

# SRS Detection Set

## Perfect match: SRS Lock-In Amplifier & Detector

### Unique Lock-In Amplifier & Detector Combination for Stimulated Raman Scattering Microscopy

- The SRS Detection Set consisting of a unique sensor and lock-in amplifier combination has been developed specifically for demanding SRS imaging applications.
- Very short integration times down to 100 ns are ideally suited for fast and accurate video rate imaging.
- Its works perfectly together with APE's picoEmerald SRS light source as well as home-built and third-party SRS setups.



- Ideal tool for video rate (down to 100 ns) SRS imaging applications
- Unique detector & lock-In amplifier combination
- Highly sensitive in the VIS / NIR range

# SRS Detection Set Specifications

## SRS lock-in amplifier in combination with detection sensor

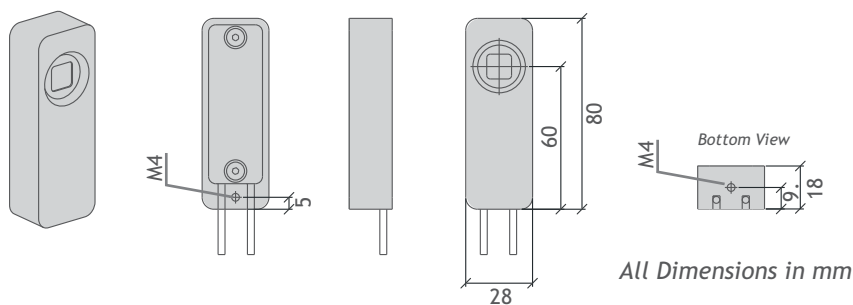
Detection Sensor	Active Area: 10 mm x 10 mm Spectral Response: 340 ... 1100 nm Highest Peak Sensitivity: 960 nm* Input Power up to 50 mW at 800 nm  *1064 nm enhanced detector optionally available
Frequency Range	8 MHz ... 20 MHz
Time constants	100 ns, 300 ns, 2 µs, 10 µs, 20 µs
Typ. Sensitivity	$\Delta I/I = 5 \times 10^{-7}$ for 20 µs integration time (at 50 mW / 800 nm shot noise limited laser radiation)
Amplification	0 dB ... 58 dB (variable, optimized for SRS)
Synchronisation	100 mV ... 1 V at 50 Ω
Phase	0 ... 360° in steps of 10°
Offset	-150 mV ... 150 mV with 1 mV accuracy
Output Signal	- 1.5 V ... + 1.5 V

## Interfaces (all included)

PC Connection	USB
Software	yes, Windows operating system
Sync In	1 x SM-B to BNC cable
Signal Out	1 x SM-B to BNC cable
Power Supply	12 V DC

## Dimensions

Sensor Housing (below)	80 mm x 28 mm x 18 mm
Electronics	115 mm x 110 mm x 35 mm



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