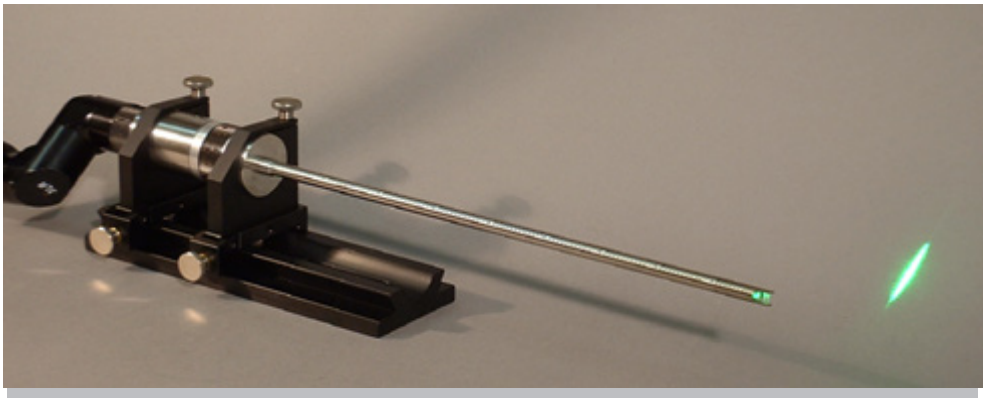
Endoscopic Light Sheet Optics



In PIV, optical access can sometimes be quite challenging. When having closed casings, a convenient way to bring the light sheet into your flow of interest can be endoscopic access. Furthermore, the small diameter of the endoscope's rod minimizes disturbance of the flow.
With a diameter of 12mm, a variable length up to 300mm and lenses for Nd:YAG laser up to 80mJ per pulse, our Endoscopic LSO might be just what you need. Despite the small diameter the endoscopic light sheet optics generates a light sheet with a thickness between 0.5 and 1 mm. Depending on your application, you can either get a fixed focal distance between 100 and 2000mm or an adapted version with variable focal distance. A range of divergence angles up to 100° can be offered depending on the final configuration.

Mountable directly in front of the laser or on a small rail with an adapter to our articulated mirror arm.
Optionally available with a prism in front to make redirection angles up to 90° possible. Due to the prism the divergence angle is slightly reduced.
Available with enclosed rod, such that it can be used in liquids and/or pressurized fluids.

Data Sheet
June 2024

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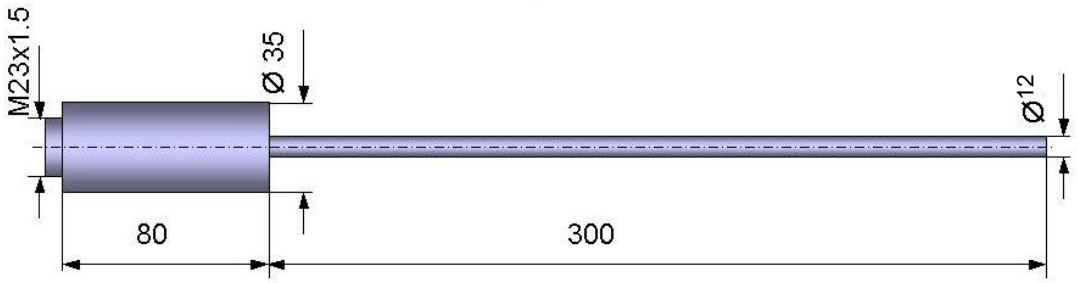


Specifications Dimensions:	80mm x Ø35 mm
Tube diameter:	Ø12 mm
Tube length:	300mm (different lengths on request)
Weight:	0.5 kg
Min. Light Sheet Thickness(*):	0.5 mm
Light sheet divergence angle (total):	up to 100° (specify at order)
Adjustable focal distance range:	100...3000 mm

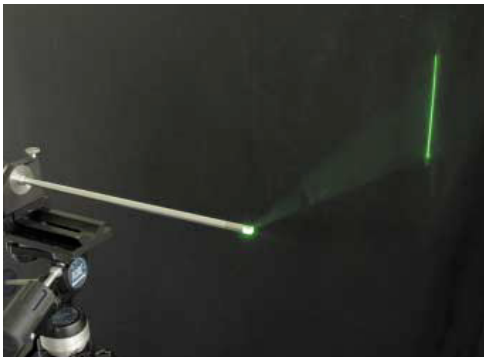
Accessories

Laser adapter mount for Nd:YAG Laser (for several models available)
General-purpose rail-mounted clamp to fix endoscope position (when connected to the mirror arm)
Adapter piece for mirror arm (M23x1.5)

(*) Achievable minimum light sheet thickness is a function of the beam diameter, and therefore of the laser model coupled to the light sheet optic.

Options

90° prism (reduced divergence)
Enclosed version for high pressure environments



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