

# ESD 30N

## ELECTROSTATIC DISCHARGE SIMULATOR UP TO 30KV



### FOR TESTS ACCORDING TO ...

- › BMW 600 13.0 (Part 2)
- › BMW GS 95002 (1999)
- › DaimlerChrysler DC-10613
- › DaimlerChrysler DC-10614
- › DaimlerChrysler DC-11224
- › EN 61000-4-2
- › Ford EMC-CS-2009.1
- › Ford ES-XW7T-1A278-AB
- › Ford ES-XW7T-1A278-AC
- › GMW 3097
- › GMW 3097 (2001)
- › GMW 3097 (2004)
- › GMW 3097 (2006)
- › GMW 3100
- › GMW 3100 (2001)
- › Hyundai/Kia ES 96100-02 (2006)
- › IEC 61000-4-2
- › IEC 61326
- › ISO 10605
- › JASO D001-94
- › Mazda MES PW 67600
- › ...

### ESD 30N - GENERATES ESD PULSES ABOVE EN/IEC 61000-4-2 TEST LEVELS











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 30N is an ESD tester to simulate ESD pulses at higher voltages up to 30kV 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 30kV for air and contact discharge**
- › **Discharges up to 20Hz**
- › **Easy-to-change R/C-networks and tips**
- › **Bleed-Off function**
- › **Measurement of temperature and humidity**
- › **AC mains supply and DC supply**
- › **Battery operated**
- › **External trigger function**

### APPLICATION AREAS

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

## TECHNICAL DETAILS

### TEST LEVEL

Test voltage	200V - 30,000V $\pm$ 5% for contact discharge
	200V - 30,000V $\pm$ 5% for air discharge
Resolution	100V steps
Holding time (AD)	More than 5s

### MAINFRAME ESD 30N

HV power supply	Up to 30kV DC
Battery	Approx. 1 hour operation; Buffer battery is automatically recharged when connected to AC mains supply
Interface	USB to control the ESD generator and to download pre-programmed test routines from esd.control

### DISCHARGE UNIT P 30N

	Hand held discharge unit
Controls	2 function keys and one control wheel
Display	Graphic LCD display
Test level	200V to 30,000V
Polarity	Positive, negative; selectable
Discharge mode	Air or Contact discharge, selectable
Discharge tip	Point and ball type
Indicators	Integrated sensor to measure temperature and rel. humidity

### TRIGGER

Single pulse	Release of a single pulse
Multiple pulses	Continuous discharge up to 20Hz
Counter	0 - 9,999 for discharge pre-selection

### OUTPUT

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

### GENERAL

Weight	Approx. 5.1kg (ESD 30N control unit)
Weight	Approx. 1,250g (P 30N discharge gun)
Supply voltage	AC: 88V - 264V, 50/60Hz DC: 11V - 16VDC
Fuses	2x 0.5A T

### ACCESSORIES (INCLUDED)

	Discharge tips for AD and CD
	Grounding lead 2m
	Test certificate and instruction manual

**TECHNICAL DETAILS**

OPTIONS (NOT INCLUDED)	
RCN 1	150pF/330 Ohm discharge network
RCN 2	150pF/2000 Ohm discharge network
RCN 3	330pF/2000 Ohm discharge network
RCN 4	100pF/1500 Ohm discharge network
RCN 5	330pF/330 Ohm discharge network
RCN 6	150pF/150 Ohm discharge network
RCN x	Customer specific discharge network
P 30N-30	30mm discharge electrode
VCP	Vertical coupling plane
EAS30	Grounding resistors 2 x 470kOhm
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, requires EAS 30
esd.control	Remote control and documentation software for ESD testing. Supports the creation of test plans and download of related test sequences into the ESD generator
OptoLink	Fiber optic link between dito and PC (USB port) fitted with USB A connector, length 3m or 6m, max. baud rate of 19,200.

# 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. Technical data subject to change without further notice.