

BE SERIES

BE Series is a family of High Power Laser Beam Expanders featuring state-of-the-art optical performances. Maximum $\lambda/8$ wavefront distortion is guaranteed over a very large entrance pupil while the Fused Silica input lens ensures safe operation with the most powerful laser sources. The focusing stability is ensured by a pre-load spring, while the non-rotating lens movement grants a pointing stability of less than 1 mrad.

BE Series are compact and robust and mechanically compatible with common standard threaded interfaces.

Cost-effectiveness makes these optics the solution of choice for any industrial laser system.

High power laser beam expanders



KEY ADVANTAGES

- 1 **Wavefront Distortion less than $\lambda/8$:** for tiny spot size achievement
- 2 **Fused Silica Input Lens:** for Laser Damage Threshold (LTD) up to $10\text{J}/\text{cm}^2$ (10 ns)
- 3 **Pre-load spring and Blocking Knob:** for high focusing stability
- 4 **Non rotating lens movement:** for pointing stability within 1 mrad
- 5 **Large Entrance Pupil:** also for high beam magnification applications
- 6 **Compact and Robust Mechanical Design:** compatible with Standard Interfaces

part number	magnification	wavelegh range (nm)	max. entrance beam diameter (mm)	transmittance within the wv range	max wavefront distortion	max. outer diameter (mm)	length ① (mm)	front mounting thread	rear mounting thread
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Beam Expanders: 1064 nm Series

BE1064-02.0	2X	1064 +/- 20	8	> 98,5%	< $\lambda/12$ p-v	46 mm	63,4	M43x0,5	M30x1
BE1064-03.0	3X	1064 +/- 20	8	> 98%	< $\lambda/10$ p-v	46 mm	85,0	M43x0,5	M30x1
BE1064-05.0	5X	1064 +/- 20	6	> 98%	< $\lambda/10$ p-v	46 mm	102,7	M43x0,5	M30x1
BE1064-08.0	8X	1064 +/- 20	3,6	> 98%	< $\lambda/8$ p-v	46 mm	111,7	M43x0,5	M30x1
BE1064-10.0	10X	1064 +/- 20	3	> 97,5%	< $\lambda/8$ p-v	46 mm	114,3	M43x0,5	M30x1

Beam Expanders: 1064 nm Series

BE0532-02.0	2X	532 +/- 20	8	> 98,5%	< $\lambda/10$ p-v	46 mm	63,4	M43x0,5	M30x1
BE0532-03.0	3X	532 +/- 20	8	> 98%	< $\lambda/10$ p-v	46 mm	85,0	M43x0,5	M30x1
BE0532-05.0	5X	532 +/- 20	6	> 98%	< $\lambda/8$ p-v	46 mm	102,7	M43x0,5	M30x1
BE0532-08.0	8X	532 +/- 20	3,6	> 98%	< $\lambda/8$ p-v	46 mm	111,7	M43x0,5	M30x1
BE0532-10.0	10X	532 +/- 20	3	> 97,5%	< $\lambda/8$ p-v	46 mm	114,3	M43x0,5	M30x1

① Listed length value is the nominal one (incoming perfectly collimated beam). +/- 2 mm course of the entrance optical element will make this length shorter or longer in order to compensate the input beam divergence.