Operating Manual of Safety Appliance Tester „TG omni 1” from GMW

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1. Application

The device testing app checks devices and machines with the test device TG omni 1 from Gilgen, Müller & Weigert (GMW). The app controls the test device via a Bluetooth interface available in the Android tablet or smartphone. The data is stored in a SQLITE3 database in the tablet. Test reports are automatically generated in PDF format and filed or sent by e-mail. The tablet-integrated camera can be used for barcode / QR code entry and photo documentation of the samples or exams. Photos are printed together with the test records. They are stored in a separate folder and always exported and / or imported together with the database.

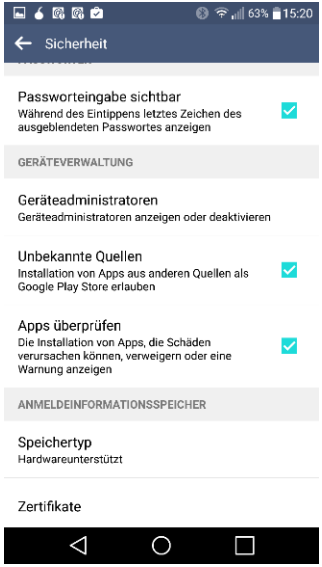
The following standards are supported during examinations: DIN VDE 0701-0702, DIN VDE 0751, DIN VDE 0544-4 (as far as available in the device tester as an option).

2. Requirements

The App requires the Android operating system from version 4.2 („Jellybean“). Bluetooth-interface from version 2.0 must be present in the tablet. The distance to the tester should be less than 5 m.

3. Installation

To install the app, the entry "Unknown sources" must be selected in the tablet under Settings / General / Security.



The installation is done via the following link:

http://217.92.19.112/downloads/GMW/app.zip

4. Symbol

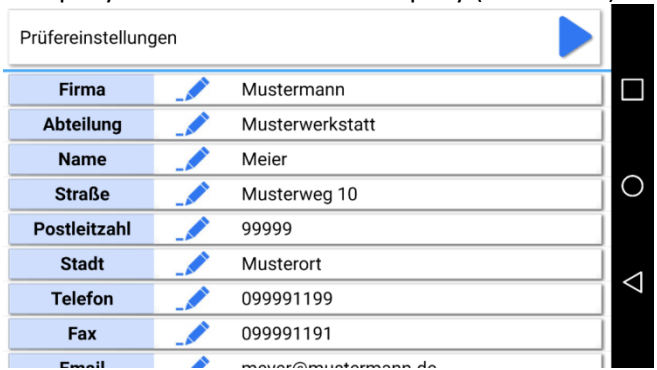
Symbol	Explanation
	Continue
	New data set: A new entry is added to the current table (e.g. customers, devices)
	The selected record is deleted
	The current record is called and can be changed
	Filter: The table is filtered according to the entered search entry
	Results: The examiner result table is opened
	Protocol: The PDF audit log is displayed
	Barcode: The barcode / QR code scanner app is started to read in the ID number
	To repeat: One measurement will be repeated. The previous measurement is deleted
	Start the camera app for photo documentation

5. Start Menue

Symbol	Explanation
	Set up: The settings for the app are made
	The database is being edited

5.1 Setup

Setup
Standard
Modus
Ablauf
Auto
TG omni 1
Gerätetester
TG omni 1
Einzigartig im Leistungsumfang
Komplettprüfung für
• Geräte nach DIN VDE 0701-0702
• Lichtbogenschweißgeräte
nach DIN VDE 0544-4
• Medizingeräte nach EN 62353
• Verlängerungen mit PRCD-S
RCDs Typ A und B bis 500 mA
www.g-mw.de
Tel: +49 9103 7129-0
E-Mail Kontakt
ver B82 26.10.2015

Symbol	Explanation
	Company: The address of the company (contractor) conducting the tests. 
 Experten Modus	Mode: **Standard mode** – in case of failure it is **not possible** to continue testing. **Expert mode** – in case of failure it is **possible** to continue testing.
 Ablauf Auto	Procedure: **Auto** – If it is possible, the measurement is automatically ended and the next measurement started. *Note: For safety-relevant instructions or if several points can be measured, the system will not automatically advance.* **Gradually** – Each test step is confirmed by the examiner.
	The Bluetooth search for the tester starts.

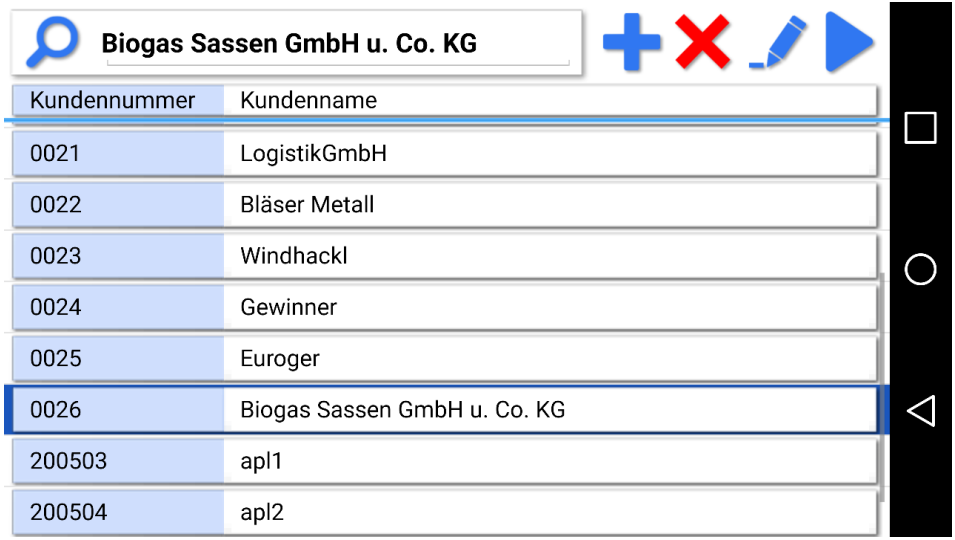
5.2 Data base

Symbol	Explanation
Datenbank exportieren	The database is written to a file. This can then z. B. transferred to a PC and there read by other programs and edited.
Datenbank zurücksetzen	The database is deleted. The sample data records are imported.

6. Testing

Symbol	Explanation
	The list of customers opens
	The list of devices opens

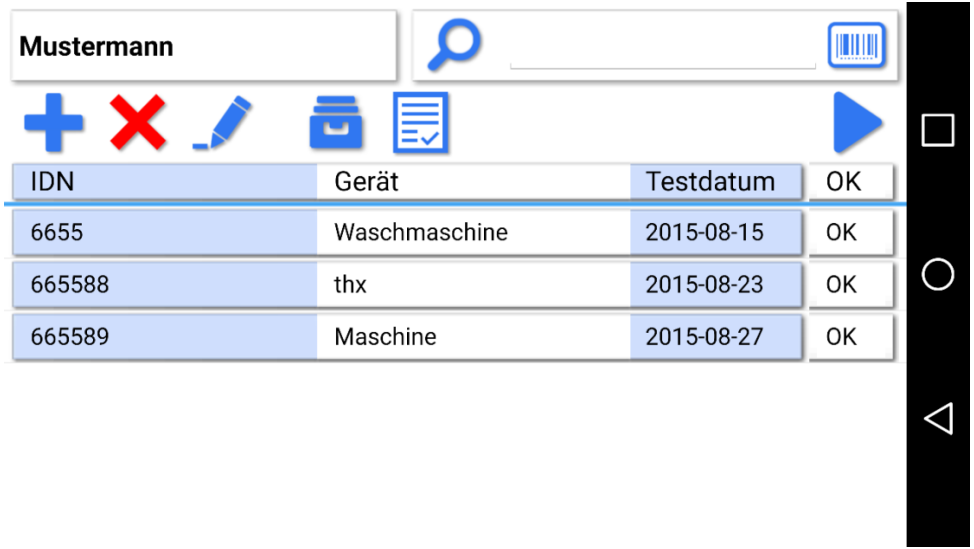
6.1 Customer



All customers are listed in the customer table. The individual data fields can be edited by clicking the button .

Kundennummer: 0026
Ort eingeben.
Kundennummer
0026
Kundenname
Biogas Sassen GmbH u. Co. KG
Ansprechpartner
Wallfang
Straße
Unterer Weg 17
PLZ
91999
Ort
Leuz
Land
DE - Deutschland

6.2 Device

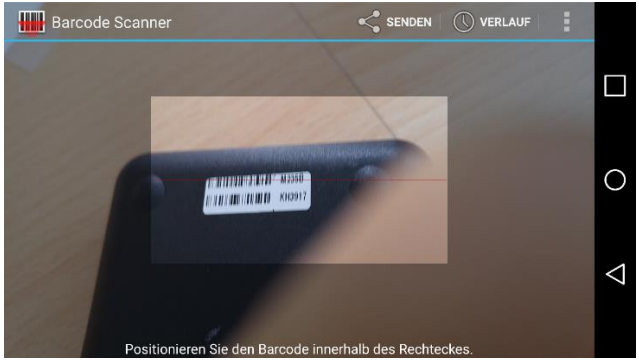


The devices for the selected customer are listed.

6.2.1 Search or enter a device

In the upper part of the window is the input mask for the ID number of the device:

Here a number can be entered manually or the barcode scanner app can be started by activating the barcode button (right side).



When scanning, the barcode (or QR code) must be completely in the bright window. The camera is automatically focused and the barcode is read. The quality of the reading function depends on the quality of the camera and the respective version of the barcode app.

If the ID number exists in the database, this record is opened in the master data. When selecting the input screens for the device and the check profile, the corresponding fields are filled with the default settings of the database. During a check, the fields can be changed. In this case, the changed values are automatically saved in the database.

For a new ID number, the master data and the check profile must be entered.

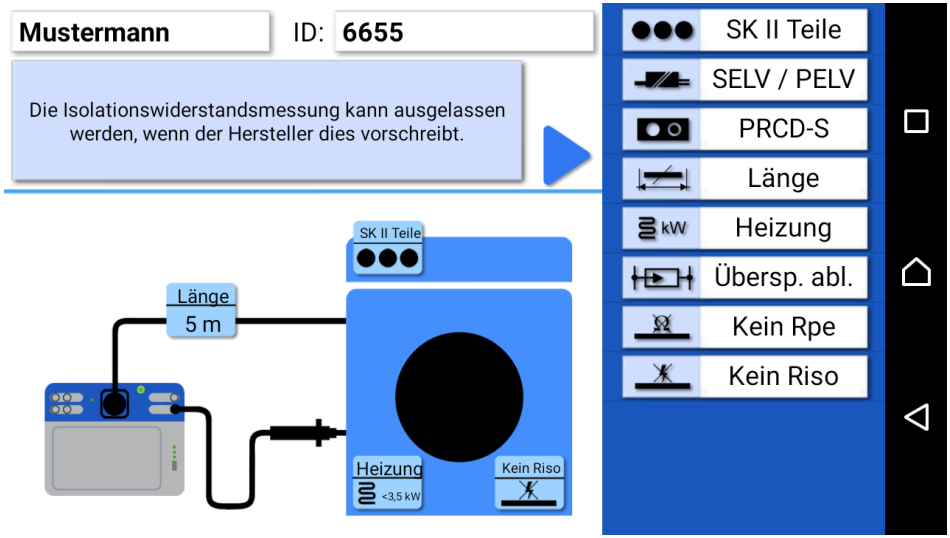
6.2.2 Editing a device

By pressing the button , the information about the device under test can be edited from the list. The master data of the test object can also be entered here.

By pressing the button , the list of device photos opens.

By pressing the button , on this page the camera app is opened and a device photo for the selected test object can be created. It is also possible to delete photos in the photo list. Note: The device photos can optionally be printed in the log.

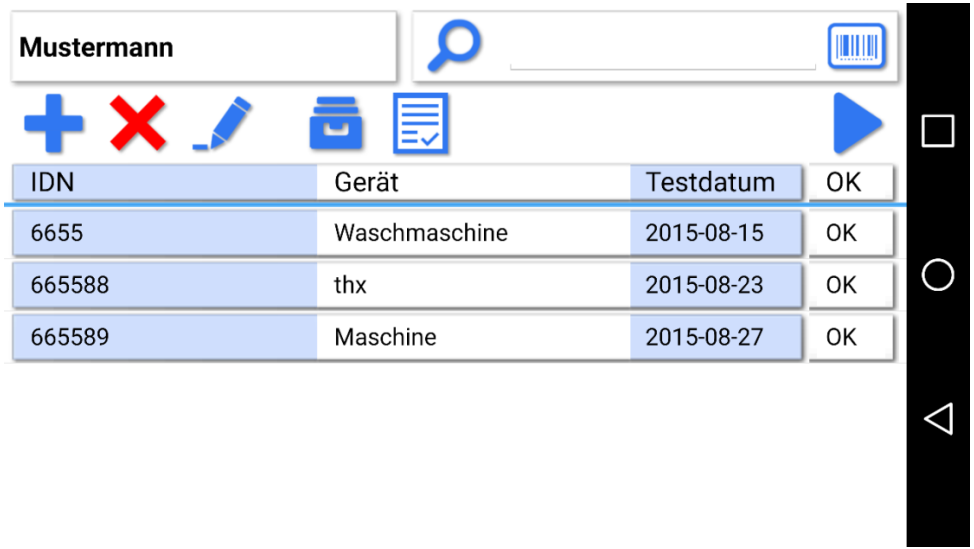
The button continues to enter the test profile for the device. The test profile contains the parameters that determine the test sequence and / or the limit values of the test. The mask that appears here depends on the test standard selected in the master data ("Standard") and the selected test profile ("Profile"). The test profile determines the sequence and / or limits of the test procedure.



On the right side, parameters and options of the test profile can be selected and changed. The active parameters are shown graphically in the schematic typical test setup.

6.2.3 Testing

The button in the device list, open the list of tests for the selected test object.



By pressing the button a PDF test report is created.

7. Perform a test

By pressing the button In the menu Check the selection of the test profile for the selected device appears. The data and check options are taken from the database. They can also be changed here.

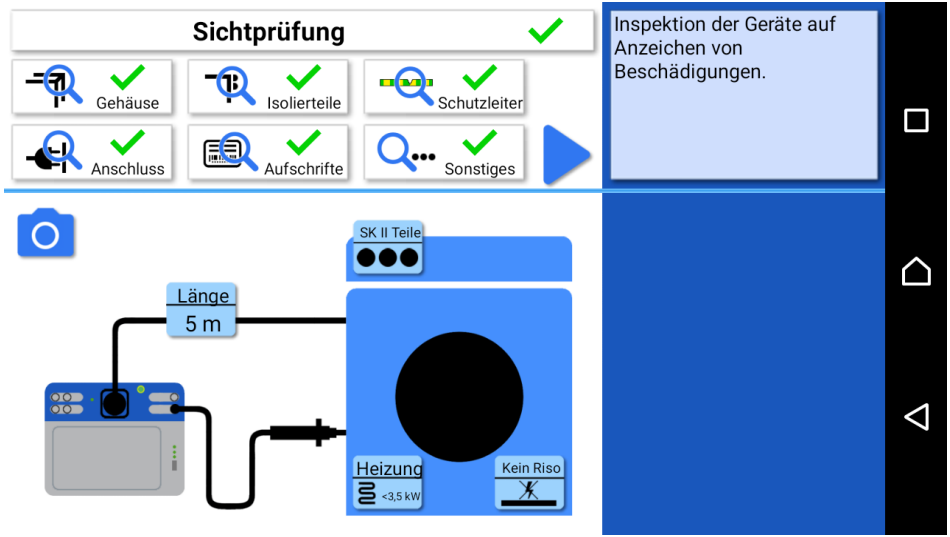
The standard and the test profile determine the following sequence of the device test.

Before starting the test, the device tester must be connected to the tablet. The Bluetooth search menu will automatically appear for connection:

The device tester will log in with the serial number at the end of the Bluetooth search. If several device testers are in the vicinity, several can be displayed. Devices that are not device testers are not displayed in the list.

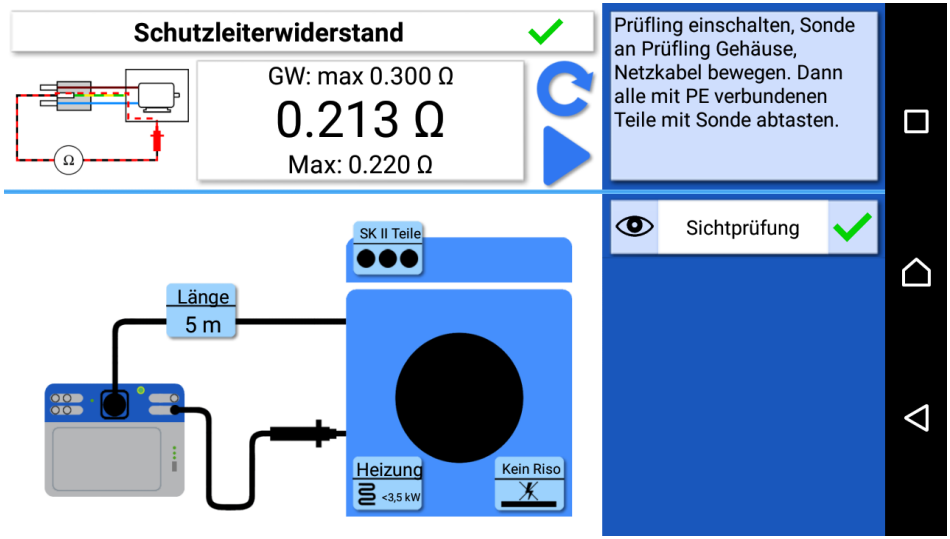
The DEMO button is used to demonstrate the software. Test data are generated in this case simulated without test equipment.

7.1 Visual inspection



Visual inspection is the most important part of the exam, although only a short sentence is devoted to this part. Thoroughly check the work equipment for a perfect optical condition. Above all, observe dangerous areas, such as cable strain relief and kinks on the connecting cable and damage to the housing. A visible error can be documented as a photo with the integrated camera.

7.2 Electrical tests

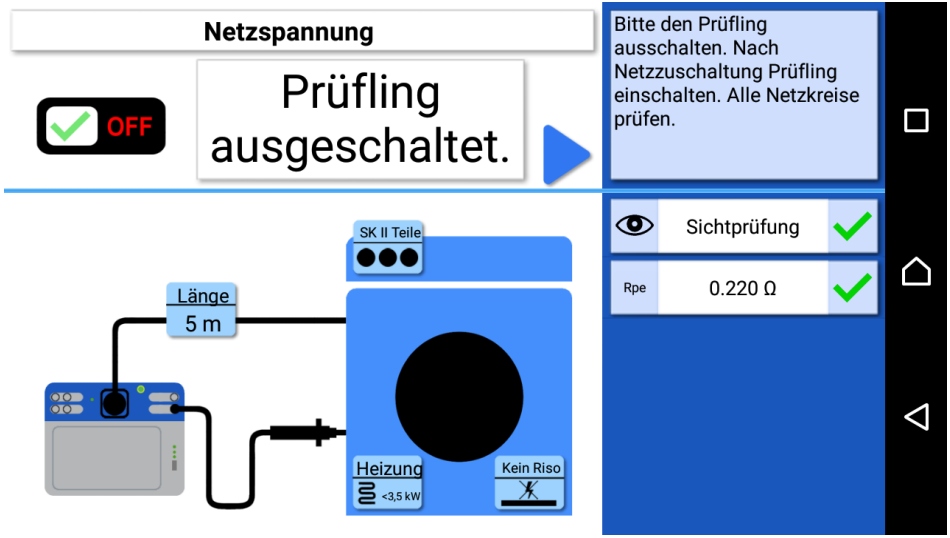


The electrical tests are carried out one after the other depending on the regulation and test profile. On the top left of the display is an illustration of the measurement with a possible error as an animated graphic. In the middle is the instantaneous reading, above the limit and below the worst reading since

the beginning of the measurement. The button clears the worst value and starts the measurement again. In the field on the top right are notes for the respective test step. The list below contains the results of the previous measurements. The limits and the sequence of the measurements are determined by the test profile.

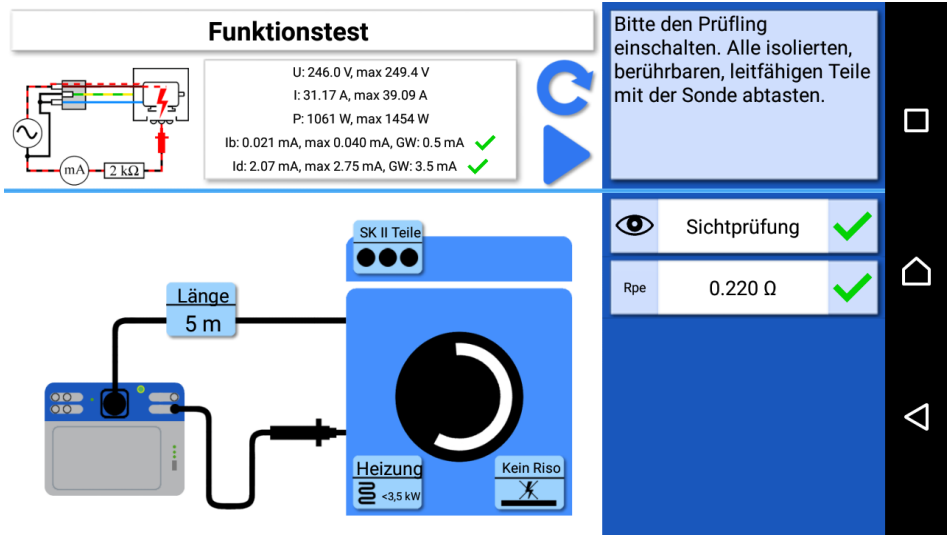
For each test step, a photo can be created for documentation. If required, the photos can be shown in the test report.

7.3 Safety instructions



Safety instructions appear between the test steps. These should be noted for a correct and safe test. e.g. a specimen is turned off, it can not be fully tested inside. Between the steps there may also be the need to switch off the device under test in order to avoid an uncontrolled startup when the network is switched on.

7.4 Functional test



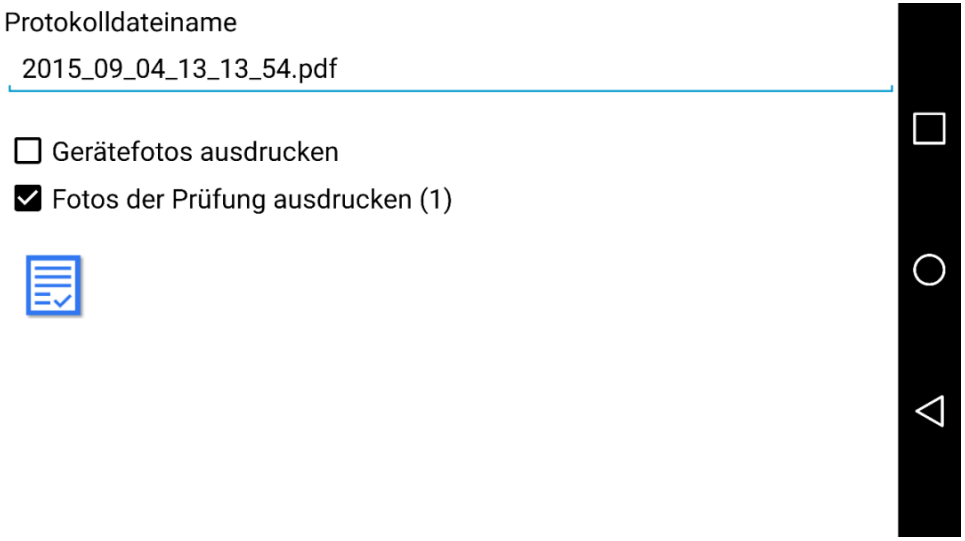
The function test shows leakage currents with limit values as well as current, voltage and power of the test object.

7.5 Comment on the test

A comment on the test can be optionally entered here at the end.

7.6 Test report

The button starts the generation of the test report.



Device photos and test photos can be printed out with the test report. The button now opens the test report with the measurement data.

The test protokoll can be saved, sent by e-mail or discarded.

Generation of a test report from the database entries is possible at any time afterwards.