

# IndiGo

Handheld modular spectrometer

## About Goyalab

Goyalab is a French SME that designs, develops and markets measurement tools based on spectrometry.

Goyalab 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 everyone.



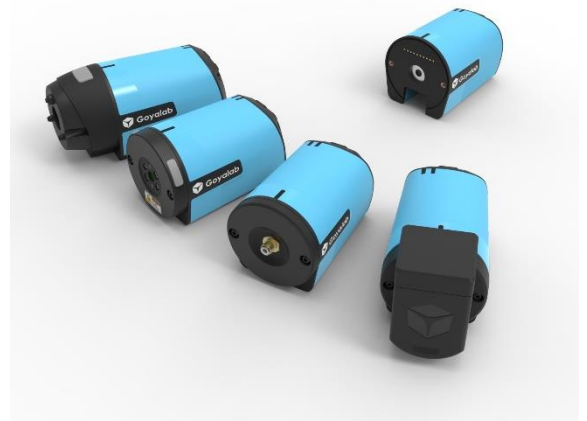
## With IndiGo, the power of spectroscopy is at your fingertips

IndiGo is a modular handheld. This new spectrometer allows the user to measure emission, absorption, reflection, or transmission spectra directly on a PC or a tablet / smartphone (via Bluetooth).

The wavelength range goes from 380 nm up to 780 nm with a typical resolution below 1.5 nm.

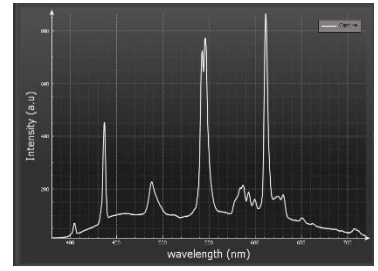
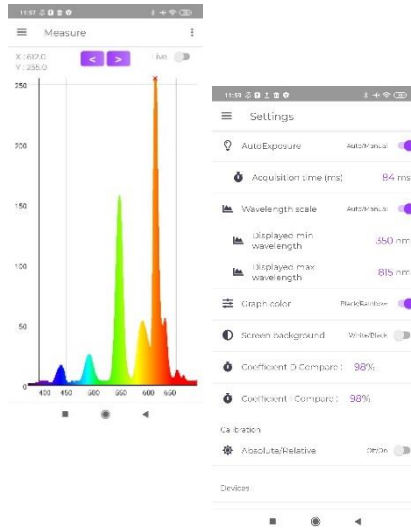
Thanks to its dedicated SpectroLab software (Windows & Android) it allows the user to make measurements anywhere, anytime, at a reasonable cost.

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



## Features

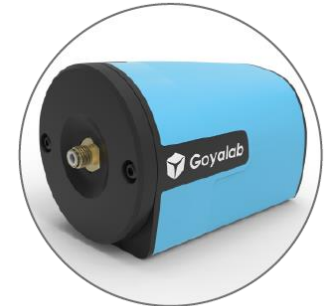
- > Modular spectrometer
- > Bluetooth connectivity
- > Battery or mains powered
- > CE & TELEC certifications (FCC on-going)
- > Plug-n-Play Interface for PC applications
- > Available on Android



## Optional modules

### SMA-905 OPTICAL FIBER ADAPTOR

The module allows the user to adapt an optical fiber with a standard SMA-905 connector.



### 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 diamond's 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	76 x 45 x 53 mm
Weight	107g

<i>SPECTROMETER</i>	
Sensor	CMOS OnSemi MT9M001 pixel size: 5,4µm * 5,4 µm * 1024 lines
Wavelength Range	380nm - 780 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	1ms-24s (multi cycles acquisition available)
Dynamic Range	1000 :1
Signal to Noise Ratio	400:1

<i>SYSTEME CONFIGURATIONS</i>	
Battery	10h in operation & 24h in standby mode
Data Format	.txt – CVS
Power	5V - 750Ma

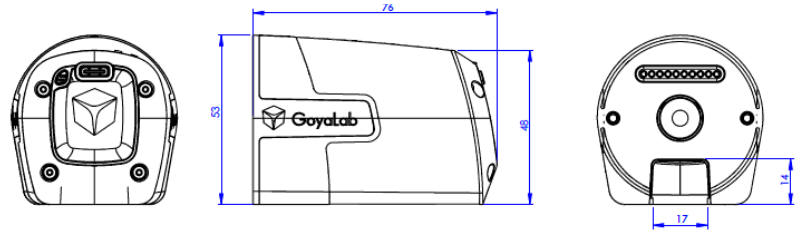
<i>ENVIRONMENTAL CONDITIONS</i>	
Temperature	0°C - 30°C operation & -10°C - 40°C Stockage
Humidity	0% - 90% noncondensing

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

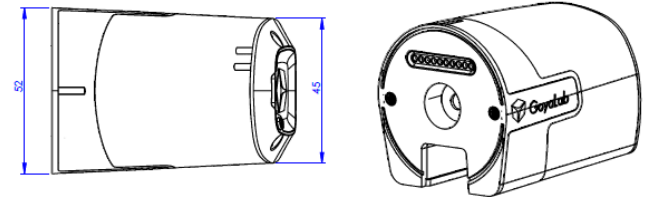
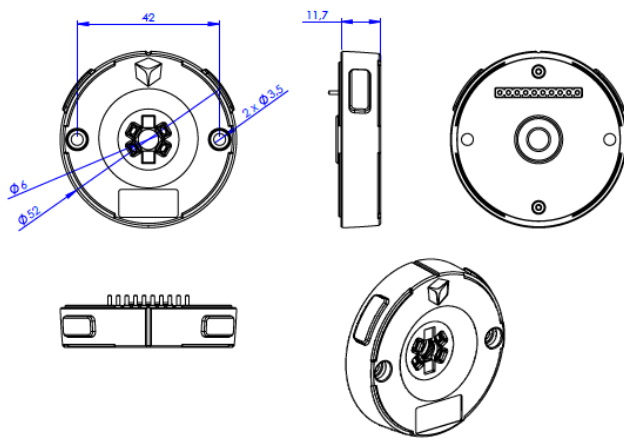
<i>CALIBRATION</i>	
Wavelength	Made in factory with Hg / Ar low pressure lamp
Intensity	Available in option

# Dimensions

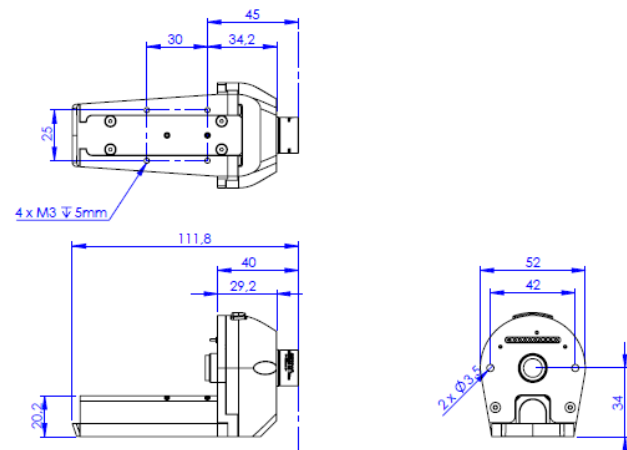
## Core module



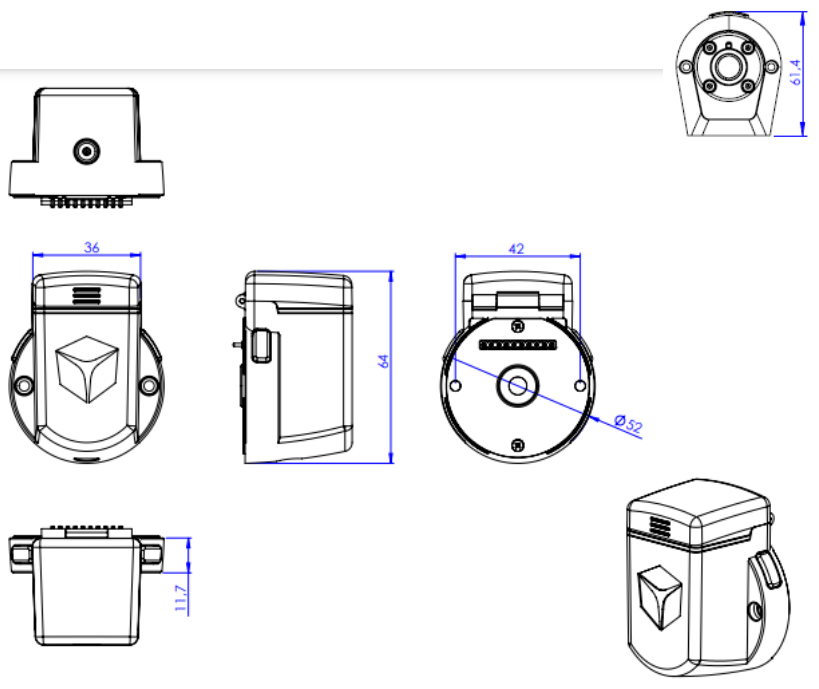
## LED excitation module



## Laser module



## Cuvette holder module



## SMA-905 OPTICAL FIBER ADAPTOR

