



QX1014A™

Short Path Length Pockels Cell

PRELIMINARY DATA SHEET

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 broadband 700 -1000 nm AR coating - ideal for minimizing round trip losses in Ti:Sapphire regenerative amplifiers.



Key Features

- Short path length optical components
- Customized AR coatings including
 - Broadband AR for Ti:Sapphire applications
 - A choice of optional wavelengths
- Ceramic hard clear apertures
- Low VOC construction materials
- Gooch & Housego 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

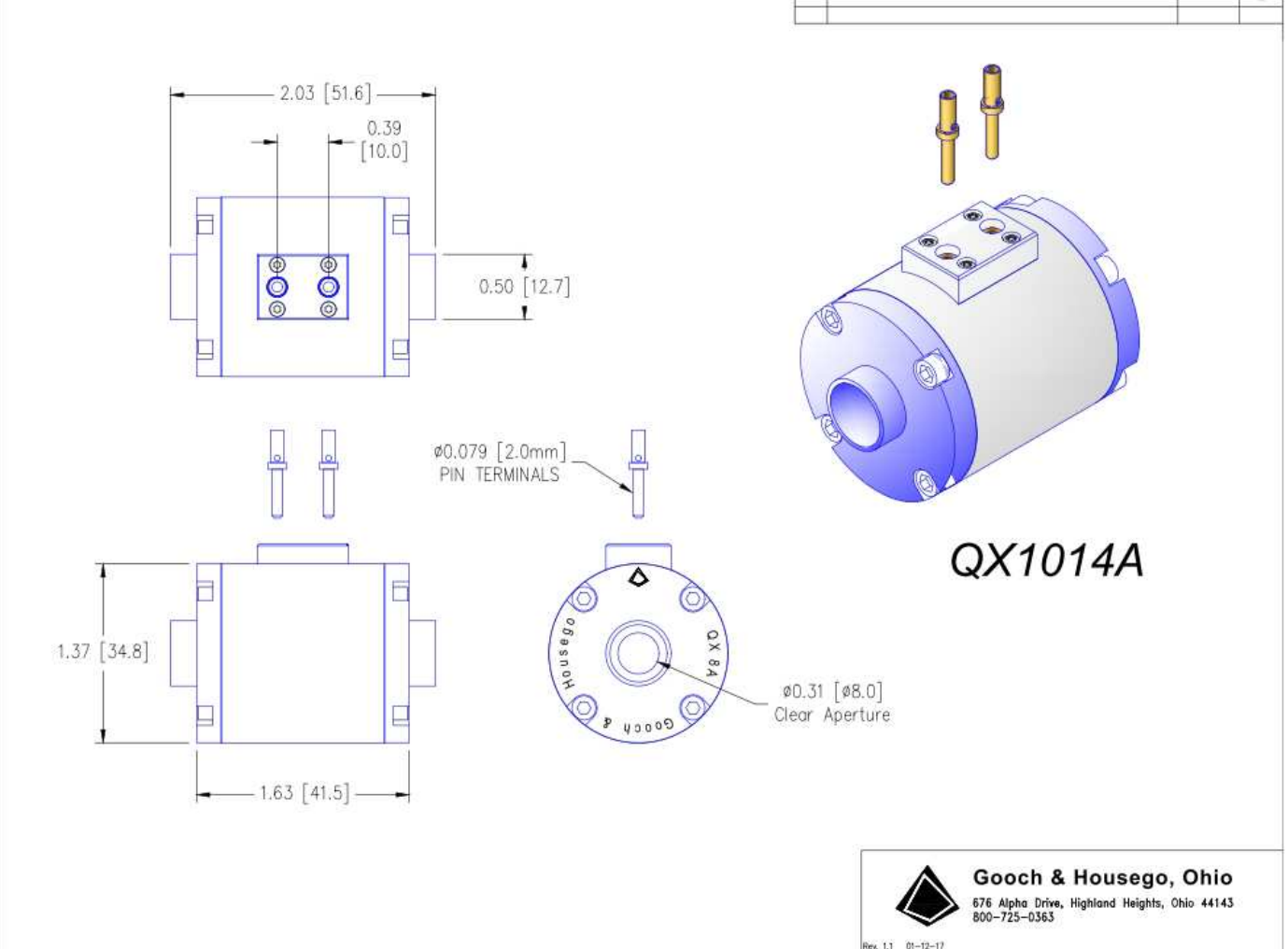
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Performance Data

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	$\leq 3.8\text{kV}$
Transmitted Wavefront Error TWE (single pass distortion) @ 633 nm	$\leq \lambda/8$

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REVISION HISTORY			
REV.	DESCRIPTION	DATE	BY
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Technical drawing details:

- Top view dimensions: 2.03 [51.6] (width), 0.39 [10.0] (pin spacing), 0.50 [12.7] (height).
- Side view dimensions: 1.37 [34.8] (height), 1.63 [41.5] (width).
- Front view dimensions: $\phi 0.079$ [2.0mm] PIN TERMINALS, $\phi 0.31$ [$\phi 8.0$] Clear Aperture.
- 3D perspective view shows the device with two yellow pins inserted into the top terminals.

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As part of our policy of continuous product improvement, we reserve the right to change specifications at any time.

1 January 2017

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