

# GECO

## Scanning Autocorrelator

### FEATURES

- 10 fs – 20 ps pulse duration range
- 500 – 2000 nm wavelength range
- High-resolution voice coil driven delay line
- Integrated controller
- Compact and portable design
- Pulse-analysis software
- FROG-ready

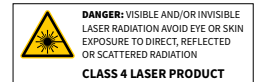


GECO is a scanning autocorrelator designed for pulse duration measurements of systems with  $\geq 1$  kHz repetition rate. Operation of GECO is based on noncollinear second-harmonic generation in a nonlinear crystal, producing intensity autocorrelation trace directly related to the input beam pulse duration. One arm of the fundamental pulse is delayed by a linear positioning stage, providing fast, reliable motion with 0.13 fs resolution. GECO can acquire a full intensity autocorrelation trace of 10 fs – 20 ps pulses and

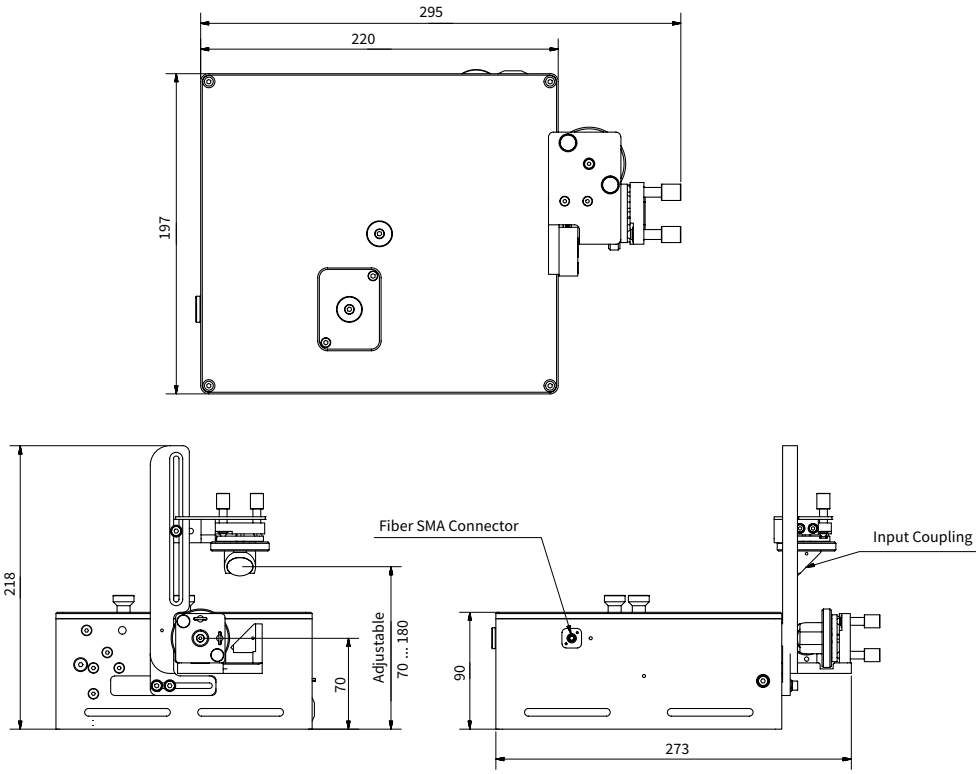
covers the 500 – 2000 nm wavelength range. GECO features noncollinearity angle adjustment and can be transformed into a collinear setup, allowing the performance of interferometric autocorrelation measurements for pulses in the 10 fs range. GECO comes with an integrated controller and pulse-analysis software. It is also capable of generating FROG traces, if an external spectrometer is connected. Software APIs are available for custom user adaptations.

### SPECIFICATIONS

Input wavelength range		500 – 2000 nm
Input pulse duration		10 – 20000 fs
Minimum repetition rate		1 kHz
Minimum input power	from amplifiers	2 – 200 mW @ 1 – 1000 kHz
	from oscillators	800 nm, 100 fs: > 400 mW @ 75 MHz 1030 nm, 100 fs: > 250 mW @ 75 MHz
Temporal resolution		0.13 fs / step
Scan rate		5 scans/s @ 1 – 1000 kHz
Detector		Si photodiode



# DRAWINGS



GECO drawings