

## FastPulse Technology, Inc.

LASERMETRICS® DIVISION

220 Midland Ave., Saddle Brook, NJ 07663

TEL: 973-478-5757 · FAX: 973-478-6115

Web Site: [www.fastpulse.com](http://www.fastpulse.com)

## Series PP45 45° ANGLE PLATE POLARIZER

- Stable Fused Silica substrate
- High Power Handling.
- Low Insertion Loss : Tp 95%
- High Extinction: >37dB (>5000:1)
- Low Back Scatter Reflections: <45dB
- Apertures: 5 & 8 mm
- 90° Reflection of S-Polarization Energy



PP45 Polarizers attached to a Q1059P Pockels cell  
Mounted on a precision Pitch/Yaw Gimbal

Plate polarizers with coatings provide very high extinction from a single plate configuration. PP45 Series standard polarizers incorporate a 45° angled, coated optic mounted in a ported cell. Precision mounting methods insure stress-free high performance. The housing design incorporates an offset input ceramic aperture, the internal beam path and mechanical center lines are coaxial.

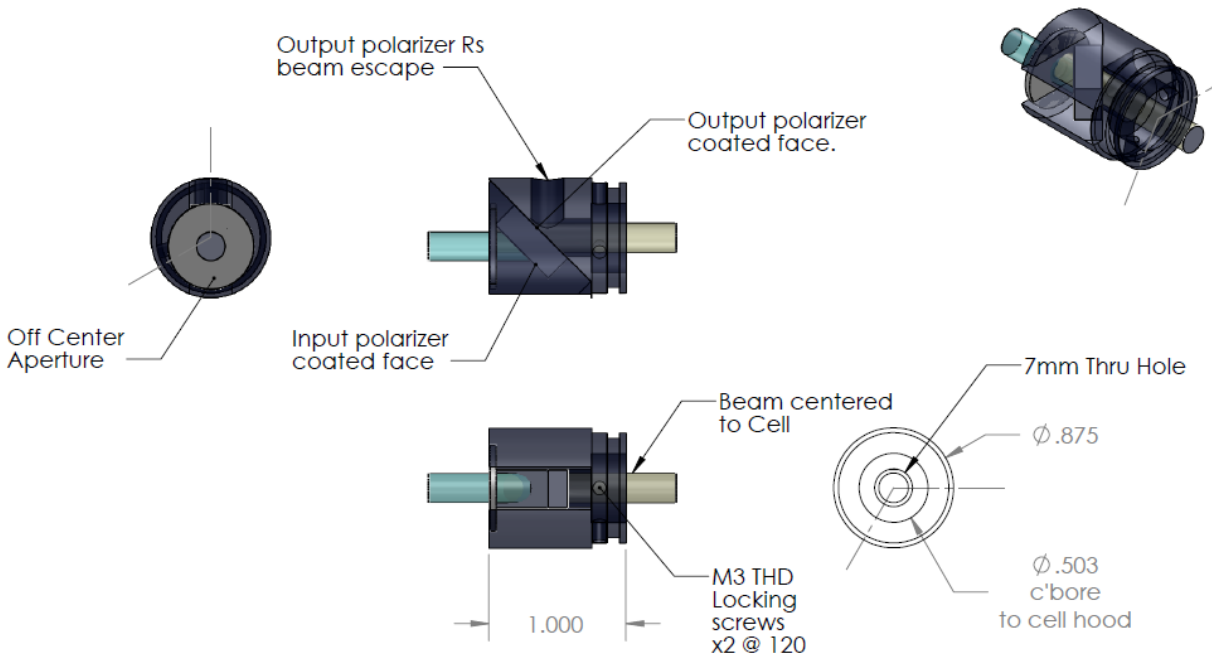
Plate type polarizers (PP) offer several advantages over crystal or cemented cube Polarizing Beam Splitters (PBS). Advantages include cement free, higher average and peak power handling, superior wave front quality, lower cost, low back scatter reflections, 90° S-polarization reflection. Larger apertures are possible. The main disadvantages are the limited bandwidth and beam displacement. Extinction values typically exceed 37 dB (5,000:1) at the center wavelength.

FastPulse Technology also offers competitive Optical Isolators and Pockels cell product lines.

Wavelength - $\lambda$ (Select 532, 633 nm, 775 nm, 800 nm or 1550 nm)	Aperture 5 mm	Aperture 8 mm
Part Number (PP45-Aperture- $\lambda$ )	PP45-5- $\lambda$	PP45-8- $\lambda$
Clear Aperture	5 mm	8 mm
Bandwidth	+/-10 nm	+/-10 nm
Input Power, max.	20W / >2J/cm <sup>2</sup>	20W / >2J/cm <sup>2</sup>
Extinction	37-42 dB	37-42 dB
Transmission	95%	95%
Beam Off Set	1.6 mm	1.6 mm
Beam Deviation	15 min	15 min

CONTINUED NEXT PAGE

These polarizers mate to the 1/2" diameter hood on FastPulse Technology RTP 1147 Series and BBO 1150 Series Pockels cells. These polarizer designs are incorporated into some optical isolator models.



**SERIES PP45-5 5mm & 8mm Polarizers:**

Mate to RTP 1147 series & BBO 1150 series Small aperture 3,4,6,8mm Pockels cells.

**Surface Quality: 20-10**  
**Wavefront: 1/8 wave over aperture**

Model #	Wavelength (nm)	Aperture
PP45-5-532	532	5
PP45-8-532	532	8
PP45-5-633	633	5
PP45-8-633	633	8
PP45-5-775	760-785	5
PP45-8-775	760-785	8
PP45-5-800	785-810	5
PP45-8-800	785-810	8
PP45-5-1550	1525-1570	5
PP45-8-1550	1525-1570	8