

Trigger generator 50 kV



This generator has been designed as a trigger source for Marx generators and for trigatrons (triggered spark gaps). It can replace the obsolete PT55 trigger generator as mechanical dimensions and attachment points are the same. The advantages of our generator are:

- Solid-state switch
- High repetition rate
- Long lifetime
- No need of gas
- No need of external high voltage power supply
- Can be triggered by a 5 V digital signal or by fibre optic

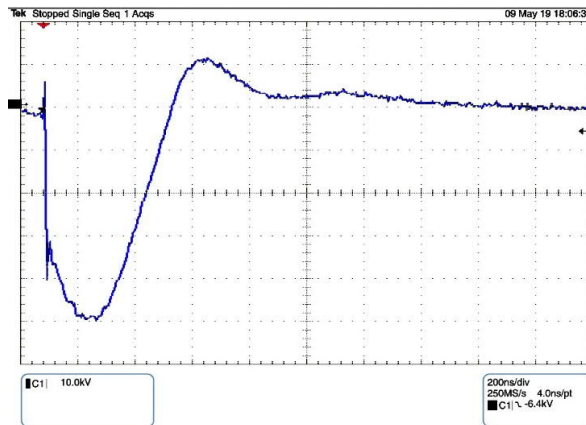


Figure 1: Output pulse waveform (10 kV/div - 200 ns/div)

SPECIFICATIONS

Type	GT50K
Peak output voltage	50 kV max, 40 kV min.
Polarity	negative or positive; see ordering information
Pulse rise time (10 - 90 %)	3 ns
Pulse duration	400 ns
Overall jitter	3 ns (std deviation)
Pulse repetition rate	0.4 Hz
Power supply	24 Vdc / < 100 mA
Trigger input (BNC)	5 V (30 V max)
Optical trigger input	820 - 850 nm, ST connector, multimode fibre
Control & power connector (DB9)	pins 2,3,4,5 = GND; pin 7 = HV_ON; pin 8 = ARM; pin 9 = Power (24V)
HV pulse output connector	threaded stud M8
Monitor output (BNC)	shunt 1000:1 / 50 Ω
Dimensions	17 x 17 x 17 cm (L x H x W)
Housing material	polypropylene, metallic front plate
Weight	4.6 kg

Other models upon request (for instance: higher output voltage or higher repetition rate).

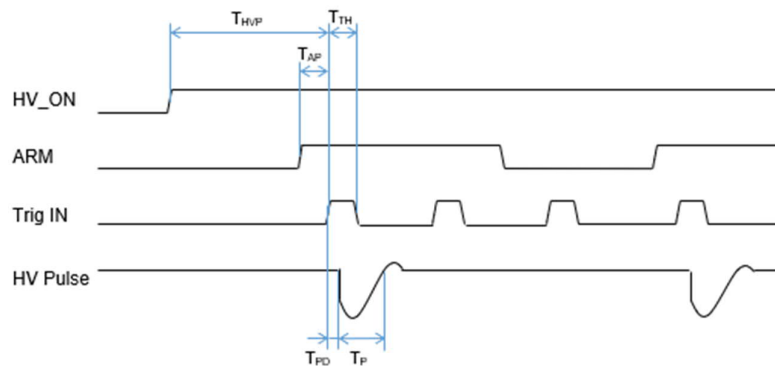
Front and rear views



Electrical ground connection points are available at the four corners of the metallic front panel.

A threaded stud (M8) located in the centre of the rear panel provides the high voltage output pulse.

Functional timing diagram



Ordering information

TYPE	DESCRIPTION
GT50KN-EL	trigger generator 50 kV, negative polarity, solid state switching
GT50KP-EL	trigger generator 50 kV, positive polarity, solid state switching