

MULTIPLE ORDER DUAL WAVELENGTH PLATES

- Operate at both first and second Nd:YAG laser harmonics
- Retardation tolerance $< \lambda/300$

SPECIFICATIONS

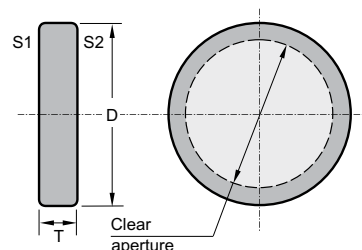
Material	Single crystal quartz
Optical axis	normal to facet on circumference of retarder
Wavefront distortion	$\lambda/10$ @ 633 nm
Clear aperture	$\varnothing 17$ mm of $\varnothing 20$ mm
Ring mount outer diameter	25.4 (or 25.0) $\pm 0.0 - 0.12$ mm
Surface quality	20-10 scratch & dig (MIL-PRF-13830B)
Parallelism	< 10 arcsec
AR coating	$R < 0.5\%$
Nominal thickness of waveplate	0.2-1.2 mm
Laser damage threshold	5 J/cm ² , 10 nsec pulse, 1064 nm typical

Retardation and Wavelength	Catalogue number	Price, EUR
λ @ 1064 nm + $\lambda/2$ @ 532 nm	463-4120	215
λ @ 1064 nm + $\lambda/4$ @ 532 nm	463-4140	215
$\lambda/2$ @ 1064 nm + λ @ 532 nm	463-4210	215
$\lambda/2$ @ 1064 nm + $\lambda/2$ @ 532 nm	463-4220	215
$\lambda/2$ @ 1064 nm + $\lambda/4$ @ 532 nm	463-4240	215
$\lambda/4$ @ 1064 nm + λ @ 532 nm	463-4410	215
$\lambda/4$ @ 1064 nm + $\lambda/2$ @ 532 nm	463-4420	215
$\lambda/4$ @ 1064 nm + $\lambda/4$ @ 532 nm	463-4440	215

POLARIZATION PLANE ROTATORS

- Made of crystalline quartz
- Intended to rotate a beam polarization plane strictly to an appropriate angle using the circular birefringent effect

Compared to a waveplate, a rotator has an intrinsic advantage, being independent of rotation around its own optical axis. It needs no adjustment, only to be installed normal to incident radiation. A polarization plane rotator is normally used for the specific wavelength. It is only slightly dependent on ambient temperature.



Polarization plane rotators for any wavelength from 200 to 2300 nm are available.

SPECIFICATIONS

Material	Single crystal quartz
Optical axis	Normal to faces S1, S2 of rotator
Clear aperture	17 mm for 20 mm diameter
Ring mount outer diameter	$D = 25.4$ mm (or 25.0 mm) ± 0.0 mm $- 0.12$ mm
Mount Thickness	$T = 6-20$ mm (depending on wavelength and rotation angle)
Surface quality	20-10 scratch & dig (MIL-PRF-13830B)
Wavefront distortion	$\lambda/10$
Parallelism	< 10 arcsec
AR coating	$R < 0.2\%$ both sides
Laser damage threshold	5 J/cm ² , 10 nsec pulse, 1064 nm typical

RELATED PRODUCTS

Polarization plane rotators of other wavelengths

See page 1.53

Kinematic Mirror and Beamsplitter Mount 840-0020

See page 8.54



Kinematic Positioning Mount 840-0193

See page 8.86



Catalogue number	Wavelength, nm	Rotation angle of polarization plane, deg	Price, EUR
470-4264	266	45	245
470-4269	266	90	245
470-4354	355	45	195
470-4359	355	90	195
470-4534	532	45	195
470-4539	532	90	195
470-4644	1064	45	215
470-4649	1064	90	215

Please contact us for other size or wavelengths requirements.