

KD*P Pockels Cells

Low voltage, large aperture Q-switching devices

The KD*P Pockels cell is a laser modulation component based on the electro-optic effect of the DKDP crystal. The products can be divided into transverse and longitudinal types based on the direction of the electro-optical effect.

The transverse type KD*P Pockels cell operates with the direction of light propagation perpendicular to the electric field. We can control the number and size of electro-optical crystals, which can effectively reduce the operating voltage to the hundred-volt level and realize the MHz repetition frequency.

The longitudinal type products operate with the direction of light propagation parallel to the electric field. CASTECH's team has developed longitudinal KD*P Pockels cell with excellent optical uniformity, high extinction ratio and high transmittance.

CASTECH's KD*P Pockels cells are fully in-house manufactured and customizable to meet specific needs. Explore our standard product range below.



Applications

- Q-switching
- Regenerative amplifier
- Cavity dumping
- Beam chopper
- Pulse picker
- Optical power stabilizer

Model Number: Longitudinal Type- L a q-c-b- λ -h | Transverse Type DPH-a l q-b- λ -h

	Clear Aperture (a)	Cascade Type (q)	Electrode type (c)	Optional Accessories (b)	Wavelength (λ)	Housing (h)
Longitudinal	10 (10 mm) ...	S (Single) ...	P (Pin) ...	P (Polarizing prism) G (Glan prism) N (None) ...	1064 (1064 nm) ...	A01 ...
Transverse	5 (5 mm) ...	A (20 mm) B (25 mm) C (40 mm) ...	D (Double) Q (Four) ...			

Typical Specifications

Type	Clear Aperture*	Voltage Contrast Ratio	Capacitance @10 kHz	N/4 Voltage	Rise/Fall Time**	Cascade Type	Transmission
Longitudinal	8-15 mm	$\geq 1000:1$	6~12 pF	3.5 kV	<10 ns	Single	$\geq 98.5\%$
Transverse	3-5 mm	$\geq 500:1$	30~80 pF	<1 kV	<20 ns	Double	$\geq 98.0\%$

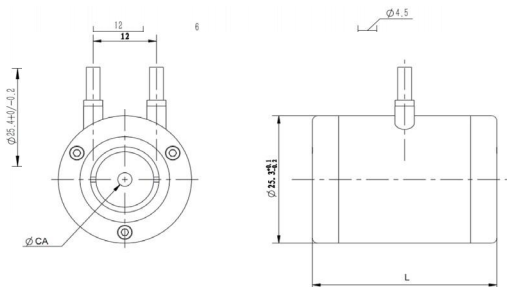
Damage threshold: 10 J/cm², 10 ns, 10 Hz

*Recommend to use a light spot (1/e²) less than 0.6 times the clear aperture

**The actual value is affected by the drive.

Housing dimensions(mm):

DPC-L10S-P-N-A0



DPH-5CQ-P-A-A0

