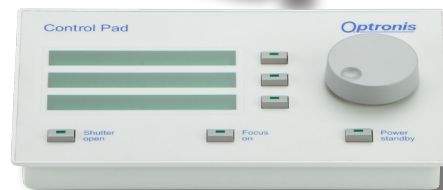
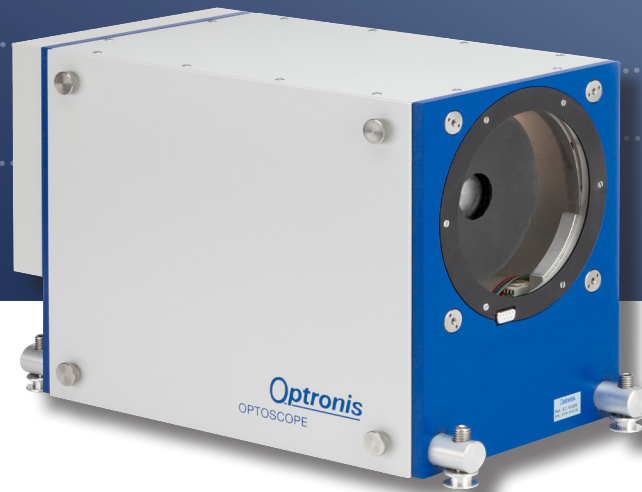


STREAK CAMERA MAIN UNIT

SC-51

Main Unit for SC-51 Systems



- Large photocathode 35 mm
- Modular design for universal use
- Fiber optics input window
- Ethernet interface

Main Unit SC-51

The SC-51 main unit consist of a streak tube with power supply and control electronics including an Ethernet interface. The large photocathode is well suited for simultaneous analyses of multiple optical phenomena and for high-dynamic laser doppler interferometry applications. The fiber optic input window allows to proximity couple the input slit without additional optical elements. Therefore the input optics IOS-51 is available providing also optical marker input and an optional electro-mechanical shutter function. A fiber optically coupled image intensifier II140 is available.

SPECIFICATIONS

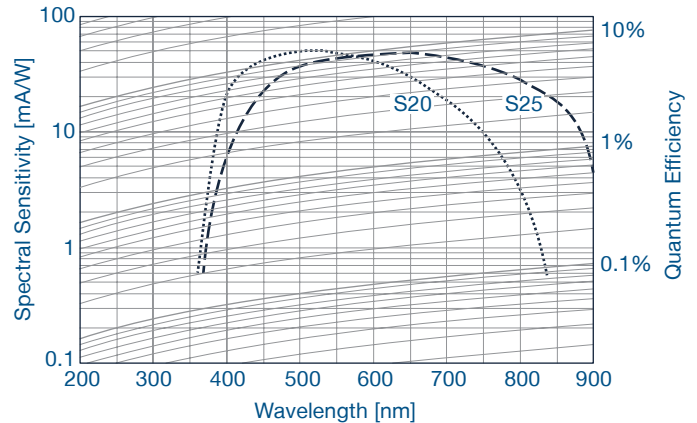
Temporal resolution	≤1 ns (TSU12-51 limited)
Photocathode size	35 mm (hor.) × 4 mm (ver.) 31 mm × 4 mm (typ. readout lim.)
Input window	Fiber optics (others on req.)
Streak tube magnification (typ.)	0.75
Screen size (typ. readout limited)	23.2 mm (hor.) × 31mm (ver.)
Phosphor type	P22 (others on req.)
Static resolution	<100 μm (FWHM on screen)
Temperature	0 - 35°C (op.) / -5 - +35°C (stor.)
Temperature (long term storage)	20 - +27°C
Dimensions	300 × 180 × 245-250 mm ³
Sweep direction	bottom-up
Weight	16 kg
Environment	20 - 80% rel. hum. non- cond.
Power supply	100 - 240 V /45-60 Hz

PHOTOCATHODE GATING

Extinction ratio	>10 ⁶ @ 670 nm
Rise time / Fall time	<1 μs / <1 μs
Frequency	0 - 10 Hz
Operation mode	continuous / gated

PHOTOCATHODE

The streak tube is available with different photocathodes having different spectral responses and noise characteristics. Typical data are listed below.



Type	Ref.	Spectral range
S20	/S20	360 - 800 nm
S25	/S25	360 - 900 nm
S1	/S1	on request
X-ray	/XR51	on request

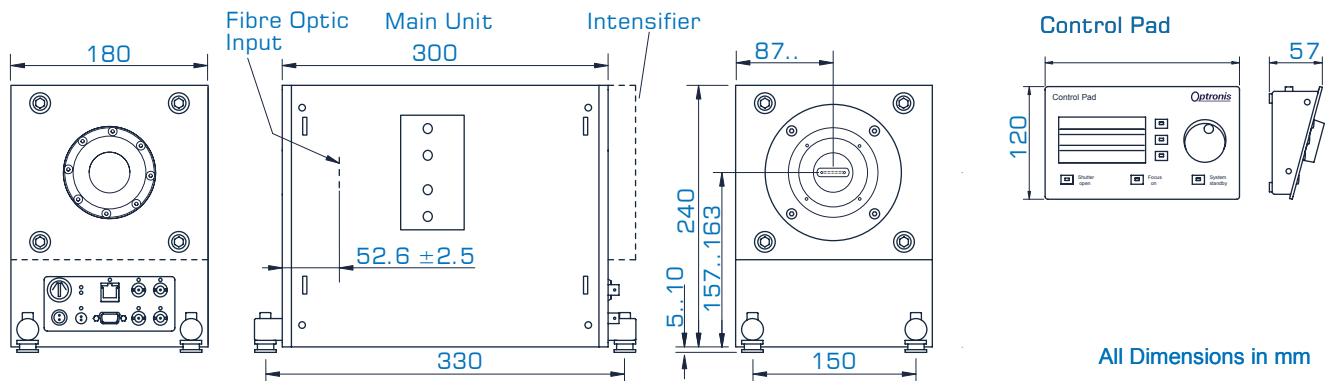
READOUT CAMERA SELECTION

Active screen area is 26.25 mm × 30 mm but readout camera selection might limit this to a smaller area. Consequently, usable photocathode length might be reduced.

IMAGE INTENSIFIER II140 (OPTIONAL DEVICE)

Type	Singel stage MCP
Adjustable gain (typ.)	1 - 1000
Gating time	>2 ms
Operation mode	continuous / gated

TECHNICAL DRAWING



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