

EPA Gatekeeper® ESD personal grounding tester

The easy way to do ESD testing and documentation
of wrist straps and shoes according to IEC 61340-5-1

The EPA Gatekeeper is used to measure the personal resistance to ground of wrist strap and shoe grounding systems. With the EPA Gatekeeper, creating and managing signature lists and installing additional server or client software belong to the past.

The devices form an independent network and exchange data with each other. The measurement logs are automatically stored at the desired intervals on any storage location in the network (alternatively, they can be read out manually via USB). The required test is defined for each employee and performed by the device (ex. shoes only / wrist strap and shoes). The validity of the test can be set manually from 1-24h hours if required, so that the employee is tested only once per shift.



- PoE (Power over Ethernet) compatible
- Proximity sensor
- Built in sensor for temperature- and humidity
- Built in RFID card reader for all common formats
- Hands-Free mode possible
- USB-Host interface for HID compatible devices (Ex. Barcode scanner)
- Relay output for access control
- Independent monitoring of the calibration date in the device
- Language selection (german/english) on the home screen
- Query of the last ESD training adjustable
- Encrypted communication in the network
- Glass front with stainless steel touch surfaces
- 2 stainless steel touch surfaces for ergonomic operation for left- and right handed users



TECHNICAL INFORMATION

Version: V.1.3

Optical signaling with „Halo-light effect“

A backlight in red or green, which visually projects the result of a measurement onto the mounting surface, is emitted by power light-emitting diodes.



green signaling with „good“ measurement



red signaling with „failed“ measurement

Front connections:

The connection elements for wrist straps are made of solid stainless steel.

For the wrist strap, there are three connections on the front panel according to the common standards. All three connections are equally connected to each other.



Technical data:

Test voltage:	30V - 100V, continuously adjustable, a current limitation is permanently given (max. 400 μ A)
Test range:	10kOhm – 1GOhm
Measuring time:	< 2 seconds
Connecting elements:	3 mm push button, 10 mm push button and 4mm laboratory socket
Connections:	Interface to the door opener, USB host interface, LAN interface, 2 x SMA socket for connection of the shoe electrode, socket for power supply adapter
Display:	Capacitive TFT touchscreen with 7.0" diagonal and a resolution of 800 x 480 pixels
Power supply:	Plug-in power supply unit, alternatively PoE (Power over Ethernet)
Network operation:	Several devices in a larger installation independently form a network, devices in a network automatically exchange measurement data with each other
Configuration:	The configuration of the device can be accessed via a password-protected menu or via the web browser.
Proximity sensor:	For stand-by switching of the display
Data collection:	Personnel number, card ID, name, date/time, scope of measurement, measured values, validity ESD training, temperature, humidity, result of the measurement (individual data can be excluded or hidden)

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The models:

The EPA Gatekeeper® is available in different models*:

- compact
- net
- compact+
- net+

Models Part number	compact 172-30011-34	net 172-30012-34	compact+ 172-30013-34	net+ 172-30014-34
Integrated card reader			●	●
LAN-interface		●		●
PoE		●		●
USB-Host interface	●	●	●	●
Output controls (e.g. door opener)	●	●	●	●
HALO Light effect	●	●	●	●
Sensor for humidity and temperature	●	●	●	●
Proximity sensor	●	●	●	●

*upgrade the different models at any time

Feature upgrade by EPA Gatekeeper® AddOns:

The standard functions of EPA Gatekeeper can be additionally extended by paid firmware upgrades. For more information, see the EPA Gatekeeper® AddOn paragraph.

Scope of delivery of all models:

- Measuring unit
- Mounting base for wall- and table mounting
- Shoe electrode with cables
- Power supply adapter
- Grounding cable
- Connection cable for the door opener
- USB memory device with system manual and file templates



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User list & authentication

With the EPA Gatekeeper signature lists, belong to the past.

With the compact and net variants, authentication takes place by selecting a user from a corresponding list.

With the compact+ and net+ variants, authentication takes place by an integrated multifunction RFID reader (alternatively, for example, by an external barcode reader).



For all variants, import a user database at the start of operation.

This database contains the following data.

	A	B	C	D	E	F	G	H	I	J	K	L
1	Last Name,	First Name,	Employee ID,	User ID,	Wrist,	Shoes,	ESD Instruction Date,	Emergency Flag,	Access Terminal X,	Access Terminal Y,	Access Terminal Z	

A set emergency flag allows entry at any time without measurement and is therefore reserved for employees who, for example, provide first aid.

It is possible to operate the device without authentication.

Without authentication, the measurement starts when approaching the device.

All users then test with the same scope of measurement. The measurement results are recorded anonymously.

Measurement screen

After successful authentication, the measurement screen appears. The scope of the measurement that the user must successfully complete is defined individually for each user in the database and displayed in the measurement screen.

- Wrist strap
- Shoes
- Or both

If the user hesitates when connecting the required elements, an animation starts that demonstrates the required actions - individually suited to the scope of measurement defined for the user.



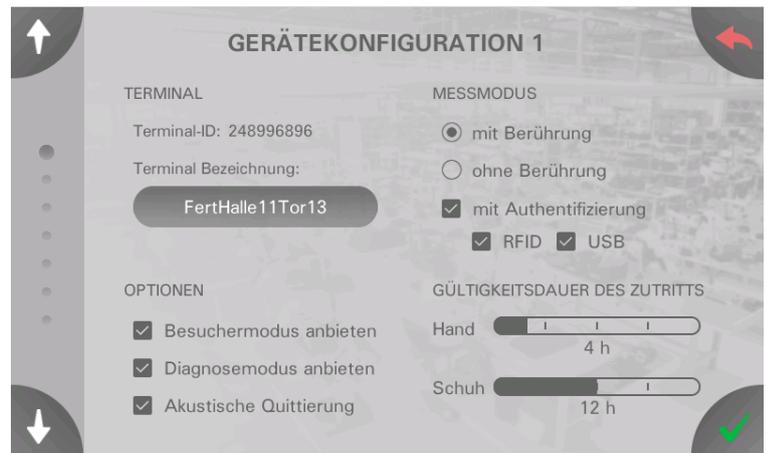
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Device configuration & administration area

The configuration area of the device is reached via the gear symbol in the upper right corner of the user interface. This area is password protected.

The device configuration is divided into individual screens that can be changed using the navigation bar or swiping gestures.



Measurement history

A comprehensive history of the saved measured values and results can be called up using the measurement history button.

The measurement history is protected by a separate password. The device has a memory for up to 250,000 measured values.

It can be selected whether all entries are displayed or only incorrect measurements.

MESSHISTORIE alle nur Fehlmessungen

Name	Vorname	Personal Nr.	Terminal	Datum	Uhrzeit	Schuh L	Schuh R	Handgelenk Ergebnis
Maier		473246895265		01.01.2018		5.0		0.54
Klaus		75325785		08:00		100		OK
Maier		473246895265		01.01.2018		5.0		0.54
Klaus		75325785		08:00		100		OK
Maier		473246895265		01.01.2018		5.0		0.54
Klaus		75325785		08:00		100		OK
Maier		473246895265		01.01.2018		5.0		0.54
Klaus		75325785		08:00		100		OK
Maier		473246895265		01.01.2018		5.0		0.54
Klaus		75325785		08:00		100		OK
Maier		473246895265		01.01.2018		5.0		0.54
Klaus		75325785		08:00		100		OK
Maier		473246895265		01.01.2018		5.0		0.54
Klaus		75325785		08:00		100		OK

Data logging & privacy settings

The type of data logging and the privacy settings are defined under the point data logging in the administration area.

The data logging can be anonymized as required and follows the privacy settings that have been configured.

When measuring via the visitor button, the measurement results are anonymized and logged as visitor measurements.



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EPA GATEKEEPER® AddOn

An EPA Gatekeeper AddOn is a software option that extends the functionality of your meter and thus will simplify your daily work.

Our AddOns have been developed based on the experience, feedback and requests of our customers and offer a decisive benefit with additional functions.

Purchase EPA Gatekeeper AddOns directly with a device or separately at a later date and upload them via the USB interface using a licensed firmware update.

EPA GATEKEEPER® AddOn Part number	Description
High-Security Feature 172-30120-34	Devices with the High-Security feature have advanced encryption for network communication. Data storage to the file server is performed using SFTP. The web server is encrypted via X.509 certificate. The MQTT communication is encrypted via TLS and additionally offers the possibility for user import.
Anonymous-Users Feature 172-30121-34	Devices with the anonymous users feature have the option that users who are not listed in the user database can also perform a measurement and gain access. The measurement result is stored with the ID of the ID-card.
Auto-Import Feature 172-30122-34	Devices with the Auto-Import feature automatically import the user database from a file server at desired intervals. This allows the user databases of multiple devices to be centrally managed and distributed.
LiveData Feature 172-30123-34	Devices with the LiveData feature have the option of sending measured values to an external server as they occur. The technical basis for this is the standardized MQTT protocol. This means that the data can be processed immediately and in real time.

Detailed descriptions and information about the functions and settings of the individual EPA Gatekeeper AddOns can be found in the separate data sheets for the respective AddOn.

Note:

You will receive an extended firmware update with the selected EPA Gatekeeper AddOn as an encrypted and licensed image for download. This can be installed on unlocked devices like normal firmware updates. When purchasing a new device incl. an EPA Gatekeeper AddOn, the devices will be delivered already configured accordingly by the manufacturer.

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Asseccories

EPA GATEKEEPER® Calibrator
172-30200-34

For easy calibration of the EPA Gatekeeper in all models.
With the calibrator, the calibration of the EPA Gatekeeper can be performed on site, without interfering with operations.



During the calibration process, the calibrator is attached to the right sensor plate of the EPA Gatekeeper with the magnet on the back.

Stand with holder with hidden cable guide
172-30310-34

Consists of:

- Belt barrier post / yellow
- Belt cassette empty (Dummy)
- Claw for mounting plate
- Mounting plate for the stand
- Floor mat for shoe electrode and stand
- incl. grommets



Floor mat for shoe electrode and stand
172-30302-34

Floor mat for shoe electrode
172-30303-34



The content in this technical information intends as a guideline. The content bases on extensive research. A legal obligation can not be derived from this.