

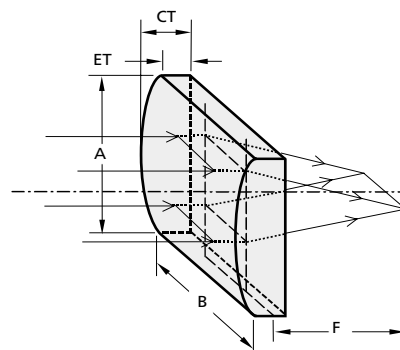
PLANO – CYLINDRICAL LENSES

condense or expand light in one dimension only
ideal for producing line images, for scanning and projection

We offer a selection of either plano-convex or plano-concave in form and rectangular in shape cylindrical lenses. These lenses are used to focus light to a thin line in laser scanners, spectroscopy, dye lasers, acousto-optics, optical processors and other similar applications. They are the best for circularization of diode laser outputs, energy collection for linear detectors or for coupling to a slit input.

Earlier remarks made about plano-convex and plano-concave spherical lenses, with regard to aberrations and conjugate ratios, are also applicable to cylindrical lenses.

A variety of anti-reflection coatings is available for these lenses. For appropriate coating please refer to the Coatings section.



SPECIFICATIONS

| | |
|-----------------------|--|
| Material | BK7, FS, UV FS |
| Surface quality | 60-40 scratch & dig |
| Clear aperture | 90% of the diameter |
| Dimension tolerance | +0.00, -0.12 mm |
| Thickness tolerance | ±0.5 mm |
| Surface figure | 1 λ @ 633 nm |
| Paraxial focal length | BK7 ±2% @ 546 nm FS, UV FS ±2% @ 355 nm |

Most of lenses are available from stock and can be shipped to you the same day when order is placed.

If you don't see exactly the lens that you need give us a call. We have a wide range of special focal lengths, diameters, and coatings.

BK7 PLANO-CONVEX CYLINDRICAL LENSES

| Cat. No. | Dimensions Metric | | Dimensions English | | Focal length F, mm | Centre thickness CT, mm | Edge thickness ET, mm |
|-----------------|-------------------|-------|--------------------|-------|--------------------|-------------------------|-----------------------|
| | A, mm | B, mm | A, mm | B, mm | | | |
| BK7 | | | | | | | |
| 120-0105 | 10.0 | 10.0 | 12.7 | 12.7 | 15 | 3.7 | 1.5 |
| 120-0110 | 19.0 | 25.0 | 19.1 | 25.4 | 25 | 6.1 | 2.0 |
| 120-0205 | 25.0 | 50.0 | 25.4 | 50.8 | 50 | 5.2 | 2.0 |
| 120-0210 | 25.0 | 50.0 | 25.4 | 50.8 | 75 | 4.1 | 2.0 |
| 120-0215 | 25.0 | 50.0 | 25.4 | 50.8 | 100 | 3.5 | 2.0 |
| 120-0220 | 25.0 | 50.0 | 25.4 | 50.8 | 150 | 3.0 | 2.0 |
| 120-0225 | 25.0 | 50.0 | 25.4 | 50.8 | 200 | 2.8 | 2.0 |
| 120-0230 | 25.0 | 50.0 | 25.4 | 50.8 | 300 | 2.5 | 2.0 |
| 120-0235 | 25.0 | 50.0 | 25.4 | 50.8 | 500 | 2.4 | 2.0 |
| 120-0240 | 25.0 | 50.0 | 25.4 | 50.8 | 1000 | 2.3 | 2.0 |
| 120-0245 | 25.0 | 50.0 | 25.4 | 50.8 | 1500 | 2.2 | 2.0 |

For metric dimensions please add to catalogue number code M, for English – code E.

UV FS & FS PLANO-CONVEX CYLINDRICAL LENSES

| Catalogue number | | Dimensions Metric | | Dimensions English | | Focal length | Centre thickness | Edge thickness |
|------------------|----------|-------------------|-------|--------------------|-------|--------------|------------------|----------------|
| UVFS | FS | A, mm | B, mm | A, mm | B, mm | F, mm | CT, mm | ET, mm |
| 120-1105 | 120-3105 | 19.0 | 25.0 | 19.1 | 25.4 | 25 | 8.0 | 3.0 |
| 120-1205 | 120-3205 | 25.0 | 50.0 | 25.4 | 50.8 | 50 | 7.1 | 3.5 |
| 120-1210 | 120-3210 | 25.0 | 50.0 | 25.4 | 50.8 | 75 | 5.6 | 3.3 |
| 120-1215 | 120-3215 | 25.0 | 50.0 | 25.4 | 50.8 | 100 | 4.7 | 3.0 |
| 120-1220 | 120-3220 | 25.0 | 50.0 | 25.4 | 50.8 | 150 | 4.1 | 3.0 |
| 120-1225 | 120-3225 | 25.0 | 50.0 | 25.4 | 50.8 | 200 | 4.3 | 3.5 |
| 120-1230 | 120-3230 | 25.0 | 50.0 | 25.4 | 50.8 | 300 | 4.1 | 3.5 |
| 120-1235 | 120-3235 | 25.0 | 50.0 | 25.4 | 50.8 | 500 | 3.4 | 3.5 |
| 120-1240 | 120-3240 | 25.0 | 50.0 | 25.4 | 50.8 | 1000 | 2.5 | 2.3 |
| 120-1245 | 120-3245 | 25.0 | 50.0 | 25.4 | 50.8 | 1500 | 2.2 | 2.0 |

For metric dimensions please add to catalogue number code M, for English – code E.

BK7 PLANO-CONCAVE CYLINDRICAL LENSES

| Cat. No. | Dimensions Metric | | Dimensions English | | Focal length | Centre thickness | Edge thickness |
|----------|-------------------|-------|--------------------|-------|--------------|------------------|----------------|
| BK7 | A, mm | B, mm | A, mm | B, mm | F, mm | CT, mm | ET, mm |
| 122-0105 | 10.0 | 10.0 | 12.7 | 12.7 | -15 | 1.4 | 3.7 |
| 122-0110 | 19.0 | 25.0 | 19.1 | 25.4 | -25 | 2.0 | 6.0 |
| 122-0205 | 25.0 | 50.0 | 25.4 | 50.8 | -50 | 2.0 | 5.2 |
| 122-0210 | 25.0 | 50.0 | 25.4 | 50.8 | -75 | 2.0 | 4.1 |
| 122-0215 | 25.0 | 50.0 | 25.4 | 50.8 | -100 | 2.0 | 3.5 |
| 122-0220 | 25.0 | 50.0 | 25.4 | 50.8 | -150 | 2.0 | 3.0 |
| 122-0225 | 25.0 | 50.0 | 25.4 | 50.8 | -200 | 2.0 | 2.8 |
| 122-0230 | 25.0 | 50.0 | 25.4 | 50.8 | -300 | 2.0 | 2.5 |
| 122-0235 | 25.0 | 50.0 | 25.4 | 50.8 | -500 | 2.0 | 2.4 |

For metric dimensions please add to catalogue number code M, for English – code E.

UV FS & FS PLANO-CONCAVE CYLINDRICAL LENSES

| Catalogue number | | Dimensions Metric | | Dimensions English | | Focal length | Centre thickness | Edge thickness |
|------------------|----------|-------------------|-------|--------------------|-------|--------------|------------------|----------------|
| UVFS | FS | A, mm | B, mm | A, mm | B, mm | F, mm | CT, mm | ET, mm |
| 122-1105 | 122-3105 | 19.0 | 25.0 | 19.1 | 25.4 | -25 | 3.0 | 8.0 |
| 122-1205 | 122-3205 | 25.0 | 50.0 | 25.4 | 50.8 | -50 | 3.5 | 7.1 |
| 122-1210 | 122-3210 | 25.0 | 50.0 | 25.4 | 50.8 | -75 | 3.3 | 5.6 |
| 122-1215 | 122-3215 | 25.0 | 50.0 | 25.4 | 50.8 | -100 | 3.0 | 4.7 |
| 122-1220 | 122-3220 | 25.0 | 50.0 | 25.4 | 50.8 | -150 | 3.0 | 4.1 |
| 122-1225 | 122-3225 | 25.0 | 50.0 | 25.4 | 50.8 | -200 | 3.8 | 4.6 |
| 122-1230 | 122-3230 | 25.0 | 50.0 | 25.4 | 50.8 | -300 | 3.5 | 4.1 |
| 122-1235 | 122-3235 | 25.0 | 50.0 | 25.4 | 50.8 | -500 | 3.5 | 3.4 |

For metric dimensions please add to catalogue number code M, for English – code E.

Please contact **EKSMA** for other size, focus or precision requirements.

We can supply custom cutting, edging, coating or complete fabrication if required.

If you do not find what you need in our list of stock items, please send your specification or drawings for a custom quotation.