INDIGO HANDHELD RANGE

IndiGo NIR

Handheld near-infrared spectrometer · 700–1050 nm

The IndiGo NIR brings near-infrared spectroscopy to the palm of your hand. It covers the 700–1050 nm overtone region of C-H, O-H and N-H bonds for fast, non-destructive analysis of moisture, fat, protein, sugar or polymer type. Interchangeable modules adapt the same core to fibre, transmission and reflection measurements.



700–1050 nm	< 2 nm	107 g	10 h	BLE 5.0
Spectral range	Resolution (FWHM)	Weight	Battery life	+ USB-C

Key features

- Overtone region of C-H, O-H and N-H bonds
- Sony IMX464 4.2 MP CMOS sensor
- Broadband IR LED ring under sapphire window
- Measurements unaffected by ambient light
- Cuvette modules for liquids and powders
- Bluetooth 5.0 and USB-C
- SpectroLab, Android app, SpectroLink Python
- Expert & Capture prediction models

Configurations

IndiGo NIR Transmission
Cuvette holder with IR LEDs for clear liquids, oils and fluids.

IndiGo NIR Reflection
IR LED ring behind a sapphire window for solids, or reflection cuvette for powders and dark liquids.

Fibre input
SMA-905 input for remote probes.

Typical applications

Grain, flour & powders · Oils & fatty acids · Plastics sorting · Textile recycling · Fuels · Pharmaceutical raw materials

SPECTROMETER	
Spectral range	700 – 1050 nm
Resolution (FWHM)	< 2 nm
Entrance slit	25 µm × 3 mm
Grating	300 l/mm
Sensor	Sony IMX464 · 4.2 MP colour CMOS · 2712 × 1538 · 2.9 µm pixels
Integration time	1 ms – 24 s (multi-cycle)
Dynamic range	20 000 : 1
Signal-to-noise ratio	1000 : 1

CALIBRATION	
Wavelength	Factory, Hg-Ar low-pressure lamp
Intensity	Optional

ENVIRONMENT	
Operating temperature	0 – 30 °C
Storage temperature	–10 – 40 °C
Humidity	0 – 90 % non-condensing

POWER & DATA	
Battery	Li-polymer 1100 mAh 5C · 10 h operation · 24 h standby
Power supply	5 V · 750 mA (USB-C)
Connectivity	Bluetooth 5.0 Low Energy · USB-C
Data formats	.txt · .csv · .spc

SOFTWARE	
Windows software	SpectroLab – acquisition, processing, export
Mobile	Android app (Bluetooth)
Developers	SpectroLink Python library
Chemometrics	GoyaLab Expert & Capture (cloud, optional)

MECHANICAL	
Dimensions (core)	76 × 45 × 53 mm
Weight (core)	107 g

COMPLIANCE	
Certifications	CE · TELEC

Configurations available

Configuration	Module	Typical samples
IndiGo NIR base	SMA-905 fibre adapter	Remote probes, custom set-ups
IndiGo NIR Transmission	Cuvette holder, IR LEDs	Oils, beverages, fuels, clear liquids
IndiGo NIR Reflection – solids	IR LED ring, sapphire window	Plastics, textiles, grains, leaves
IndiGo NIR Reflection – dark liquids & powders	Reflection cuvette module	Flours, coffee, cocoa, used oils, APIs

Ordering information

AR00053 IndiGo NIR, 700 – 1050 nm, slit 25 µm as standard (FWHM < 2 nm)

AR00053-150 On request: slit 150 µm (FWHM < 10 nm) – please specify when ordering

AR00166 IndiGo NIR Transmission – clear liquids & fluids

AR00168 IndiGo NIR Reflection – solids

AR00167 IndiGo NIR Reflection – dark liquids & powders

AR00164 GoCal – automatic wavelength self-calibration module

Part numbers for information – please confirm with GoyaLab when ordering.

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