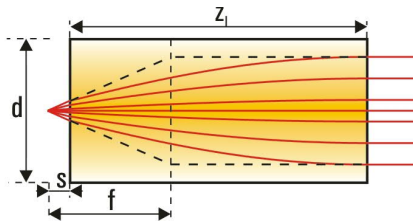


## GRIN Rod Lenses – Numerical Aperture 0.5



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

Diameter (mm)	Pitch P	Working distance s (mm)	Lens length z <sub>l</sub> (mm)	Focal length f (mm)	Gradient constant g (mm <sup>-1</sup> )	Refractive index at the center of the profile n <sub>0</sub>	Wavelength λ (nm)	Product code
0.50	0.25	0	1.15	0.45	1.349 - 1.369*	1.616 - 1.629*	670-1550	GT-LFRL-050-025-50-CC
	0.23	0.06	1.05	0.46	1.349 - 1.369*	1.616 - 1.629*	670-1550	GT-LFRL-050-023-50-CC
1.00	0.25	0	2.25	0.88	0.697	1.629	670	GT-LFRL-100-025-50-CC (670)
	0.25	0	2.27	0.89	0.693	1.624	810	GT-LFRL-100-025-50-CC (810)
	0.25	0	2.29	0.90	0.687	1.616	1550	GT-LFRL-100-025-50-CC (1550)
	0.23	0.11 - 0.12*	2.06	0.90	0.697 - 0.687*	1.616 - 1.629*	670 - 1550	GT-LFRL-100-023-50-CC
1.80	0.25	0	4.24	1.66	0.370	1.629	670	GT-LFRL-180-025-50-CC (670)*
	0.25	0	4.27	1.67	0.368	1.624	810	GT-LFRL-180-025-50-CC (810)
	0.25	0	4.30	1.70	0.365	1.616	1550	GT-LFRL-180-025-50-CC (1550)
	0.23	0.21 - 0.25*	3.88	1.69	0.365 - 0.370*	1.616 - 1.629*	670 - 1550	GT-LFRL-180-023-50-CC
2.00	0.25	0	4.85	1.89	0.324	1.629	670	GT-LFRL-200-025-50-CC (670)*
	0.25	0	4.88	1.91	0.322	1.624	810	GT-LFRL-200-025-50-CC (810)
	0.25	0	4.92	1.94	0.319	1.616	1550	GT-LFRL-200-025-50-CC (1550)
	0.23	0.23 - 0.27*	4.45	1.93	0.319 - 0.324*	1.616 - 1.629*	670 - 1550	GT-LFRL-200-023-50-CC

\*: depending on wavelength

- Working distance, design wavelength and lens length deviating from these standards are available on request
- 8° angled facet / other diameters (0.25 mm, 0.35 mm, 0.60 mm and 0.85 mm) are available on request
- ZEMAX files can be [DOWNLOADED](#) from our website
- For tolerances, handling and storage see page 22

GRIN rod lenses are offered without antireflection coatings as standard. Antireflection coatings (R < 1.0 % for the design wavelength and incidence angles of 0 ... 30° corresponding to measurements on a reference substrate) can be offered:

Coating Code: NC: no coating (reflection loss approx. 12 %) - standard  
 C1: λ = 450 ... 690 nm  
 C2: λ = 800 ... 1000 nm  
 C5: λ = 1310 ... 1550 nm

One - sided coatings are available on request.

Order example:

GT - LFRL - 100 - 025 - 50 - CC - (670)	
GT	GRINTECH
LFRL	Focusing Rod Lens
100	Diameter: 0.5, 1.0, 1.8 or 2.0 mm
025	Pitch: 0.25 or 0.23
50	NA: 0.50
CC	Coating Code: NC, C1, C2 or C5
(670)	Design Wavelength

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

\* not available for following applications : Please note our partnership with Inscopix as our exclusive distributor for the field of non-confocal, single photon epi-fluorescence imaging for neuroscience applications in non-humans (see page 9).