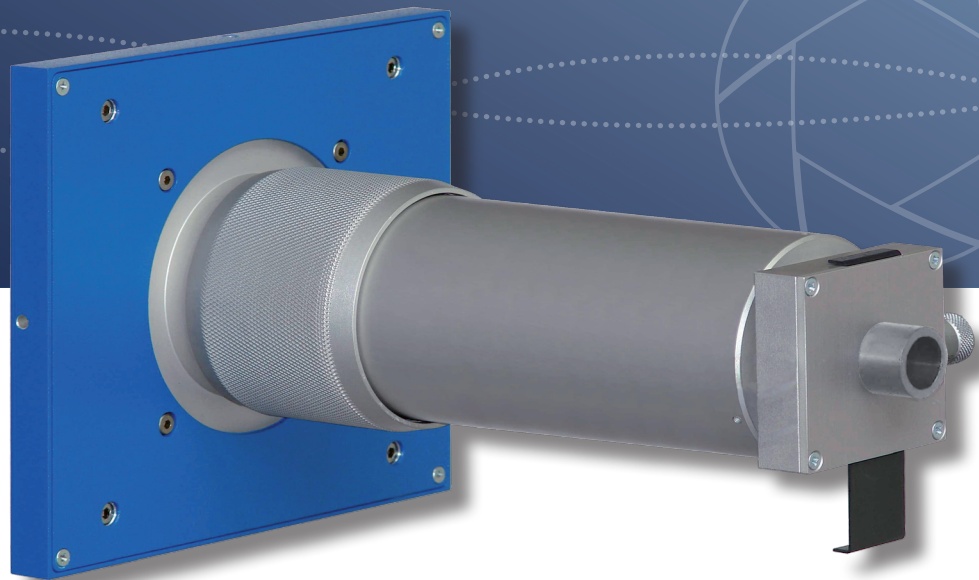


STREAK CAMERA INPUT OPTICS

IOU-10

UV-Visible and NIR



- Wavelength 200 nm .. >950 nm
- Demagnification 2:1
- Adjustable slit width
- To be used with SC-10
- Marker Input (optional)

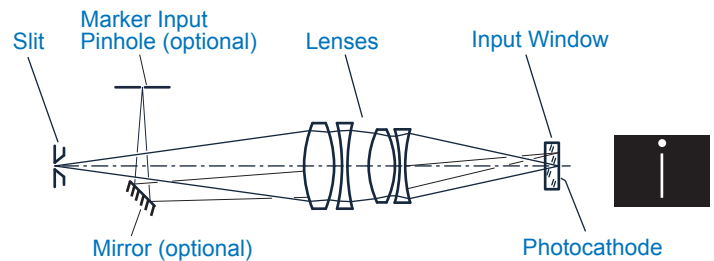
Input Optics IOU-10

The IOU-10 input optics for OPTOSCOPE SC-10 streak camera allows to focus UV, visible and NIR light on the photocathode of the streak tube. The input optics includes a mechanical slit and a set up fused silica lenses. Slit and lense set are mounted in a compact mechanics and can be mounted easily on the front side of the SC-10 main unit. IOU-10 ca be exchanged agains the IOV-10 in order to extend the system detection range to wavelenghte below 350nm. The image of the slit is focused on the photocathode with a demagnification of 2:1

The mechanics provides protection against scattered ambient light. It allows fine focus optimization for each wavelength. The slit width is precisely adjustable to optimize either streak camera temporal resolution or system sensitivity. Alternatively to the adjustable slit, fixed slits or fixed pinholes can be mounted on the same input optics. The position where the slit is focused on to the photocathode can be aligned on the photocathode.

SPECIFICATIONS

Spectral Range	200 nm .. 950 nm
Slit Width	10 µm .. 3.0 mm
Width Adjustment	Continuous by Micrometer screw
Slit Length	0 .. 15 mm
Length Adjustment	Continuous by „Fish-Tail“ Slide
Spatial Resolution	30 µm (PSF ref. to photocathode)
Demagnification	2:1
Aperture	F/6
Lens Material	Fused Silica (Suprasil)
Dimensions	247 mm x 180 mm x 160 mm
Weight (typ.)	2.6 kg
Bandwidth (for optimized resolution)	10 nm at 210 nm 20 nm at 250 nm 40 nm at 300nm 100 nm at 400 nm 160 nm at 550 nm 200 nm at >700 nm



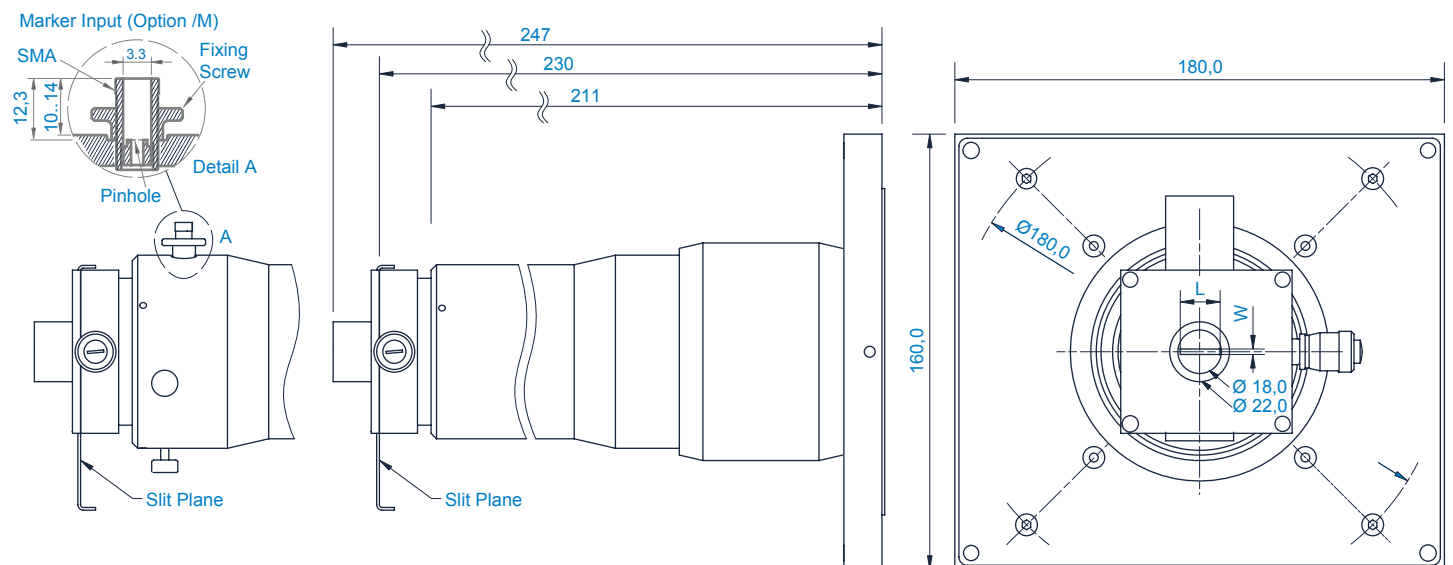
Principle Configuration (not to scale)

An optional marker input allows to focus an reference signal on the streak tube photocathode typically above the slit. The position on the photocathode can be adjusted by adjustment screws. Either a fiber cable or the direct laser beam are used. This option provides an easy way to generate a signal that can be used as reference for drift and jitter correction.

MARKER INPUT (OPTION /M)

Marker Aperture	50 µm (others on request)
Marker Port Connector	SMA (others on request)
Image on Photocathode	adjustable on X and Y direction

TECHNICAL DRAWING



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