

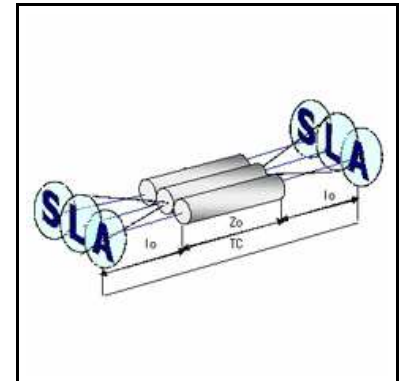
<http://www.eureca.de/neu-english/optics/lenses-nsg.html>

In addition to conventional lenses EURECA MESSTECHNIK GMBH also offers gradient index lens arrays (Selfoc Lens Arrays=SLA). Gradient index lenses are not based on ground glass surfaces, but achieve the necessary bending of the light by variation of the refractive index within the lens.

Used in an array each lens makes an upright and real 1:1 image with an image circle bigger than the lens diameter. The single lenses are aligned in single or double rows in a compact array, so that the images by the single lenses overlap.

The height of the resulting image is determined by the type of SLA used, the width depends on the length of the lens and can be up to several meters.

SLAs are optimised for well defined working distances and wave lengths that can be seen in the table below.



Amongst others SLAs are used in Fax machines and scanners, but also to control industrial roll goods. They are also part of CIS modules and cameras.

| Type | TC [mm] | Z ₀ [mm] | L ₀ [mm] | Wavelength [nm] | MTF [%] (*) | F-Number | Number of Rows |
|----------|---------|---------------------|---------------------|-----------------|-------------|----------|----------------|
| SLA-9AG | 54,0 | 19,85 ± 1,3 | 17,08 | 510(570) | 53 | - | 2 |
| | 48,0 | 20,40 ± 1,3 | 13,80 | | 55 | 2,86 | 2 |
| SLA-12EG | 9,9 | 4,3 ± 0,1 | 2,80 | 530 | - | 3,15 | 1 |
| | | | | | | 2,29 | 2 |
| SLA-12DG | 18,2 | 8,60 ± 0,2 | 4,80 | 570 | 70 | 2,69 | 1 |
| | | | | | | 1,97 | 2 |
| SLA-20BG | 13,8 | 6,88 ± 0,4 | 3,46 | 570 | 55 | 0,93 | 2 |
| | 14,4 | 6,78 ± 0,33 | 3,81 | | | 1,32 | 1 |
| | 15,1 | 6,92 ± 0,4 | 4,09 | | | 1,01 | 2 |
| SLA-20DG | 9,3 | 4,395 ± 0,07 | 2,45 | 740 | 60 | 1,04 | 2 |
| | 9,1 | 4,45 ± 0,2 | 2,33 | | | 1,02 | 2 |

(*) at 6lp/mm, average

Further technical details are sent on request. Small volumes in A4 or A3 length are usually delivered from stock. Custom lengths are usually available even in small volumes.