Air Spaced Polarizer

Originally designed to conform to stringent military specifications, SYNOPTICS' Air Spaced Polarizer is now being offered for commercial applications. The Air Spaced Polarizer is an alternative to calcite and Brewster-type polarizers which offers:

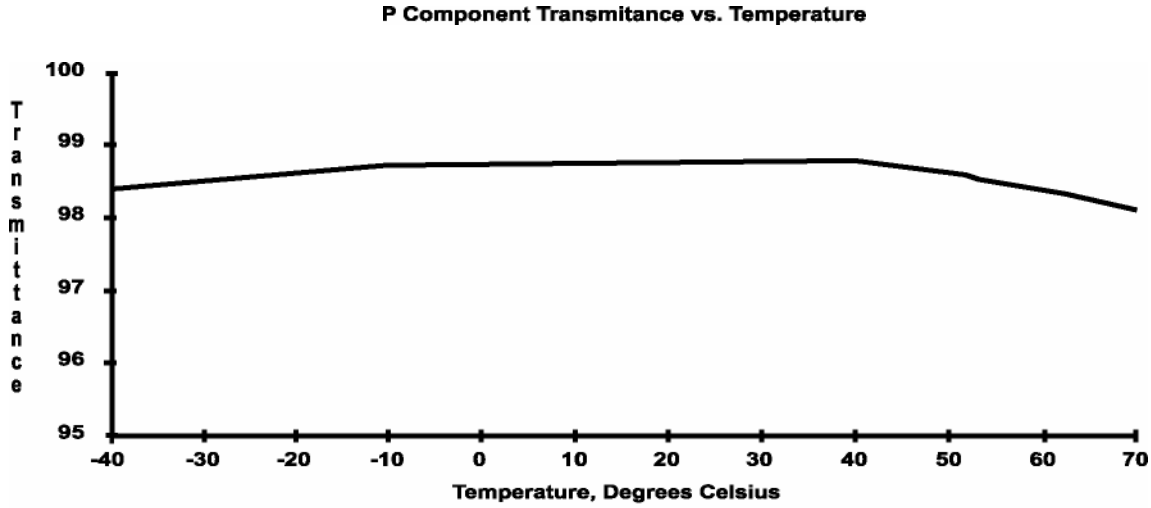
- High transmission (T_P)
- High contrast ratio (T_P / T_S)
- Excellent damage threshold
- Resistance to temperature / humidity extremes
- Minimal beam deviation
- Wide acceptance angle
- Low wavefront distortion

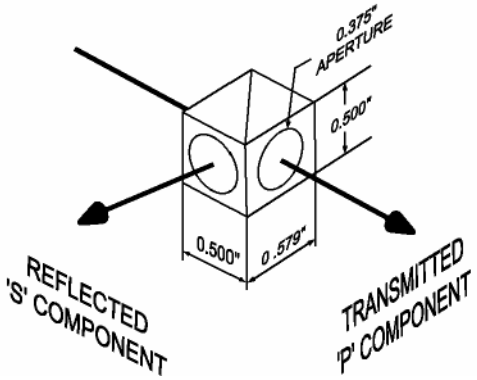
Air Spaced Polarizers exhibit higher transmission and better damage threshold than calcite polarizers and do not produce the unwanted beam displacement associated with Brewster-type polarizers.

The logical choice for high power polarization needs, SYNOPTICS' Air Spaced Polarizers are presently available for use at 1064, 1053 and 1047 nanometers.

Standard Specifications

	Type 1	Type 2	Type 3
Polarization transmittance, T_P	> 98.0%	> 97.5%	> 97.0%
Contrast ratio, T_P / T_S	> 500:1	> 500:1	> 500:1
Damage threshold @ 1064 nm, 20 ns pulse	500 MW / cm^2	500 MW / cm^2	300 MW / cm^2
Transmitted wavefront distortion @ 633 nm	< 1 / 8 λ	< 1 / 8 λ	< 1 / 4 λ
Transmitted beam deviation	< 2 arc minutes	< 3 arc minutes	< 3 arc minutes
Reflected beam deviation	< 4 arc minutes	< 4 arc minutes	< 4 arc minutes
Acceptance angle	+0.5° to -0.5°	+0.5° to -0.5°	+0.5° to -0.5°
Surface quality, scratch-dig	20 - 10	40 - 15	60 - 20
Surface reflectivity	< 0.15%	< 0.25%	< 0.25%
Operating temperature range	-40 ° C to +70 ° C	-40 ° C to +70 ° C	-40 °C to +70 °C
Standard wavelength	1064 nm	1064 nm	1064 nm





Specifications and information are subject to change without prior notice.

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