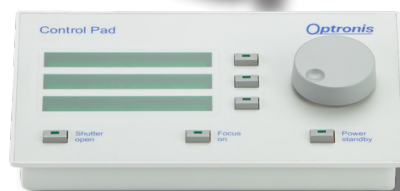


STREAK CAMERA MAIN UNIT

# SC-10

## Main Unit for SC-10 Systems



- High temporal resolution 2 ps
- Modular design for universal use
- Synchroscan and triggered operation
- Dual sweep available
- Ethernet interface

# Main Unit SC-10

The streak camera main unit is the central part of a streak camera system. The main unit consist of a streak tube with supply and control electronics including an Ethernet interface to control the system. The SC-10 main unit is completed with a shutter SH25-10 and a fiber optically coupled image intensifier II125. Using a separate image intensifier within the electro-optical signal chain provides photon counting sensitivity combined with high detection efficiency and low amplification noise. The modular design allows removing shutter or image intensifier for particular requirements.

## SPECIFICATIONS

Temporal resolution	≤2 ps (TSU11-10 or SSU11-10)
Photocathode size	8 mm (hor.) × 2 mm (ver.)
Input window	fused Silica (others on req.)
Streak tube magnification (typ.)	2
Screen size	15 mm (hor.) × 20 mm (ver.)
Phosphor type	P43 (others on req.)
Static resolution	<100 μm (FWHM on screen)
Sweep direction	left-right (slow) / bottom-up (fast)
Dimensions	365 × 180 × 245-250 mm <sup>3</sup>
Weight	16 kg (incl. SH25-10 and II125)
Temperature	0 - 35°C (op.) / -5 - +45°C (stor.)
Environment	20 - 80% rel. hum. non- cond.
Altitude	sea level up to 3000 m
Power supply	100 - 240 V /45-60 Hz

## OPTION /H2 - HIGH FREQUENCY SYNCHROSCAN

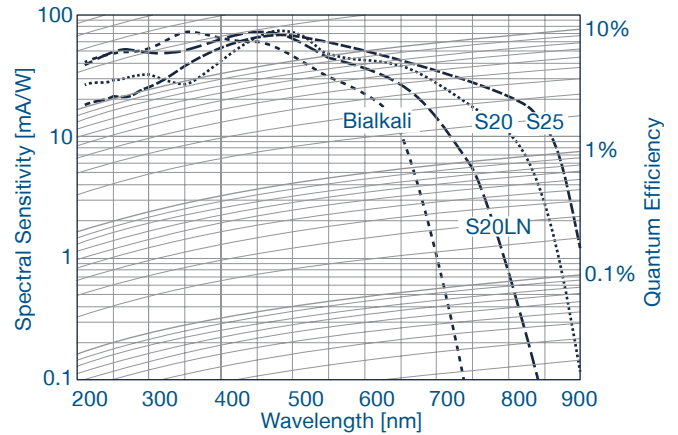
To operate the SC-10 with the synchroscan sweep unit SSU11-10/H2 at high sweep frequency above 150 MHz, the /H2 option for the main unit is needed.

## SHUTTER SH25-10

Type	Electro-mechanical
Delay	<20 ms
Frequency	<10 Hz
Operation mode	manual / external control

## PHOTOCATHODE

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



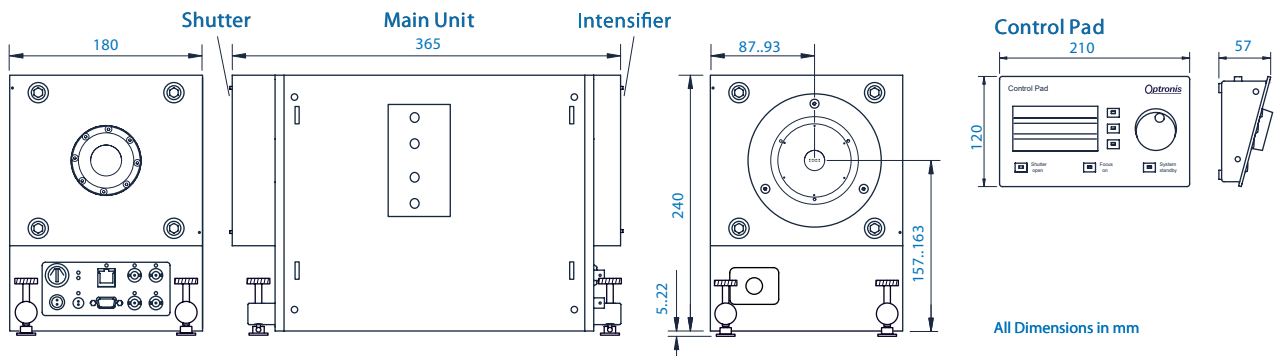
Type	Ref.	Spectral range	Dark noise
Bialkali	/BI	200 - 700 nm	20 nlux
S20LN	/S20LN	200 - 750 nm	40 nlux
S20	/S20	200 - 850 nm	0.20 μlux
S25	/S25	200 - 950 nm	0.40 μlux

## OPTION /PB - PHOTOCATHODE GATING

Extinction ratio	>10 <sup>6</sup>
Rise time / Fall time	<1 μs / <1 μs
Frequency	0 - 2.5 kHz
Operation mode	continuous / gated

## IMAGE INTENSIFIER II125

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



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