

Substrate Material	BK7 glass
Surface Quality	40-20 per MIL-PRF-13830B
Design Wavelength	633nm
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 633nm
Damage Threshold	4J/cm ² , 20ns, 20Hz at 1064nm

- Use in combination with LAP to obtain f/3.3 relative aperture
- Air-spaced design for medium to high energy VIS-NIR laser applications
- Mounts easily onto Post with 8-32 and M4 x .7 Tap with Companion LAPQ

The CVI APM Series aplanatic meniscus lenses shorten the focal length of the LAP Series positive laser aplanats while maintaining the minimization of the

aberrations inherent in the LAP Series lenses. An LAP/APM combination is an f/3.3 focal system made up of reasonably priced standard components.

The APM 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 APM lens design must be matched to the spherical wavefront generated by the preceding LAP lens. This requirement

determines the front and back radii and center thickness of the meniscus lens. Also, the APM lens must be properly spaced from its companion laser aplanat. Therefore, APM and LAP lenses are used in pairs. CVI provides each APM lens pre-mounted in a housing that assures proper spacing and orientation with its paired LAP lens. APM 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

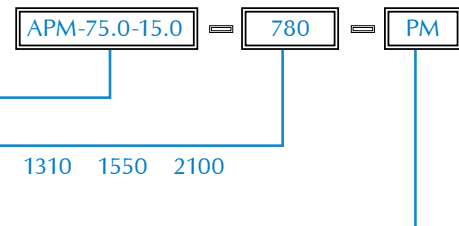
Lens Part Number

Wavelength of AR Coating (nm) ► 46-49

488 514.5 532 633 780 800 980 1054 1064 1070 1080 1090 1310 1550 2100

Post Mount

PM



Aplanatic Meniscus Lenses

Lens Part Number	Companion Laser Aplanat	Combined Focal Length	Combined BFD	Clear Aperture CA	Working Distance WD	Outside Diameter D	Length L
Original Housing							
APM-50.0-10.0	LAP-50.0-10.0	33.0	25.0	10.0	20.7	24.4	21.6
APM-75.0-15.0	LAP-75.0-15.0	51.0	41.6	15.0	35.0	31.7	25.4
APM-100.0-20.0	LAP-100.0-20.0	66.0	50.7	20.0	45.4	35.5	25.4
APM-125.0-25.0	LAP-125.0-25.0	83.0	69.0	25.0	61.8	38.1	31.8
APM-150.0-30.0	LAP-150.0-30.0	99.0	87.1	30.0	80.2	43.8	31.8
APM-200.0-40.0	LAP-200.0-40.0	132.0	114.9	40.0	109.6	57.2	38.1
APM-250.0-50.0	LAP-250.0-50.0	166.0	144.1	50.0	137.0	69.2	47.0
APM-300.0-60.0	LAP-300.0-60.0	198.0	168.8	60.0	163.2	82.5	49.5
APM-500.0-100.0	LAP-500.0-100.0	333.0	305.4	100.0	294.8	120.0	60.3
New Post Mount Housing							
APM-50.0-10.0-PM	LAP-50.0-10.0-PM	33.0	25.0	10.0	22.6	33.7	16.1
APM-75.0-15.0-PM	LAP-75.0-15.0-PM	51.0	41.6	15.0	38.2	38.1	16.0
APM-100.0-20.0-PM	LAP-100.0-20.0-PM	66.0	50.7	20.0	50.2	38.1	24.6
APM-125.0-25.0-PM	LAP-125.0-25.0-PM	83.0	69.0	25.0	66.2	38.1	25.3
APM-150.0-30.0-PM	LAP-150.0-30.0-PM	99.0	87.1	30.0	96.9	57.2	22.5
APM-200.0-40.0-PM	LAP-200.0-40.0-PM	132.0	114.9	40.0	109.9	66.7	33.0
APM-250.0-50.0-PM	LAP-250.0-50.0-PM	166.0	144.1	50.0	137.3	69.9	40.9
APM-300.0-60.0-PM	LAP-300.0-60.0-PM	198.0	168.8	60.0	168.5	85.7	58.2
APM-500.0-100.0-PM	LAP-500.0-100.0-PM	333.0	305.4	100.0	252.7	127.7	57.4

Unless otherwise noted, all measurements in mm.