

Substrate Material	UV grade fused silica
Surface Quality	10-5 CVI Laser Quality defined on page 430
Design Wavelength	248nm
Housing Tolerance	± 0.005"
Antireflection Coating	R ≤ 0.25% per surface, user specified
Transmitted Wavefront Distortion	λ/2 p-v over 95% of CA at 248nm
Damage Threshold	15J/cm ² , 20ns, 20Hz at 1064nm

- Use in combination with LAPQ to obtain $f/3.3$ relative aperture
- Air-spaced design for high power and UV laser applications
- Excimer focusing triplet lens
- Mounts easily onto Post with 8-32 and M4 x .7 Tap with Companion LAPQ

The CVI APMQ Series aplanatic meniscus lenses shorten the focal length of the LAPQ Series positive laser aplanats while maintaining the

minimization of the aberrations inherent in the LAPQ Series lenses. An LAPQ/APMQ combination is an $f/3.3$ focal system made up of reasonably priced standard components.

The APMQ lens acts to shorten the combined focal length of the system without introducing additional coma or spherical aberration. To introduce no spherical aberration or coma, the APMQ lens design must be matched to the spherical wavefront generated by the

preceding LAPQ lens. This requirement determines the front and back radii and center thickness of the meniscus lens. Also, the APMQ lens must be properly spaced from its companion laser aplanat. Therefore, APMQ and LAPQ lenses are used in pairs. CVI provides each APMQ lens pre-mounted in a housing that assures proper spacing and orientation with its paired LAPQ lens. APMQ lenses can be ordered with their companion laser aplanats or separately. This gives you the ability to change the focal length of an existing system at a later time.

How To Order

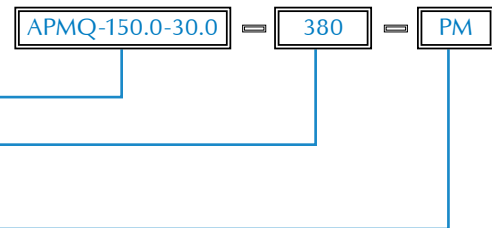
Lens Part Number

Wavelength of AR Coating (nm) ▶ 46-49

248 257 266 308 325 355 1064

Post Mount

PM



UV Aplanatic Meniscus Lenses

Lens Part Number	Companion UV Laser Aplanat	Combined Focal Length	Combined BFD	Clear Aperture CA	Working Distance WD	Outside Diameter D	Length L
APMQ-50.0-10.0	LAPQ-50.0-10.0	33.2	24.8	10.0	22.6	33.7	16.1
APMQ-75.0-15.0	LAPQ-75.0-15.0	50.5	41.5	15.0	38.2	38.1	16.0
APMQ-100.0-20.0	LAPQ-100.0-20.0	66.0	52.2	20.0	49.7	38.1	24.6
APMQ-125.0-25.0	LAPQ-125.0-25.0	82.0	69.2	25.0	66.4	38.1	25.3
APMQ-150.0-30.0	LAPQ-150.0-30.0	101.4	89.6	30.0	87.0	57.2	22.5
APMQ-200.0-40.0	LAPQ-200.0-40.0	130.5	115.0	40.0	109.9	66.7	33.0
APMQ-250.0-50.0	LAPQ-250.0-50.0	160.0	139.0	50.0	137.3	69.9	40.9
APMQ-300.0-60.0	LAPQ-300.0-60.0	192.0	160.0	60.0	168.5	85.7	58.2
APMQ-500.0-100.0	LAPQ-500.0-100.0	316.0	287.0	100.0	252.7	127.7	57.4

Unless otherwise noted, all measurements in mm.