

Nanowire Grid Polarizers

AT A GLANCE

- Thin profile
- Large acceptance angle, up to 20 degrees
- High transmission and high contrast choices
- Manual and automated versions



FULLY AUTOMATED
WITH AUTOPRO SOFTWARE

An innovative line of high-contrast polarizers covering the UV region and the Vis to NIR region.

Using nanofabricating techniques, wire grid lines at a 100-nm pitch are etched on fused silica or glass substrate resulting in a high-performance polarizer. Compared to a traditional calcite polarizer, the large acceptance angle of the nanowire grid polarizer, greater than 20 degrees, eases alignment concerns during use. Additionally, the compact size makes these polarizers ideal for use in confined spaces.

Transmission and contrast ratio of the UV ultra contrast and the broadband polarizers are shown in the next column. Contrast ratio greater than 10,000:1 may be found, making these high-performance polarizers a competitive alternative to calcite polarizers.

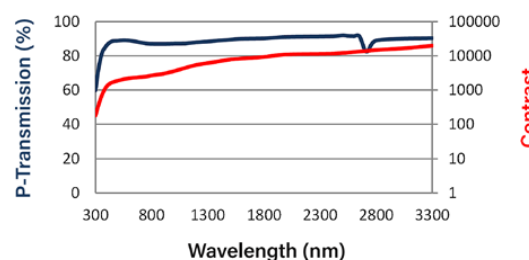
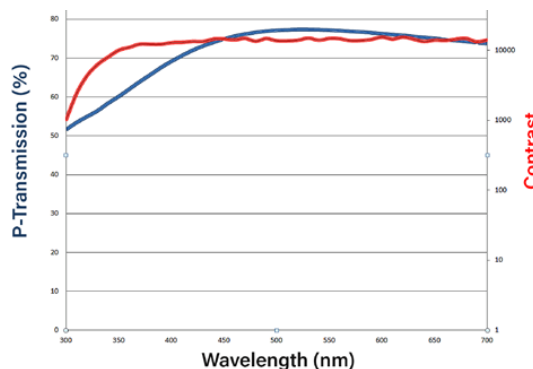
There are two manual polarizer types available. The manual polarizer has a 5 degree scale resolution and the precision polarizer has scale resolution of 1 degree. The automated precision polarizers offer the added benefit of increased setting reproducibility with accuracy of ± 0.5 degree. With automated polarizers an analysis program can be set up through PIKE AutoPRO software, and includes data collection with some spectrophotometer software packages.

PART NUMBER	DESCRIPTION
190-2010	Precision UV Polarizer, Ultra Contrast
190-2012	Manual UV Polarizer, Ultra Contrast
190-2015	Precision UV Polarizer, Ultra Contrast, Automated
190-2020	Precision Vis/NIR Broadband Polarizer, High Contrast
190-2022	Manual Vis/NIR Broadband Polarizer, High Contrast
190-2025	Precision Vis/NIR Broadband Polarizer, High Contrast, Automated

Notes: The element diameter is 25 mm. Polarizers may not fit in the sample compartments of some smaller spectrophotometers. The automated polarizers include the PIKE Technologies Motion Control Unit and AutoPRO software for automated operation. Please consult PIKE Technologies before placing an order or to inquire about spectrophotometer slide mount holders.

SPECIFICATIONS

Substrate	Fused silica or glass
Performance Range	
UV, Ultra Contrast	240–400 nm
Vis/NIR	300–3200 nm
Element Diameter	25 mm
Clear Aperture	19 mm
Dimensions (W X D X H)	
Manual	50 x 86 x 17 mm
Precision	50 x 146 x 17 mm
Automated	50 x 146 x 55 mm



Automated UV-Vis Nanowire
Grid Polarizer.