



IndiGo

Handheld modular spectrometer

About Goyalab

Goyalab is a French start-up that designs, develops and markets measurement tools based on spectrometry. Moreover, it provides expertise in Research and Development, serving the industry in the development of specific 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 (smartphones, tablets).

Goyalab wants to democratize spectrometry and make it accessible to all.

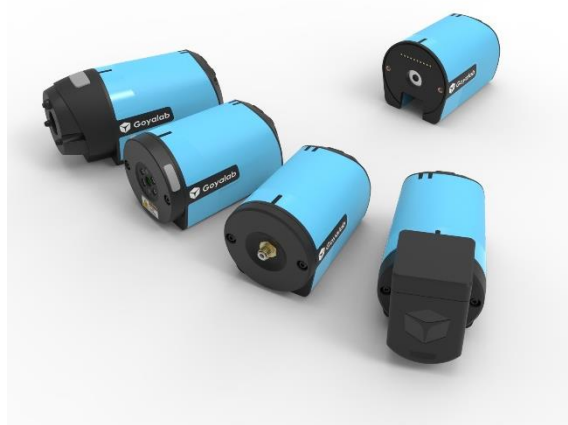


With IndiGo, the power of spectroscopy is at your fingertips

IndiGo is a modular handheld spectrometer connected to a smartphone by Bluetooth. This new spectrometer allows the user to measure emission, absorption or transmission spectra directly on a smartphone. The wavelength range goes from 380 nm up to 720 nm with a typical resolution below 1.5 nm. IndiGo is compatible with all smartphones with a Bluetooth 5.0 connection.

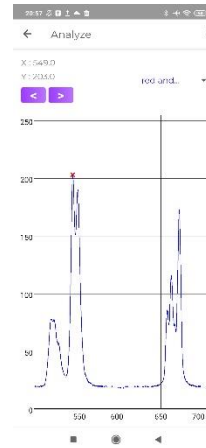
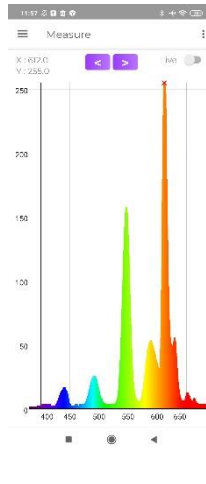
Thanks to its dedicated app available on Android 7.0 (soon on iOS), it allows the user to make measurements anywhere, anytime, at a reasonable cost.

With its optional modules, IndiGo can become a fluorescence spectrometer or a chemical analyser that fits in your pocket.



Features

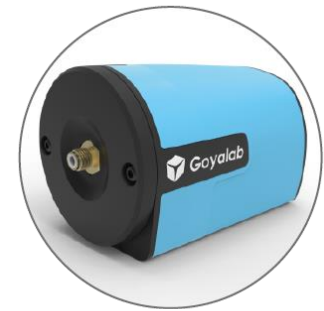
- > Modular spectrometer
- > Bluetooth connectivity
- > Battery or mains powered
- > CE & TELEC certifications (FCC on-going)
- > Plug-n-Play Interface for PC applications
- > Available on Android (soon on iOS)



Optional modules

OPTICAL FIBER ADAPTOR

The module allows the user to adapt an optical fiber with a SMA connector, in order to make the measurement less sensitive to alignment and to make it more flexible.



LED EXCITATION MODULE

The LED module allows the user to add a light source to the IndiGo. This LED module is supplied in standard with 6 UV-A LEDs at 365nm. It can contain up to 2 different light sources that can be fully customised in function of the needs.

This module is very useful for measuring fluorescence spectra in various products such as food products, fluorescent inks or taggants, or various impurities, even at trace level.

LASER MODULE

This module includes a laser excitation source at 532nm (other wavelengths available upon request) and a set of filters to perform laser-induced fluorescence measurements or Raman measurements.

This module is very useful for measuring fluorescence spectra in various products such as food products, or various impurities, even at trace level and for the diamonds identification.



CUVETTE HOLDER MODULE

This module allows the user to measure spectra in liquids thanks to its cuvette holder. This module offers 2 types of lighting: a white LED for absorption and UV- A LEDs for fluorescence.

This module is very useful for chemical analyses, OD measurements...



Specifications

<i>PHYSICAL</i>	
Dimension	76mm x 45mm x 53 mm
Weight	107g

<i>SPECTROMETER</i>	
Sensor	Monochrome CMOS 1280 x 5,4µm (pixel size)
Wavelength Range	380nm - 720 nm
Spectral Resolution	<1.5nm (FWHM)
Slit (W x H)	25 µm x 3 mm
Grating	600 Lines/mm, 500 nm Blaze
Integration Time Range	10ms-24s (multi cycles acquisition available)

<i>SYSTEME CONFIGURATIONS</i>	
Battery	1000 mAh 10h in operation & 24h in standby mode
Data Format	.txt .csv .pdf
Power	5V - 750mA

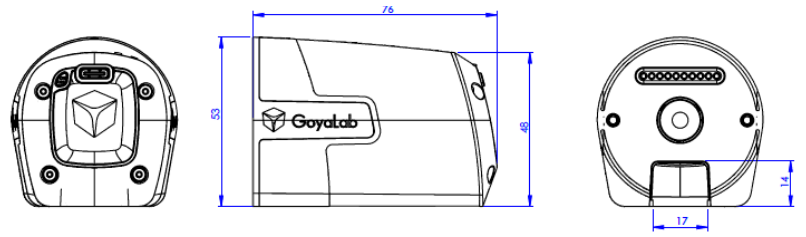
<i>ENVIRONMENTAL CONDITIONS</i>	
Temperature	0°C - 30°C operation & -10°C - 40°C Stockage
Humidity	0% - 90% noncondensing

<i>INTERFACES</i>	
Bluetooth	5.0 Bluetooth Low Energy
USB	USB-C

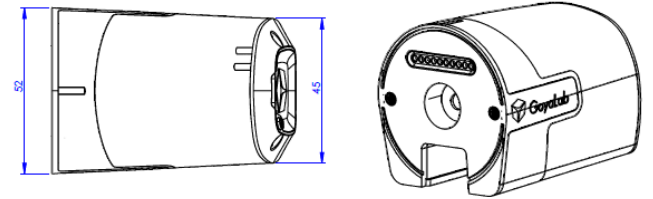
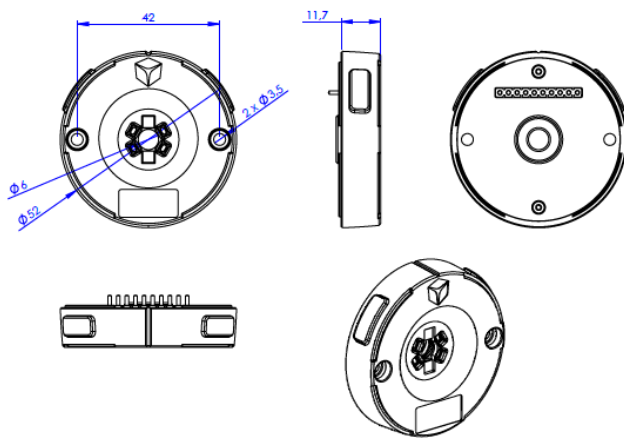
<i>CALIBRATION</i>	
Wavelength	Made in factory with HgAr lamp
Intensity	Available in option

Dimensions

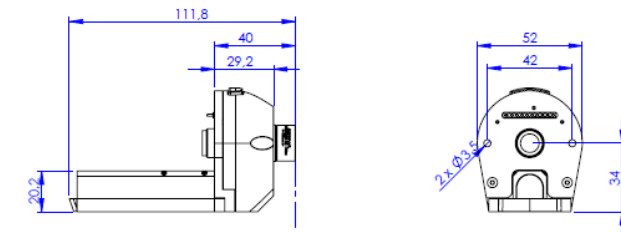
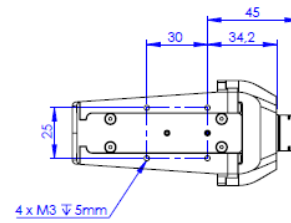
Core module



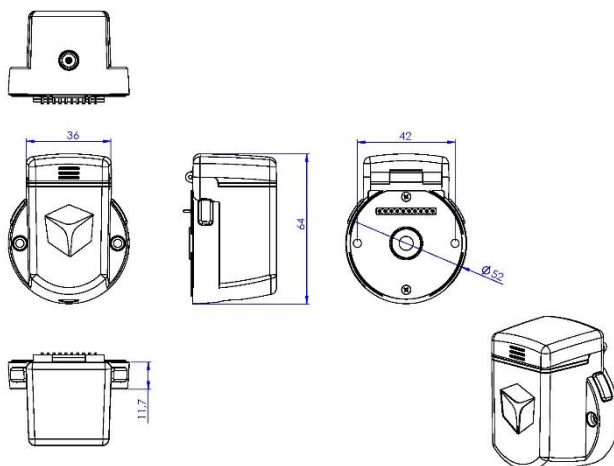
UV module



Laser module



Cuvette holder module



Optical fiber adapter

