

PC • D-compact • D-mini

KD*P POCKELS CELLS



D-compact/12



D-compact/9



PC12SR

KD*P (DKDP) is one of the electro-optical crystals used for Pockels cells. The most popular application of KD*P (DKDP) crystal based Pockels cell is Q-switching of laser cavity. DKDP Pockels cell can be used for lasers emitting in the range of 400 – 1100 nm. High energy and short output pulse formation during Q-switching of laser cavity process is realized with KD*P (DKDP) Pockels cell in the most of commercially available flashlamp pumped Nd:YAG and Ruby lasers, low repetition rate DPSS lasers like Nd:YAG, Nd:KGW, Nd:YLF, Nd:Glass and other lasers. Electro-optical KD*P (DKDP) crystals produced by EKSMA Optics have high damage threshold dielectric AR coatings (LIDT > 10 J/cm², 10 ns, 10 Hz, 1064 nm), feature long lifetime without degradation of the coatings and show reliable operation with pulsed high energy lasers.

PC12SR, PC20SR, D-compact and Mini series DKDP Pockels cells have AR-coated protective windows on both ends. Windows can be flat or wedged or in non-parallel, laser beam shift compensating configuration to eliminate etalon effects in the Pockels cell and laser cavity.

The rectangular shape PC5S, PC5D and PC10S DKDP Pockels cells are provided without protective windows and typically are used in hermetically sealed lasers.

DKDP Pockels cells provided with properly matched high voltage Pockels cell drivers allow the customers to expect the best results in their application.

EKSMA Optics offers wide range of HV drivers for the Pockels cells and power supplies for the drivers which are presented in the next chapter of this catalogue.

FEATURES

- Low absorption and high deuteration material
- High damage threshold dielectric AR coatings for different laser wavelengths
- Customized Pockels cells available upon request

APPLICATIONS

- Q-switching of flashlamp pumped high energy and low repetition rate diode pumped lasers
- Pulse picking
- Laser cavity dumping



PC10S



PC5D



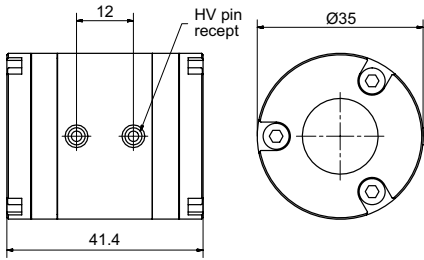
D-mini/9

SPECIFICATIONS

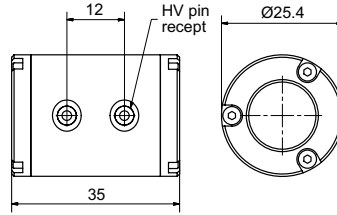
MODEL	PC20SR	PC12SR	D-compact/12	D-compact/9	D-mini/9	D-mini/8	PC10S	PC5S	PC5D
Clear aperture, mm	Ø 18		Ø 11		Ø 8	Ø 7	9.5 × 9.5		4.5 × 4.5
Quantity of crystals					1				2
λ/4 @ 1064 nm voltage, kV DC			< 3.4			< 2.5	< 3.4		< 1.7
Capacitance, pF	< 10		6			3	4	1.5	3
Optical transmission									> 97 % at 1064 nm
LIDT of AR coatings									> 1 GW/cm ² (10 J/cm ²), 1064 nm, 10 Hz, 10 ns
Contrast ratio									> 1:2000
Cell size, mm	Ø35×51	Ø35×41.4	Ø25.4×39	Ø25.4×35	Ø19×25.4	Ø19×19	22×18×33	18×14×25	23×16×52

Specifications are subject to change without advance notice.

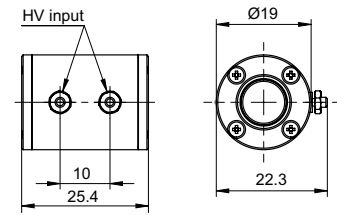
POCKELS CELLS



Outline drawing of PC12SR



Outline drawing of D-compact/9



Outline drawing of D-mini/9

POCKELS CELLS DRIVERS

HV POWER SUPPLIES

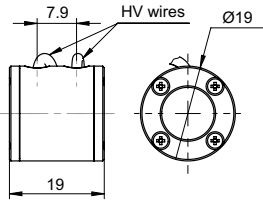
Q-SWITCHING KITS

ULTRAFAST PULSE PICKING SYSTEMS

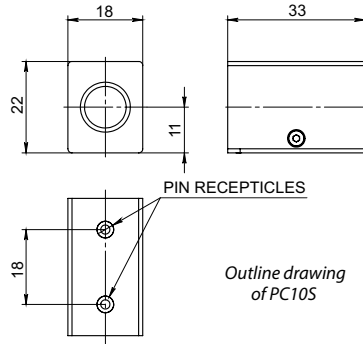
LASER DIODE DRIVERS

LASER SYNCHRONIZATION MODULES

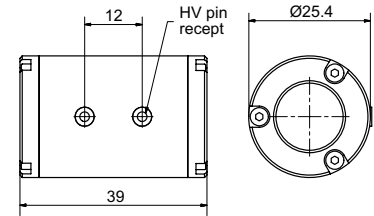
CRYSTAL OVENS



Outline drawing of D-mini/8



Outline drawing of PC105



Outline drawing of D-compact/12

RELATED PRODUCTS

PM1 mounting stage for Pockels cells of Ø25.4 mm

See page 8



HPR mounting stage for Pockels cells of Ø35 mm

See page 8



DPB series high voltage Pockels cell driver

See page 16



DQF Pockels cells driver for Q-switching of flashlamp pumped lasers

See page 19

