

## MULTIPLE ORDER DUAL WAVELENGTH WAVEPLATES

### Features

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

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

### Specifications

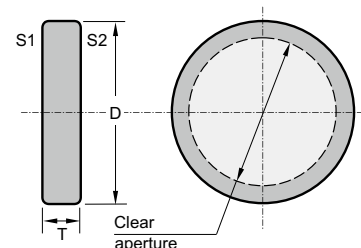
Material	Single crystal quartz
Optical axis	normal to facet on circumference of retarder
Clear aperture	$\varnothing 17 \text{ mm}$
Ring mount outer diameter	$25.4 +0.0 / -0.2 \text{ mm}$
Nominal thickness of waveplate	$0.2 - 1.2 \text{ mm}$
Surface quality	20-10 scratch & dig (MIL-PRF-13830B)
Wavefront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

## POLARIZATION PLANE ROTATORS

### Features

- 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	$D = 25.4 +0.0 / -0.2 \text{ mm}$
Mount Thickness	$T = 6 - 20 \text{ mm}$ (depending on wavelength and rotation angle)
Surface quality	20-10 scratch & dig (MIL-PRF-13830B)
Wavefront distortion	$\lambda/10$
Parallelism	$< 10 \text{ arcsec}$
AR coating	$R < 0.2\%$ both sides
Damage threshold	$5 \text{ J/cm}^2$ , 10 nsec pulse, 1064 nm typical

### Related Products

Polarization plane rotators of other wavelengths

See page 1.71

Kinematic Mirror and Beamsplitter Mount 840-0020

Find more at EksmaOptics.com



Kinematic Positioning Mount 840-0193

Find more at EksmaOptics.com

Wavelength, nm	Rotation angle of polarization plane, deg	Catalogue number	Price, EUR
266	45	470-4264	282
266	90	470-4269	282
355	45	470-4354	224
355	90	470-4359	224
532	45	470-4534	224
532	90	470-4539	224
1064	45	470-4644	247
1064	90	470-4649	247

Please contact us for other size or wavelengths requirements.