

GLASS BK7 MENISCUS LENSES

Glass BK7 Meniscus lenses have one convex surface and one concave surface. They are used to change the focal length and effective f-number of another lens, without introducing additional spherical aberration or coma into the system.

Non-coated and AR coated products are available.

Standard Specifications:

| | |
|------------------------|---------------------------|
| Optical Material: | BK7 Grade A Optical Glass |
| Diameter Tolerance: | +0.0, -0.1mm |
| Design Wavelength: | 546.10nm |
| Design Index: | 1.5183±0.0005 |
| Paraxial Focal Length: | ±2% |
| Centration: | 3 arc minutes |
| Clear Aperture: | >85% |
| Surface Quality: | 60-40 scratch and dig |
| Wavefront Distortion: | lambda/4 at 632.8nm |
| Bevel: | <0.25mm X 45° |
| Coating: | available upon request |

Standard Glass BK7 Meniscus Lenses: Positive

| Dia(mm) | EFL(mm) | R1(mm) | R2(mm) | Tc(mm) | Te(mm) | BFL(mm) | Product Number |
|---------|---------|--------|--------|--------|--------|---------|----------------|
| 25.4 | 100.0 | 32.1 | 82.2 | 3.6 | 2.0 | 96.2 | UQT-MSBP1011 |
| 25.4 | 125.0 | 40.6 | 106.9 | 3.3 | 2.0 | 121.6 | UQT-MSBP1012 |
| 25.4 | 150.0 | 49.1 | 131.6 | 3.1 | 2.0 | 146.8 | UQT-MSBP1013 |
| 25.4 | 200.0 | 66.2 | 182.2 | 2.8 | 2.0 | 197.1 | UQT-MSBP1014 |
| 25.4 | 250.0 | 83.4 | 233.9 | 2.6 | 2.0 | 247.3 | UQT-MSBP1015 |
| 25.4 | 300.0 | 100.9 | 288.2 | 2.5 | 2.0 | 297.5 | UQT-MSBP1016 |
| 25.4 | 400.0 | 136.5 | 402.4 | 2.4 | 2.0 | 397.6 | UQT-MSBP1017 |
| 25.4 | 500.0 | 172.9 | 523.9 | 2.3 | 2.0 | 497.7 | UQT-MSBP1018 |
| 25.4 | 1000.0 | 371.6 | 1330.7 | 2.2 | 2.0 | 998.0 | UQT-MSBP1019 |
| 50.8 | 100.0 | 30.3 | 65.8 | 9.7 | 1.1 | 89.1 | UQT-MSBP1020 |
| 50.8 | 125.0 | 39.2 | 92.9 | 8.2 | 2.4 | 116.1 | UQT-MSBP1021 |
| 50.8 | 150.0 | 47.9 | 119.3 | 7.3 | 2.7 | 142.2 | UQT-MSBP1022 |
| 50.8 | 200.0 | 65.2 | 171.6 | 6.2 | 2.9 | 193.6 | UQT-MSBP1023 |
| 50.8 | 250.0 | 82.5 | 224.7 | 5.5 | 3.0 | 244.3 | UQT-MSBP1024 |
| 50.8 | 300.0 | 100.1 | 279.1 | 5.1 | 3.0 | 294.8 | UQT-MSBP1025 |
| 50.8 | 400.0 | 135.8 | 393.4 | 5.0 | 3.4 | 395.0 | UQT-MSBP1026 |
| 50.8 | 500.0 | 172.3 | 515.7 | 5.0 | 3.7 | 495.1 | UQT-MSBP1027 |
| 50.8 | 1000.0 | 371.6 | 1326.3 | 5.0 | 4.4 | 995.7 | UQT-MSBP1028 |

Standard BK7 Meniscus Lenses: Negative

| Dia(mm) | EFL(mm) | R1(mm) | R2(mm) | Tc(mm) | Te(mm) | BFL(mm) | Product Number |
|---------|---------|--------|--------|--------|--------|---------|----------------|
|---------|---------|--------|--------|--------|--------|---------|----------------|

| | | | | | | | |
|------|---------|-------|-------|-----|------|--------|--------------|
| 25.4 | -100.0 | 100.0 | 33.7 | 3.0 | 4.7 | -99.0 | UQT-MSBP2011 |
| 25.4 | -125.0 | 100.0 | 38.8 | 3.0 | 4.3 | -123.7 | UQT-MSBP2012 |
| 25.4 | -150.0 | 100.0 | 43.1 | 3.0 | 4.1 | -148.5 | UQT-MSBP2013 |
| 25.4 | -200.0 | 100.0 | 50.2 | 3.0 | 3.8 | -198.0 | UQT-MSBP2014 |
| 25.4 | -250.0 | 100.0 | 55.7 | 3.0 | 3.7 | -247.5 | UQT-MSBP2015 |
| 25.4 | -300.0 | 250.0 | 95.1 | 3.0 | 3.5 | -298.8 | UQT-MSBP2016 |
| 25.4 | -400.0 | 250.0 | 112.5 | 3.0 | 3.4 | -398.4 | UQT-MSBP2017 |
| 25.4 | -500.0 | 250.0 | 126.3 | 3.0 | 3.3 | -498.0 | UQT-MSBP2018 |
| 25.4 | -1000.0 | 500.0 | 253.2 | 3.0 | 3.2 | -998.0 | UQT-MSBP2019 |
| 50.8 | -100.0 | 200.0 | 40.6 | 5.0 | 12.3 | -99.2 | UQT-MSBP2020 |
| 50.8 | -125.0 | 200.0 | 48.3 | 5.0 | 10.6 | -123.9 | UQT-MSBP2021 |
| 50.8 | -150.0 | 200.0 | 55.3 | 5.5 | 9.6 | -148.7 | UQT-MSBP2022 |
| 50.8 | -200.0 | 200.0 | 67.4 | 5.0 | 8.4 | -198.3 | UQT-MSBP2023 |
| 50.8 | -250.0 | 200.0 | 77.7 | 5.0 | 7.7 | -247.9 | UQT-MSBP2024 |
| 50.8 | -300.0 | 300.0 | 101.4 | 5.0 | 7.2 | -298.3 | UQT-MSBP2025 |
| 50.8 | -400.0 | 300.0 | 121.5 | 5.0 | 6.6 | -397.7 | UQT-MSBP2026 |
| 50.8 | -500.0 | 300.0 | 137.8 | 5.0 | 6.3 | -497.2 | UQT-MSBP2027 |
| 50.8 | -1000.0 | 500.0 | 252.9 | 5.0 | 5.6 | -996.7 | UQT-MSBP2028 |

Please Contact [ultiQuest](#) for other dimensions in prototype and production quantities.

NOTES!

- ➔ The edge thicknesses fare theoretical values not including chamfer.
- ➔ Be sure to wear laser safety goggles when checking optical path and adjusting optical axis.