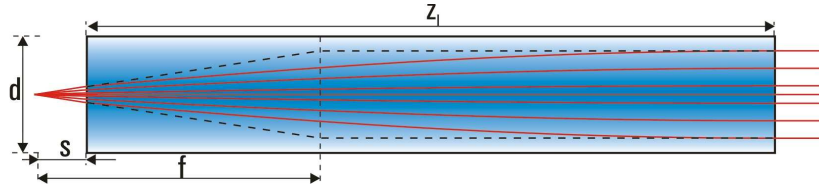
GRIN Rod Lenses – Numerical Aperture 0.2

Gradient index lenses for fiber coupling and beam shaping of laser diodes



Order example: GT-LFRL-100-025-20-CC (670)
- Design wavelength
- Coating Code
- NA: 0.2
- Pitch: 0.25
- Diameter: 1.0 mm
- Laser Focusing Rod Lens
- GRINTECH

- Working distance, design wavelength and lens length deviating from these standards on request
- 8° angled facet is available on request
- ZEMAX files can be DOWNLOADed from our website

Pitch P	Working distance s (mm)	Numerical Aperture NA	Lens length z_l (mm)	Focal length f (mm)	Gradient constant g (mm^{-1})	Refractive index at the center of the profile n_0	Wavelength λ (nm)	Product code
Diameter d: 0.35 mm								
0.25	0	0.20	2.14	0.89	0.734	1.524	670	GT-LFRL-035-025-20-CC (670)
0.24	0.05	0.20	2.06	0.89	0.734	1.524	670	GT-LFRL-035-024-20-CC (670)
0.25	0	0.20	2.15	0.90	0.730	1.521	810	GT-LFRL-035-025-20-CC (810)
0.24	0.05	0.20	2.07	0.90	0.730	1.521	810	GT-LFRL-035-024-20-CC (810)
0.25	0	0.20	2.16	0.91	0.727	1.515	1310-1550	GT-LFRL-035-025-20-CC (1550)
0.24	0.05	0.20	2.08	0.91	0.727	1.515	1310-1550	GT-LFRL-035-024-20-CC (1550)
Diameter d: 0.5 mm								
0.25	0	0.20	3.05	1.28	0.515	1.524	670	GT-LFRL-050-025-20-CC (670)
0.24	0.08	0.20	2.93	1.28	0.515	1.524	670	GT-LFRL-050-024-20-CC (670)
0.25	0	0.20	3.06	1.28	0.513	1.521	810	GT-LFRL-050-025-20-CC (810)
0.24	0.08	0.20	2.94	1.28	0.513	1.521	810	GT-LFRL-050-024-20-CC (810)
0.25	0	0.20	3.07	1.29	0.511	1.515	1310-1550	GT-LFRL-050-025-20-CC (1550)
0.24	0.08	0.20	2.95	1.29	0.511	1.515	1310-1550	GT-LFRL-050-024-20-CC (1550)
Diameter d: 1.0 mm								
0.25	0	0.20	6.12	2.56	0.257	1.524	670	GT-LFRL-100-025-20-CC (670)
0.24	0.16	0.20	5.87	2.56	0.257	1.524	670	GT-LFRL-100-024-20-CC (670)
0.25	0	0.20	6.13	2.57	0.256	1.521	810	GT-LFRL-100-025-20-CC (810)
0.24	0.16	0.20	5.89	2.57	0.256	1.521	810	GT-LFRL-100-024-20-CC (810)
0.25	0	0.20	6.16	2.59	0.255	1.515	1310-1550	GT-LFRL-100-025-20-CC (1550)
0.24	0.16	0.20	5.92	2.59	0.255	1.515	1310-1550	GT-LFRL-100-024-20-CC (1550)
Diameter d: 1.8 mm								
0.25	0	0.20	11.15	4.66	0.141	1.524	670	GT-LFRL-180-025-20-CC (670)
0.24	0.28	0.20	10.72	4.66	0.141	1.524	670	GT-LFRL-180-024-20-CC (670)
0.25	0	0.20	11.17	4.68	0.140	1.521	810	GT-LFRL-180-025-20-CC (810)
0.24	0.28	0.20	10.74	4.68	0.140	1.521	810	GT-LFRL-180-024-20-CC (810)
0.25	0	0.20	11.22	4.72	0.139	1.515	1310-1550	GT-LFRL-180-025-20-CC (1550)
0.24	0.28	0.20	10.79	4.72	0.139	1.515	1310-1550	GT-LFRL-180-024-20-CC (1550)

GRIN rod lenses are offered with antireflection coatings (R < 0.5 % for the design wavelength and incidence angles of 0° ... 30° corresponding to measurements on a reference substrate)

Coating Code:
- NC: no coating (reflection loss approx. 10 %)
- C1: λ = 450 ... 690 nm
- C2: λ = 800 ... 960 nm
- C5: λ = 1310 ... 1550 nm

Variations due to modifications of the production process are possible.
It is the user´s responsibility to determine suitability for the user´s purpose.

Tolerances:
lens length z_l: ± 5% due to variations of the gradient constant
working distance s: ± 0.02 mm
diameter d: + 0 / -0.01 mm
Please ask for tighter diameter tolerances

Surface quality:
5 / 3 x 0.025; L 3 x 0.005; E 0 (defined by DIN ISO 10110-7:2000-02).
The surface quality is defined within 90 % of the lens diameter. Outside of this area defects are allowed.

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