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## Networkable ESD Personnel Grounding Control System

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Enhanced Safety and Convenience for Your ESD Protection Zones

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## EPApro<sup>®</sup> – The System

The innovative EPApro<sup>®</sup> end-to-end solution for your ESD protected working areas combines a user-friendly precision hardware with a forward-looking software solution designed for the measurement of your ESD safety equipment as well as the comfortable and standard-compliant documentation and central management of the collected data. Multifunctional EPApro<sup>®</sup> interfaces and switch outputs allow for a simple integration in the existing infrastructure of your company. With the browser-based user interface, the system is always up-to-date without additional work and costs.

## Advantages

- Quick measurement, extensive measuring options with short test time
- User-friendly, simple handling
- Standard-compliant testing in compliance with DIN EN ISO 61340-5-1 and ANSI ESD S20.20
- Intuitive user interface with clear display of the results
- Suitable for the use in access control systems
- Simple, menu-driven calibration on-site
- Adjustable measuring voltage and configurable thresholds
- Compliant with all usual standards
- Data logging in compliance with GDPR
- Suitable for cross-location networking via LAN or WLAN
- Simple data handling and secure archiving on a central server
- Vast report functions
- Simple backup functions allow retrieving backup files with Single Click at any time
- Automated data exchange with other programs
- ESD training management with notification to employees on the device when their ESD training has expired
- Centralized device firmware update from Control Server
- No client software required, server installation via VM (Virtual Machine)
- Simple update function and maintenance via the EPApro<sup>®</sup> portal

## EPApro<sup>®</sup> – The Components

#### EPApro<sup>®</sup> ESD-Personnel-Tester 1000

The EPApro<sup>®</sup> 1000 is a compact measuring device to verify the personnel grounding and fulfills the requirements of DIN EN ISO 61340-5-1, ANSI ESD S20.20 and GDPR (general data protection regulation). Programmable switch outputs allow using it as access control.

A privacy mode offers the possibility to log and display the measurement without names.

The measurements are logged in accordance with the standards on the EPApro<sup>®</sup> 1000 device and stored in compliance with the GDPR. Measurement data can be accessed over the network or maintained locally on the device when using the Stand-Alone function.



#### EPApro® Control Server Software

The EPApro<sup>®</sup> Control Server software allows for a central management across locations of the measurement, device and employee data collected by the ESD personnel testers and transmitted to the EPApro<sup>®</sup> Control Server by means of the company network. All data is stored in a central database directly on your company server in compliance with the GDPR.

It is possible to configure the EPApro<sup>®</sup> 1000 devices centrally via the EPApro<sup>®</sup> Control Server. Modifications of the device parameters are automatically synchronized with the server.

#### EPApro<sup>®</sup> Support

In addition to our employees who supply you with detailed advice and instruction on site, our EPApro<sup>®</sup> support provides you with advice and assistance. It is possible to calibrate EPApro<sup>®</sup> 1000 devices directly on site by using an optionally available menu-driven calibration unit. A return to the factory is thus not necessary. Update packs will be regularly available for download in the EPApro<sup>®</sup> portal.



Comprehensive information about the entire EPApro<sup>®</sup> program can also be found on our website **www.dpv-elektronik.de/EPApro** 





### EPApro<sup>®</sup> Personnel Tester 1000



### EPApro<sup>®</sup> 1000 at a Glance

- Simultaneous measurement of shoes and wriststraps with short test time < 2 seconds</p>
- Comfortable guest function e.g. for changing visitors
- Measurement of single shoe or in series as well as hands-free mode
- Adjustable measuring voltage with individual voltage reduction for sensitive persons
- Configurable thresholds
- Person identification with integrated Multi RFID reader
- Compliant with all usual standards, existent ID cards can still be used
- Access release / barrier controllable via configurable switch outputs
- Suitable for personnel access control systems

- Documentation of the measured values
- Intuitive user interface with clear display of the results
- Privacy mode: display mode without showing personal data
- Password-protected access for administrators and managers
- Standard-compliant testing in compliance with DIN EN ISO 61340-5-1 and ANSI ESD S20.20
- Data logging in compliance with GDPR
- Menu-driven calibration mode for simple calibration on site (returning the device for calibration is not necessary)
- Connectable via LAN or optionally WLAN adapter
- Languages: German and English (GB)

## Technical Description

#### **Display and Operation**

Display and operation are done via a 7-inch HD color touch display. The access for managers and administrators to the menus and parameters is protected by password.

When using the optional EPApro<sup>®</sup> Control Server software, it is possible to configure the networked EPApro<sup>®</sup> 1000 devices centrally with the software.



#### Measurements

The measurements are made quickly and precisely within 2 seconds. This avoids delays or long waiting times at the entrance.



Shoes and wriststraps can be tested simultaneously. Configurable measuring voltage and thresholds enable optimal adaptation to your requirements.

The reduction of the measuring voltage to 35 V for sensitive persons is adjustable for the respective employee.

The measurement of the resistance comprises a test of the shoes, wriststraps or ESD coats (measurement of the ESD coats if they are used for primary personnel grounding, see standard). There are several special functions like e.g. hands-free measurement (serial measurement of the shoes), variable measuring intervals, etc.

The measured data are stored in the database integrated in the device. After the measurement, the employee obtains immediately a feedback on the screen.

#### **Guest Function**

In case of visitor and guest cards, it is possible to enter the names directly on the device without any further administrative expense.

#### Multi RFID-Reader

An integrated Multi RFID reader is compatible with the usual RFID standards and enables the identification of the person and the personal logging of the measurement.

Using existing RFID cards is possible. It is optionally also possible to use other readers via the USB port e.g. barcode reader, etc.



#### **Temperature and Humidity Sensor**

The integrated temperature and humidity sensor captures the ambient conditions at the time of measurement and logs these together with the measured values in the internal database.



#### Control

The EPApro<sup>®</sup> 1000 has a powerful multicore and graphics processor to control the measurements and the touch user interface.

#### **Integrated Calibration Function**

The EPApro<sup>®</sup> 1000 has an integrated menu-driven calibration mode.

It is possible to connect an optionally available calibration unit to the calibration input of the device.



Thanks to this feature, it is not necessary to return the device for calibration. When using EPApro® Control Server software, the calibration data is additionally stored on the server.

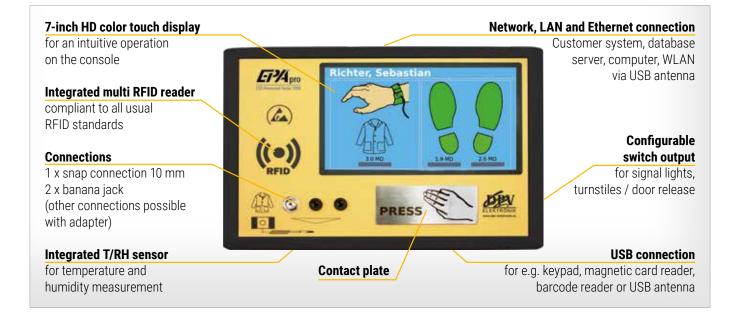
### Connection with EPApro<sup>®</sup> Control Server

The EPApro<sup>®</sup> 1000 device can be connected as a single device (Stand Alone) or via the company network with the optionally available EPApro<sup>®</sup> Control Server software, even across locations.

The EPApro<sup>®</sup> Control Server offers the advantage of being able to manage the EPApro<sup>®</sup> 1000 devices centrally and to store all data in a central database.

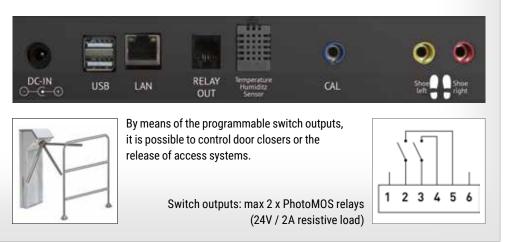


# EPApro<sup>®</sup> 1000 – Structure and Technical Data



#### **Outputs and connections**

- Integrated multi RFID reader reads all usual standards
- 2 x USB ports for external HID readers
- Two configurable potentialfree switch outputs
- Connection for footwear electrode
- GBit Ethernet/LAN, optionally WLAN via a USB antenna
- Input for calibration



Voltage / power	6 W (9 V/DC) (power supply unit 100-230V/AC)	
Operating conditions	+ 10 bis 40° C / bis 75% up to 75% relative humidity	
Test time	< 2 seconds	
Device: dimensions / weight	265 x 180 x 100 mm / 1 kg	
Footwear electrode: dimensions / weight	500 x 350 x 8 mm / 2,6 kg	
Test voltage	Selectable: 100V / 50V / 30V/DC (tolerance ±5%)	
Test	Measuring range – upper thresholds	Measuring range – lower thresholds
Wriststrap	1 ΜΩ - 200 ΜΩ	None / 100 KΩ / 750 KΩ
Footwear worn against metal plate (value per shoe)	1 ΜΩ - 200 ΜΩ	None / 100 KΩ / 750 KΩ
Footwear measurement in series (hands-free)	1 ΜΩ - 200 ΜΩ	None / 100 KΩ / 750 KΩ

# EPApro<sup>®</sup> 1000 – Versions and Accessories

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**1 EPApro<sup>®</sup> Personnel Tester 1000** with 7-inch HD color touch display and integrated multi RFID reader

#### Scope of delivery:

- EPApro<sup>®</sup> Personnel Tester 1000
- Footwear electrode (fig. 7)
- Power supply unit
- User's guide
- Factory calibration certificate

**1** a) Wall-mounted unit Article no.: EPApro.1000.2W

**1** b) Tabletop unit Article no.: EPApro.1000

**2 ID card high frequency** PU = 5 pieces, printable Article no.: EPApro.1001.ID.HF

**2 ID card low frequency** PU = 5 pieces, printable Article no.: EPApro.1001.ID.LF

**3 EPApro<sup>®</sup> calibration unit 1000** Including calibration certificate Article no.: EPApro.1001.CU

**4 EPApro<sup>®</sup> WLAN adapter** Connection via USB (150 Mbit/s) Article no.: EPApro.1001.WL1

**5** Pedestal Set for EPApro<sup>®</sup> 1000 consisting of / scope of delivery:
Pedestal

Support for EPApro
Floor mat
Article no.: EPApro.1001.ZSF.SET

**6 Test mat for EPApro® 1000** (footwear electrode separately available) Article no.: EPApro.1001.ZPM

**Footwear Electrode for EPApro**<sup>®</sup> (included in the scope of deliver of item 1 EPApro<sup>®</sup> Personnel Tester 1000) Article no.: EPApro.1001.SE

**8 Divider for footwear electrode** for screwing Article no.: EPApro.1001.TS













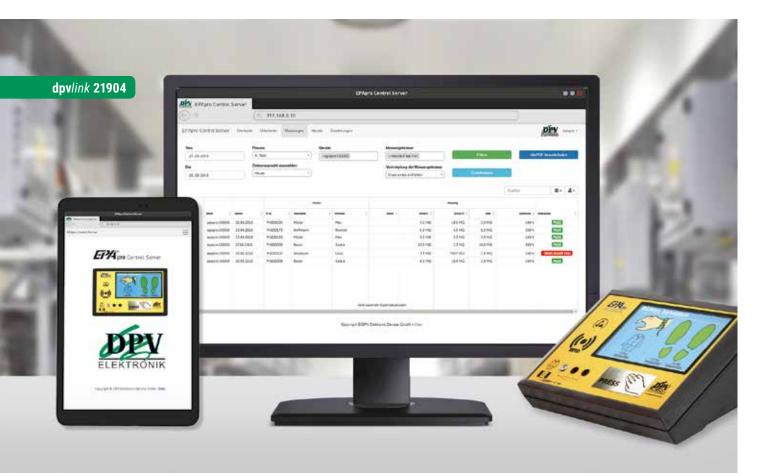
Detailed information about the entire EPApro® product range is available on our website www.dpv-elektronik.de/EPApro





EPApro<sup>®</sup> Personnel Tester 1000 and footwear electrode separately available

## EPApro<sup>®</sup> Control Server at a Glance

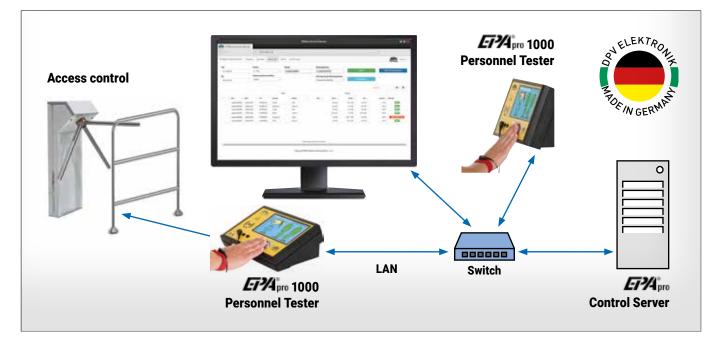


### The Advantages

- Networking of several EPApro<sup>®</sup> devices within your company network – also across locations
- Central, password-protected and role-based administration
- Central administration of employees and access authorizations on the server
- Simple import of the employee master data into the system e.g. Excel, CSV
- Employee administration with group function e.g. teams and departments, EPA, laboratory, etc.
- Guest function: simple creation of visitors to document the measured values
- Synchronization and storage of the data on the VM on your server
- Safe and central archiving of your measured data offering the possibility to set a date for an automatic deletion of the measurement protocols

- Backup functions allow retrieving backup files with Single Click at any time and storing them in a directory you specified
- REST API data interface (key-protected) enabling an automatic data exchange with other programs
- Report functions, i.a. for audits as PDF file
- Subscribable report function by e-mail for evaluations and reports
- Installation via a Virtual Machine (VM) on your server
- Client access via browser, installation of a client software is not required
- Simple update function and maintenance of the software via the EPApro<sup>®</sup> portal

## Technical Description



#### Interface and Operation

The client access is password-protected and possible via browser from any terminal. It is not necessary to install an additional client software.

The user interface of the EPApro<sup>®</sup> Control server is optimized to be viewed on a PC, but can also be used on mobile devices like tablets or smartphones.

#### Authorization of the Employees for Individual Devices

The authorization of the employees for the access to an EPApro<sup>®</sup> 1000 device can be restricted in the employee profile. If the EPApro<sup>®</sup> 1000 are connected to access systems, the access to individual manufacturing areas can be controlled.

#### **Employee Groups**

For an easier management and surveillance, it is possible to assign employees to a group. Groups can be structured hierarchically facilitating the mapping of employee and department structures.

Users of the EPApro<sup>®</sup> Control Server obtain the access authorization to these groups. A department head can e.g. see and manage the employees of his department, a team leader may only see the employees and the measurement protocols of his team. Therefore, only authorized persons are allowed to see and manage the data in compliance with the GDPR.

#### **Guest Function**

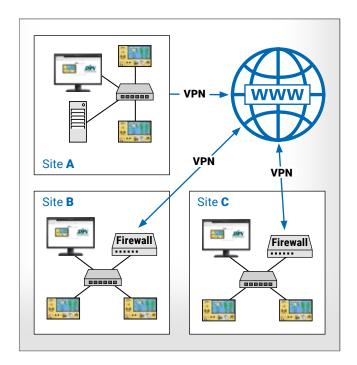
Visitors can be created quickly and simply to document the measured values.

#### Installation of the Server Software

The EPApro<sup>®</sup> Control Server software is installed as a VM (Virtual Machine) on a hardware server. We provide you the VM image suitable for your virtualization system.

#### Network

The EPApro<sup>®</sup> 1000 devices are connected to the EPApro<sup>®</sup> Control Server via LAN. Every EPApro<sup>®</sup> 1000 device has its own IP address. The connection across locations is also possible via your company VPN.



## **EPA**pro<sup>®</sup> Control Server Features

#### **Role-Based Access Control**

The assignment of authorizations of the EPApro<sup>®</sup> Control Server users can be implemented by means of a rolebased access model. So, it is possible, for example, to determine that certain users may only maintain the employee database.

#### Languages

The display language is adjustable, available languages are German, English and French.

#### Reports

It is possible to filter data and fade in and out columns in the displays. An export function facilitates to export the displayed data in the usual formats. In addition, configurable reports e.g. for the auditing can be created. The user can subscribe to the created reports. These reports are created at the specified time and sent via e-mail.



#### Import and Export of Employee Data

The EPApro<sup>®</sup> Control Server has several import and export functions allowing an import or export of the employee data e.g. via CSV or Excel files.

#### **Export Functions for Measured Data**

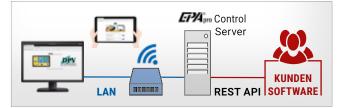
Measured data can be filtered and exported in all usual data formats using an export function.

#### Licensing

A license is once necessary for the EPApro<sup>®</sup> Control Server. To connect the EPApro<sup>®</sup> 1000 devices an EPApro<sup>®</sup> license key is required for each EPApro<sup>®</sup> 1000.

#### Data Exchange with Other Programs

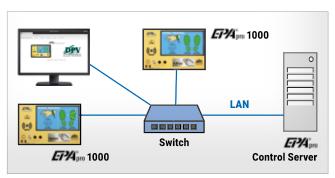
A REST (Representational State Transfer) API enable the secure exchange of data with other programs.



#### Behavior in Lase of Failure of Network or Server

If the EPApro<sup>®</sup> Control Server or the network fail, there will be no restrictions for the operation of the EPApro<sup>®</sup> 1000 devices.

Measurement data sets are stored in the EPApro<sup>®</sup> 1000 device and automatically transferred as soon as the EPApro<sup>®</sup> Control Server is available again. Maintenance work in the network of the server has thus no impact on the availability and functionality of the EPApro<sup>®</sup> 1000 device in the network. Even in case of a network failure, the smooth operation of the EPApro<sup>®</sup> 1000 devices is assured.



#### Update and Maintenance

Updates for the EPApro<sup>®</sup> Control Server can be imported easily via the installed EPApro<sup>®</sup> Server service tool. We provide the update packages for download in the EPApro<sup>®</sup> portal.



## Visit Our Website

#### All Information on the EPApro® Product Range on Our Website

Please find all interesting facts about the EPApro<sup>®</sup> ESD Personnel Tester 1000 including detailed information on the accessories and the EPApro<sup>®</sup> Control Server on our website:



#### www.dpv-elektronik.de/EPApro

#### Find the Required Product Quickly and Simply

Simply enter the dpvlink (e.g. 21010) or the search term (e.g. EPApro Control Server) and find directly the required product or scan the QR code to obtain a selection of suitable products.

#### Your System Supplier for Electronics Manufacturing

Find more than 30,000 articles for your electronics manufacturing as well as continually current offers clearly shown on our website:

- ESD Management
- Systems against electrostatics
- Packaging Storage Transport
- Tools
- Machines and devices
- Mounting accessories and equipment
- Soldering

#### More Security and Control with ESD Management

ESD components are increasingly endangered by automated production processes, progressive miniaturization and high process speeds. A competent ESD management facilitates a significant reduction of electrostatic risks and resulting costs.

We offer you:

- ESD Consultation
- ESD Service
- ESD Auditing
- ESD Trainings and workshops

You will find detailed information on our ESD Management range on our website:









#### www.dpv-elektronik.de/esd-management



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Tools	
Tools PCB processing	
PCB processing	
PCB processing Component processing	
PCB processing Component processing Mounting accessories	
PCB processing Component processing Mounting accessories Dispensing equipment	
PCB processing Component processing Mounting accessories Dispensing equipment Workstation lighting	
PCB processing Component processing Mounting accessories Dispensing equipment Workstation lighting Optical inspection systems	
PCB processing Component processing Mounting accessories Dispensing equipment Workstation lighting Optical inspection systems Cleaning	

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