

PCD-P SERIES CAVITY DUMPER DRIVER



PCD-P has been designed for use in mode-locked lasers for cavity dumping or for cavity Q-switching of solid-state nanosecond lasers. Fast HV (less than

7 ns) edge ensures excellent pre- and post-pulse contrast. Two versions are available: PCD-PI and PCD-II.

SPECIFICATIONS

Model	PCD-PI	PCD-II
Maximum high voltage (HV) pulse amplitude	4.2 kV	5.2 kV
HV pulse fall time	< 7 ns	< 9 ns
HV pulse rise time	~0.1 ms	
HV pulse duration	from 5 to 100 μ s ¹⁾	
Maximum HV pulse repetition rate	3 kHz	2.5 kHz
Jitter	< 0.5 ns	
External triggering pulse duration requirement	100 – 1000 ns	
External triggering pulse amplitude requirement	3 – 5 V (50 Ω)	
External triggering pulse rise & fall time	< 20 ns	
HV pulse delay	35 – 40 ns	
External powering requirements:		
high voltage supply	4.4 kV, 0.2 mA max	5.5 kV, 0.2 mA max
low voltage DC supply	24 – 28 V, 50 mA max	
Size	100 x 50 x 40 mm	

¹⁾ According to customers request

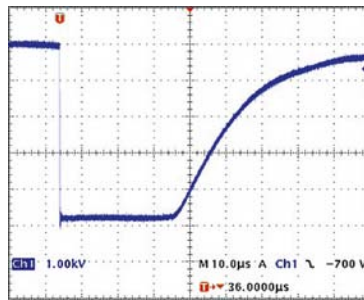


Fig. 1. Oscilloscope of PCD-P driver operation: whole HV pulse

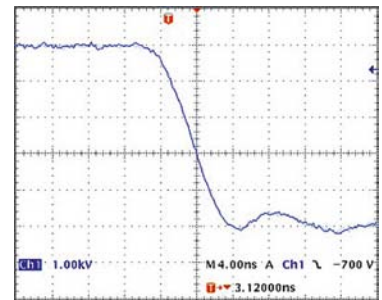


Fig. 2. Oscilloscope of PCD-P driver operation: HV pulse fall

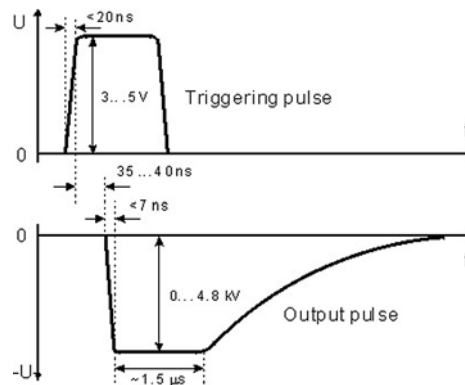


Fig. 3. Time diagram of PCD-P cavity dumping driver