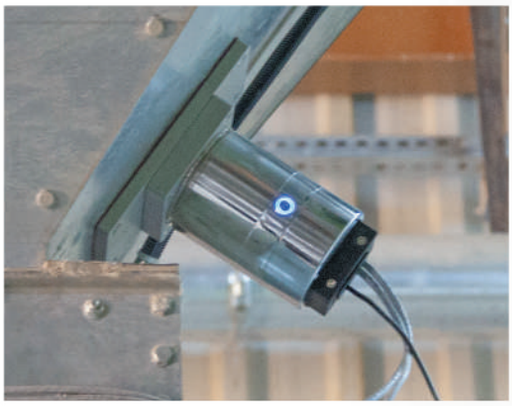
N-SENS Online

NANOSENS®

Spectroscopic Solutions for Industries

www.nanosens.com.tr

N-SENS Online



N-SENS Online allows monitoring rapid and continuous analysis within seconds in any manufacturing process. N-SENS Online is a system based on Near Infrared (NIR) Spectroscopy that allows direct display of key parameters in the process control systems. N-SENS Online helps you to improve your yield and profit in production. N-SENS Online can monitor and display your entire value chain from incoming goods inspection, production to release control of your finished product.

- N-SENS ONLINE NIR analyzer operates in the wavelength range of 950-1650 nm and performs 2000 spectra/sample measurements per sample.
- It performs better quality and sensitive analyzes with its high sensitivity and 23 thousand signal/noise ratio sensor.
- Thanks to its stainless steel body structure and 3 mm sapphire process line interface, it can be easily installed and is resistant to adverse production environment.

Simple Measurement

- Direct display of key parameters
- Measurements are based on the latest in NIR technology
- Continuous analysis, directly in the process line without bypass
- The continuous flow of results provides full traceability

Process Integration

- Industry-proven hardware and accessories
- Rapid process integration
- Directly display all relevant parameters in control room

Applications

FOOD

PHARMA/ CHEMICAL

FEED

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TECHNICAL SPECIFICATIONS*

AMBIENT CONDITIONS	
Function Range	0 - +35°C (Humidity ≤ 85% at 35°C)
Storage and Transport Range	-20 - +40°C (Humidity ≤ 85% at 40°C)
Mechanical Environment	Process control equipment
DEGREE of PROTECTION	
Ingress protection	IP65
INTERFACE CONNECTION	
Ethernet	High quality, shielded LAN cable, minimum category 5e RJ 45 (IP 67) LAN connections
POWER SUPPLY	
Power Supply Specifications	2.1 Plug-in
Power Supply Input Voltage	176-264 V
Power Supply Frequency	50/60 Hz
Power Supply Output Voltage	24 V DC
Power Supply Output Current	3.6 A
DIMENSIONS	
Diameter	96 mm
Length	180mm
PROCESS LINE INTERFACE	
Sapphire	Diameter 35/25 mm, thickness 3 mm, with food grade O-ring seal
MATERIAL	
Housing	Stainless Steel 316
ANALYSIS FREQUENCY	
Real time	Avg. 2-20 sec/analysis
TECHNOLOGY	
Method	Near-Infrared (NIR) Spectroscopy
SOFTWARE	
Software	ProChem for instrument control
SPECTRAL FEATURES	
Wavelength range	950 – 1650 nm (10,526 – 6060 cm^{-1})
Spectral bandwidth	<1.25% of center wavelength (1% typical)
Detector	InGaAs photodiode array
Dynamic range (Max)	1000:1
Integration time	10 ms typical, minimum 10 µsec
Signal-to-noise ratio (typical)	23,000 (average of 100 scans)
Number of scan	2000 spectra/sample
Bulb life	>10,000 hr
Reference	Spectralon (>99% Diffuse Reflectance)
Absorbance range	Up to 3 AU
ANALYSIS FEATURES	
Analysis time	<30 sec*
Sample Type	Direct measurement of solid and liquid samples in ground or unground form (including pellets)
Parameters	Fat, protein, moisture, ash, starch and crude fiber.*

*Adjustable

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THE RELIABLE WAY OF QUALITY CONTROL

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