

Nix Spectro 2 (2 mm)

Product specifications – v3.2



Form factor

Dimensions	45 mm X 60 mm X 60 mm (1.77" X 2.36" X 2.36")
Materials	Durable, matte black powder coated metal enclosure
Haptics and visuals	Vibration and RGB feedback for charging, connection, and measurement state
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	0.1 ΔE_{00} on white (D50, 2°, to mean of 10 measurements every 3 s on white, at a temperature of 23 °C)
Inter-instrument agreement	0.5 ΔE_{00} average, 0.8 ΔE_{00} max., on 12 CERAM CCS-II tiles (deviation from Nix Sensor Ltd. standard unit at a temperature of 23 °C (D65, 10°))
Temperature range	10 °C – 35 °C
Humidity	0% – 80% non-condensing

Optics

Measurement geometry	45°:0° ring illumination optics
Illumination spot size	2 mm (0.08") diameter
Measurement aperture	2 mm (0.08") diameter
Light source	High CRI, broad spectrum LED light source (white, violet and UV)
Optional Adapters	Liquids, powders, gels, and soft surface adapters available

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Calibration

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

Density data

Evaluated according to ISO 5-3:2009
Density status: A, E, I, T
Note: Particular density data availability may differ based on application used.

Battery life + charging

USB-C charging of internal lithium polymer battery
90 day (3 month) 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
2mm positioning jig

Reflectance measurement

Measurement conditions:
M0 – UV included – ISO 13655:2017
M1 – D50 – ISO 13655:2017
M2 – UV excluded – ISO 13655:2017
Note: Particular reflectance measurement mode availability may differ based on application used.

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°
Note: Particular colorimetry data availability may differ based on application used.

Software development kit

Features device connectivity routines, commands to request measurements, and utilities to perform color conversions.
For an up-to-date list of features and supported platforms, visit:
nixsensor.com/nix-software-development-kit/

Connectivity

Bluetooth Low Energy
Legacy USB CDC Serial

Warranty + expected product lifespan

12 months from date of sale, warranty for manufacturer's defects (does not cover user damage).
Premium service plan available for purchase.
For details, visit:
nixsensor.com/premium-service-plan/