

# Nix Spectro 2 (5 mm)

## Product specifications – v3.2



### Form factor

<b>Dimensions</b>	45 mm X 60 mm X 60 mm (1.77" X 2.36" X 2.36")
<b>Materials</b>	Durable, matte black powder coated metal enclosure
<b>Haptics and visuals</b>	Vibration and RGB feedback for charging, connection, and measurement state
<b>Features</b>	Scratch-resistant glass lens Dust and water-resistant Hard point for braided aircraft cable attachment

### Performance

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

### Optics

<b>Measurement geometry</b>	45°:0° ring illumination optics
<b>Measurement port diameter</b>	16 mm (0.63") diameter
<b>Illumination spot size</b>	6 mm (0.24") diameter
<b>Measurement aperture</b>	5 mm (0.20") diameter
<b>Light source</b>	High CRI, broad spectrum LED light source (white, violet and UV)
<b>Optional Adapters</b>	Liquids, powders, gels, and soft surface adapters available

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### Calibration

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

### Density data

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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

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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

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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

### Reflectance measurement

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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

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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

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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/](http://nixsensor.com/nix-software-development-kit/)

### Connectivity

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Bluetooth Low Energy  
Legacy USB CDC Serial

### Warranty + expected product lifespan

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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/](http://nixsensor.com/premium-service-plan/)

