



**independent electrodes
for both feet / shoes**

General:

The leakage resistance test device allows identifying a malfunction of conducting bracelets and footwear.

Additionally an access control with the integrated door opener function can be implemented.

Two separate finger electrodes allow automatic recognition of the chosen test.

LEDs display standby, test procedure and the result. In case of a negative result an acoustic signal can also be transmitted.

A relay output (safety extra low voltage) that gets activated by a positive result can be used to activate an automatic door opener.

The device can be set to three different operating modes with an internal dipswitch: single test (bracelet or shoe test), combined test (bracelet and shoe test) or a shoe to shoe test. For the combined test both tests have to be executed in a specific timeframe after one another for the relay output to be set.

The shoe to shoe test measures between the two shoe electrodes. The finger electrodes do not have to be actuated upon.

The device is driven by a microcontroller that can be parameterized with a PC via a USB / RS232 interface. This way the tests limits and some intervals can be set. The resistance recognition balance also gets set with this interface.

Note:

To identify interrupted leads neither the device nor an electrode must be connected to the protective earth.

Specifications:

Power Supply

Supply voltage: 230 V_{AC} protection class II **(DO NOT connect to protective earth!)**

T70 °C C8, EN 60320-1

Power input: approx. 4 VA

Relay output: safety extra low voltage 24 V_{AC/DC} max. 1 A

Connectors

bracelet test: 4 mm – safety socket
 4 mm – safety plug
 10 mm – push-button
 4 mm – push-button

Shoe test: D-Sub 9 pin for shoe electrode

Test electrodes: 42*52mm stainless steel V2A

Relay output: 3 pin DIN-socket with locking ring

Pin 1: N.C. Pin 2: center contact Pin 3: N.O.

Housing

for wall and desk mounting

Dimensions: width* height *depth 264*180*110 mm

Protection: IP20

Serial Interface

Transmission parameters and connection

The transmission parameters are set internally and cannot be changed by the operator.

Transmission rate: 9600 Baud

Parity: none

Data width: 8 Bit

Stop-bits: 1

Pin assignment

Socket Mini USB B:

A usual USB A – Mini B cable can be used for connecting.

Optional Accessories: wall mount support

Dipswitch settings

switch	ON	OFF
S1.1	Combined test (AND)	Single test (OR)
S1.2	Error audio signal on	Error audio signal off
S1.3	Relay output opens if error	Relay output timed
S1.4	Shoe to shoe test	Bracelet and shoe test

Parameter

Parameter	Range	Default
P00: lower limit bracelet test	0 – 150 MΩ	750 kΩ
P01: upper limit bracelet test	0 – 150 MΩ	35 MΩ
P02: lower limit bracelet shoe test	0 – 150 MΩ	50 kΩ
P03: upper limit bracelet shoe test	0 – 150 MΩ	100 MΩ
P04: waiting time for combined test	1 – 100 s	10 s
P05: duration door opener	1 – 100 s	5 s
P06: number of measures until evaluation	1 – 20	5