ESD Simulator System

NSG 432

- **Tests to standards such as IEC, ANSI-IEEE, VDE, NAMUR,**
- **MIL, ISO and SAE**
- **Contact discharge adapter**
- **Mains or battery powered options available**

For very high voltage discharges, such as might be required to meet military specifications or for special applications, the NSG 432 ESD simulator system from Schaffner can be used to generate electrostatic discharges up to 25kV.

The NSG 432 is a compact, hand-held instrument, with a range of high voltage discharge networks for testing to various standards, including IEC 61000-4-2. There is also a power supply, a power supply with preset counter, a mains independent battery pack, a contact discharge adapter and a range of accessories.

The high voltage discharge network appropriate to a particular application is simply fitted on to the lightweight, robust housing. A multi-turn potentiometer is used to set the discharge voltage, which is then clearly displayed on an LCD and a toggle switch sets the operating mode to single pulse or repetitive 20Hz pulsing. The pulse trigger is built into the hand grip. For multiple discharge testing, a tripod mount is available.

Technical Specifications

	NSG 432
Discharge voltage V0 (air discharge)	2 - 25kV (0.2 - 2.5kV optional)
Discharge voltage V0 (with contact discharge adapter)	2 - 9kV
Polarity	positive / negative
Discharge - network - standard	150pF ±10%
Discharge - network - special	150pF/330Ω as per IEC 61000-4-2
Operating modes	interchangeable networks to conform with other standards
Test finger	conforms to IEC 61000-4-2
Max discharge energy	350mJ (47mJ at 150pF)
Rise time (air-discharge)	<1ns for voltages ≤8kV
Rise time (with contact discharge adapter)	0.7 - 1ns
First current peak (with contact discharge adapter) at a voltage set to:	
2kV	7.5A ±10%
4kV	15A ±10%
6kV	22.5A ±10%
8kV	30A ±10%
Current pulse shape	conforms to IEC 61000-4-2
Voltage indication tolerance (LCD)	±5%
Holding time	>5s
Charging resistor RCh	100MΩ