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MODELS 5GP10 &
5GP25 HV PULSERS
DATA SHEET 740

HV PULSERS

- { 10 or 25 KHz repetition rates
- { Fast rise times - 8ns (typ.)
- { AC or DC power supply options
- { OEM air-cooled package
- { Includes timing and diagnostic electronics
- { All solid state compact size



Models 5GP10 and 5GP25F HV Pulsers are designed for driving Pockels cells and E-O Q switches with repetition rates of 25 KHz @ 5 KV (5GP25F) or 20 KHz @ 3 KV and 10KHz at 5KV with Model 5GP10. Both come complete with timing and diagnostic electronics including an internal voltage controlled oscillator, HV disable and monitor functions. The negative output pulse voltage is equal to 95% of the HV supply voltage. The -6KV version reduces the max rep rates to 8.33 and 21KHz respectively. Applications include high repetition rate high average power Diode-Pumped Solid State (DPSS) lasers, pulse picking and gating of optical pulse trains as required for cutting, scribing and marking. The models are available in OEM air-cooled packages requiring HV and 325V vdc input from power supplies such as the PS 24-6005 and PS-24-6010 6KV power supplies.

SPECIFICATIONS

Output:	-4.75 KV (-5.7kv for 5GPXX-6KV) negative ground reference.
Rise/fall time:	8 nsec/3us (typical), 12ns max (leading)
Pulse width:	3 usec fixed at half power point
Repetition rate; 5GP10:	Single shot to 10 KHz, (5GP10); 20 KHz @ 3 KV
Repetition rate; 5GP25F:	Single shot to 25 KHz, (5GP25F) @ 5 KV
Voltage monitor:	1000:1, 200 Kohm source.
Trigger output timing:	200 nsec to 5 usec (screwdriver-adjustable) delay. (S)
Delay defeat:	35ns or adjustable delay switch. (S)
Input trigger:	3-15 Vp @ 1 Kohm
Pulse inhibit:	3-15 Vp @ 1 Kohm high level disables. (S)
Internal pulse rate control:	0 to 10 V level for 500 Hz to 10 KHz (S)
Pulse level control:	0 to 10 V level from 10% to max HV (S)
Trigger out:	Single shot to 10 or 25 KHz TTL, 50 Ohm. (S)
Trigger source select:	Accept or generate trigger select switch. (S)
Trigger rate select:	Remote/local trigger rate control switch. (S)
Trigger rate control:	Screwdriver adjust when in local mode.
Pulse level select:	Remote/local switch. (S)
Pulse level control:	Screwdriver adjust when in local mode. (S)
Input/output connector:	BNC/SHV
Load:	50 pF including 1.5 feet of RG59U cable
Transmittance:	96% typical with QC-10 pockels cell less polarizer.
Power requirement:	24VDC, 1A; 325V, 2mA; 6KV, 5mA or 10mA
Size:	5.52 x 9 x 2.52 in ³ (w x l x h).
External power supply option:	PS-24-6005, PS-24-6010, 100-240 VAC.
Power supply size:	7.52 x 9 x 2.52 in ³ (w x l x h).

Note: For OEM units, the (S) features may be eliminated per cost and customer request, please inquire.

The F suffix and the unit 5GP25F designates forced air cooling.