

Data Sheet

VIAMI MicroNIR™ OnSite-W

A rugged, wireless, battery-operated near infrared spectrometer designed for rapid, handheld material analysis

Wireless, compact, rugged, and ergonomic, the MicroNIR OnSite-W is the latest addition to the VIAMI Solutions® innovative, ultra-compact spectrometer product line.

With integrated battery, button, and Bluetooth, the OnSite-W is the ideal solution for mobile material analysis in the factory or in the field. The powerful software suite presents an intuitive user interface that requires minimum training to operate from a tablet or PC.

The MicroNIR OnSite-W is the smallest fully-integrated NIR spectrometer on the market and is enabled by proven VIAMI linear variable filter (LVF) technology. With no moving parts and IP65/IP67 dust/water ingress rating, it is designed for a wide range of material characterization applications in food, agriculture, pharmaceutical, and security markets.



MicroNIR OnSite-W Instrument



MicroNIR OnSite-W in application

Benefits

- Rapid, real-time, non-destructive near-infrared material analysis
- Wireless, compact, rugged, and ergonomic design for one-hand operation
- Multifunction button for one-click data acquisition
- Internal, rechargeable battery with run time greater than 10 hours
- IP65 and IP67 rated for use in wet and dusty environments
- Bluetooth or USB connectivity to tablet or PC
- Compatible with original MicroNIR OnSite accessories
- Powerful MicroNIR Pro model-building and prediction software
- Intuitive, easy-to-use software interface

Applications

- Pharmaceutical raw materials
- Polymers and chemicals
- Narcotics and explosives
- Grain and forage
- Tobacco and agricultural products
- Meat and dairy products

Standard Accessories

The MicroNIR OnSite-W includes the following standard accessories:

- Two measurement collars with sapphire windows, AR-coated on one side for maximum light throughput
- Protected white reference target with sapphire window
- Rugged carrying case including space for PC and tablet
- USB cable for charging and data connection to tablet or PC



MicroNIR OnSite-W Kit running MicroNIR Pro application (tablet not included)

Software

The MicroNIR OnSite-W system includes the VIAVI MicroNIR Pro software suite with features for data acquisition, calibration and method development, user management, and real-time prediction. Using MicroNIR



MicroNIR Pro Tablet Application

Pro software, a developer can process data and build complete chemometric models using regression and classification

algorithms including PCA, PLS, Spectral Match Value and Moving Block analyses. Batch mode predictions on stored data are also supported.

MicroNIR Pro software also includes instrument performance qualification per EP 2.2.40 and USP 1119 test criteria and tools enabling Title 21 CFR Part 11 compliance.

An enhanced OPC interface is optionally available for integration with process control systems.

The OnSite-W system also includes a standalone tablet application with simplified user interface for data acquisition and real-time prediction in the field. **Please see recommended hardware/software listed in software data sheet.**

Specifications

Parameter	Specification
Illumination source	Two integrated vacuum tungsten lamps rated for >40,000 hr lifetime @ < 1 W
Working distance	Range 0-15 mm; optimal results when samples are in contact with measurement collar window
Dispersing element	VIAVI linear variable filter (LVF)
Detector	128 pixel InGaAs photodiode array
Wavelength range	908-1676 nm (11,012-5966 cm ⁻¹)
Pixel-to-pixel interval	6.2 nm
Spectral resolution (FWHM)	<1.25% of center wavelength (e.g., resolution <12.5 nm @ 1000 nm)
Analog-to-digital converter	16 bit
Integration time	10 ms typical
Computer interface	Bluetooth Low Energy (BLE 4.0 and above); USB 2.0
Weight	249 g (<9 oz)
Size	46 mm diameter x 191 mm length
Battery	Rechargeable Li-ion, not removable
Battery run time/charge	>10 hours with lamps on continuously; Typical 1 week w/ Dynamic Lamp Control
Battery cycle life	>75% capacity after 300 charge cycles
Battery charge time	3.5 hours at 1 A
Operating system	Microsoft Windows 10 Pro/Enterprise
Minimum screen resolution PC/tablet application	1920 x 1080/1366 x 768
Software compatibility	MicroNIR Pro 3.0 and above (included)
Qualified PC	Microsoft Surface Pro 6 (tablet or PC)
Qualified Tablet PC	Dell Latitude 7212 Rugged Extreme
Operating temperature	-20 to + 40°C (noncondensing)
Storage temperature	-20 to + 50°C (noncondensing)
Dust and water resistance	IP65 and IP67
Shock and vibration	MIL-PRF-28800F Class 2

For more information, please contact your local VIAVI account manager or VIAVI directly at 1-800-254-3684 worldwide or via e-mail at micronir@viavisolutions.com.