

## LiNbO3 and MgOLiNbO3 Pockels Cells

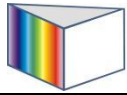
- Preferably for Er:YAG-, Ho:YAG-, Tm:YAG laser
- Wavelengths up to 3 $\mu$ m
- Brewster for laser with low amplification

LiNbO3 crystals and MgO:LiNbO3 crystals have become the most commonly used material for Q-switches and phase modulators for its high EO coefficients. With an electric field applied transverse to the direction of light propagation, LiNbO3 cells can be configured to operate at a lower voltage than comparable KD\*P cells. LiNbO3 can also be a good choice for infrared wavelengths as long as 3.0  $\mu$ m. Hangzhou Shalom EO offers the pockels cells made from **LiNbO3 crystals** and **MgO:LiNbO3 crystals**, with aperture size of 2.5mm to 9mm.



## SPECIFICATIONS

Specifications of LiNbO3 crystals	
Aperture	Min. 5x5mm
	Max. 20x20mm
Length	~60mm
Orientation	12 arc min
Flatness	$\lambda/8$ @ 633nm
Wave front distortion	$\lambda/4$ @ 633nm
Parallelism	< 20 arc sec
Perpendicularity	< 5 arc sec
Surface quality	10-5 after coating 20-10
Wavelength	300-3000nm



## Modules or types

Aperture	2.5mm	5mm	8mm	9mm
Shell size	φ20 x 66mm	φ25.4 x 36mm	φ30/32 x 26/30mm	φ31/32 x 26mm
λ/4 voltage	400V λ/2 @ 633nm	800V λ/2 @ 633nm	1800V-1900V λ/4 @ 1064nm	2100V λ/4 @ 1064nm
Overall transmittance	>98%	>98%	>98%	>98%
Insertion loss	3%	3%	3%	3%
Output tuning Q energy	100mJ	100mJ	100mJ	100mJ
Crystal through distortion	λ/4 @ 633nm	λ/4 @ 633nm	λ/4 @ 633nm	λ/4 @ 633nm
Flatness	λ/8 @ 633nm	λ/8 @ 633nm	λ/8 @ 633nm	λ/8 @ 633nm
Extinction ratio	200:1 at 5mm section	200:1 at 5mm Section	200:1 at 5mm Section	200:1 at 5mm Section
Capacitance	5pF	5pF	5pF	5pF
Damage threshold	100MW/cm <sup>2</sup> 1064nm 10ns 10Hz (LN switch)			
	300MW/cm <sup>2</sup> 1064nm 10ns 10Hz (MgO: LN switch)			