

Pulse Generator

PG 01- 2000



- ◆ Wave form 0,1 / 2000 μ s
- ◆ Test voltage 4 kV – 10 kV

Refer

to the forum “network technology / network operations in the German VDE” (FNN).
FNN “Guide for evaluating the reliability of electricity meters and measuring stability and additional facilities”

Introduction

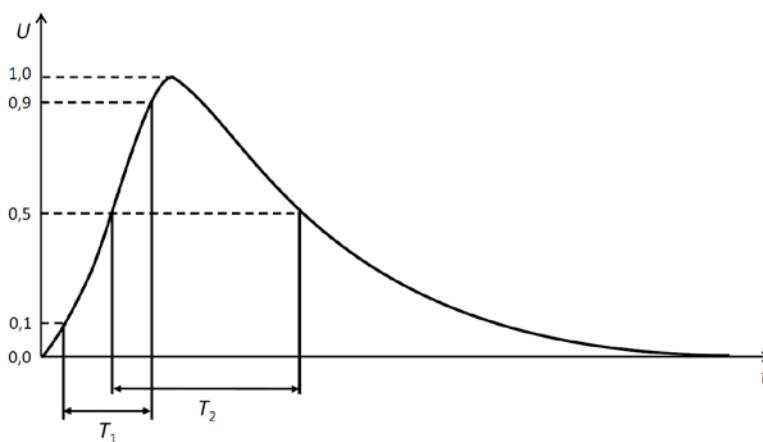
The test generator PG 01-2000 is suitable for insulation test and testing of the impulse withstand voltage of electrical and electronic electricity meters. The generator produce a standard pulse voltage waveform with the 0,1 / 2000 μ s. Using the 1000:1 build-in divider can easily checked the voltage pulse.

The forum “network technology / network operations in the (German) VDE (FNN) has dealt with the issue of reliability of electricity meters and defines appropriate test methods.

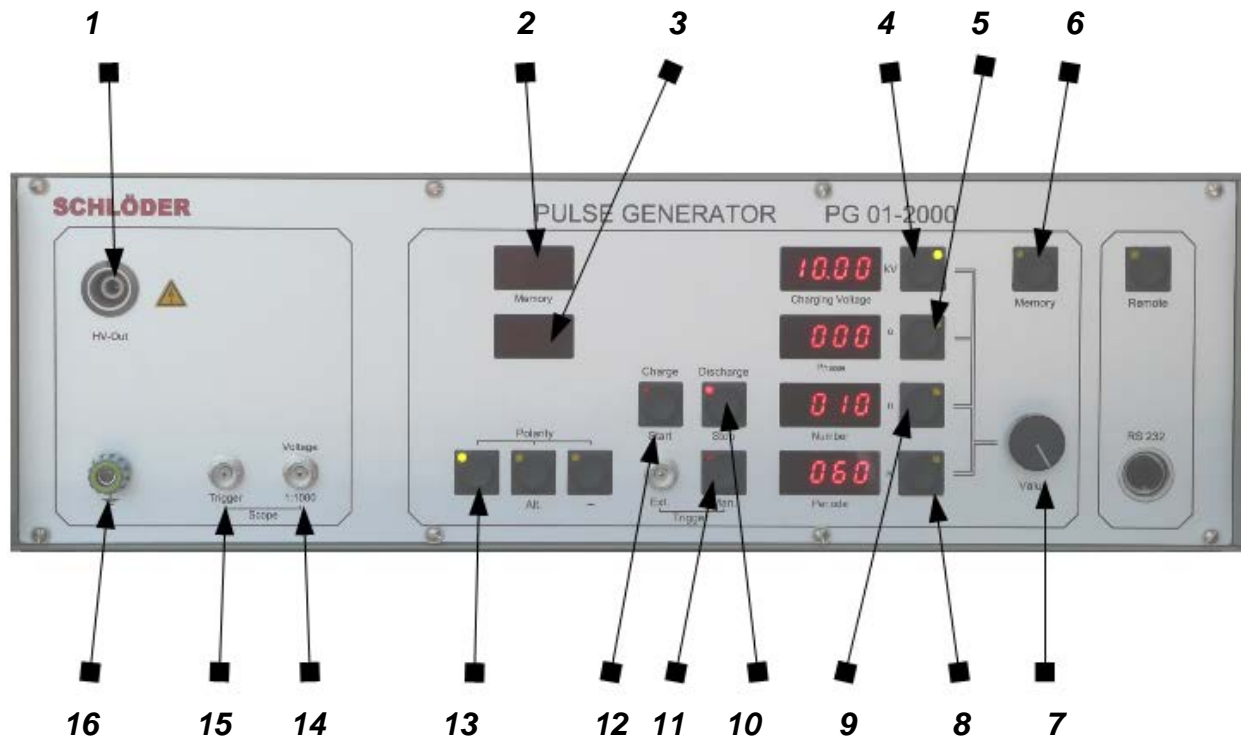
The requirements for the test generator PG 01-2000 are described in Chapter 3.7.1 of the FNN “Guidelines for the evaluation of measurement reliability and stability of electricity meters and ancillary equipment.”

With a memory function up to 25 settings can be stored and recalled.

Pulse definition



T_1 = Rise time 0,1 μ s
 T_2 = Pulse width 2000 μ s



Technical Data

[4]	Nominal voltage	4,0 - 10,0 kV	[10]	Discharge	Discharge of the storage capacitor / STOP
[4a]	Pulse form	Rise time 0,1 μ s Pulse width 2000 μ s Load \geq 20 MOhm	[12]	Charge	Charge of the storage capacitor
[4b]	Pulse form	With load 50 Ohm Voltage = 50% U of 4a Pulse width 2,773 μ s	[6]	Memory function	Select test level with [7], max. 25 memory set up's possible.
[13]	Polarity	Positive, negative, alternating	[2]	Display Memory	>rcl< >Sto< >clr<
◆	Energy of the source	1 Joule – at 7 kV	[3]	Display Memory Space number:	1 – 25
◆	Source impedance	50 Ohm	[14]	BNC-jack for	voltage measurement 1V = 1 kV test voltage
◆	Charge time	\leq 5 seconds	[15]	BNC-jack for	scope triggering (TTL - level)
◆	HV- Output	[1] Reference to earth	[16]	Ground connection	Ground jack at front and rear panel
◆	Functions	[7] Adjustment by Poti for: • [2] Space number • [4] Test voltage • [5] Phase angle • [9] Number of pulses • [8] Repetition frequency	◆	Rear side	Short-circuit plug-in / jacks for external security circuit.
[11]	Trigger	Manual or external	◆	Electronic input	230 V / 50 Hz / 2,5 A
[5]	Phase angle for	$\varphi = 0 - 359^\circ$, step 1° main synchr. triggering	◆	Dimension	19" - housing, 3 HE
[9]	Number of pulses	1 - 999	◆	Weight	app. 10 kg
[8]	Repetition frequency	5 - 999 sec	◆	Calibration interval:	2 years - manufacturer recommendation
		[17] Release remote control via RS 232			
		[18] RS 232 - remote			