

LOW ORDER WAVEPLATES

- Thickness 0.15–0.35 mm
- Thinner than multiple order

Low order plates are less temperature sensitive and temperature dependent than multiple order plates. These plates are suitable for high and low power applications.

Wavelength, nm	Retardation $\lambda/2$		Retardation $\lambda/4$	
	Catalogue number	Price, EUR	Catalogue number	Price, EUR
1064	461-4205	160	461-4405	160
532	461-4230	160	461-4430	160
355	461-4240	192	461-4440	192
266	461-4245	196	461-4445	196

SPECIFICATIONS

Material	Single crystal quartz
Optical axis	normal to facet on circumference of retarder
Clear aperture	Ø17 mm (others dimensions on request)
Ring mount outer diameter	25.4 +0.0 / -0.2 mm
Nominal thickness of waveplate	0.15–0.35 mm
Wavefront distortion	$\lambda/10$ @ 633 nm
Surface quality	20-10 scratch & dig (MIL-PRF-13830B)
Parallelism	< 10 arcsec
AR coating	R < 0.4%
Damage threshold	10 J/cm ² , 10 nsec pulse, 1064 nm typical

RELATED PRODUCTS

Low Order Plates of other wavelengths
See page 1.54

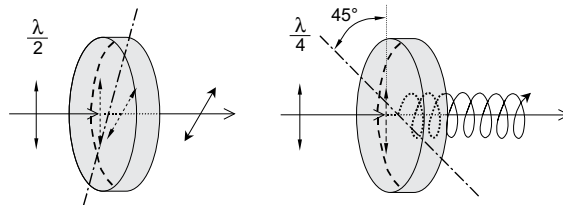
High Precision Rotation Polarizer, Waveplate Mount 840-0186
See page 8.88



MULTIPLE ORDER WAVEPLATES

- Polished to 1-1.5 mm thickness
- Made from a single crystalline plate

Multiple order plates are more dependent on the temperature changes than zero order plates. A change of $\pm 1\%$ from the designed wavelength of multiple order plate can result in difficulties in retardation. Contrary, with zero order plates $\pm 1\%$ and even $\pm 2\%$ change from the designed wavelength can cause only small retardation change.



SPECIFICATIONS

Material	Single crystal quartz
Optical axis	Normal to facet on circumference of retarder
Clear aperture	Ø17 mm (others dimensions on request)
Ring mount outer diameter	25.4 +0.0 / -0.2 mm
Nominal thickness of waveplate	0.8–1.5 mm
Surface quality	20-10 scratch & dig (MIL-PRF-13830B)
Wavefront distortion	$\lambda/10$ @ 633 nm
Parallelism	< 10 arcsec
AR coating	R < 0.4%
Damage threshold	10 J/cm ² , 10 nsec pulse, 1064 nm typical

Wavelength, nm	Retardation $\lambda/2$		Retardation $\lambda/4$	
	Catalogue number	Price, EUR	Catalogue number	Price, EUR
1064	462-4205	138	462-4405	138
532	462-4230	138	462-4430	138
355	462-4240	143	462-4440	143
266	462-4245	153	462-4445	153

RELATED PRODUCTS

Multiple Order Plates of other wavelengths

See page 1.54

Adjustable Polarizer Holder of Side Drive 840-0195

See page 8.91

