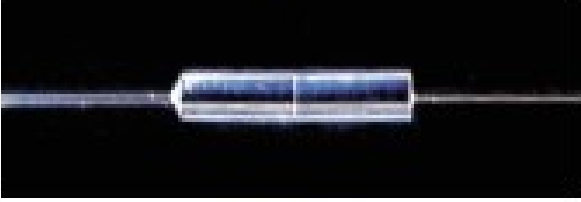


## Technical Description

	<p>Micro-lens (<i>SELFOC</i><sup>®</sup>) couplers can be realized a broad range of wavelengths and fibers and even speciality couplers using different fibers in one coupler can be manufactured. Since always the same components are used, the production can be made very efficient, even for speciality and custom designed couplers.</p>
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## Technology

The design of micro lens couplers is based on a glass rod with an index of refraction which has a parabolic profile. This profile is responsible for the fact that the glass rod acts as an optical lens. The imaging properties depend thereby on its lens. E.g. if a point light source (i.e. input fiber) is placed on the surface of a lens with an appropriate length, a parallel beam of light is generated at the opposite lens surface. The lens surface with the parallel output beam is coated with a partially reflective coating. The light reflected at the coating is focused by the same lens which is glued onto the first *SELFOC*<sup>®</sup> - lens. The two output fibers are mounted in the two focal points.

<p><b>Optic</b></p> <p>glass rod length glass rod diameter</p> <p><b>Advantages</b></p> <p>coupling ratios wavelength selectivity fiber types multi-port components</p>	<p>4.5 mm (wavelength dependent) 2.0 mm (available 1.8 mm, 1.0 mm)</p> <p>almost any coupling ratios can be achieved by an appropriate design of the reflected coating if wavelength selective coating are used, wavelength division multiplexer (WDM) can be built by using the same design couplers and collimators can be built with virtually any fiber type multi-port components are constructed by cascading multiple 1x2 port components</p>
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