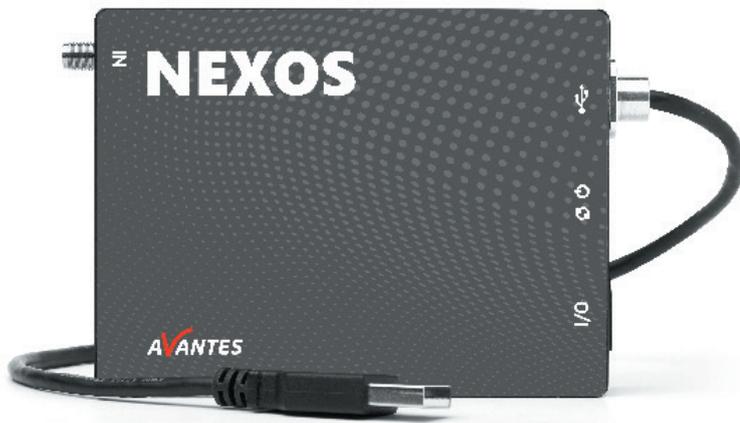# NEXOS™ SPECTROMETER

COMPACTLINE

Meet the NEXOS™ spectrometer, a compact device optimized for the best performance in system integration. This device is compatible with Avantes light sources, accessories, and AvaSoft software.

POWERFUL.
VERSATILE.
COMPACT.

NEXOS™ SPECTROMETERS

To be suitable for everyone, we offer three variations to match your application's needs.

1. NEXOS™ USB
Available with 2048 or 4096 pixel detector, and USB-powered with strengthened pigtail

2. NEXOS™ Link
Allows you to use a different communication protocol (RS232 or SPI) for smooth integration

3. NEXOS™ Bench Only
The Bench Only let's you combine our optical engine with your own electronics

WHY CHOOSE NEXOS™?

- Small size
- Improved optical bench design
- Smooth product or system integration
- Produced with AvaMation for unsurpassed inter-instrument reproducibility & scalability
- Superior stray light performance
- High signal-to-noise ratio
- USB-powered with pigtail
- Multiple variations available

APPLICATIONS & INDUSTRIES

The NEXOS™ spectrometers are suitable for a wide range of applications and industries, including;

Agriculture & Food
Food Sorting
Precision Agriculture
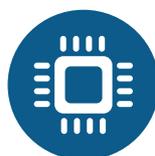
Semiconductor
Thin Film Coating
End-Point Detection

Environmental
Contamination &
Pollution Monitoring

(Bio)Medical
Blood Analysis
Cancer Detection

System Integration
Integrate into your
product or system

SPECIFICATIONS NEXOS™ SPECTROMETER

The information on this page relates to the USB-powered NEXOS™ spectrometer.

	NEXOS™ 2K	NEXOS™ 4K
Optical Bench	Symmetrical Czerny-Turner design, 75 mm focal length; NEXOS™ spectrometer bench	
Wavelength range	190 - 1100 nm	
Stray light	0.1 - 1% (typical value 300l/mm, blaze 300 nm < 0.3%)	
Detector	HAM S11639, CMOS linear array, 2048 pixels (14x200 µm)	HAM S13496, CMOS linear array, 4096 pixels (7x200µm)
Signal/Noise	375:1	365:1
Dynamic Range	4500	
Dark noise	15 cnts	
AD converter	16-bit, 6 MHz	
Integration time	9 µs – 30 s	
Interface	USB 2.0 (480Mbps) / pigtailed (38cm) USB-A	
Sample speed on-board averaging	0.36 ms/scan	0.70 ms/scan
Data transfer speed	0.79 ms/scan	1.12 ms/scan
Digital I/O	5 bidirectional programmable I/O; 1 Analog out, 1 Analog in, 1x5V	
Dimensions, weight	105 x 80 x 20 mm, 277,5 grams	
Power supply	Default USB power, 500 mA	
Temperature range	5-55 °C	

DIMENSIONS
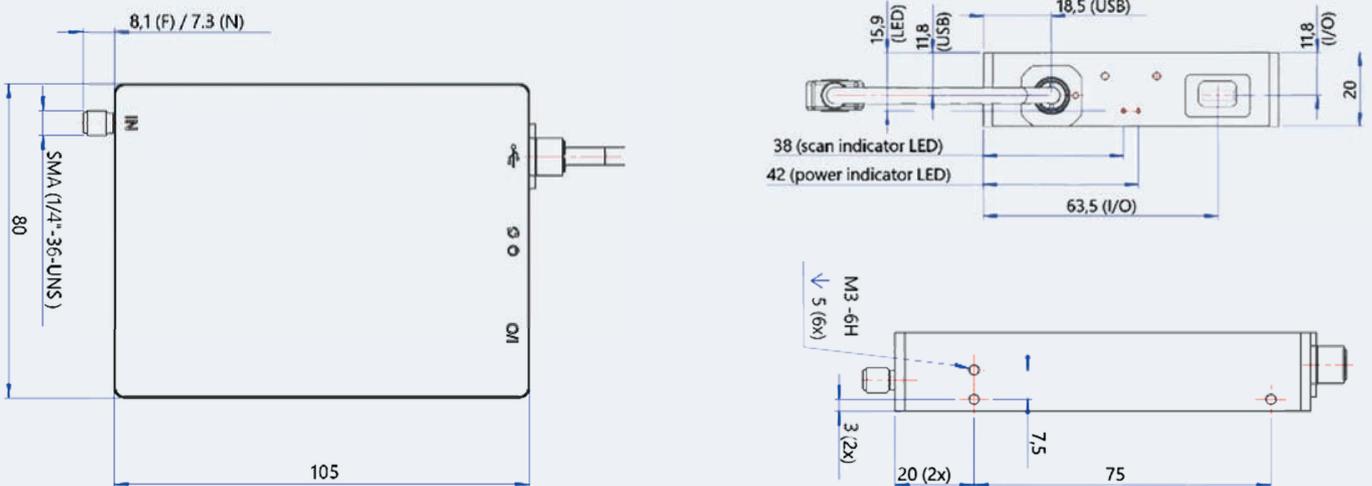
Dimensions in mm

FULL PRODUCT OVERVIEW & SPECIFICATIONS

Scan the QR-code for the full product overview, gratings, ordering options, and more.
Discover the flexibility of the NEXOS™ spectrometer and find your ideal variation.

Discover all our empowering spectroscopy solutions on our website **www.avantes.com**

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