


(ESD-PROTECT
protection against electrostatics

ESD Personnel Testers

# EPA-RESIST

smart access
control for
esd ar(eas

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## Innovation in ESD personal testers

# EPA-RESIST

EPA-RESIST series personal testers combine state-of-the-art measurement technology with user-friendliness, quick handling and the potential to grow with your ESD needs, based on the ESD standard DIN EN 61340-5-1.

## Access to the EPA has never been easier, smarter or more digital!

### Made by ESD-PROTECT

- Development
- Manufacturing
- Software programming
- Technical support




## ESD personal testers from ESD-PROTECT

### Highest quality and innovative product development

Designed & produced by ESD-PROTECT in Germany

Thanks to many years of expertise in ESD protection and close cooperation with our customers, ESD-PROTECT presents a new generation of personal testers – developed to make processes more efficient and create sustainable added value.

- Separate test profile for each user or user group
- Modifiable limit values for standard changes or personal protection
- EPA-RESIST OS 2.0/OS3.0 operating system:
  OS updates and automatic calibration directly at the installation site
- Networking multiple devices with the PCMaster-Suite
- Fast and accurate measurements (32-bit processor)
- Passive body tension test for persons with active implants/pregnant women
- Automatic consolidation, filtering and storage of all test data with optional data logger software

**EPA-RESIST devices are approved by leading data protection experts.**

# Model comparison

| EPA-RESIST | 1000 | 6000 | 7000 | 8000 |
|---|---|---|---|---|
| Identification of persons by entering details on the display | ✓ | ✓ | – | – |
| Identification of persons with RFID transponders, alternatively by entering the personnel number on the device display. | – | – | ✓ | ✓ |
| ESD personnel testing in accordance with DIN EN 61340 | | | | |
| • Wrist strap (DIN EN 61340-4-6) and ESD footwear (DIN EN 61340-4-5) also hands-free mode | ✓ | ✓ | ✓ | ✓ |
| • ESD smock (DIN EN 61340-4-9) and ESD gloves (IEC TR 61340-5-2) with hand electrode | – | – | ✓ | ✓ |
| • Additional voltage-free test function for pregnant women and persons with active implants | – | ✓ | ✓ | ✓ |
| • Paperless access control | ✓ | ✓ | ✓ | ✓ |
| Free limit value definition: Individual adjustment of limit values in the event of DIN changes to live cables | ✓ | ✓ | ✓ | ✓ |
| 7“ colour touchscreen display | ✓ | ✓ | ✓ | ✓ |
| Measurement of temperature and humidity | ✓ | ✓ | ✓ | ✓ |
| Activation times for scheduled test-free access | – | – | ✓ | ✓ |
| ESD personal tests freely selectable by users | ✓ | ✓ | – | – |
| Test profiles are assigned to users individually. | ✓ | ✓ | ✓ | ✓ |
| Evaluation of persons not yet tested. Display via PC Master software on the PC screen. | – | – | – | ✓ |
| Control function for time-limited validity, such as ESD training or temporary work | – | – | ✓ | ✓ |
| Menu language selectable (German/English) | ✓ | ✓ | ✓ | ✓ |
| Integrated bootloader for updates and extensions via USB | ✓ | ✓ | ✓ | ✓ |
| Connection for automated calibration (CU 800) | ✓ | ✓ | ✓ | ✓ |
| Electronic storage of test results in the device | ✓ | ✓ | ✓ | ✓ |
| Access control of door contacts via potential-free contacts | ✓ | ✓ | ✓ | ✓ |
| LAN connection for WEB interface | – | – | ✓ | ✓ |
| Digital test data management: Data export via USB | – | ✓ | – | – |
| Data exchange of test results and transponder data via USB and LAN | – | – | ✓ | ✓ |
| OS 2.0 with PCMaster-Suite network option | – | – | ✓ | ✓ |
| OS 3.0 with innovative new control system | ✓ | ✓ | – | – |
| Network-compatible thanks to the included PCMaster-software | – | – | – | ✓ |
| Networking of multiple EPA-RESIST 8000 and EPA-RESIST 8000S devices | – | – | – | ✓ |
| Central transponder management on your PC (reading or changing personal data) | – | – | – | ✓ |
| | | | | |
| Data logger software: Centralised measurement data management on a PC with data protection-compliant filter functions | – | – | ✓ | ✓ |
| PD 840 multi-RFID card reader | – | – | ✓ | ✓ |

# EPA-RESIST OS 3.0

## The new OS 3.0 with a new look and feel

### Intuitive, clear, straightforward

Operating a passenger tester has never been so easy. And yet so comprehensive.




| What does it ... | ... mean for me as a customer? |
|---|---|
| Freely adjustable limit values | Changes to the limit values of the DIN standard or adjustments to personal protection (working on live cables) can be made by the user at any time. |
| Software updates via integrated bootloader | Future updates to the operating system (OS) can be easily carried out at the workplace. |
| Connection for CU 800 calibration device | Integrated calibration software, in conjunction with the Calibration Unit CU-800, enables fully automatic calibration of the test device at the workplace. |
| Networking with PCMaster Suite for EPA-RESIST 7000/8000 | There is no need for cumbersome synchronisation of the transponder data of the individual test devices in the network. The PC master software takes over central data management according to the client-server principle. |
| Special mode: Test-free activation times | A successfully tested person may re-enter the electrostatic protected area (EPA) within the scheduled period without further testing. |
| Non-invasive test function for pregnant women and individuals with active implants | People with active implants (e.g. pacemakers) or pregnant women can be tested without any health risks, as no voltage is applied to the test person's body during the measurement. |
| 3 potential-free relay contacts | Can be configured as either a „normally open" or „normally closed" contact. Response time selectable from 500 milliseconds to 10 seconds. |
| PD 840 multi-RFID card reader | Easy reading of all common internal RFID transponder cards, even on a PC. Convenient creation of employee profiles. |

# The new EPA-RESIST 1000

## Basic device with high performance

Powerful and user-friendly. Available in three languages and with a large touchscreen display. Simply paperless.






Test modes




Removable device base



Foot electrode included in delivery

Connections for ESD wristbands

- 4 mm DK
- 4 mm banana plug
- 10 mm DK
- 10 mm DK

7" HD touch colour display

Button to start all test procedures



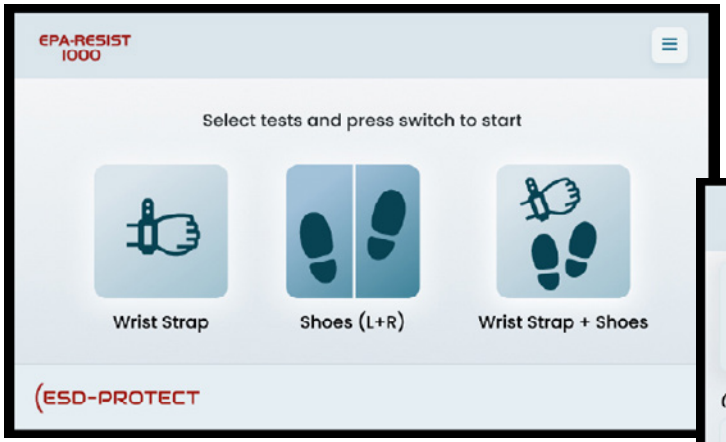

1. 24V power supply connection
2. Serial interface
3. Foot electrode connection
4. USB port
5. Relay output as changeover contact (normally open/normally closed)
6. Double-sided clip for removing the device base

# Scope of services

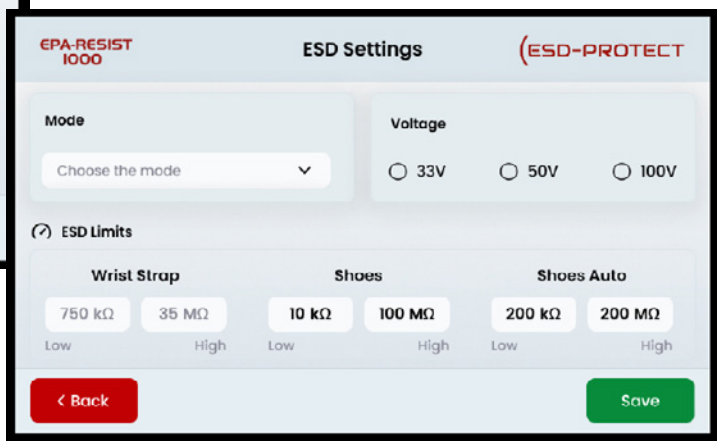
## The ESD-PROTECT added value

- 7“ touch colour display of the new generation
- OS 3.0 with innovative new control system, language selection German/English/ French
- Test profiles are individually assigned to the user
- Display of measurement results and measurement of temperature and relative humidity
- Checking of wrist strap and footwear
- ESD personal tests freely selectable by the user
- 32-bit processor for fast and precise measurements for a smooth passage through optional entry systems

+ **Automatic shoe-to-shoe inspection**
+ **Extensive configuration options for the individual test modes**
+ **Access control via freely configurable relay**
+ **Software-Updates**
  **Thanks to an integrated bootloader, software updates can be easily installed via USB stick.**
+ **Free limit value definition**
  **Individual adjustment of limit values in the event of DIN changes or when working on live cables (personal safety takes precedence over ESD protection)**



Menu view



Setting the limit values

# The new EPA-RESIST 6000

## With special test function for vulnerable persons

Powerful and fast measuring device. Even more intuitive with the new OS 3.0. And even clearer with the new touch display.






Test modes




Removable device base



Foot electrode included in delivery

Connections for ESD wristbands

- 4 mm DK
- 4 mm banana plug
- 10 mm DK
- 10 mm DK

7" HD touch colour display

Button to start all test procedures




1. 24V power supply connection
2. Serial interface
3. Foot electrode connection
4. USB port
5. Relay output as changeover contact (normally open/normally closed)
6. Double-sided clip for removing the device base

# Scope of services

## The ESD-PROTECT added value

- 7“ touch colour display of the new generation
- OS 3.0 with innovative new control system, language selection German/English/ French
- Test profiles are individually assigned to the user
- Display of measurement results and measurement of temperature and relative humidity
- Checking of wrist strap and footwear
- ESD personal tests freely selectable by the user
- 32-bit processor for fast and precise measurements for a smooth passage through optional entry systems

+ **Automatic shoe-to-shoe inspection**
+ **Digital test data mamangement:** export via USB
+ **Extensive configuration options for the individual test modes**
+ **Access control via freely configurable relay**
+ **Software-Updates**
  **Thanks to an integrated bootloader, software updates can be easily installed via USB stick.**
+ **Free limit value definition**
  **Individual adjustment of limit values in the event of DIN changes or when working on live cables (personal safety takes precedence over ESD protection)**
+ **Special testing function for vulnerable persons**
  **Voltage-free body testing for pregnant women and persons with active implants ensures that access to the EPA is checked.**



All EPA-RESIST models can be mounted on our entrance systems.

watch video here:

# EPA-RESIST 7000

## With special test function and RFID identification

Powerful personnel tester with coat and glove test, special test function and RFID recognition. Highly effective as a standalone solution.




RFID






Removable device base



Foot electrode included in delivery




1. 24V power supply connection
2. 4 mm banana plug for hand electrode
3. Foot electrode connection
4. Connection to CU 800 calibration device
5. Relay output for 3 potential-free, freely configurable circuits
6. LAN connection
7. USB port
8. Double-sided clip for removing the device base

# Scope of services

## The ESD-PROTECT added value

- 7“ colour touchscreen display
- Clear and intuitive operation with German/English language selection
- Display of measurement results and measurement of temperature and relative humidity
- 32-bit processor for fast and accurate measurements for smooth passage through optional entry systems
- Checking of wristbands and footwear
- Automatic shoe-to-shoe check
- Measuring voltages adjustable between 33V, 50V or 100V
- Extensive configuration options for individual test modes, also per employee
- Access control via 3 freely configurable relays
- Software updates
  Thanks to an integrated bootloader, software updates can be easily installed via USB stick.
- Free limit value definition
- Individual adjustment of limit values in the event of DIN changes or when working on live cables (personal safety takes precedence over ESD protection)
- Special test function for persons at risk
- Voltage-free body tests for pregnant women and persons with active implants ensure access control to the EPA.

+ **Connection for automated calibration**
  **On-site calibration without dismantling the EPA-RESIST**
+ **Additional tests: glove and smock test**
+ **Personal identification with RFID**
  **Test profiles and test results are assigned to the individual.**

- **activation times**
  After a successful test, time intervals can be defined during which people do not need to be tested again when they re-enter the EPA.

+ **Storage of test results in the device**

- **LAN interface for web interface**
  **A PC connection enables easy exchange of measurement and transponder data between the PC and EPA-RESIST.**

watch video here:

# EPA-RESIST 8000

## Networking of multiple EPA access points

Everything at once. Our flagship product:
Powerful personnel tester for networking, with RFID recognition. With comprehensive software package and our best service.

incl. PC-Master Software
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Removable device base



Foot electrode included in delivery




1. 24V power supply connection
2. 4 mm banana plug for hand electrode
3. Foot electrode connection
4. Connection to CU 800 calibration device
5. Relay output for 3 potential-free, freely configurable circuits
6. LAN connection
7. USB port
8. Double-sided clip for removing the device base

# Scope of services

## The ESD-PROTECT added value

- 7“ colour touchscreen display
  Clear and intuitive operation with German/English language selection
- Display of measurement results and measurement of temperature and relative humidity
- 32-bit processor for fast and accurate measurements
  for smooth passage through optional entry systems
- Checking of wristbands and footwear
- Automatic shoe-to-shoe check
- Measuring voltages adjustable between 33V, 50V, or 100V
- Extensive configuration options for individual test modes, also per employee
- Access authorisations can be assigned individually per employee or for groups
- Access control via 3 freely configurable relays
- Software updates
  Thanks to an integrated bootloader, software updates can be easily installed via USB stick.
- Free limit value definition
  Individual adjustment of limit values in the event of DIN changes or when working on live cables (personal protection takes precedence over ESD protection)
- Special test function for vulnerable persons
  Voltage-free body tests for pregnant women and persons with active implants ensure access control to the EPA.
- Connection for automated calibration
  On-site calibration without dismantling the EPA-RESIST
- Additional tests
  Glove and gown test
- Personal identification with RFID
  Test profiles and test results are assigned to the person.
- Clearance times
  After a successful test, time intervals can be defined during which persons do not have to be tested again when they re-enter the EPA.

+ **LAN interface for networking multiple devices**
  **For large EPA areas with multiple entrances, multiple EPA-RESIST 8000 or EPA-RESIST 8000S units can be networked together.**

+ **Central transponder management via PC master software**
  **Personal data is read in or changed centrally on the PC and does not have to be done on each individual networked device.**

+ **Central storage of test results using data logger software**
  **Summary of all log data (test results) in a central daily file using the optional data logger software.**

watch video here:

# EPA-RESIST ICS

## With interface to time recording systems

ESD personal tester with special test function for pregnant women and persons with electronic implants and additional serial interface for data exchange with customer time recording or access control systems.

- Does your company require ESD personnel testing?
- Do you already have a time recording or access control system?
- Would you prefer not to set up an additional database for managing ESD access and test results?

### Then the EPA-RESIST ICS is the solution!



# Scope of services

## EPA-RESIST ICS

Your existing database from the time recording system transmits the test requests to the EPA-RESIST ICS via the serial interface, and the device sends the test results back to the database.
Employees are identified via their existing ID card/chip on the time recording or access control system, which is located near the EPA-RESIST.

### Details:

- ESD personal tester with Interface Communication System (ICS)
- With foot electrode (optionally with or without foot scraper)
- Additional serial interface for data exchange with existing time recording or access control systems
- 7-inch touchscreen colour display
- Measurement of temperature and relative humidity
- 32-bit processor for fast, accurate measurements and smooth throughput
- Test assignment possible for each employee individually
- Checking of wristband and footwear
- Automatic shoe-to-shoe check
- Special test function for pregnant women and people with electronic implants such as pacemakers, hearing implants, etc. (passive voltage measurement)
- Limit values can be freely adjusted,
- Measuring voltages adjustable between 33V, 50V, or 100V
- Access control via 3 freely configurable relays
- Integrated bootloader for future expansions and updates, which can be carried out by the customer themselves on site
- Menu language can be switched to German or English

### Benefits:

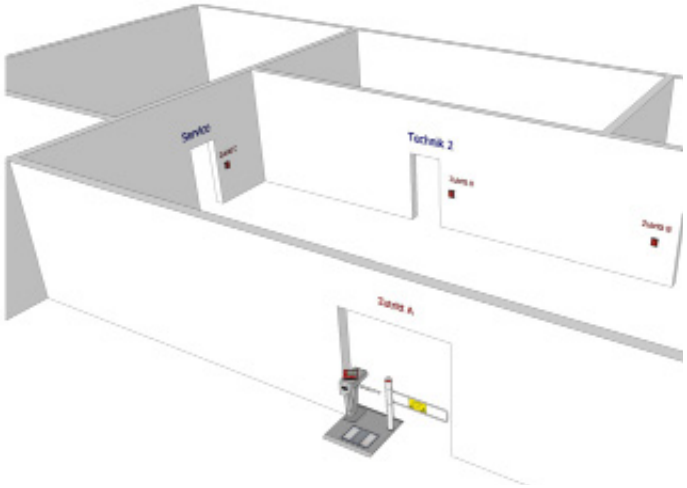
- Additional serial interface for data exchange with time recording or access control systems
- Only one database to manage in the existing time recording or access control system
- Only one ID card/chip per employee, which is used for time recording/access control and ESD personnel testing
- Test requirements can be transmitted to the EPA-RESIST and measurement results can be sent to the time recording system
- Individual software configuration possible on the existing time recording system

# EPA-RESIST 8000S

## Advanced access control

### The PC master software, which is included with the EPA-RESIST 8000, is required to operate the device.



The EPA-RESIST 8000S system extends ESD access control by using an activation time*. After identification by an RFID badge, the EPA-RESIST 8000S communicates with the PC master software to check whether the badge has a valid activation time.

Access authorisations can be assigned individually per employee or for groups. This enables a cost-effective and quick expansion of ESD access control without the need for retesting personnel.

The EPA-RESIST 8000S is configured via a password-protected web interface. The software is integrated into the EPA-RESIST 8000S and is easily launched via your web browser. No external software needs to be installed for commissioning. Larger and distributed EPA access points can be implemented flexibly and easily with the EPA-RESIST 8000S. The system integrates seamlessly into the EPA network and is ready for operation in just a few minutes.




### benefits:

- Not every EPA access point requires a complete measuring system.
- Centralised data management of RFID transponder data on a PC.
- Control of individual access authorisations per employee/ group.
- Active activation times enable test-free access.
- Minimisation of data traffic in the network, as no synchronisation between devices is required.

** After a successful person test, a time can be stored in the employee card (RFID) during which passage is permitted without performing another person test.*

# CU 800 Calibration Unit

## Calibration made easy




The Calibration Unit CU 800 was developed for regular calibration of EPA-RESIST personal testers. This eliminates the need for cumbersome manual switching* of individual resistors. Likewise, the limit values are no longer „circled“**, but are displayed with actual measured values.

After the programme is started, the CU 800 automatically measures defined reference resistors with the three possible measuring voltages 33V, 50V and 100V.

Any deviations are detected and documented. The entire calibration process takes only 21 seconds.

The test results are saved in a CSV file on a USB stick. This file can then be easily formatted, saved and printed individually using Excel.

The CSV file can be imported into Excel and customised for a better overview.

### benefits:

- Calibration can be carried out on site
- EPA-RESIST does not need to be dismantled
- No need to send in the EPA-RESIST device
- No need to keep a replacement device on hand
- Consistently reliable measurement results

watch video here:

** The individual resistors on a decade are switched using a selector switch (rotary wheel). A personnel test must be carried out after each setting of the selector switch.*

*** Conventional calibration units, or personal testers with LED displays, circle the lower and upper limits of the personal tester. A slightly lower resistance than the actual limit value is tested, followed by a slightly higher resistance than the limit value.*

# PCMaster-Suite by ESD-PROTECT

## Networking for several EPO departments




The PCMaster software supplied with the EPA-RESIST 8000 makes it easy to network the EPA-RESIST 8000 with other EPA-RESIST devices or the advanced access control system EPA-RESIST 8000S.The software manages the transponders centrally in the network. This eliminates the need for data synchronisation between the individual systems. Reading in new transponders and setting up individual employee profiles is effortless.

Larger EPA zones or distributed EPA areas can thus be easily planned and reliably implemented. If subsequent activation times are activated after successful personnel tests, EPA-RESIST 8000S systems can also be used. These check the validity of the respective activation time and grant access if the time stamps are valid. Personnel identification is carried out using the same employee card via RFID.

# PCMaster-Suite Pro

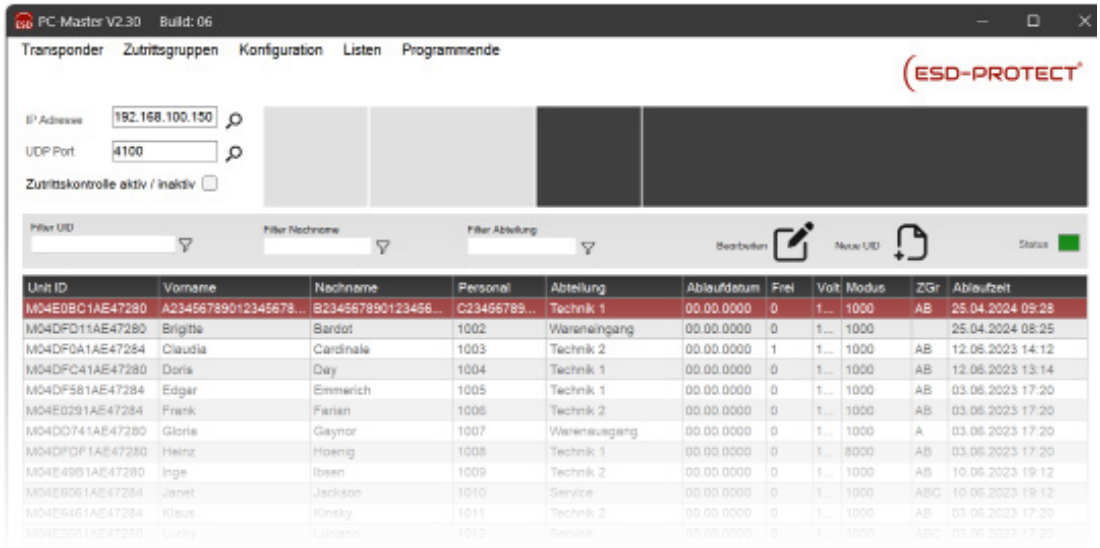
## Also available as a utility for server use.

### Benefits:

- Networking and access control for large EPA areas
- Central data maintenance and management of RFID transponder data on a PC
- Easy reading of new transponders and individual settings
- Active activation times enable test-free access
- Minimisation of data traffic in the network, as no synchronisation between devices is required

# EPA-RESIST 8000 incl. PCMaster-Suite

## The optimum for EPA access points




The PCMaster Suite provides transponder data for EPA-RESIST 8000 and 8000S models in a network. Centralised management eliminates the time-consuming task of synchronising transponder data on individual test systems.

- **Recording transponder data on a PC**
- New transponders via CSV import
- Export, delete or edit transponder data
- **Sorting and filtering**
- Additional function: access control
- **Access management: The assignment of areas to the corresponding systems (EPA-RESIST 8000/8000S) is configured in the „Access groups“ menu under „Manage systems“.**
- **Check systems in the network**
  Use the Systems menu item to check the availability of all configured systems. A network ping is sent to all registered devices to determine whether they are accessible or not. Accessible systems are given the status „Online“. Systems that do not respond to the ping are given the status „Offline“.
- **trace window**
  In the two trace windows (grey = input, black = output), communication between the PCMaster and all systems in the network can be observed.

# Datenlogger Software by ESD-PROTECT

## Evaluating the daily measurement logs




The EPA-RESIST models 7000 and 8000 can be expanded with the data logger software.

It stores all measurement logs from the EPA-RESIST 7000/8000 devices or passes with EPA-RESIST 8000S in the network in a central daily file on the PC in real time. Many filter functions help to comply with individual data protection guidelines and to create your own evaluations of the measurement results on this basis.

### benefits:

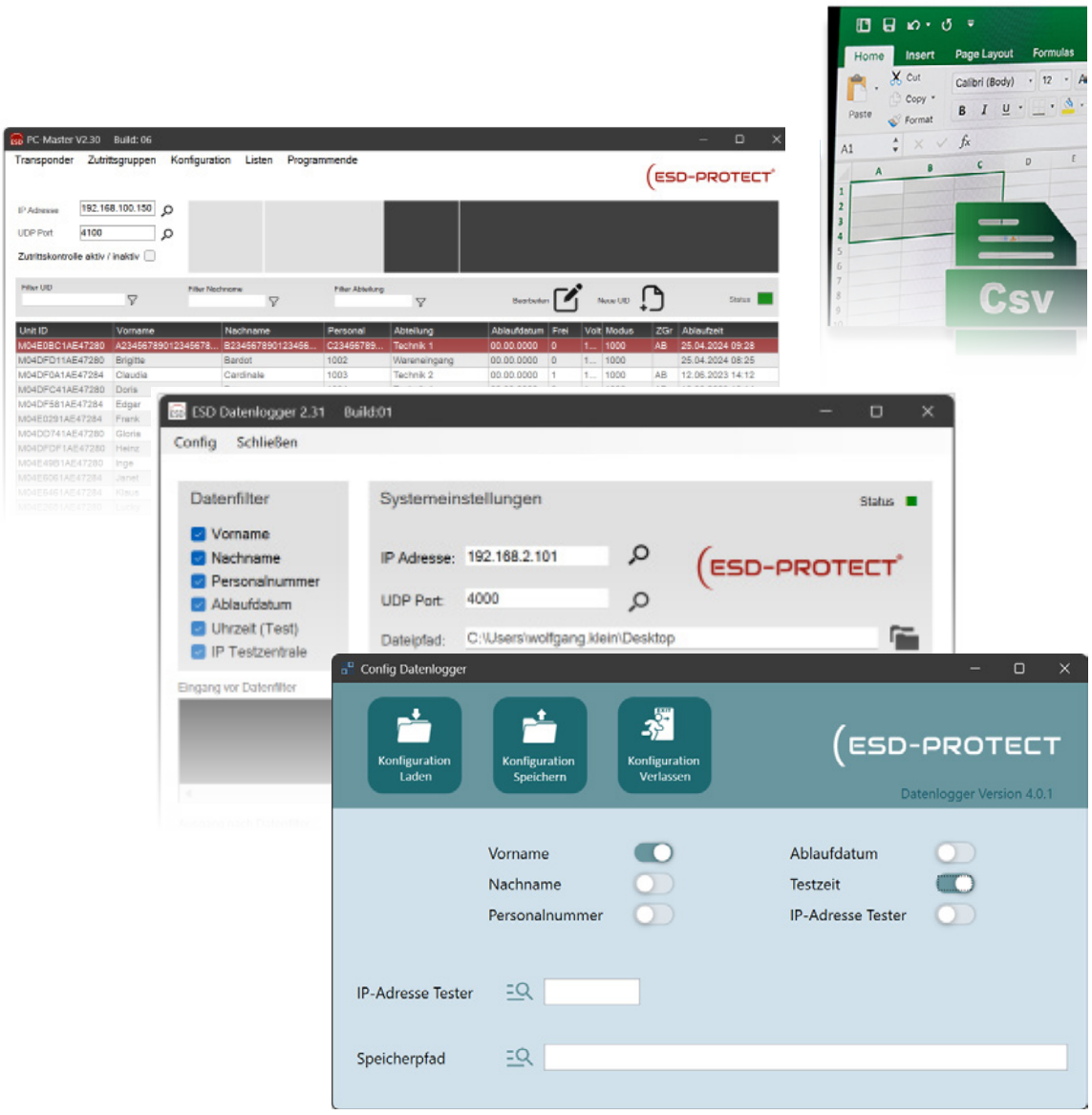
- All daily reports are saved in CSV format in a central directory on the PC/server.
- This eliminates the need to read out the individual devices via the web interface.
- Measurement logs can be filtered and evaluated in accordance with data protection guidelines.

# Datenlogger & EPA-RESIST

## Filter and store in compliance with data protection regulations

The data logger software receives the test data from all EPA-RESIST 7000/8000 and EP-8000S systems in the network, filters it according to user-defined specifications and stores the data records in real time.

This means that the log data no longer has to be retrieved from each individual device and collated. The directory path for this log file can be freely selected. Multiple filters help you to comply with existing internal company data protection guidelines. The saved daily file (log file) can then be archived, imported into Excel or simply processed further.




Datenlogger 4.0 (Windows web application)

# RFID-multi-card reader PD 840

## Reading and capturing RFID transponders

Simply place the transponder on the antenna surface and the tag's UID will appear directly in the open application. This makes it quick and easy to create employee lists for personnel management or transponder lists for EPA-RESIST 7000/8000.

The RFID multi-card reader is equipped with a USB connection and is connected to a free USB port on the PC. Power is supplied via USB, so no additional power supply is required. The multi-reader is PnP-compatible, so no device drivers need to be installed. The read UID is transferred directly to the application via the keyboard buffer.

For all common RFID formats!

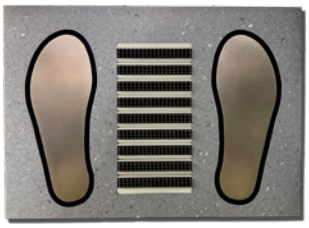


# Scope of delivery

## All-inclusive

- EPA-RESIST Model 6000, 7000 or 8000 personnel tester
- FE 100 foot electrode or optionally FA with foot scraper
- Mounting bracket for wall or table mounting
- 24V power supply
- Relay output connection cable
- Operating instructions
- Calibration certificate
- Model 8000: PC Master software on USB stick





# Accessories

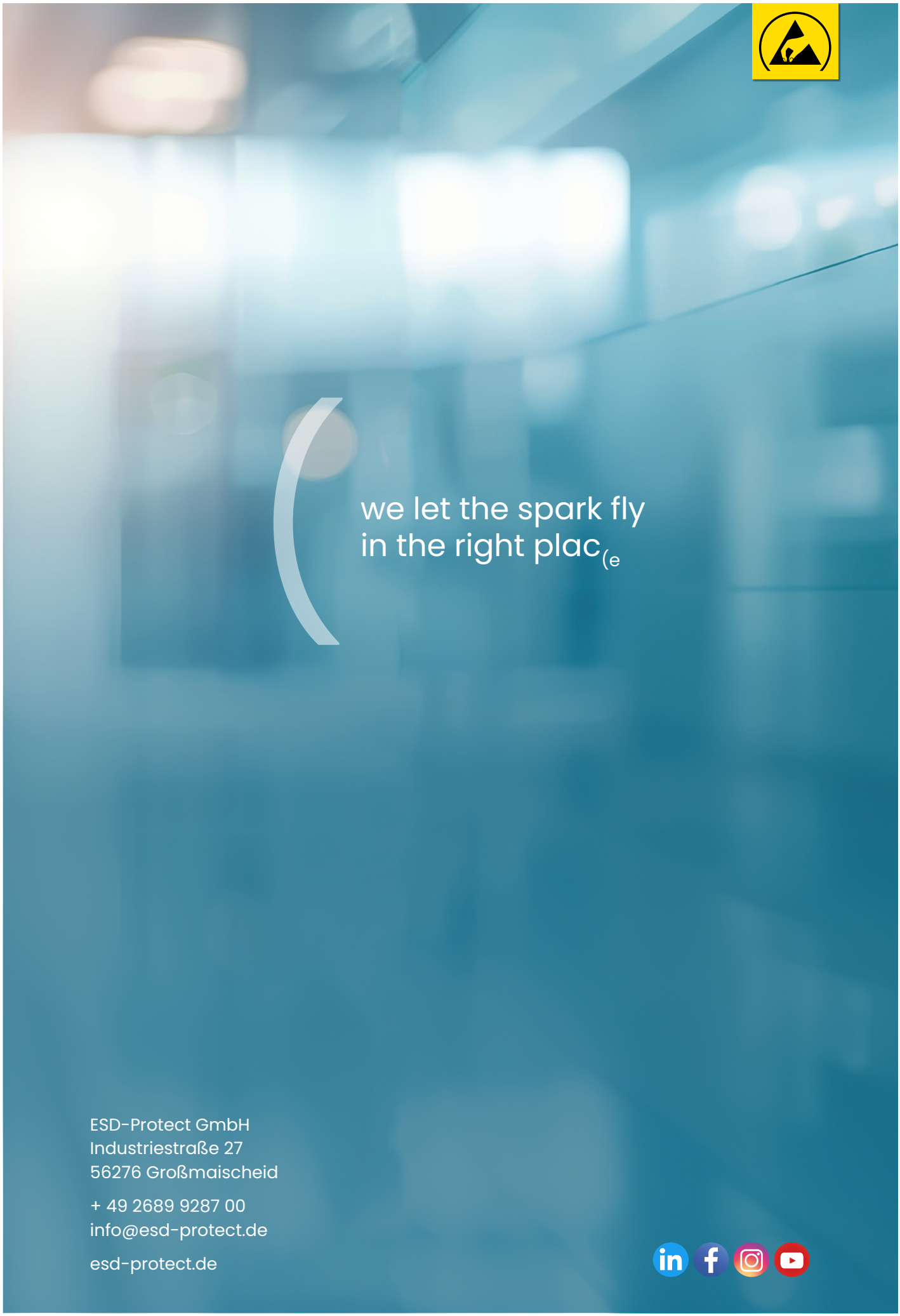
## Optionally available

- Support feet with retaining plates
- Access control EPA-RESIST 8000S
- Calibration Unit CU 800
- RFID multi-card reader PD 840
- Hand electrode
- Sturdy metal frame with
- approach edge for foot electrodes
- Data logger software
- RFID transponder cards,
  also for visitors (optionally with printing)








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