



## NIR SPECTROSCOPY IN THE FOOD INDUSTRY

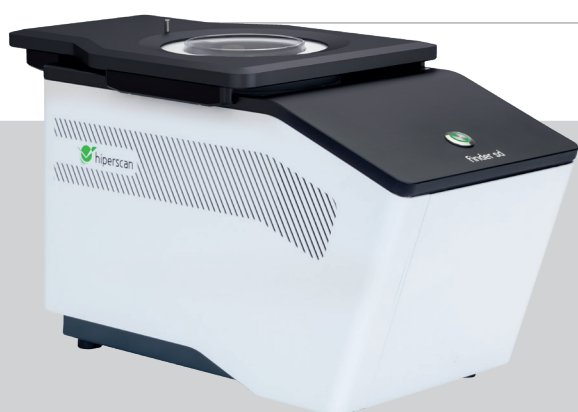
For its manufacturing processes, the food industry is dependent on monitoring ingredients such as fat, protein and water. Critical process parameters are recorded quickly and permanently using NIR spectrometers, examine the production process to the second for agricultural, food and meat samples. With the implementation of the Finder SD Rotator analyzer in the production process, better food can be produced more efficiently by the time-saving and non-destructive analysis of solid samples. Due to the Scanning Grating Technology that is used, the system is fast, robust and reliable. The creation of an ensured chemometric model that meets all technical and regulatory requirements is the most important factor for using NIR in the food industry.

The dust-proof and water-resistant Finder SD Rotator analyzer can be integrated at any workplace and for a variety of functions. The rotator for samples e.g. in a petri dish provides reproducible results.

Due to the instrument's calibration standards the system constantly checks itself or is recalibrated. A fast and easy integration into user-specific applications is possible with HiperScan instrument drivers.

### Benefits for your Industry:

- + **Quality assessment by measuring content of fat, protein and water**
- + **Automatic detection of concentrations**
- + **Analysis of dairy and meat products, baking ingredients and grains**



### Finder SD Rotator

The dust-proof and water-resistant Finder SD analyzer is multifunctional. The rotator for samples e.g. in a petri dish provides reproducible results. Due to the instrument's calibration standards the system constantly checks itself or is recalibrated.



## Technical details of **FINDER SD ROTATOR**



- ✓ temperature-stabilized
- ✓ IP 65
- ✓ robust
- ✓ device-internal calibration standards
- ✓ patented MEMS grating technology

### Technical Details

Spectral range	1,000–1,900 nm
Spectral resolution	10 nm*
Stray light	< 0.2 %
Measuring time	< 5 s (averaging over 500 scans), configurable 1–15 s
Detector	InGaAs single detector, uncooled
Wavelength accuracy	± 0.5 nm*
Wavelength reproducibility	± 0.2 nm*
Photometric reproducibility	± 0.1 %*
SNR	> 2,000:1 (averaging over 2,000 scans)* > 1,000:1 (averaging over 500 scans)*
Photometric linearity deviation (max/RMS)	1 % / < 1 %*
Light source	Tungsten halogen lamp
Probe/optical input	Diffuse reflection, 23 mm Ø; petri dish 94 mm
Thermal stabilization	Yes
Dimensions	225mm x 271mm x 460mm
Weight	11 kg
Interfaces	USB type B (additional electrical interfaces, e.g. for motor control or input for sensors)
Operating temperature	Typ 55: 15 to 35 °C or Typ 50: 5 to 30 °C
Storage temperature	-20 to 60 °C (non-condensing)
IP code	IP 65
Power supply	100 - 240 VAC +/- 10%, 50 - 60 Hz
Power consumption	78 W / 36 W / 5 W (warm up / operation / sleep)
Software	<ul style="list-style-type: none"> <li>Software for data acquisition and visualization; optional: drivers and software development kit for integration into your own application (operating system: Windows 7 SP1, Windows 8.1, Windows 10)</li> <li>Software for data acquisition and generation of chemometric models (operating system: Windows 7, Windows 8.1, Windows 10)</li> </ul>

\* overall spectral range

Scope of delivery:

✓ Finder Hardware

✓ Software

✓ Black and white reference

✓ Rotator