

NIRS DS2500 Analyzer



Robust near-infrared spectroscopy for routine analysis in the production environment



The NIRS DS2500 Analyzer is the tried-and-tested, low-cost solution for the routine analysis of both solid and liquid samples along the entire production chain. Its robust design makes the NIRS DS2500 resistant to dust, moisture, vibrations, and temperature fluctuations, making it ideally suited for use in harsh production environments.

The NIRS DS2500 covers the entire spectral range from 400 to 2,500 nm and provides accurate, reproducible results in less than a minute's time. The NIRS DS2500 Analyzer meets the demands of the pharmaceutical industry and supports the users in their day-to-day tasks thanks to its simple operation.

The NIRS DS2500 Analyzer is ideal for:

- quickly checking the identity and quality of raw materials in the receiving area
- monitoring the quality of ongoing production
- carrying out final product quality inspections in the outgoing goods area



User benefits

- Saves time and money in quality control
- Suitable for both liquid, homogenous and nonhomogenous solid samples
- Highly accurate and reproducible results even in harsh production environments

Key features

- Analyses across the entire spectral range (400–2,500 nm)
- Seamless calibration transfer due to ex factory standardization procedures
- IP65-certified
- Network-compatible via LAN (local) or direct PC connection

Technical specifications

Measuring mode	Reflection and transflection
Sample interface	Direct analysis
Wavelength range	400–2,500 nm
Protection class	IP65
Detectors	Silicon (400–1100 nm), lead sulfide (1100–2500 nm)
Data collection speed	1 scan/s
Analysis time	< 1 minute (adjustable)
Data point interval	0.5 nm
Wavelength accuracy (currently recognized standard)	< 0.05 nm (SRM 1920)
Wavelength precision¹	< 0.005 nm
Wavelength precision² (instrument to instrument)	< 0.020 nm
Stray light	< 0.1% of the measured value
Bandpass	8.75 ±0.10 nm
Noise (RMS)	
400–700 nm	< 100 micro AU
700–2,500 nm	< 50 micro AU
Weight	27.0 kg (59.5 lbs)
Dimensions (W × H × D)	375 × 300 × 490 mm (14.8" × 11.8" × 19.3")
Operating temperature range	5–40°C (41–104°F)
Relative humidity	93% RH, non-condensing

¹ based on a single analyzer

² based on a group of analyzers

Ordering information

2.922.0010 NIRS DS2500 Analyzer

Comprised of:

- 1.922.0010 NIRS DS2500 Analyzer
- 6.7400.030 NIRS DS2500 accessory kit
- 6.7430.040 NIRS Mini Sample Cup Holder for DS2500
- 8.922.8001EN Manual for NIRS DS2500 Analyzer

Requires Vision Air software (select one of the following versions)

- 6.6072.208 Vision Air 2.0 Complete
- 6.6072.207 Vision Air 2.0 Network Complete
- 6.6072.209 Vision Air 2.0 Pharma Complete
- 6.6072.210 Vision Air 2.0 Pharma Network Complete

Requires certified standards (select one of the following)

- 6.7450.000 NIRS reflection standard, set of 2
- 6.7450.010 NIRS reflection standard, set of 7 (for the regulated environment)

Accessories

- 6.7400.010 NIRS liquid sample kit transfection (6 transfection vessels, 3 diffuse reflectors, gold, with total pathlengths of 1 mm, 2 mm, and 4 mm)
- 6.7401.000 Transfection vessel, optically flat
- 6.7402.020 NIRS disposable backs for 6.7402.030, 100 pcs.
- 6.7402.030 NIRS mini sample cups, 10 pcs. incl. 100 disposable backs
- 6.7402.050 NIRS DS2500 large sample cup
- 6.7425.100 NIRS DS2500 Iris
- 6.7420.000 NIRS diffuse reflector, gold, 1 mm total pathlength
- 6.7420.010 NIRS diffuse reflector, gold, 2 mm total pathlength
- 6.7420.020 NIRS diffuse reflector, gold, 4 mm total pathlength

www.metrohm-nirs.com