Gooch & Housego
ENABLING PHOTONIC TECHNOLOGIES

# QX1014A™

## Short Path Length Pockels Cell

PRELIMINARY DATASHEET

The newest model in the industry-standard QX series Pockels cell product line, the QX1014A employs short path length components to reduce nonlinear self-focusing in higher peak power applications and temporal pulse broadening in femtosecond applications.

Attenuated crystal mounting minimizes acoustic artifacts when operating at repetition rates of up to 10 kHz, or higher, depending upon the application.

Employing internally sourced high-quality, low-strain KD*P, the QX1014A benefits from decades of electro-optic design and manufacturing experience. The attenuation (damping) modification minimizes undesirable acoustic ringing effects, thereby permitting effective operation up to 10 kHz.

A variety of AR coating options are available, including Gooch & Housego's proprietary broad-band 700-1000 nm AR coating – ideal for minimizing round trip losses in Ti:Sapphire regenerative amplifiers.




### Key Features

- Short path length for operation up to 10 kHz
- Customized AR coatings including:
  - Broadband AR for Ti:Sapphire applications
  - Choice of optional wavelengths
  - Ceramic hard clear apertures
  - Low VOC construction materials
  - G&H high-quality KD*P

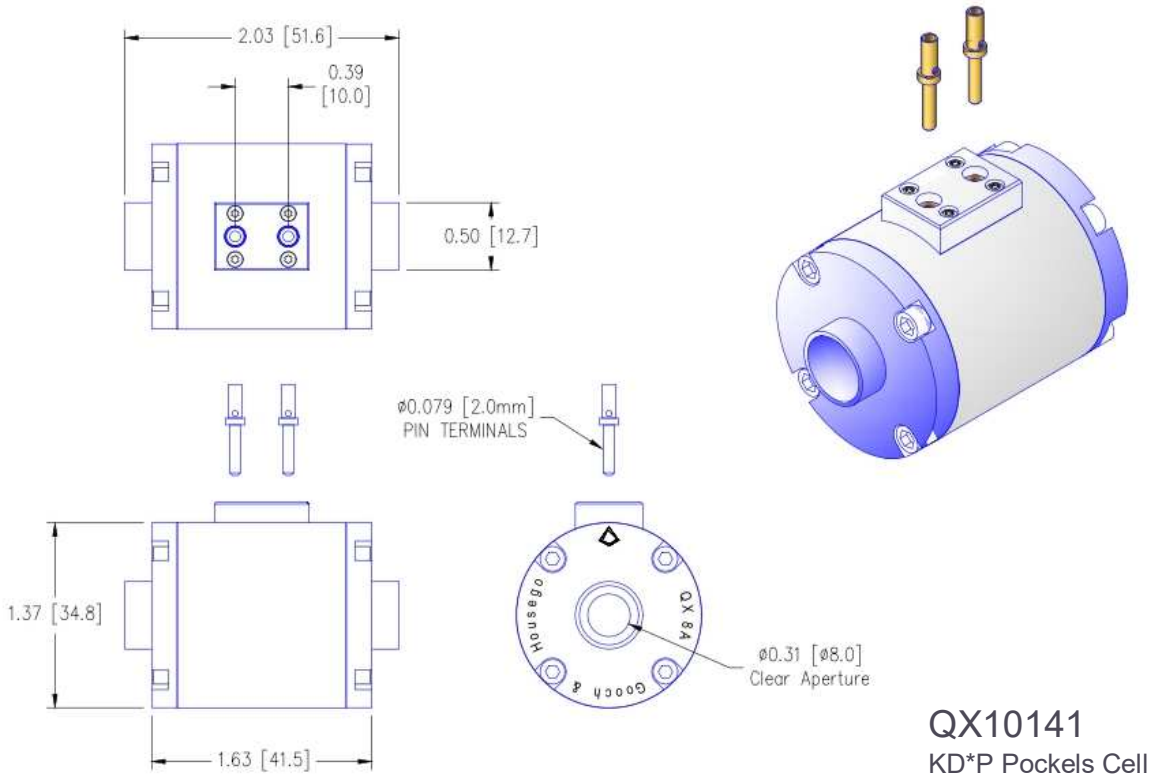
### Key Benefits

- Reduced B-integral for high-damage threshold
- High throughput (low losses)

### Applications

- Ultrafast regenerative amplifiers for:
  - Spectroscopy
  - Material processing
  - Optical parametric amplification
  - Femtosecond lasers for
  - Life sciences (e.g. LASIK)
  - Material processing (e.g. photolithography mask repair)
- Scientific research

| Performance Data | |
|---|---|
| Hard aperture diameter | 8 mm |
| Intrinsic contrast ratio (ICR) @ 633 nm | > 1200:1 |
| Voltage contrast ratio (VCR) @ 633 nm | > 450:1 |
| Optical transmission @ coating wavelength | > 98% |
| DC half-wave voltage @ 633 nm | ≤ 3.8kV |
| Transmitted wavefront error TWE (single pass distortion) @ 633 nm | ≤ λ/8 |




QX10141
KD*P Pockels Cell