



# LightGate Series BBO Pockels Cell

LightGate BBO Pockels cells are the preferred alternative to KD\*P Pockels cells for high-average power and high repetition rate applications. The LightGate series BBO Pockels cell employs dual crystal geometry to minimize drive voltage (~3.4kV quarter-wave voltage @ 1064nm for 4mm aperture LightGate 4). BBO is transparent from approximately 0.2 to 2.1mm and is not subject to tracking degradation. It also shows low piezoelectric ringing, which is useful for repetition rates of hundreds of kilohertz. LightGate Pockels cells are useful for regenerative amplifiers and in high pulse repetition rate micro-machining lasers and high-average power lasers for material processing and metal annealing.

## Features

- High Repetition Rate
- Low Acoustic Noise
- Damage Resistant Ceramic Apertures
- High Average Power Applications
- Compact design
- Suitable for Q-switch and Regen-amp Applications
- Lower Voltage Requirements Than Other BBO Cells

## Typical Performance:

ICR	>2500:1
VCR	>500:1
Apertures	3.25mm, 4mm, 5.5mm & 7mm
Spectral range of operation	~200-2100nm (must specify single wavelength of operation)
Single Pass Optical Transmission	>98%
DC quarter-wave Voltage	2.8KV, 3.4KV, 4.4KV & 5.4KV
Capacitance	4pF (all)
Transmitted Wavefront Error	< $\lambda/6$



# CLEVELAND CRYSTALS

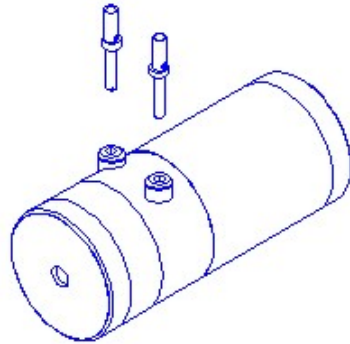
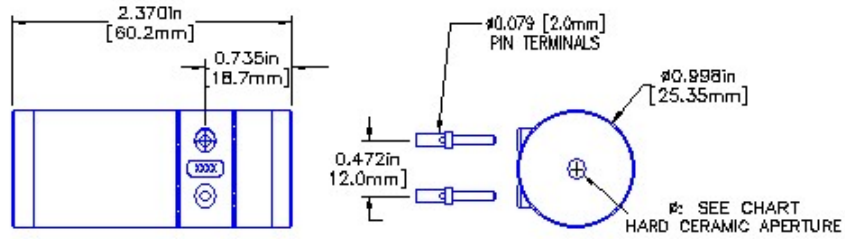
A Gooch & Housego Company

*Crystalline Materials and Electro-Optics*

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MODEL	CLEAR APERTURE $\phi$
LIGHT GATE 3	0.128 [3.25mm]
LIGHT GATE 4	0.157 [4.00mm]
LIGHT GATE 5	0.217 [5.50mm]
LIGHT GATE 7	0.276 [7.00mm]

**LIGHT GATE SERIES**  
BBO Pockels Cell

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES		 <b>CLEVELAND CRYSTALS INC.</b> A Gooch & Housego Company 676 Alpha Drive, Highland Heights, Ohio 44143, 216-486-6100	
TOLERANCES ARE:			
DECIMALS	ANGLES	DRAWN BY	
.00 ±0.005	± T	DSN	02-01-08
.000 ±0.002		APPROVED	
DO NOT SCALE DRAWING		DESCRIPTION	
MATERIAL	FINISH	LIGHT GATE SERIES BBO POCKELS CELL	
WORKS		OR PART NO.	REV.
			1.D
		DWG FILE	SIZE SCALE SHEET
		Light Gate Series Outline	A 1:1 1 of 1



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