

# QX Series

## KD\*P Pockels Cell

QX1020 / QX1320 / QX1630 / QX2035

The QX series sets the standard for KD\*P electro-optic Q-switches.

These devices provide reliable, stable performance for a diverse range of laser applications, from < 300 nm to 1100 nm.

We offer a unique rebuild program that extends the QX lifetime. All rebuilt units are upgraded with the latest product improvements and are returned with a new one-year warranty.

The standard configuration employs a broad band, high damage threshold solgel AR coating for improved durability and performance. The QX series is also available with a choice of end caps.

All units are tested for optic and electric function and are supplied with a QA inspection report and suggested alignment procedures.



### Key Features

- Solid state - solgel coated crystal
- Highest available (>98% in the crystal) deuteration levels
- G&H grown KD\*P crystal
- Adhesive/epoxy-free assembly
- Premium UV-grade fused silica windows
- Apertures from 9.25-19.5 mm diameter
- Lowest absorption in the industry
- Economical upgrade/rebuild program
- Highest optical damage resistance
- Test documentation with each device
- Operation to 3 kHz (10 kHz attenuated model)
- One-year limited warranty

### Key Benefits

- High-reliability
- Industry standard design with installed base of thousands
- Excellent/accessible technical support

### Applications

- Q-switching, pulse picking and cavity dumping
- Industrial and military OEM, and research laser systems

Typical Specifications 99% KD*P @ 1064 nm	QX1020	QX1320	QX1630	QX2035
<b>PHYSICAL</b>				
Hard aperture diameter	9.25 mm	12.3 mm	15.1 mm	19.5 mm
Single pass insertion loss @ 1064 nm	<1.4%	<1.4%	<1.8%	<2.0%
Intrinsic contrast ratio (ICR) @ 1064 nm	5000:1	5000:1	5000:1	5000:1
Voltage contrast ratio (VCR) @ 1064 nm (parallel polarizers)	2500:1	1500:1	1800:1	1000:1
Single pass distortion @ 633 nm	< $\lambda/8$	< $\lambda/8$	< $\lambda/8$	< $\lambda/6$
<b>ELECTRICAL</b>				
Capacitance (DC)	5 pF	7 pF	9 pF	13 pF
DC quarter wave voltage @ 1064 nm	3.5 kV	3.5 kV	3.5 kV	3.5 kV
10-90% rise time (theoretical) into 50 $\Omega$ line	0.8 ns	1.1 ns	1.1 ns	1.5 ns

4-40 UNC SCREW TERMINALS WITH HEX NUTS

A (CLEAR APERTURE)

NOTES:  
 1) QX1020 WITH DUST TUBE END CAP OPTION SHOWN  
 2) DIMENSION "C" ONLY APPLIES TO OPTIONS WHERE DUST TUBE END CAP IS USED  
 3) STANDARD THIN END CAP OPTION (WITHOUT DUST TUBES) ALSO AVAILABLE

MODEL	DIMENSION					
	"A"	"B"	"C"	"D"	"E"	"F"
QX1020	0.372 [9.5]	1.791 [45.5]	2.191 [55.7]	1.370 [34.8]	0.500 [12.7]	0.475 [12.1]
QX1320	0.484 [12.3]	1.907 [48.4]	2.307 [58.6]	1.563 [39.7]	0.749 [19.0]	0.475 [12.1]
QX1630	0.597 [15.1]	2.397 [60.9]	2.797 [71.0]	1.625 [41.3]	0.749 [19.0]	0.869 [22.1]
QX2035	0.768 [19.5]	2.902 [73.7]	3.302 [83.9]	1.820 [46.2]	1.000 [25.4]	0.869 [22.1]

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