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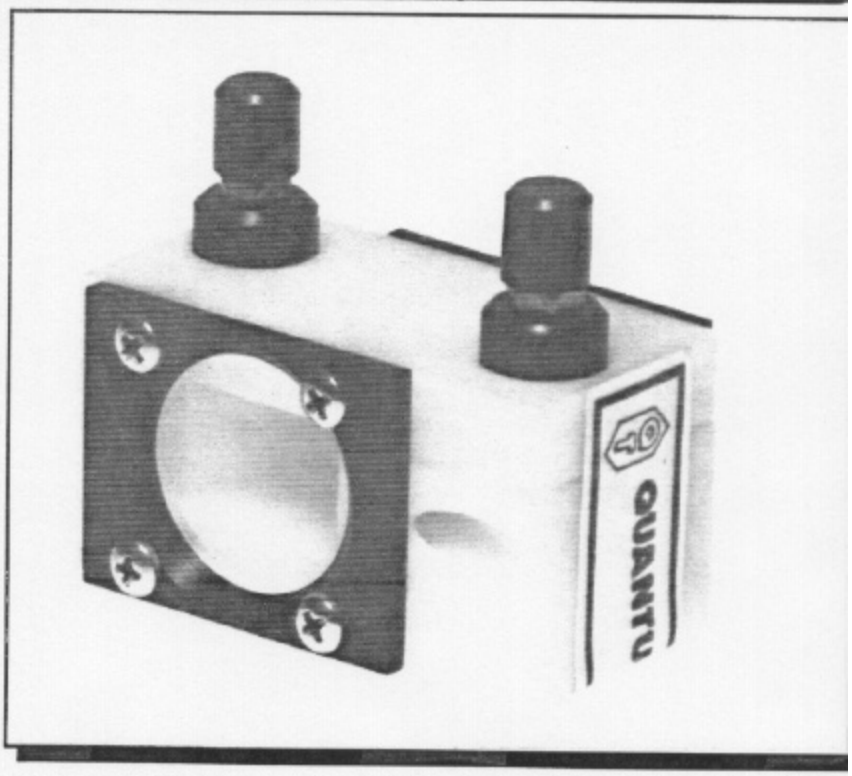
MODEL QC-8-BR
BREWSTER POCKELS CELL
DATA SHEET 729

BREWSTER POCKELS CELL
KD*P Model QC-8-BR
FEATURES:

- **LOWEST LOSS**
- **COMPACT SIZE**
- **HIGH POWER HANDLING**
- **TRANSMISSION 300nm-1100nm**



The Model QB-8 Brewster Pockels cell is a very low loss, dry nitrogen filled cell. By eliminating the disadvantages of liquid filled devices, the QB-8 excels in areas of shock proof mounting, high optical power handling, no Schlieren or Fresnel effects and extremely low loss over the entire transmission band. The beam displacement is 12 mm.

Two QB-8 Pockels cells can be easily combined to form a displacement free and loss free Pockels cell assembly with added virtue of requiring only half the drive voltage.

Quantum Technology, Inc also manufactures other types of Pockels cells, using high optical quality stran-free KD*P crystals, grown in Quantum laboratory. 1) Series QC KD*P Pockels cell, either dry or liquid filled for low loss intra-cavity use. 2) Series QS BBO crystal Pockels cell (200 to 2000 nm) for high average (100 w) power, high speed switching. 3) Series LN Lithium Niobate Pockels cell (600 nm to 4500 nm). Dual crystal Pockels cells are also available for extra-cavity applications or for higher wavelengths. The fluence damage thresholds are: KD*P (10 J / cm^2), BBO (16 J / cm^2), LN (2.0 J / cm^2). The peak power damage thresholds are: KD*P (500 MW / cm^2), BBO (4000 MW / cm^2). LN (200 MW / cm^2). These values are at 1064 nm and for 1 nsec pulse widths.

Brewster E-O phase modulator is also offered, with Lithium Tantalate crystals. This can be a resonant type (REM Model) or traveling wave type (TWAP Model). Amplitude modulator gives only half the sensitivity when used as a phase modulator, so for optimum performance, a phase modulator is constructed differently.

Quantum also manufactures a variety of High Voltage Drivers and Pulsers with sub-nanosecond and nanosecond speeds. Please refer to data sheets 733, 736, 740 and 749. Quantum has unique expertise in the growth of strain free KD*P crystals for Pockels cells. Please refer to the data sheets 718, 722, and 738

SPECIFICATIONS	
Material	KD*P
Aperture	8 mm
Optical Power density (max)	500 MW/cm^2
Wavefront distortion	< lambda/6
Lambda/4 voltage (1064 nm)	3.8 KV
Transmission	> 99 % from 400 nm -900 nm
Capacitance	7 pF
Beam Displacement	12 mm
Connectors	isolated 4-40 studs
Dimensions	2 x 1 x 1 cu in.
Weight	100 gm