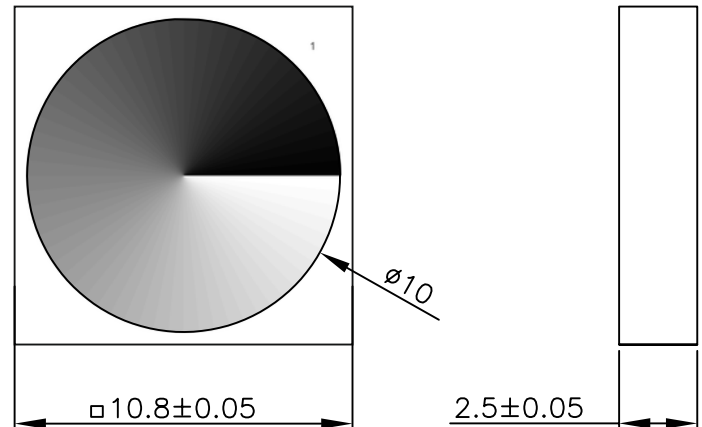
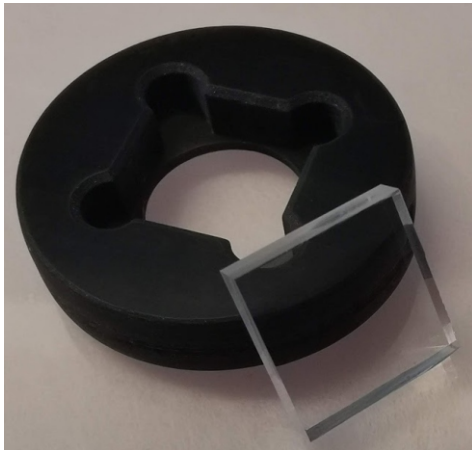


## Spiral Phase Plates / Vortex Lenses

## Dimensions

mm



## Specifications

<b>Wavelengths:</b>	193 to 1550 nm
<b>Topological charges:</b>	$m = 1$ to 8, 16, 24, 32
<b>Number of sectors:</b>	equal to topological charge
<b>Number of steps:</b>	64 per sector
<b>Measured total depth:</b>	$\pm 5$ nm to theoretical
<b>Material:</b>	fused silica
<b>Coating:</b>	none, custom coating options

## Applications

- Atomic and molecular excitation
- Optical tweezers and manipulations
- STED and MINIFLUX microscopy
- Optical vortex coronagraphs
- Nano-Lithography
- Laser cutting and machining
- Data transfer

## Part number information

V - 532 - 10 - 8

Model	Wavelength	Spiral diameter	Topological charge
V: Vortex Lens alias Spiral Phase Plate	193 to 1550nm laser wavelength or custom	10: 10 mm on a 10.8 x 10.0 mm substrate	$m = 1$ to 8, 16, 24, 32 or custom TC

## Application Notes

- 1) Ensure good quality of the original laser beam. We recommend:
  - a) a Gaussian beam profile (TEM<sub>00</sub>)
  - b) a high laser wavelength stability over time and power
- 2) Mount the vortex lens into a XY translation stage (best way to match the optical axis of the vortex lens)
  - a) The vortex lens can be placed into adapter (included) for 1 inch lens mount
- 3) Expand the laser beam over the spiral structure of the vortex lens (<10 mm)
- 4) After the vortex lens: adjust the beam size to match your focusing optics
- 5) Avoid touching the surface of the vortex lens.
- 6) **Always use laser safety goggles!**