

# ESD NX30

## ELECTROSTATIC DISCHARGE SIMULATOR UP TO 30 KV



### FOR TESTS ACCORDING TO ...

- › IEC 61000-4-2
- › ISO 10605
- › BMW GS 95002 (2010)
- › BMW 600 13.0 (Part 2)
- › DaimlerChrysler DC-10613
- › DaimlerChrysler DC-10614
- › DaimlerChrysler DC-11224
- › Ford EMC-CS-2009.1
- › Ford FMC1278
- › GMW 3097
- › GMW 3100
- › Hyundai/Kia ES 96100-02 (2006)
- › IEC 61326
- › JASO D001-94
- › Mazda MES PW 67600
- › AV EMV
- › MIL STD 461 G CS 118
- › Mitsubishi ES-X82010
- › Nissan 28401 NDS 02
- › Porsche









### ESD NX30 - GENERATES ESD PULSES ACC. TO EN/IEC 61000-4-2 AND ISO 10605

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. esd NX30 is an ESD tester 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.

### HIGHLIGHTS

- › Test voltage up to 30 kV for air and contact discharge
- › Color touch display
- › Discharges up to 25 Hz
- › 80 easy-to-change R/C-networks and tips
- › Switchable Bleed-Off function
- › Built-in activity log
- › AC mains supply and DC supply
- › Battery tested to 30,000 pulses @30 kV

### APPLICATION AREAS

- |   |  |
|---|--|
|  AUTOMOTIVE  |  COMPONENTS       |
|  INDUSTRY    |  TELECOM          |
|  MEDICAL     |  RENEWABLE ENERGY |
|  BROADCAST   |  MILITARY         |
|  RESIDENTIAL |  AVIONICS         |

## TECHNICAL DETAILS

### MODEL OVERVIEW

AVAILABLE ESD NX30-MODELS	
ESD NX30	<ul style="list-style-type: none"> <li>- high voltage base unit with</li> <li>- built-in battery pack</li> <li>- discharge gun</li> <li>- Interface, Interlock</li> <li>- 150 pF/330 Ohm discharge network</li> <li>- self calibration</li> <li>- carrying case</li> </ul>
ESD NX30.1	<ul style="list-style-type: none"> <li>- high voltage base unit</li> <li>- discharge gun</li> </ul>
ESD NX30-AUTO	<ul style="list-style-type: none"> <li>- ESD NX30 Unit</li> <li>- ISO 10605 discharge networks</li> <li>- 150 pF/2000 ohm</li> <li>- 330 pF/2000 ohm</li> <li>- 330 pF/330 ohm</li> <li>- 150 pF/330 Ohm</li> </ul>

### TECHNICAL DETAILS

TEST LEVEL	
Contact discharge	200 V - 30,000 V $\pm$ 5 %
Air discharge	200 V - 30,000 V $\pm$ 5 %
Resolution	100 V steps
Holding time (AD)	More than 5 s

OUTPUT	
Contact Discharge Pulse	per EN/IEC 61000-4-2 Ed.2, per ISO 10605 Ed.2 150 pF/330 ohm
Rise time	0.8 ns +/- 25%, 0.7 ns - 1 ns
First peak current value	7.5 A $\pm$ 15 % @2 kV 15 A $\pm$ 15 % @4 kV 22.5 A $\pm$ 15 % @6 kV 30 A $\pm$ 15 % @8 kV
Current value at 30ns	4.0 A $\pm$ 30 % @2 kV 8.0 A $\pm$ 30 % @4 kV 12.0 A $\pm$ 30 % @6 kV 16.0 A $\pm$ 30 % @8 kV
Current value at 60ns	2.0 A $\pm$ 30 % @2 kV 4.0 A $\pm$ 30 % @4 kV 6.0 A $\pm$ 30 % @6kV 8.0 A $\pm$ 30 % @8 kV

### TECHNICAL DETAILS

TRIGGER	
Single pulse	Release of a single pulse
Multiple pulses	Continuous air discharge up to 25 Hz, contact discharges up to 20 Hz, random discharges
Counter	0 - 9,999 for discharge pre-selection

### BASE STATION

ESD NX30	
HV power supply	Up to 30 kV DC
Built-in Battery	Approx. 30 k discharges; Battery is automatically recharged when connected to AC mains supply
Interface	Optical and interlock
Self calibration	after power on, by user any time

ESD NX30.1	
HV power supply	Up to 30 kV DC
Self calibration	after power on

## TECHNICAL DETAILS

### DISCHARGE GUN

DISCHARGE GUN	
Controls	Color touch display
Test level	200 V to 30,000 V
Polarity	Positive, negative, alternating, selectable
Discharge mode	Air or Contact discharge, selectable
Discharge tip	Point and ball type

### ACCESSORIES

ACCESSORIES (INCLUDED)	
Discharge tips	for AD and CD
Discharge sphere 25 mm	included for ESD NX30
Grounding lead	2 m
Test certificate	included
User Manual	included

### GENERAL

GENERAL	
Weight	Approx. 6.5 kg (Base Station)
Weight	Approx. 1,250 g (discharge gun)
Supply voltage	AC: 100 V - 240 V, 50/60 Hz
Input Power	130 VA max.

### ENVIRONMENT

Temperature	5 °C to 40 °C
Humidity	20 % to 80 %, non condensing
Atmospheric pressure	86 kPa (860 mbar) to 106 kPa (1,060 mbar)

### OPTIONS

DISCHARGE MODULES	
RCN30 150-330	150 pF/330 Ohm discharge network
RCN30 150-2000	150 pF/2000 Ohm discharge network
RCN30 100-1500	100 pF/1500 Ohm discharge network
RCN30 330-330	330 pF/330 Ohm discharge network
RCN30 330-2000	330 pF/2000 Ohm discharge network
RCN30 150-150	150 pF/150 Ohm discharge network
RCN30 x-x	A large range of 80 RC networks, custom networks available from 0 ohm to 20 kohm, up to 2 nF

### OTHER OPTIONS

VCP	Vertical coupling plane
EAS30	Grounding resistors 2 x 470 kOhm
CSL 200	Field coupling plane and field coupling strip as per ISO 10605, Annex F and DC-11224 for ESD powered-up test of electronic modules,
OptoLink	Fiber optic link between dito and PC (USB port) fitted with USB A connector, length 3 m or 6 m, max. baud rate of 19,200.
Other Tips	H-field and E-field, flexible air and contact discharge tips, extensions for testing in dangerous environments (airbags, etc) and more.

# COMPETENCE WHEREVER YOU ARE



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Information about scope of delivery, visual design and technical data correspond with the state of development at time of release. Subject to change without further notice.