IndiGo Raman - 785

Handheld modular spectrometer for
Raman spectroscopy

▶ About GoyaLab

GoyaLab is a French company that designs, develops, and markets measurement tools based on spectrometry. Moreover, GoyaLab provides expertise in Research and Development, serving the industry in the development of custom applications in spectrometry.

GoyaLab's philosophy is to develop powerful spectrometry tools that are easy to use, mobile and affordable thanks to new communication technologies.

GoyaLab wants to democratize spectrometry and make it accessible to everyone.

▶ With IndiGo, the power of spectroscopy is at your fingertips

IndiGo Raman-785 is a Raman handheld spectrometer.

This spectrometer includes a IndiGo HR spectrometer and its dedicated Raman module. It allows to measure Raman spectra directly on a PC or a tablet (or smartphone) on any type of samples. (Liquid, paste or solid samples)

With its unique patented optical design, IndiGo Raman-785 combined a good compactness and an excellent sensitivity. The wavelength range goes from $150cm^{-1}$ up to $2500cm^{-1}$ with a typical resolution $12cm^{-1}$ at midpoint of shift. The Raman module includes a CW laser source of 600mW with a FWHM of 0.1nm.

Thanks to its dedicated SpectroLab software (Windows & Android), it allows the user to make measurements anywhere, anytime, at an affordable cost.

Specifications

PHYSICAL	
Dimension	150 x 45 x 53 mm
Weight	250g
OPTICAL PARAMETERS	
Optical resolution	*9cm^{-1} at midpoint of shift*
Spectral range	*150 – 2500 cm^{-1}*
Slits	*15µm or 25µm*
Diffraction grating	*600l/mm,*
DETECTION	
Sensor	8.42 Mpx SONY IMX CMOS Rolling Shutter Dim: 3840 X 2160 px pixel size: 2µm
Exposure	1ms to 30s (multi cycles acquisition available)
Signal to Noise	10000 :1

RAMAN MODULE	
Laser source	785nm CW laser diode at 600mW FWHM : 0.1nm
Cut off	150cm-1
Objective	Std: X10 Olympus Microscope Other in option
Sample holder	Modular and customisable sample holder

SYSTEME CONFIGURATIONS	
Battery	10h in operation & 24h in standby mode
Data Format	txt – CVS – SPC
Power	5V - 300mA

INTERFACES	
Operating system	Windows 10, 1
USB	USB-C
Software	SpectroLab, Compatibility with KnowItAll

CALIBRATION	
Wavelength	Polynomial calibration over 20 points with Neon lamp and Mercury Argon lamp