

Additional product launch June 2017 of the F-Theta JENar™ Lens series

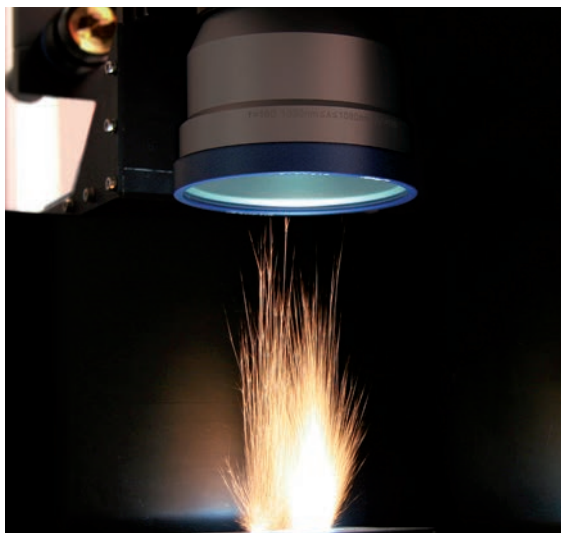
We are very happy to present new developments of special F-Theta coatings.

New product variants with improved VIS performance

for visual monitoring of the manufacturing process at 1030 nm ... 1080 nm. In the band from 500 nm ... 680 nm transmission of these lenses is better than 85 %, which allows direct monitoring of the process using a straightforward image sensor/filter combination.

New product variants for NIR diode lasers

of Silverline™ F-Theta lenses.
Coating is specified for 900 nm ... 1100 nm instead of 1030 nm ... 1080 nm for the broader spectrum typical of diode lasers.



Laser Material Processing with JENar™ Lens



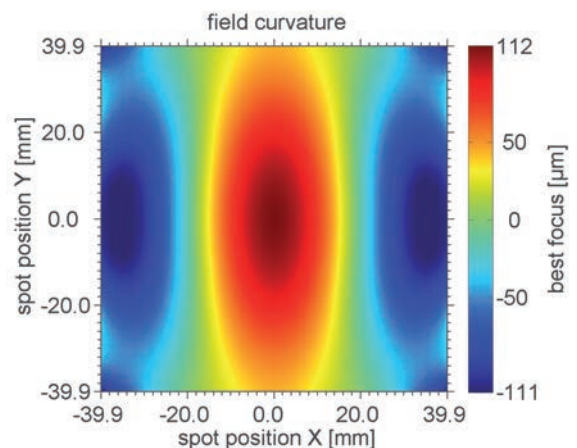
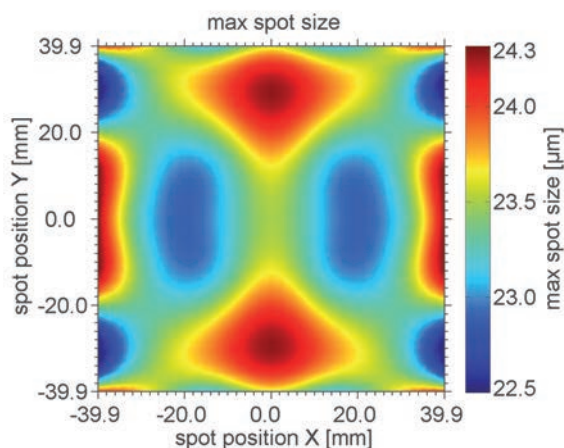
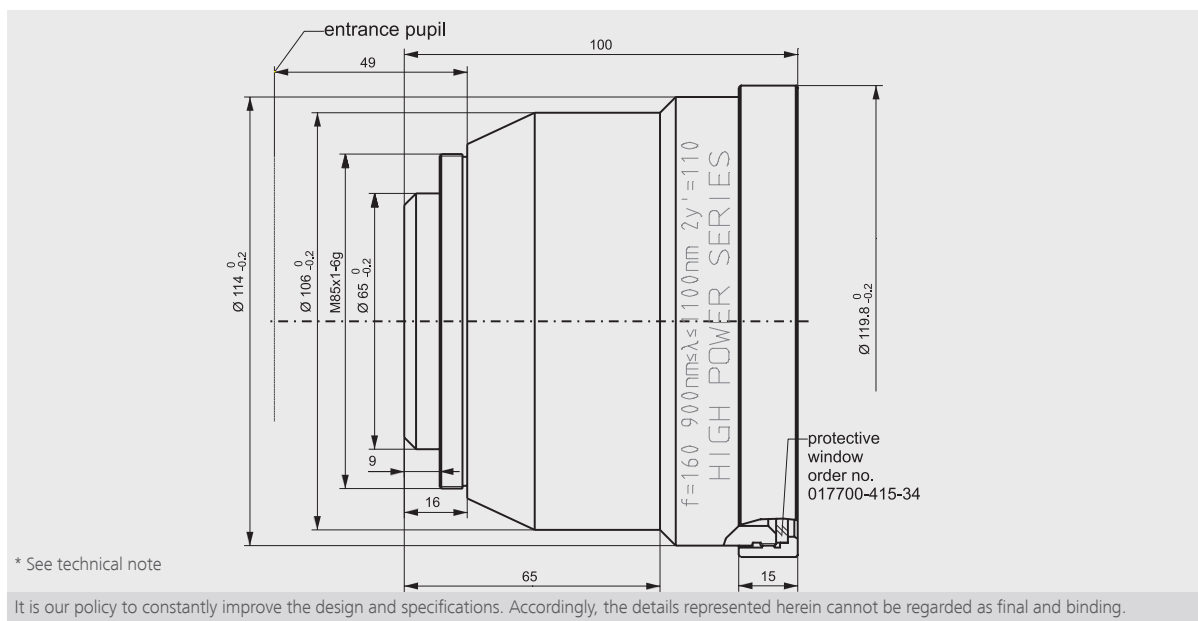
© JENOPTIK Laser GmbH - Diode laser module

- **601914:** VIS enhanced version of our compact F-Theta lens for large scan fields 017700-019-26 with focal length 160 mm and scan field diameter 170 mm
- **601926:** VIS enhanced version of our telecentric lens 017700-003-26 with focal length 125 mm and scan field diameter 80 mm
- **601948:** VIS enhanced version of our F-Theta lens for larger beam diameters and scan fields 017700-017-26 with focal length 255 mm and scan field diameter 239 mm
- **601787:** broadband coated version of our fused silica lens 017700-025-26 with focal length 160 mm and scan field diameter 110 mm
- **601804:** broadband coated version of our fused silica lens 017700-026-26 with focal length 255 mm and scan field diameter 160 mm

JENar™ 160-900...1100-110

Fused silica lens

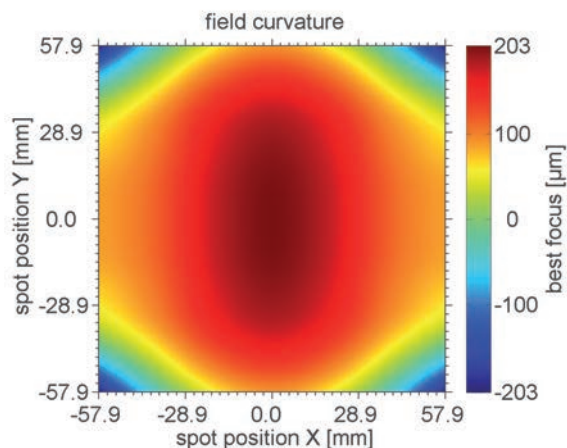
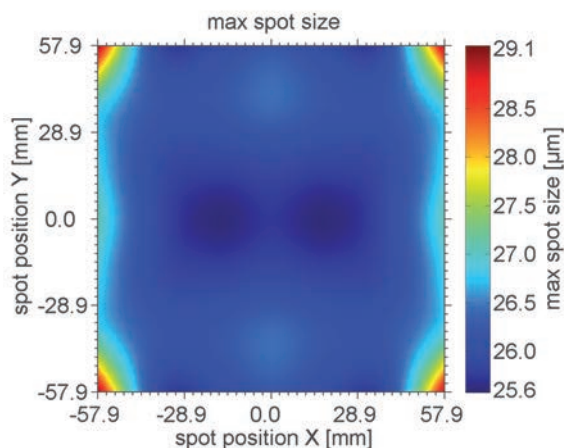
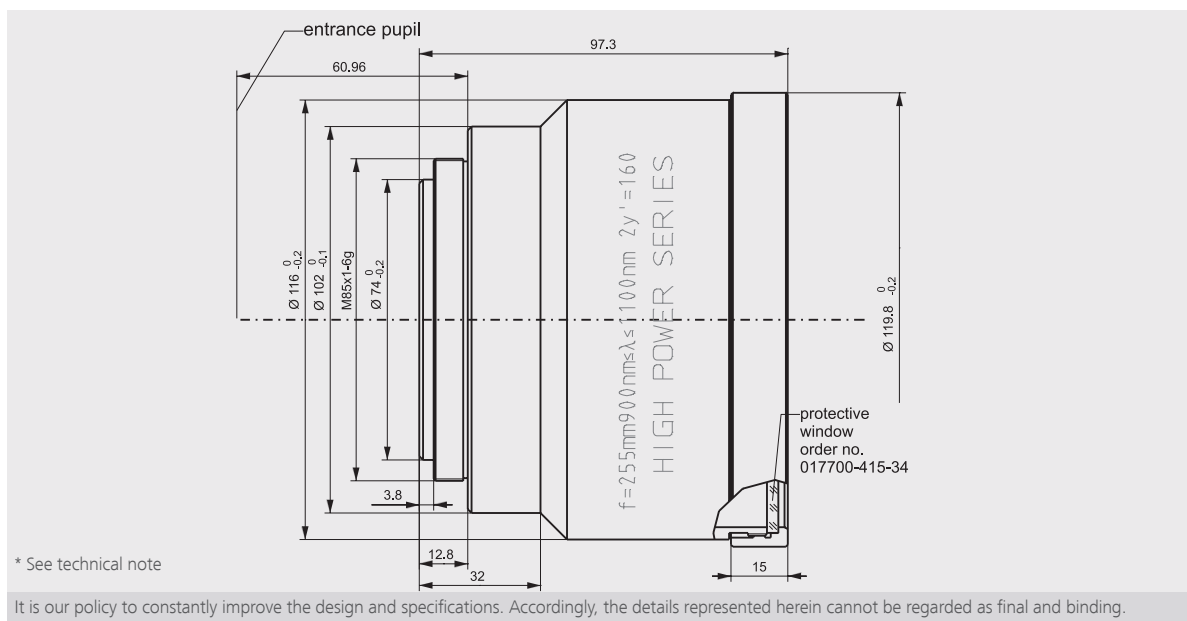
| | |
|---------------------------------|---------------------------------------|
| Focal length: | 160 mm |
| Wavelength: | 900... 1100 nm |
| Scan field (X x Y); Ø: | (78 mm x 78 mm); 110 mm |
| Diagonal scan angle: | 40° |
| Back working distance: | 182.0 mm @ 900 nm; 183.9 mm @ 1100 nm |
| Flange focus distance: | 266.0 mm @ 900 nm; 267.9 mm @ 1100 nm |
| Entrance pupil Ø: | 18 mm |
| Input beam Ø 1/e ² : | 14 mm |
| Focus size Ø 1/e ² : | 19 µm @ 900 nm; 23 µm @ 1100 nm |
| a1 | 17 mm |
| a2 | 40.5 mm |
| Telecentricity: | 5.4° |
| Group delay dispersion (GDD)*: | 759 fs ² |
| LIDT pulsed; CW*: | not available yet |
| Weight: | 1.08 kg |
| Order number: | 601787 |



JENar™ 255-900...1100-160

Fused silica lens

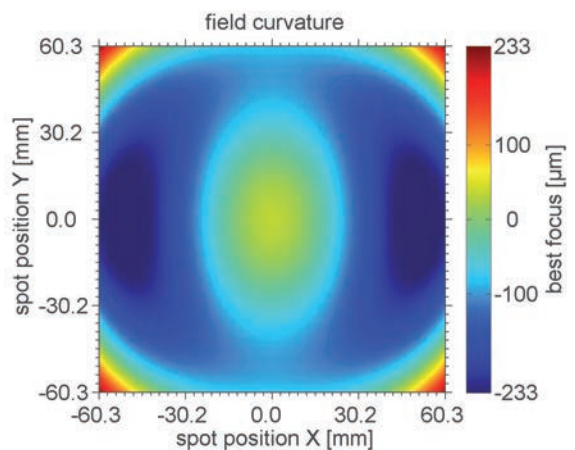
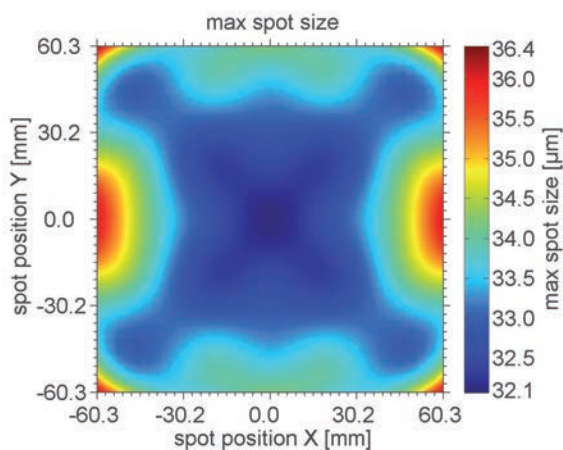
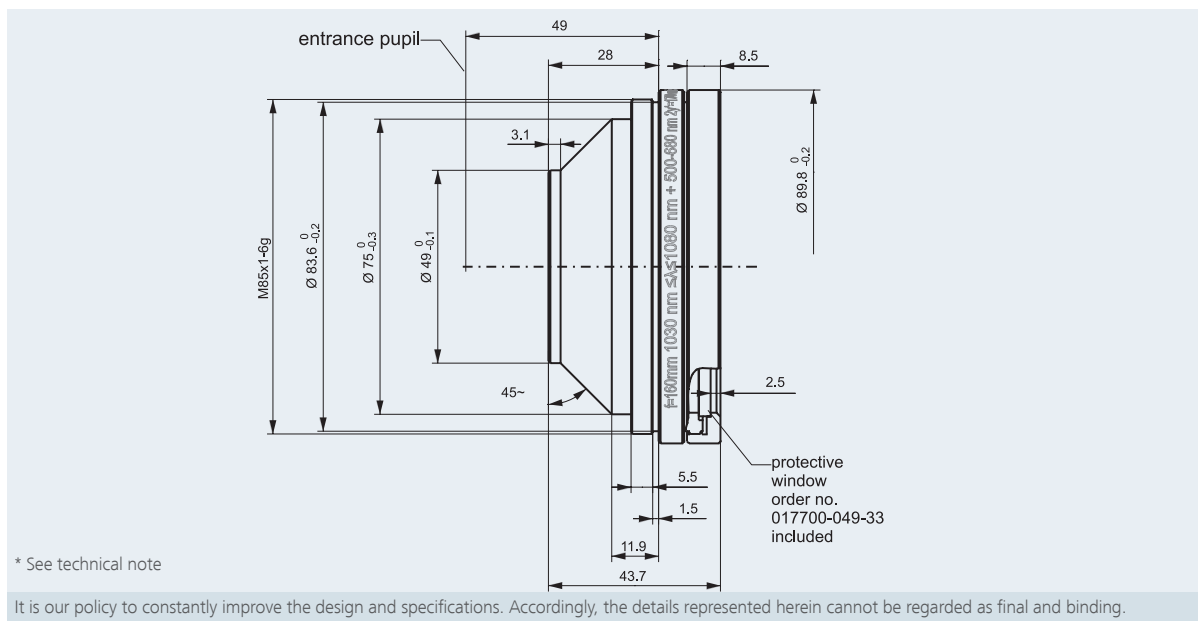
| | |
|---------------------------------|---------------------------------------|
| Focal length: | 255 mm |
| Wavelength: | 900... 1100 nm |
| Scan field (X x Y); Ø: | (114 mm x 114 mm); 161 mm |
| Diagonal scan angle: | 36° |
| Back working distance: | 301.5 mm @ 900 nm; 304.2 mm @ 1100 nm |
| Flange focus distance: | 386.1 mm @ 900 nm; 388.8 mm @ 1100 nm |
| Entrance pupil Ø: | 25 mm |
| Input beam Ø 1/e ² : | 20 mm |
| Focus size Ø 1/e ² : | 21 µm @ 900 nm; 26 µm @ 1100 nm |
| a1 | 25 mm |
| a2 | 48.46 mm |
| Telecentricity: | 7.4° |
| Group delay dispersion (GDD)*: | 904 fs ² |
| LIDT pulsed; CW*: | not available yet |
| Weight: | 1.2 kg |
| Order number: | 601804 |



JENar™ 160-1030...1080-170 + VIS

Compact F-Theta lens for large scan fields

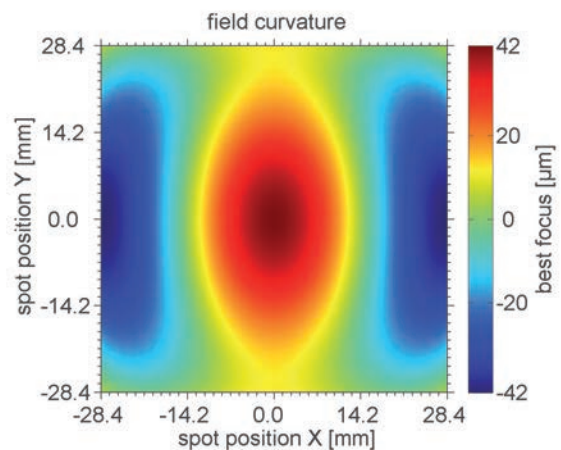
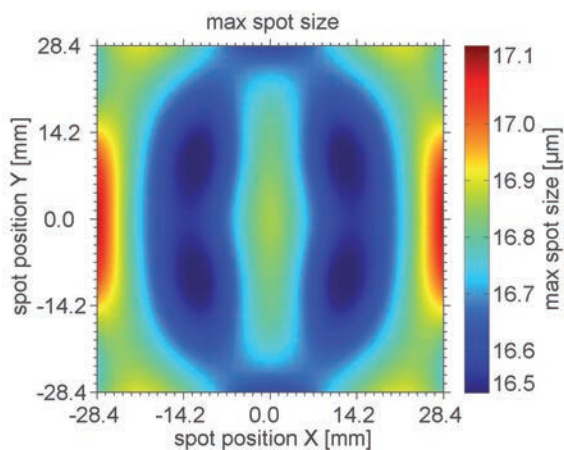
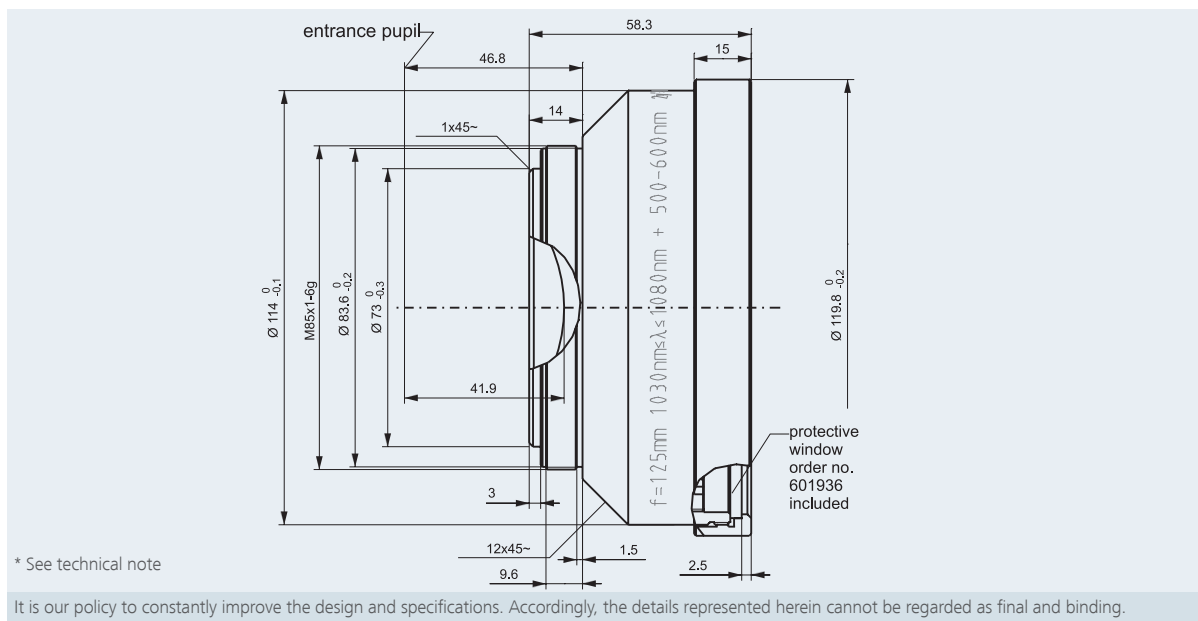
| | |
|---------------------------------|---------------------------------------|
| Focal length: | 160 mm |
| Wavelength: | 1030...1080 nm; T@500...680 nm > 85 % |
| Scan field (X x Y); Ø: | (120 mm x 120 mm); 170 mm |
| Diagonal scan angle: | 60° |
| Back working distance: | 178.4 mm |
| Flange focus distance: | 194.1 mm |
| Entrance pupil Ø: | 15 mm |
| Input beam Ø 1/e ² : | 10 mm |
| Focus size Ø 1/e ² : | 31 µm |
| a1 | 13 mm |
| a2 | 42.5 mm |
| Telecentricity: | 17.2° |
| Group delay dispersion (GDD)*: | 934 fs ² |
| LIDT pulsed; CW*: | not available yet |
| Weight: | 0.383 kg |
| Order number: | 601914 |



JENar™ 125-1030...1080-80 + VIS

Telecentric lens

| | |
|---------------------------------|---------------------------------------|
| Focal length: | 125 mm |
| Wavelength: | 1030...1080 nm; T@500...680 nm > 85 % |
| Scan field (X x Y); Ø: | (57 mm x 57 mm); 80 mm |
| Diagonal scan angle: | 37.2° |
| Back working distance: | 154.6 mm |
| Flange focus distance: | 196.9 mm |
| Entrance pupil Ø: | 22 mm |
| Input beam Ø 1/e ² : | 15 mm |
| Focus size Ø 1/e ² : | 16 µm |
| a1 | 18.2 mm |
| a2 | 37.65 mm |
| Telecentricity: | 5.1° |
| Group delay dispersion (GDD)*: | 3670 fs ² |
| LIDT pulsed; CW*: | not available yet |
| Weight: | 0.86 kg |
| Order number: | 601926 |



JENar™ 255-1030...1080-239 + VIS

F-Theta lens for larger beam diameters and scan fields

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|---------------------------------|---------------------------------------|
| Focal length: | 255 mm |
| Wavelength: | 1030...1080 nm; T@500...680 nm > 85 % |
| Scan field (X x Y); Ø: | (169 mm x 169 mm); 239 mm |
| Diagonal scan angle: | 53.2° |
| Back working distance: | 291 mm |
| Flange focus distance: | 336 mm |
| Entrance pupil Ø: | 30 mm |
| Input beam Ø 1/e ² : | 20 mm |
| Focus size Ø 1/e ² : | 24 µm |
| a1 | 25 mm |
| a2 | 39 mm |
| Telecentricity: | 15° |
| Group delay dispersion (GDD)*: | 3670 fs ² |
| LIDT pulsed; CW*: | not available yet |
| Weight: | 1.4 kg |
| Order number: | 601948 |

