

NSG 225A Burst simulator

- *Test in conformity with IEC 801-4*
- *Test classes I to IV*
- *Built-in coupler*

Inductively loaded mechanical switches, relays, etc. produce interference signals in the form of pulse bursts. The pulses have a fast rise time and hence generate a wide interference spectrum extending to over 200MHz to which digital and analogue electronic circuits are particularly sensitive. The summing effect of a burst of pulses serve to increase the demand for interference immunity for analogue circuitry.

Important Standards, such as the IEC 801-4, VDE 0843/4 and CENELEC HD 481/4 define the necessary interference immunity for various categories of instrument. The burst test are relevant not just to the mains connections but also to data and control lines.

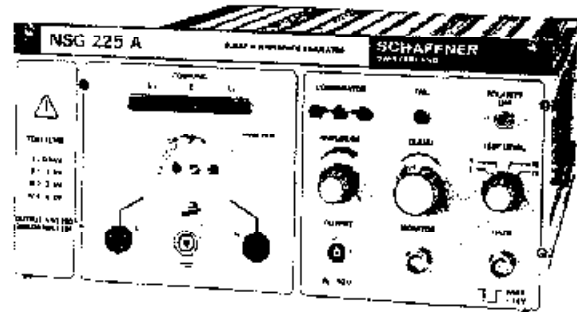
Technical specifications

Pulse data (unloaded)*

Test level	I	II	III	IV	Tot.
Amplitude	500 V	1000 V	2000 V	4000 V	± 10 %
Burst frequency	5 kHz	5 kHz	5 kHz	2.5 kHz	± 20 %

Rise time t_r	5 ns ± 30 % into 50 Ω
Pulse duration t_p	50 ns ± 30 % into 50 Ω
Burst duration t_{burst}	15 ms ± 20 %
Repetition t_{rep}	300 ms ± 20 %
Polarity	pos / neg
Generator impedance	50 Ω ± 20 % (dynamic)
Pulse output	HV coaxial connector
Coupling	1-phase mains coupling L1 => Reference earth L2 => Reference earth SL => Reference earth L1 und L2 => Ref. earth L1 und L2 und SL => R. earth

Cross talk attenuation	> 30 dB (between lines)
Monitor Gate	for pulse rate measurement pulse inhibit



The NSG 225A generator simulates these pulse bursts for the specified test classes. The pulse is superimposed on the EUT supply via an incorporated single phase coupler so that the EUT can be connected directly to the built-in mains socket.

The pulses are also available at a HV output for connection to auxiliary devices for coupling into 3-phase supplies, data lines, etc.

Standards

IEC 801-4	CENELEC HD 481/4
NAMUR (1988)	VDE 0843/4
etc.	

Dimensions	270x130x340mm (10.62 x 5.12 x 13.39")
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Weight	3.9kg or 8.6 lbs approx.
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Optional accessories

400-071	Coupling clamp conforming to IEC 801-4
402-379	Attenuator 6dB, for coupling clamp
GDN 300	3-phase FT/burst coupler
NSG 426	Coupler unit for data lines
400-063	Coupling clamp, small, for use with NSG 426
402-378	Attenuator 100:1, for pulse measurements
156-154	HV coaxial plug
402-227	Universal safety connectors (set of 3 items)