

SGM1700

SGM1700 Cooled NIR Fibre Spectrometer

A complete 900–1700 nm fibre spectrometer with a cooled 512-pixel detector and a 100 mm crossed Czerny–Turner optical bench. Select sensitivity or dynamic-range operation around the sample signal.

Best suited to: Liquid concentration monitoring, NIR material characterisation and industrial integration.



Configuration

Specify the fibre collection geometry, slit and expected optical power. Cooling stabilises the detector; enclosure temperature and integration time still matter for a repeatable process measurement.

Specifications

Published parameters	
Wavelength	900–1700 nm
Typical resolution	<4 nm at 1181 nm, 25 µm slit
Aperture	f/3.2
Detector pixels	512; 25 × 500 µm
Integration	10 ms–120 s
Fibre input	SMA905
Readout	16 bit; USB 2.0
Size / weight	172 × 118 × 52 mm / 1227 g

Slit selection, 150 lines/mm grating

Slit	Published resolution
10 µm	2.2 nm
25 µm	4 nm
50 µm	8 nm

Measurement features

- Detector cooled to –10 °C at 25 °C ambient.
- Software and external trigger modes.
- C++ development support.

Configuration note

The source introduction mentions Ethernet, but the technical table specifies USB 2.0; Ethernet is not listed here as a confirmed interface.

Full configuration: www.precisometer.com/spectroscopy/spectral-imaging/sgm1700