



NSG 437 ESD SIMULATOR **ESD TESTING, CLEAR AND SIMPLE**



- **Air- and contact-discharge to 30 kV**
- **Color touch panel control**
- **Advanced voltage-hold feature**
- **Activity log**
- **Light version with uncompromising test performance**
- **Compliant with a huge range of OEM and international standards**
- **Easily and quickly interchangeable discharge networks**
- **Discharge detector**

Ergonomic design and advanced functionality. The NSG 437 ESD simulator is designed to sit comfortably in the operator's hand, with operating conditions constantly displayed and accessible on a bright, clear color touch display.

NSG 437 comprehensively fulfills virtually all international standard requirements. Based on over 60 optional discharge networks, the NSG 437 can meet any of today's automotive manufacturers' standards.

The simulator is simple, convenient and safe to use. The whole range of parameter settings including polarity selection, freely adjustable pulse repetition, counter functions and discharge detection is available up to the maximum discharge voltage.

The color touch display and keypad for parameter input shows the precise functional and test data with user-selectable language for convenient and safe operation worldwide. The simulator contains variable threshold selection for accurate discharge detection. This detection feature can be switched off when testing EUT's with non-conductive surfaces, such as plastic housings. Pre-programmed settings for IEC 61000-4-2 and ISO 10605 ensure that the simulator is automatically set up correctly and the appropriate discharge network is installed. The actual RC value is displayed at all times. Molded HV discharge networks in solid cases eliminate ionization and leakage current effects. Precisely tuned combinations of RC components guarantee wave shape parameters to be within tolerances. A unique activity log is included so that the types and numbers of ESD simulations can be easily scrolled through to check what has been tested and in what timeframe.

The simulator is recalibrated and adjusted at every start. Additional features include freely adjustable pulse repetition rate, a special random generator function and an optional charge remover for discharging the EUT.

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Technical specifications

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| Description: | Compact ESD simulator with microprocessor based, large touch-sensitive LCD panel, built-in HV relay for contact-discharge, mains operation |
| Basics: | Discharge pistol, high voltage base unit, mains power supply adapter, (100 to 250 VAC), discharge network 150 pF / 330 Ω, air- and contact-discharge tips, grounding cable, user manual |
| Pulse networks: | Network 150 pF / 330 Ω as per IEC/EN 61000-4-2 and ISO 10605 (included) Optional ISO 10605 networks 330 pF / 330Ω 150 pF / 2 kΩ and 330 pF / 2 kΩ Range of RC-networks for other standards: R = 0 Ω to 20 kΩ C = 50 to 2000 pF |
| Discharge: | Air-discharge: 200 V to 30 kV (in 100 V steps) Contact-discharge: 200 V to 30 kV (in 100 V steps) |
| Discharge tips: | Ball and point as per IEC and specials; exchangeable by threaded cap |
| Charging voltage measurement: | kV, accuracy better than ±5% (stabilized) |
| Discharge detection: | Air-discharge only: indicated by the kV symbol being displayed in inverse, also acoustically in the single's operating mode. Threshold level on / off. |
| Holding time: | > 5 s (charging voltage ±5%) |
| Charge resistor: | 50 MΩ |
| Triggering: | Trigger button in hand-grip |
| Operation: | Via touch panel and microprocessor |
| Discharge modes: | Air-discharge / contact-discharge |
| Polarity: | Positive, negative / automatic change |
| Operating modes: | Single / repetitive, Pulse counter 0 to 9999 Pre-select counter 0 to 9999 Repetition: - 0.5 / 1 / 5 / 10 / 20 or 25 Hz (air) - 0.5 / 1 / 5 / 10 or 20 Hz (contact) - Continuous operation |
| Auto-shut-off: | After 15 minutes idle time (without loss of the test parameters) |
| Display: | LCD panel showing: charging voltage, breakdown event, polarity, air- / contact-discharge, counter / preselect counter content |
| Weight: | Discharge pistol (w/o cable): 1.2 kg (2.6 lbs) approx. Base unit: 5.7 kg (12.6 lbs) approx. |
| Ambient conditions: | Operation: +5 to +40°C 20 to 80% r.h. (non-condensing) 68 to 106 kPa |