



MAIN FEATURES

- Air- and contact-discharge up to 30 kV
- Color touch panel control
- Discharges up to 25 Hz
- Various easy-to-change R/C-networks available
- Switchable Bleed-Off function
- Built-in activity log
- Optional battery tested to 30'000 pulses @30 kV

esd NX30 Series 30 kV ESD simulator

Electrostatic discharges either from a human body to any other part or between two different objects can cause persistent disturbances or even destruction to sensitive electronics or controls. Voltages of several 1'000 volts are generated.

The esd NX30 is a test generator to simulate ESD pulses at higher voltages up to 30 kV in both air and contact discharge mode. It therefore satisfies requirements exceeding the EN/IEC 61000-4-2 test levels and complies to automotive test applications according to ISO 10605.

The esd NX 30 consists of a base station with power mains connection and a separate discharge unit, the esd gun. Depending on the model, the base station contains a powerful battery. It allows power mains cord independent testing, more than 30'000 discharges can be generated without recharging the battery.

The menus shown at the color touch display are clearly structured and easy to understand. For compliant testing the required test levels can be called up in the test menu.

The esd.control software tool includes a large library of international and manufacturer esd test standards. Using a fibre optical cable, the desired test standards can be uploaded and stored at the esd NX30. Up to eight different test routines can be stored at the generator at the same time. The software also allows you to generate a test report of performed testing. Software and remote interface are only available for the esd NX30 model.

Scope of delivery

esd NX30	-Discharge unit / gun -Base station incl. battery pack -Power mains adapter -AD / CD discharge tip, discharge sphere 25 mm -Ground return cable 2 m -Discharge network 150 pF / 330 Ω -Cradle
esd NX30-auto	-Same as esd NX30 + Discharge network 150 pF / 2000 Ω + Discharge network 330 pF / 330 Ω + Discharge network 330 pF / 2000 Ω
esd NX30.1	-Discharge unit / gun -Base station incl. power mains adapter -AD / CD discharge tip -Ground return cable 2 m -Discharge network 150 pF / 330 Ω
esd NX30.1-auto	-Same as esd NX30.1 + Discharge network 150 pF / 2000 Ω + Discharge network 330 pF / 330 Ω + Discharge network 330 pF / 2000 Ω

Specifications

Parameter	esd NX30	esd NX30.1
Air discharge voltage	200 ... 30'000 V $\pm$ 5 %	
Contact discharge voltage	200 ... 30'000 V $\pm$ 5 %	
Holding time	> 5 s (voltage drop max. -5%)	
Frequency / repetition	0.5, 1 ... 20 Hz in 1 Hz steps; 25 Hz (only air discharge) Free / period: 0.04 ... 300 s in 0.01 s steps	
Polarity	pos / neg / alternating	
Operating modes	single / continuous	
Counter	0 ... 9'999	
Threshold detection	Yes	No
Discharge tips	exchangable, ball and point according to ISO 10605, additional 25mm discharge sphere	exchangable, ball and point according to ISO 10605
Display	Color touch screen	
Power supply	NiHM battery, 2080mAh; power mains	Only power mains
Number of discharge with battery	30'000 @ 30kV	n/a
Built-in bleed off	Yes, switchable	Yes, switchable
External bleed off option	Yes	No
Remote interface	Yes, fiber optik link to USB	No
Remote control software	Yes, esd.control	No
Interlock	Yes	No
Remote Trigger	Yes	No
EUT Fail	Yes	No
Self calibration	Yes, any time, after power up	Yes, but only after power up
R/C module detection	Yes	No
Storing user tests	Yes	No
Auto shut off	After 15 minutes idle time (no loss of test parameters)	
Power mains (base station)	Input: 100 ... 240 VAC, 1.4 A max., 50 ... 60 Hz; Output: 24 VDC, 2.71 A	
Weight (base station)	approx. 6.5 kg	
Weight gun incl. discharge network	approx. 1'250 g	
Dimension	Base station: 170 x 360 x 140 mm Discharge gun: 85 x 270 x 260 mm	
Operating temperature	+5 ... +40°C	
Humidity	20 ... 80 %, non condensing	
Athmospheric pressure	860 ... 1'060 mbar	

Accessories

CTR 2	Calibration target 2 Ω
CTR 2-AD	Calibration adapter for CTR 2
VCP	Vertical coupling plane
EAS 30-xx	External grounding set, 2x 470 k Ω / 0.8, 1.5, 2 m
CSL 200	Field coupling fixture (e.g. according to ISO 10605 Ed.3 2023)
OptoLink ESD 2	Opto to USB interface, 3m, for remote control
esd.control	Remote control software for control and report
More discharge networks	Ask our sales for more available discharge networks