
If you only wish to collect, store and print data on the PC, you can use our software PrintCom.



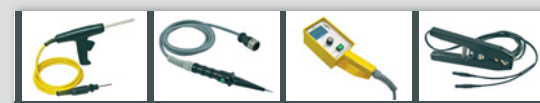
GLP2-e in a system solution with light curtain



GLP2-e in rolling container with dual station

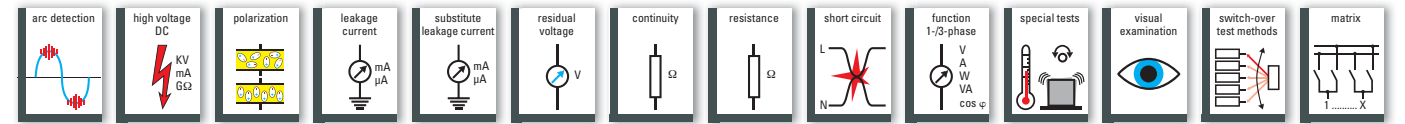
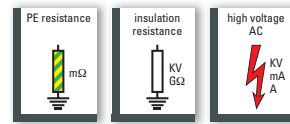


GLP2-e with a functional test DC



Refer to:	
Windows® software PrintCom	58
Windows® software NetCom Xi	60
HV pistols and warning lamps	68
Mains-connection adapters	70
Contacting devices for leads	72
Special contacting devices	74
Test covers	76
Rolling tables	78
Calibration and black boxes	82
System solutions	86
Test methods	94

Universal safety and functional tester



- RS232
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- USB
- LabView®
- Profibus
- PC
- SPS
- I/O
- Analog
- Print



Based on Windows CE®, our new GLP2-ce testing devices offer numerous possibilities for the application as single or combination testers. With consistently improved measurement and control technology, the GLP2-ce testers have the usual compact and handy design.

GLP2-ce testers support the integrated automatic switch-over between all low-voltage and high-voltage tests. Therefore, the test object can be tested automatically in one test process without reconnecting the test connections. GLP2-ce testers are ideal for applications in serial production, no matter whether the test results are documented or not. Of course, these testers can also be used for type tests and material testing in laboratories.

The innovative touch TFT display, which also allows to enter numbers and letters, makes the GLP2-ce tester one of the most user-friendly universal tester on the market. The testers can, of course, also be operated via external standard PC keyboard, mouse and/or bar-code scanner.

In addition to thousands of test programs, the integrated 4GB memory can also store huge quantities of test results. This gives



GLP2-ce in a system solution for electric motors

Highlights

- testing device for all safety tests
- automatic switch-over between high-voltage tests and low-voltage tests
- single-phase and three-phase functional tests with apparent-power and active-power measurement
- single tests with large display of the measured values
- additional analog inputs and outputs
- additional digital inputs and outputs
- additional programmable processes for digital outputs and inputs
- high-definition color display with a resolution of 800 x 480 pixels and touch operation
- integrated 1GB database for test programs and 3GB result storage
- data backup on USB stick
- statistical evaluation
- thermal-transfer printing for labels
- USB connections for mouse, keyboard or bar-code reader
- network-compatible (via Ethernet LAN or wireless) with testing devices and a central PC
- ideal pre-conditions for OEM applications (integration into automatic lines)
- remote maintenance and calibration



GLP2-ce with accessories



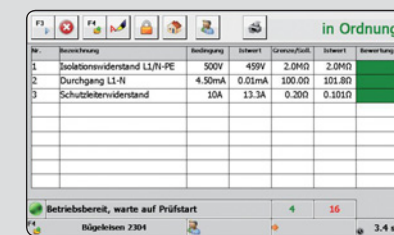
With NetCom Xi, GLP2-ce testers can be operated in combination with GLP2-e testers in one network.

you the certainty to store test results of many years in the tester. You can save them on a USB stick or via an integrated interface on a PC. The GLP2-ce devices can control thermal transfer printers, allowing you to print type labels for your products directly after the test.

GLP2-ce testers can be operated in server-based networks. Test programs can be loaded from the testers and the test results can be sent back to the PC, where they are stored and processed. With Windows CE® integrated in the testers, this is very convenient.



Setup menu



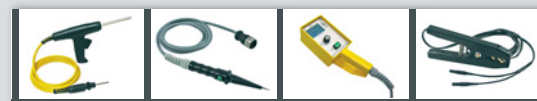
Test process with GO result



Statistical evaluations

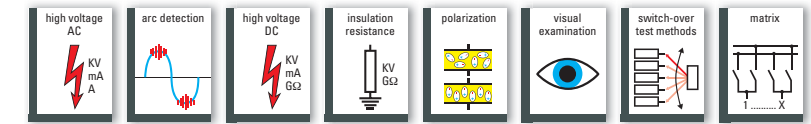
Refer to:

HV pistols and warning lamps	68
Mains-connection adapters	70
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Test covers	76
Rolling tables	78
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Test methods	94



GLP2-e|ce up to 100KV

High-voltage tester up to 100KV



- RS232
- CAN
- Ethernet
- USB
- LabView®
- Profibus
- PC
- SPS
- I/O
- Analog
- Print



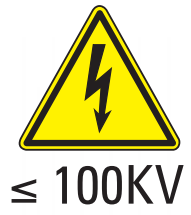
GLP2 with high voltage 20KV AC



GLP2 with high voltage 50KV AC



GLP2 with high voltage 100KV AC



Highlights

- tester for the highest high voltages AC and DC
- extremely low residual ripple at high voltage DC
- insulation resistances at high voltage DC up to 10TΩ
- single tests with large display of the measured values
- automatic processes including any ramp profiles
- display of the measured values in graphics
- long-term measurements over hours, days or weeks
- storage of the individual values of the long-term measurements
- high voltage regulated by transformers or electronically
- electronic high-voltage adjustment with super-fast switch-off
- electronic high-voltage adjustment with very fast ramps
- electronic adjustment with output-voltage stabilization
- programmable processes and ramps

With the testers of our GLP2-ce and GLP2-e series, we currently have the most extensive range of testers for high voltage in the market – no matter whether AC, AC with rectifier, DC with highly stable output voltage or AC plus DC combined in one device. The testers can be used for both, manual applications (e.g. in laboratories or in production) and integrated in automatic production lines.

High-voltage sources DC

High-voltage in KV | Current in mA

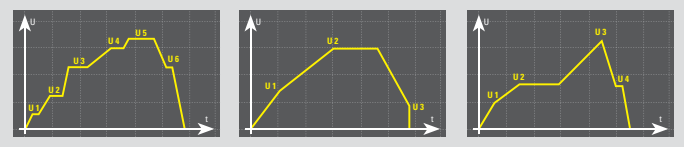
unearthed (potential-free) or minus or plus related to ground (not potential-free)

1	20	30	60	125	250
2	10	15	30	60	125
4	5	7.5	15	30	60
6	3.25	5	10	20	40
8	7.5	15			
10	1.2	3	6	12.5	
12	5	10			
15	1	2	4	8	

minus or plus related to ground (not potential-free)

20	0.75	1.5	3	6	
25	0.6	1.2	2.4	5	
30	0.5	1	2	4	
35	0.42	0.66			
40	0.35	0.75			

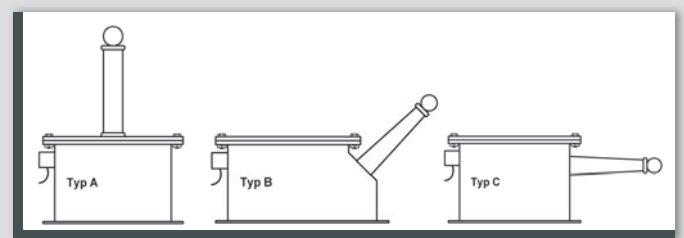
The table shows the available voltages and currents. The high-voltage test DC combined with an insulation-resistance test is always included.



High-voltage sources AC

KV	KVA							
3, 6, 10, 15, 20, 25, 30, 35, 40, 50, 60, 70, 80, 100	0.5	0.7	1.25	3	5.5	8.5	15	20

The table shows the available voltages and powers. Depending on power and voltage, the high-voltage sources are either integrated in the enclosure of the tester or they come in a separate unit containing the high-voltage transformer. The external high-voltage transformers can be delivered in three different designs. They can, for example, be integrated into rolling tables.



GLP2 in 19"-cabinet with high voltage 20KV AC



GLP2 with test cage for 40KV AC and safety door



GLP2 with 6KV/1A on a rolling table

Refer to:

GLP2-e	26
GLP2-ce	28
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Universal medical safety and functional testers



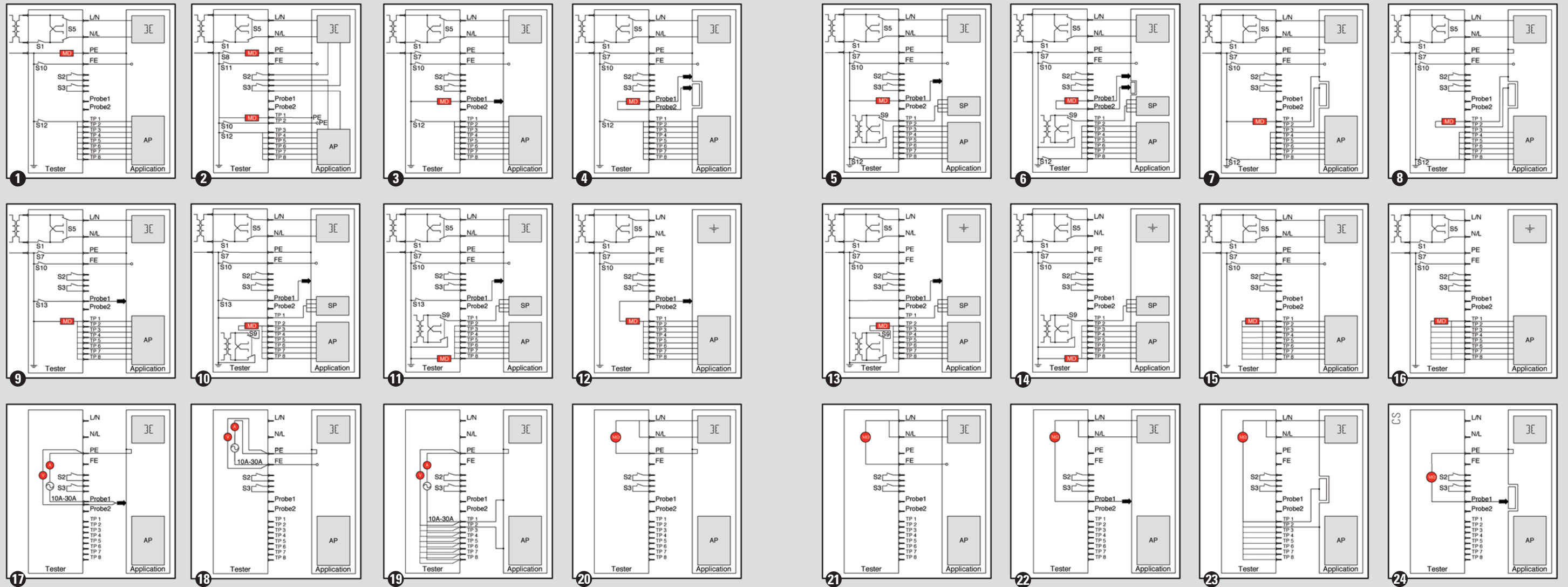
Our testing devices GLP2-e, GLP2-ce and GLP3-2000-Windows® are suitable to perform tests at medical products according to EN 60601.

Among other safety tests, the medical leakage-current test is the most important test. In order to enable a manual or an automatic test process, the tester supplies all connection points to the test object. This applies also to testers with integrated, automatic high-voltage tests.

The test program is based on a number of conditions. On the basis of the standards, the user can generate a suitable test program. Depending on the complexity of the medical device, the test program can contain a large number of different test steps. Optional wizards facilitate the generation of test programs.

When performing the tests, you receive individual results instead of total results. This guarantees a perfect and complete documentation of the quality.

- 1 Ground leakage current | device with integrated voltage supply
- 2 Ground leakage current | device with separate voltage supply
- 3 Enclosure leakage current with one test probe
- 4 Enclosure leakage current between two test probes
- 5 Enclosure leakage current with one test probe | signal parts connected to voltage
- 6 Enclosure leakage current between two test pistols | signal parts connected to voltage
- 7 Enclosure leakage current without test probe
- 8 Enclosure leakage current without test probes
- 9 Patient leakage current
- 10 Patient leakage current | applied part type F
- 11 Patient leakage current | signal parts connected to voltage
- 12 Patient leakage current | internal power supply
- 13 Patient leakage current | applied part type F | internal power supply
- 14 Patient leakage current | signal parts connected to voltage | internal power supply
- 15 Patient auxiliary current
- 16 Patient auxiliary current | internal power supply
- 17 Ground-continuity test PE-probe
- 18 Ground-continuity test PE-FE
- 19 Ground-continuity test PE-TP1 to TP8
- 20 Insulation-resistance test L+N-PE
- 21 Insulation-resistance test L+N-FE
- 22 Insulation-resistance test L+N-test probe
- 23 Insulation-resistance test L+N-enclosure part
- 24 Insulation-resistance test PE-enclosure part



SP=signal part | AP=applied part