

## Impact Series 10mm Aperture



Photo shows part 29671

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### Product Downloads

#### General

Impact Series **Type:**

1.1 **Rise Time (ns):**

KD\*P **Crystal Type:**

#### Physical & Mechanical Properties

**Aperture Diameter (mm):**

## Optical Properties

Wavelength Range (nm):

300 - 1100

Damage Threshold, By Design:

>10 J/cm<sup>2</sup>

Single Pass Distortion @ 1064 nm:

<λ/10

Intrinsic Contrast Ratio (ICR) @ 1064 nm:

>4000:1

Single Pass Insertion Loss:

<1.0%

## Electrical

Voltage Contrast Ratio (VCR) @ 1064 nm:

>3500:1

Capacitance (DC):

6 pF

DC Quarter Wave Voltage @ 1064nm:

3.5 kV

Repetition Rate (kHz):

1

## Hardware & Interface Connectivity

Power Supply:

[#29-677](#)

## Regulatory Compliance

RoHS 2015:

[Exempt](#)

Certificate of Conformance:

[View](#)

Reach 240:

[Contains SVHC\(s\)](#)

## Product Details

- High Performance Phase Modulation up to 1MHz
- >98% Transmission from UV to NIR Spectra
- >10 J/cm<sup>2</sup> Damage Threshold
- Ideal for Q-switching, Pulse Picking, and Laser Power Control

G&H Pockels Cells are designed to provide high performance electro-optic phase modulation through the [Pockels effect](#), serving as a voltage controlled waveplate. Utilizing the highest purity 99% KD\*P crystals or triple Beta Barium Borate (BBO) crystals, these Pockels cells achieve >98% transmission from the UV to NIR spectra and feature a high damage threshold of >10 J/cm<sup>2</sup>. The sealed, nitrogen-filled, compact design of these Pockels cells with ceramic apertures and premium UV-grade fused silica windows ensures high transmission and contrast ratios over its long lifetime. The Impact Series features robust sol-gel and dielectric AR coatings with high damage thresholds compatible with common laser wavelengths from 300 – 1100nm. Advanced connectors designed for high-voltage operations offer rapid connection which facilitates straightforward system design and assembly. Chiron Pockels cells minimize piezoelectric coupling coefficients and the BBO crystal enables them to operate at high repetition rates reaching up to 1 MHz, devoid of any piezoelectric ringing. Additionally, leveraging the dual crystal configuration of BBO, the Chiron series achieves a reduced driving quarter wave voltage, while upholding a voltage contrast ratio exceeding 1000:1 at 1064nm. These Pockels cells are ideal for a range of laser-based applications such as Q-switching, pulse picking, regenerative amplification, and laser power control.