

IndiGo Raman - 532

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-532 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-532 combined a good compactness and an excellent sensitivity. The wavelength range goes from 150cm^{-1} up to 4000cm^{-1} with a typical resolution 14cm^{-1} . The Raman module includes a CW laser source of 150mW 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

<i>PHYSICAL</i>	
Dimension	150 x 45 x 53 mm
Weight	250g
<i>OPTICAL PARAMETERS</i>	
Optical resolution	12cm^{-1} at midpoint of shift
Spectral range	$150 - 4000\text{ cm}^{-1}$
Slits	$15\mu\text{m}$ or $25\mu\text{m}$
Diffraction grating	600l/mm, 580nm blaze
<i>DETECTION</i>	
Sensor	8.42 Mpx SONY IMX CMOS Rolling Shutter Dim: 3840 X 2160px pixel size: $2\mu\text{m}$
Exposure	1ms to 30s (multi cycles acquisition available)
Signal to Noise	10000 :1
<i>RAMAN MODULE</i>	
Laser source	532nm CW laser diode at 150mW FWHM : 0.1nm
Cut off	150cm^{-1}
Objective	Std: Olympus M PLAN 10X Others in option (50X, 100X)
Sample holder	Modular and customisable sample holder
<i>SYSTEME CONFIGURATIONS</i>	
Battery	10h in operation & 24h in standby mode
Data Format	txt – CVS – SPC
Power	5V - 300mA
<i>INTERFACES</i>	
Operating system	Windows 10, Android
USB	USB-C
Software	SpectroLab Compatibility with KnowItAll
<i>CALIBRATION</i>	
Wavelength	Polynomial calibration over 20 points with Neon lamp and Mercury Argon lamp