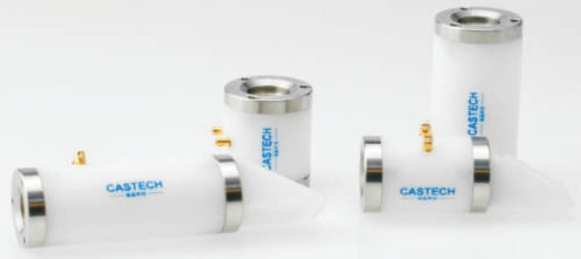


CASTECH®

LASER COMPONENTS

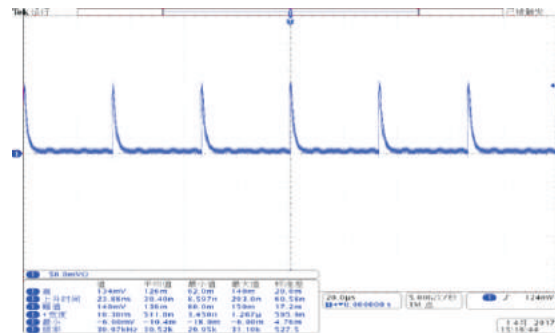
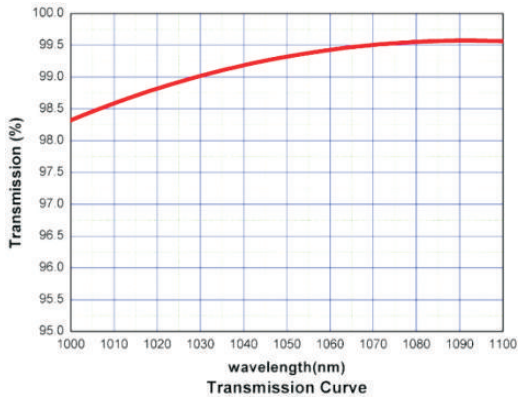


CASTECH BBO Pockels Cells



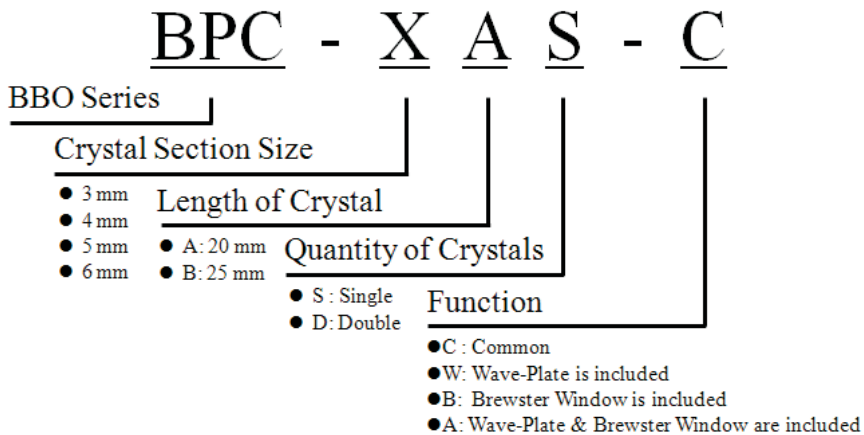
Pockels cells are used to change the polarization state of light passing through it when a voltage is applied to the electrodes of electro-optic crystals such as BBO or KD*P. CASTECH's BBO pockels cells are the better alternative to KD*P pockels cells for high average power and high repetition rate applications. BBO pockels cells operate from approximately 0.2 to 1.65 μm and aren't subject to tracking degradation. Due to the low piezoelectric coupling coefficients of BBO, our cells function at repetition rates of hundreds of kilohertz.

The product series BBO pockels cells employ single or dual crystal geometry. Moreover, we also provide different types of products and customized services to meet customers' needs.



Ringing effect

Model Number



BBO Pockels Cells - S Series

BBO pockels cells-S series consist of a crystal, single crystal design is employed to shorten the length of BBO pockels cells, CASTECH can also provide pockels cells with waveplate and brewster window.



In addition, CASTECH can offer recommendations regarding the suitability of specific modifications required for your particular application.

Features	Applications
▶ Exterior size is exquisite	▶ Laser Q-Modulating
▶ Low absorption loss	▶ Machining ,marking
▶ High extinction ratio	▶ High speed optical switch
▶ Repetition rate up to 100 kHz	▶ Beam chopper
▶ Ceramic aperture is available	▶ Cavity dumping
▶ High damage threshold	▶ Pulse selector

Specifications								
Model	BPC-3AS	BPC-3BS	BPC-4AS	BPC-4BS	BPC-5AS	BPC-5BS	BPC-6AS	BPC-6BS
Clear Aperture Diameter, mm	2.6		3.6		4.6		5.8	
Crystal Size (W*H*L), mm ^①	3*3*20	3*3*25	4*4*20	4*4*25	5*5*20	5*5*25	6*6*20	6*6*25
λ/4 Voltage (@ 1064 nm), kV DC	3.5	2.8	4.9	3.9	5.9	4.7	7.3	5.8
Capacitance, pF	≤3							
Optical Transmission, %	≥98							
Contrast Ratio	≥1000:1							
Dimensions, mm	Ø25.4*35	Ø25.4*40	Ø25.4*35	Ø25.4*40	Ø25.4*35	Ø25.4*40	Ø25.4*35	Ø25.4*40
Damage Threshold ^②	≥1 GW/cm ² , at 1064 nm, 10 ns, 10 Hz							

① We can also customize the bigger size.

② All crystals are coated AR/AR@1064 nm. Other antireflection coatings are available under request.

BBO Pockels Cells - D Series

BBO pockels cells-D series consist of two crystals, double crystal design is employed to reduce required voltages and to allow operation in half-wave mode with fast switch times. CASTECH can offer recommendations regarding the suitability of specific modifications required for your particular application. CASTECH can also provide pockels cells with waveplate and brewster window.



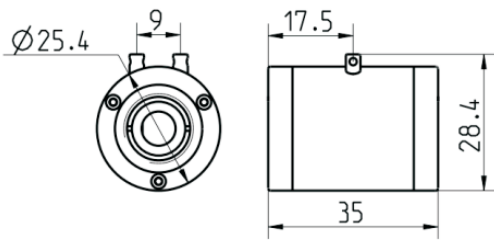
Features	Applications
▶ Low operating voltage	▶ High repetition rate DPSS Q-switch
▶ Small piezoelectric ring effect	▶ High repetition rate regenerative amplifier control
▶ Repetition rate up to 100KHz	▶ Machining ,marking
▶ Ceramic aperture is available	▶ Research
▶ High damage threshold	▶ Beam chopper
	▶ Cavity dumping

Specifications								
Model	BPC-3AD	BPC-3BD	BPC-4AD	BPC-4BD	BPC-5AD	BPC-5BD	BPC-6AD	BPC-6BD
Clear Aperture Diameter, mm	2.6		3.6		4.6		5.8	
Crystal Size (W*H*L), mm ^①	3*3*20	3*3*25	4*4*20	4*4*25	5*5*20	5*5*25	6*6*20	6*6*25
$\lambda/4$ Voltage (@ 1064 nm), kV DC	1.8	1.4	2.5	2.0	3.0	2.4	3.7	2.9
Capacitance, pF	≤ 6							
Optical Transmission, %	≥ 97							
Contrast Ratio	$\geq 1000:1$							
Dimensions, mm	$\varnothing 25.4*59$	$\varnothing 25.4*69$	$\varnothing 25.4*59$	$\varnothing 25.4*69$	$\varnothing 25.4*59$	$\varnothing 25.4*69$	$\varnothing 25.4*59$	$\varnothing 25.4*69$
Damage Threshold ^②	$\geq 1 \text{ GW/cm}^2$, at 1064 nm, 10 ns, 10 Hz							

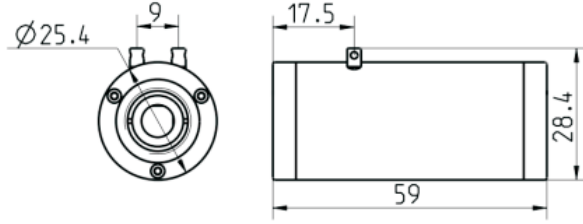
① We can also customize the bigger size.

② All crystals are coated AR/AR@1064 nm. Other antireflection coatings are available under request.

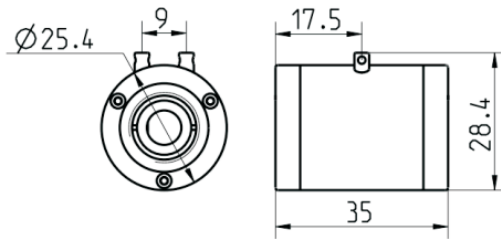
Dimensions(unit: mm)



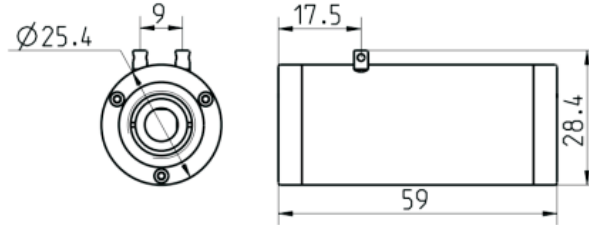
BPC-XAS-C



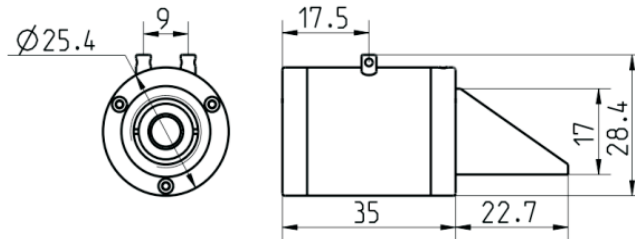
BPC-XAD-C



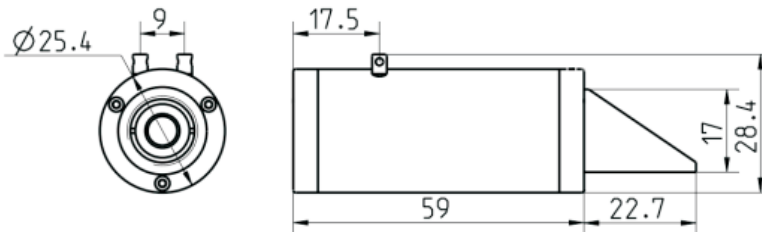
BPC-XAS-W



BPC-XAD-W



BPC-XAS-B



BPC-XAD-B

All dimensions are in mm.

The length of BPC-XBS is increased by 5mm compared with BPC-XAS. The length of BPC-XBD is increased by 10mm compared with BPC-XAD, BPC-XXX-A is the same size as BPC-XXX-B.

RELATED PRODUCTS

- ▶ Low Repetition Pockels Cells Driver
- ▶ Routine Pockels Cells Driver
- ▶ High Repetition Pockels Cells Driver



BBO Pockels Cells - L Series

Pockels cells are used to change the polarization state of light passing through it when a voltage is applied to the electrodes of electro-optic crystals such as BBO. When used in conjunction with polarizer, Pockels cells can be used as fast optical switches. We offer different kinds of BBO pockels cells. The BPC-L series can reduce the voltage, which means more secure and more possibilities. And for the BPC-LF, both sides have fibers.



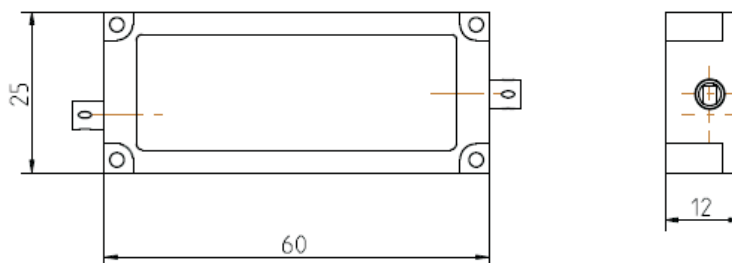
Features

- ▶ BBO-based pockels cells
- ▶ Spectral through (210nm-2000nm)
- ▶ Low absorption loss
- ▶ Small piezoelectric ring effect
- ▶ Good temperature stability
- ▶ High extinction ratio
- ▶ Capacitance value is small, fast switching speed
- ▶ High repetition rate
- ▶ Compact structure, both sides have fiber
- ▶ Other specification upon request

Specifications

Product	IL	Contrast Ratio	Damage Threshold	$V_{\lambda/4}$ @ 1064nm	Repetition Rate	Capacity
BPC-LF	<1.5dB	> 25dB	1GW/cm ² at 1064 nm 10 ns, 10Hz	375±10V	up to 100kHz	≤8pF

Dimensions(unit: mm)





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