

# Nix Spectro 2 - 5mm

## Product specifications - v2.4



### Form factor

<b>Weight</b>	110g (3.9oz) (Accessories not included in weight)
<b>Dimensions</b>	45mm X 60mm X 60mm (1.77" X 2.36" X 2.36")
<b>Materials</b>	Durable, matte black powder coated aluminum enclosure
<b>Haptics</b>	Vibration feedback, RGB feedback
<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

### 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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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 device connection routines and commands to request scan data in 10 nm reporting, XYZ, or Lab (Bluetooth connectivity available for Android and iOS SDK only)  
USB serial commands available for simple low level integration on Windows, macOS and Linux

### Connectivity

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



### 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.*

### 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

### Warranty + expected product lifespan

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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](http://nixsensor.com) or email [sales@nixsensor.com](mailto:sales@nixsensor.com)