

# ESD NX30

## ELECTROSTATIC DISCHARGE SIMULATOR UP TO 30 KV



### FOR TESTS ACCORDING TO ...

- > BMW 600 13.0 (Part 2)
- > BMW GS 95002 (2010)
- > DaimlerChrysler DC-10613
- > DaimlerChrysler DC-10614
- > DaimlerChrysler DC-11224
- > EN 61000-4-2
- > Ford EMC-CS-2009.1
- > Ford ES-XW7T-1A278-AC
- > Ford FMC1278
- > 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 NX30 - 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 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>- 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>

### 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

#### 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

#### OUTPUT

Contact Discharge Pulse	As per EN/IEC 61000-4-2 Ed.2, 150 pF/330 ohm
Rise time	0.8 ns +/- 25%
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

### 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

### 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
25 mm discharge sphere
Grounding lead 2 m
Test certificate
user manual

**TECHNICAL DETAILS**

**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



## CONTACT EM TEST DIRECTLY

### Switzerland

EM TEST (Switzerland) GmbH > Sternenhofstraße 15 > 4153 Reinach > Switzerland  
 Phone +41 (0)61/7179191 > Fax +41 (0)61/7179199  
 Internet: www.emtest.ch > E-mail: sales.emtest@ametek.com

### Germany

AMETEK CTS Germany GmbH > Lünener Straße 211 > 59174 Kamen > Deutschland  
 Phone +49 (0)2307/26070-0 > Fax +49 (0)2307/17050  
 Internet: www.emtest.com > E-mail: info.cts@ametek.de

### France

EM TEST FRANCE > Le Trident - Parc des Collines > Immeuble B1 - Etage 3 > 36, rue Paul Cézanne > 68200 Mulhouse > France  
 Phone +33 (0)389 31 23 50 > Fax +33 (0)389 31 23 55  
 Internet: www.emtest.fr > E-mail: info@emtest.fr

### Poland

EM TEST Polska > ul. Ogrodowa 31/35, 00-893 Warszawa > Polska  
 Phone +48 (0)518 64 35 12  
 Internet: www.emtest.com/pl > E-mail: infopolska.emtest@ametek.com

### USA / Canada

AMETEK Compliance Test Solutions > 52 Mayfield Ave. > Edison > NJ 08837  
 Phone +1 (732) 417-0501  
 Internet: www.emtest.com > E-mail: sales.emtest@ametek.com

### P.R. China

E & S Test Technology Limited > Rm 913, Leftbank > No. 68 Bei Si Huan Xi Lu > Haidian District > Beijing 100080 > P.R. China  
 Phone +86 (0)10 82 67 60 27 > Fax +86 (0)10 82 67 62 38  
 Internet: www.emtest.com > E-mail: info@emtest.com.cn

### Republic of Korea

EM TEST Korea Limited > #405 > WooYeon Plaza > #986-8 > YoungDeok-dong > Giheung-gu > Yongin-si > Gyeonggi-do > Korea  
 Phone +82 (31) 216 8616 > Fax +82 (31) 216 8616  
 Internet: www.emtest.co.kr > E-mail: sales@emtest.co.kr

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.