

Small-Size MCP-Pulse Generator



Pulse Generator μ G 3N

Applications

- Gating unit for MCP Image Intensifiers
MCP-PROXIFIER®

Features

- Gating time down to 3 ns
- Safe operation of gateable MCP image intensifiers
- Pulse following mode (TTL)
- 8 customised gating times, triggered by a TTL starting slope

Technical Data of Pulse Generator μ G 3N

	μG 3N
For gateable image intensifiers	BV 258...N BV 408...N
High-voltage power supply	not included
Shortest gating time	3 ns
Longest internal preset gating time ¹	1 ms
Gating times	8 factory-set gating times (to be defined by customer at PO placement, standard is 3ns, 10ns, 20ns, 50ns, 100ns, 200ns, 500ns, 1 μ s) and "pulse-following mode" (gate width follows trigger pulse width)
Photocathode voltage	-180 V (on) +80 V (off)
MCP voltage adjustment (with μDCU)	by 0..5V analog control voltage
Supply voltage	12 V _{dc} \pm 10%
Supply current for 12V input	80 mA (for 50 Hz pulse repetition rate) 420 mA (for 10kHz pulse repetition rate)
Trigger input	TTL (50 Ω)
Maximum trigger frequency	10 kHz
Internal trigger delay ²	ca. 65 ns
External trigger delay ²	ca. 35 ns
Jitter	< 1 ns
Minimum rise time 10 % ... 90 %	1.5 ns (load 54pF) 3 ns (load 228pF)
Minimum decay time 90 % ... 10 %	2 ns (load 54pF) 3 ns (load 228pF)
Maximum cable length to image intensifier to achieve minimum rise and decay time ³	120 mm
Demountable connection to image intensifier	Yes
Width	85 mm
Height	35 mm
Length	50 mm
Housing	Aluminum black anodized
Weight	ca. 250 g
External digital control unit μDCU (option)	Control of gating parameters, MCP gain and screen voltage, menu-driven with display, demo test mode, control of trigger parameters

1. Longer preset internal gating times are possible for an extra charge.
External TTL trigger signals can be of any period of time.
2. Exact data is measured and documented for each pulse generator.
3. Longer cables are possible but lead to longer rise and decay times of the gate pulses.