

PESD 1610

16kV Electrostatic Discharge Generator

■ **Bringing dissimilar insulation** materials together and then parting them creates electrostatic charges. The resultant electrostatic discharge (ESD) can cause failures in electronic circuits.

There are two principal methods of discharge: Air discharge and contact discharge. Contact discharge is the preferred test method because test results are more reproducible.

PESD 1610 features a unique **NO CONTACT detection circuit**. During contact discharge tests, PESD 1610 continuously monitors if ESD pulses are really discharged to the EUT (**E**quipment **u**nder **T**est). In case of no contact to the EUT, the operator receives a warning message in the LCD display. This prevents the user from potentially wrong test results.

PESD 1610 has a **highly ergonomic design**. This includes a firm handle that insures safe and comfortable operation under any circumstances, and dedicated, large conventional pushbuttons for easy and convenient setting of all test parameters.

For long running tests, a screw socket on the bottom enables the user to mount the gun on a standard tripod.



IEC test levels L1 to L4 are predefined and are shown in the LCD together with the test voltage.

■ Features

- ☑ 16.5kV Air discharge
- ☑ 9kV Contact discharge
- ☑ Contact discharge current flow detection
- ☑ Standard network 150 pF / 330 Ohm
- ☑ Electronic Polarity change
- ☑ Battery or mains operated

■ Benefits

International application - Specifically designed to meet and exceed the requirements of IEC, EN, and ANSI tests for ESD applications.

Comfortable to use - The light weight, balanced weight distribution and ergonomic handle design mean that testing can be performed over long periods without operators becoming fatigued.

Fast Charging Time - The Lithium ion batteries used in the PESD 1610 provide a high degree of flexibility. They can be fully charged within short time and show no memory effect.

Sturdy and Reliable - Careful component selection ensures that the PESD 1610 will continue to operate under the most strenuous testing regime.

Reduced operator workload - PESD 1610 has all operator accessible controls on the unit rear panel. These include a large LCD display and buttons to change polarity, repetition rate and discharge voltage.

■ Applications

- ☑ ESD testing according to basic EMC Standards IEC/EN 61000-4-2
- ☑ ESD testing according to generic EMC Standards IEC/EN 61000-6-1 & 61000-6-2
- ☑ ESD testing according to IEEE / ANSI Standards
- ☑ Telecommunications – Resistibility Tests
- ☑ Many more international Product Standards

■ Technical Specifications

Air Discharge Voltage	0.2 – 16.5kV	Voltage resolution	100 volt steps
Contact Discharge Voltage	0.2 – 9kV	Discharge Polarity	Positive & Negative
Discharge Repetition	Single, 1, 2, 5, 10 & 20 Hz	Operating Modes	Single & Continuous
Discharge Counter	1 - 9999	Power Mains	85 – 264V 50/60Hz
Standard Network	150 pF / 330 Ohms	Battery capacity	9 hours @1 Hz (typical)

Weights and Dimensions (W x H x D, net weight)			
PESD 1610 Gun	10 x 21 x 20 cm		1.2 kg
PESD 1610 Charger	11 x 7 x 20 cm		0.6 kg

■ Scope of Supply Art. No. 249962

Qty. 1	PESD 1610 ESD Generator
Qty. 1	Carrying case
Qty. 1	Charger / Power supply unit
Qty. 1	Ground Cable
Qty. 1	Test Finger Air discharge
Qty. 1	Test Finger Contact discharge
Qty. 1	User Manual

■ Options & Accessories

Verification Set	For wave shape verification according to IEC/EN 61000-4-2. Includes 2 Ohm Target, Attenuators, BNC Cable, user manual <i>Art. No. 249994</i>
VCP	Vertical Coupling Plane 0.5m x 0.5m for indirect application of the ESD. Includes cable with 2 integrated 470kOhm HV resistors <i>Art. No. 249558</i>
HCP	Horizontal Coupling Plane 1.6m x 0.8m for indirect application of the ESD. Includes cable with 2 integrated 470kOhm HV resistors <i>Art. No. 249688</i>
Remote Control	Fibre optical RS232 Interface for remote control of ESD gun <i>Art. No. 249667</i>
Test Table	Made of wood without any metallic parts, as required by IEC/EN 61000-4-2 <i>Art. No. 249687</i>

ESD Test Table with VCP & HCP



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