

Nix Spectro 2

Product specifications - v2.2



Form factor

Weight	110g (3.9oz) (Accessories not included in weight)
Dimensions	45mm X 60mm X 60mm (1.77" X 2.36" X 2.36")
Materials	Durable, matte black powder coated aluminum enclosure
Haptics	Vibration feedback, RGB feedback
Features	Scratch-resistant glass lens Dust and water-resistant Hard point for braided aircraft cable attachment

Performance

Measurement speed	1 reported scan/second
Optical resolution	True 31 channel measurement (diffraction grating with 288 pixel diode array)
Spectral visible range	400 - 700 nm, 10 nm resolution reporting
Repeatability	0.05 ΔE_{00} on white (D65, 10°, to mean of 10 measurements every 3 s on white, at a temperature of 23°C)
Inter-instrument agreement	0.35 ΔE_{00} average, 0.7 ΔE_{00} max. (deviation from Nix Sensor Ltd. standard unit at a temperature of 23°C on 12 CERAM CCS-II tiles (D65, 10°))
Temperature range	10°C – 35°C
Humidity	0% – 80% non-condensing

Optics

Measurement geometry	45°:0° ring illumination optics
Measurement port	16 mm (0.63") diameter
Measurement aperture	5 mm (0.20") diameter (adapters available)
Illumination spot size	6 mm (0.24") diameter
Light source	High CRI, broad spectrum LED light source (White, Violet and UV)
Adapters	4 mm aperture adapter available

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Calibration

Each unit individually factory calibrated
Integrated/automatic temperature compensation
In-field normalization: Manual on included external ceramic reference

Colorimetry data

Evaluated according to ASTM E308-18
CIEXYZ, CIELAB, LCH(ab), RGB, CMYK, and more.
Illuminant: A, C, D50, D55, D65, D75, F2, F7, F11
Observer: 2°, 10°

Software development kit

iOS and Android (BLE); Windows (USB)
Bluetooth requirements: Bluetooth 4.0
Android: Android SDK level 21 (Android 5.0 Lollipop) and above. SDK written in Java
iOS: iOS 11.0 and above. SDK written in Objective C
Windows: .NET framework 4.5 or higher
SDK contains Bluetooth connectivity routines, commands to request scan in 10 nm reporting, XYZ, or Lab.
USB serial commands available for simple low level integration on Windows, macOS and Linux.

Connectivity

Bluetooth Low Energy
Legacy USB CDC Serial (Windows, Mac, Linux)

Reflectance measurement

Measurement Conditions:

M0 – UV included – ISO 13655:2017
M1 – D50 – ISO 13655:2017
M2 – UV excluded – ISO 13655:2017

Battery life + charging

USB C charging of internal Lithium Polymer Battery
90 day standby time per charge (device advertising on BLE)
1,000+ scans per charge

Packaging + accessories

Impact-resistant, waterproof carrying case, ideally suited for field operations
USB C charging cable
Ceramic reference tile
Inspection certificate
Nix lanyard
Microfiber carrying pouch
Microfiber cloth

Warranty + expected product lifespan

12 months from date of sale, warranty for manufacturer's defects (Does not cover user damage)



For more information on the Nix Spectro 2, visit nixsensor.com or email sales@nixsensor.com