



# ONYX

## Electrostatic Discharge ESD Simulator



■ The **ONYX** is a state of the art electrostatic discharge simulator available in 16kV or 30kV versions. It is the most ergonomic 30kV ESD gun **without an additional base control unit** that can be battery or mains operated. The easy to use touch screen, ergonomic design, modular RC units, multilingual interface, remote control software, built-in LED light and temperature & humidity display allows for trouble-free use of the ONYX in all types of test sites.

■ The **smart key** button, integrated into the trigger button has various functions that can be defined by the user including polarity switching, LED light, counter reset, voltage stepping up/down and others.

■ The ONYX also features a unique **self test** which verifies all of the main components of the unit are working correctly. This ensures that accurate and reliable tests are performed every time the gun is used.

■ See more details at [www.haefely-onyx.com](http://www.haefely-onyx.com)

### APPLICATIONS

Full compliance and pre-compliance testing to a wide variety of Standards:

- ☑ IEC/EN 61000-4-2 Edition 2 (2009)
  - ☑ IEC/EN 61326
  - ☑ IEC/EN 61000-6-1 & -6-2
  - ☑ IEC 61340-3-1
  - ☑ ISO 10605
  - ☑ GMW 3097
  - ☑ Ford AB/AC
  - ☑ ANSI C63.16
  - ☑ PSA B21 7110
  - ☑ ISO 14304
  - ☑ ITU-T K.20
  - ☑ MIL-STD-331/-464/-750/-883/-1512/-1514/-1541/-1542
  - ☑ RTCA/DO-160
  - ☑ JEDEC 22-A114
  - ☑ GR-78-CORE
  - ☑ GR-1089-CORE
- and others

### BENEFITS

**Flexibility** – enables users to meet many different test specifications with maximum cost effectiveness.

**Quick and simple** – one touch operation and simple on screen menu structure.

**Mobility** – the most ergonomic 30kV ESD gun on the market without an external base control unit.

**Reliable and economical** – A Swiss made product, reliability, service and support in a budget-friendly package.

### FEATURES

- User defined 'smart key' function
- Touch screen interface
- Ergonomic design
- All-in-one design (no base unit)
- Predefined tests according to Standards
- Define, store and load tests
- User changeable RC networks
- Automatic polarity switching
- Remote control
- Battery or mains operation
- Multilingual

## TECHNICAL SPECIFICATIONS

Air Discharge Voltage	1 .. 16kV or 1 .. 30kV
Cont. Discharge Voltage	1 .. 16kV or 1 .. 30kV
Discharge Repetition	Single/0.1/0.2/0.5/1/2/5/10/20Hz
Discharge Counter	1 .. 9999
Default R/C – Network	150pF / 330Ω
Dimensions W x H x D	290 x 270 x 110mm

Voltage Resolution	100V steps
Discharge Polarity	Positive & Negative
Operating Modes	Single & Continuous
Battery Life	> 16hrs
Power Consumption	17VA
Weight	1.7kg

## SCOPE OF SUPPLY

ONYX ESD simulator in carrying case including:  
 Test tip air discharge, Test tip contact discharge, 2 rechargeable battery packs, Ground cable, Battery charger unit incl. Mains adaptor set, R/C module 150pF/330Ω acc. IEC 61000-4-2, Quick start guide, Manual on CD, Calibration certificate

**ONYX 30** Order code 2499982

**ONYX 16** Order code 2499980



## OPTIONS AND ACCESSORIES

### R/C Modules

Pulse shape forming modules:

2490203	150pF / 330Ω	(IEC 61000-4-2)
2490204	150pF / 2kΩ	(ISO 10605)
2490205	330pF / 2kΩ	(ISO 10605)
2490206	330pF / 330Ω	(ISO 10605)
2490207	100pF / 1.5kΩ	
2490208	150pF / 150 Ω	
2490209	500pF / 500 Ω	
2490210	500pF / 5kΩ	
2490211	50pF..1nF / 50Ω ..5kΩ	(custom)



### Verification Set

2499971

For wave shape verification according to IEC/EN 61000-4-2. Including:  
 2Ω Target, 4GHz Attenuators, Coax cable, User manual



### 30kV AD Tip

2490212

For air discharge testing up to 30kV



### Fast Rise Time Tip

24902131

Increases the rise time of the ESD voltage pulse for reliability testing



### Accredited Calibration

2499981

Accredited calibration according to ISO/IEC 17025 requirements

### HCP

2496881

Horizontal Coupling Plane 1.6m x 0.8m for indirect application of the ESD. Includes cable with 2 integrated 470kΩ HV-resistors

### Mains Adaptor

2490214

Power supply replaces the rechargeable battery pack for continuous testing

### VCP

2495581

Vertical Coupling Plane 0.5m x 0.5m, for indirect application of the ESD. Includes cable with 2 integrated 470kΩ HV-resistors

### Remote Control

2490216

Fibre optical RS 232 interface for remote control of ESD gun and control software

### Test Table

2496871

Table 160 x 80cm, made of wood without any metallic parts, as required by IEC 61000-4-2

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