

# LINOS Beam Expander

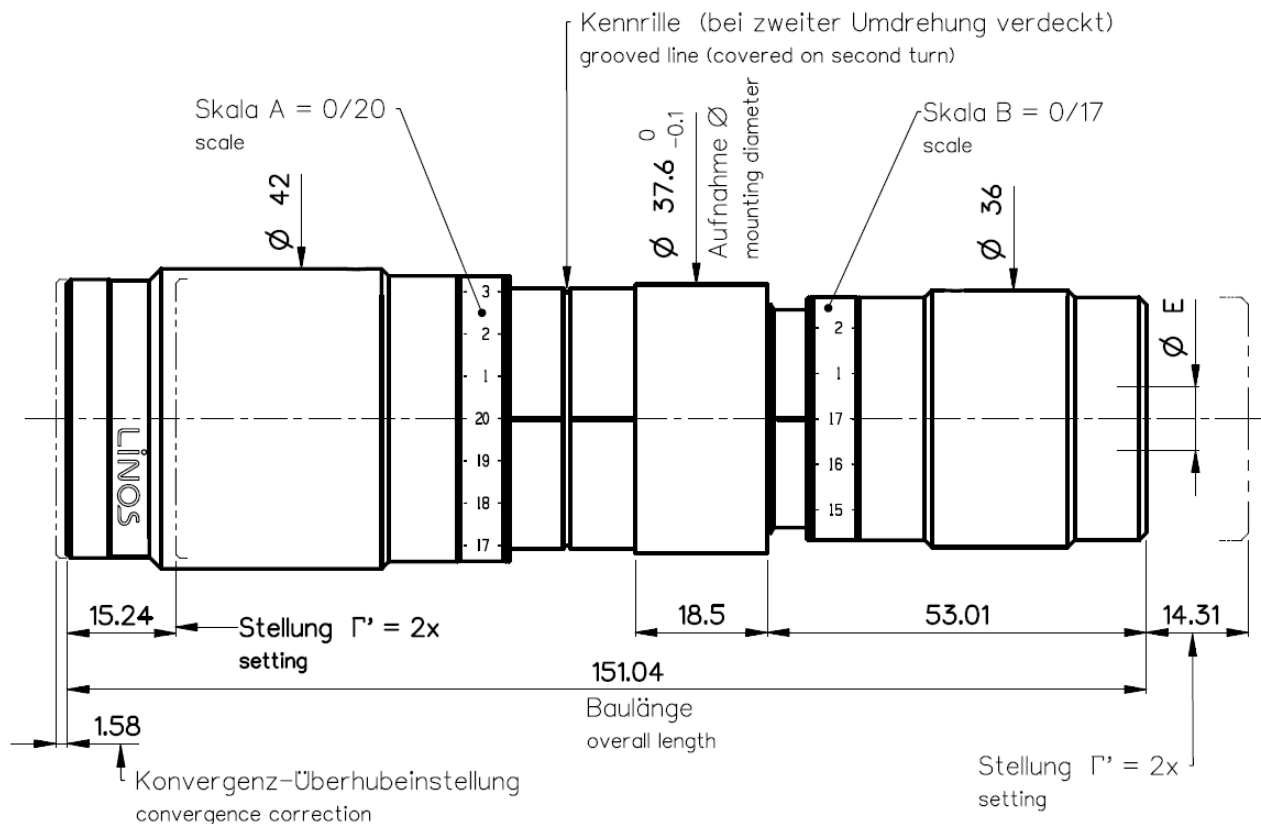
2 – 8x, 1064nm, entrance lens made of fused silica

|                                                                                 |                       |                      |                                                                |
|---------------------------------------------------------------------------------|-----------------------|----------------------|----------------------------------------------------------------|
| Part number                                                                     | 4401-359-000-20       |                      |                                                                |
| Design wavelength                                                               | $\lambda$             | (nm)                 | 1064                                                           |
| Broadband anti-reflective coating on the lenses                                 | $\lambda$             | (nm)                 | 1030 - 1080                                                    |
| Expansion                                                                       | $\Gamma'$             |                      | 2x – 8x                                                        |
| Lens material                                                                   |                       |                      | Entrance lens made of fused silica, other lenses optical glass |
| Material                                                                        |                       |                      | Aluminium, black anodized                                      |
| Max. entrance beam diameter ( $1/e^2$ truncated) for $2.0 \leq \Gamma \leq 3.9$ | $E_{max} \varnothing$ | (mm)                 | 6                                                              |
| Max. entrance beam diameter ( $1/e^2$ truncated) for $4.0 < \Gamma \leq 8.0$    | $E_{max} \varnothing$ | (mm)                 | 4                                                              |
| LIDT coating @ 1064nm, 9ns, 100Hz                                               |                       | (J/cm <sup>2</sup> ) | 30                                                             |

Subject to technical change

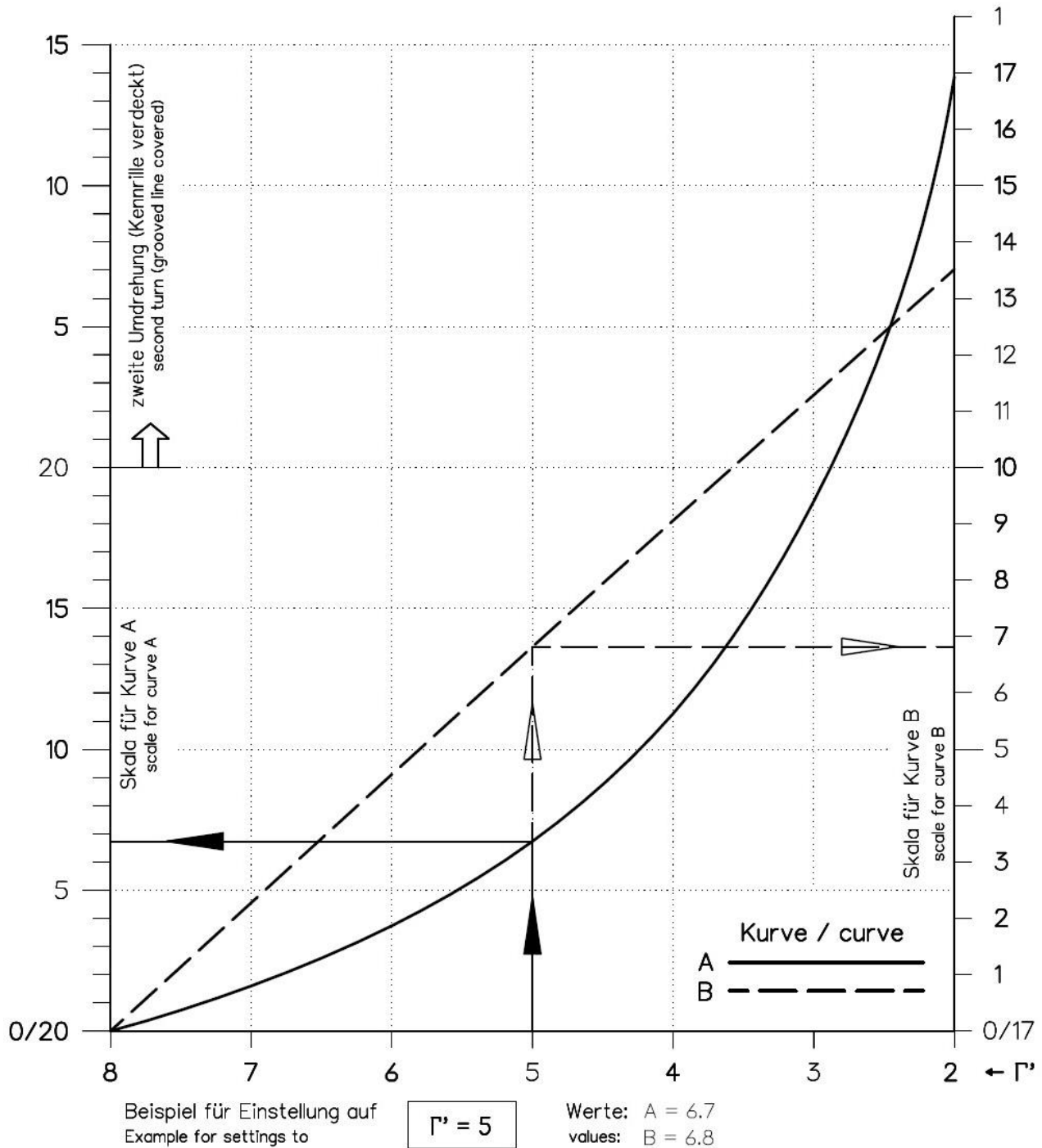
## Mechanical drawing

Beam Expander displayed in setting  $\Gamma' = 8x$



Dimensions without tolerances are nominal values and illustration not to scale

## Setting values for a given expansion $\Gamma'$



## Notes

For technical explanations, see our homepage.

[LINOS Laser Material Processing Optics | Excelitas](https://www.excelitas.com)

The actual LIDT of the Beam Expander, as well as effects such as thermal focus shift, depend on the specific system setup and laser parameters. We recommend testing the respective optical components before use. We are happy to support and advise you in selecting the right Beam Expander!