

OMNIR V3



Product Overview

The Finna Sensors OMNIR is a non-contact near-infrared (NIR) sensor that measures moisture continuously and in real time. It gives operators immediate visibility into moisture changes in asphalt, cat litter, biomass, aggregates, pulp & paper, building materials, and other industrial processes. The result is tighter process control, more consistent product and less reliance on manual sampling.



Key Features

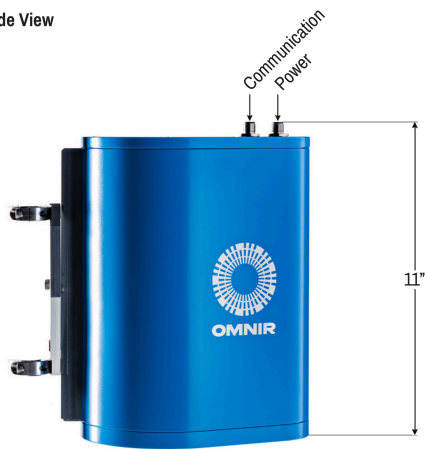
- **Internet of Things (IoT):** System continuously reports on 19 internal points to monitor sensor health
- 7-inch color HMI touchscreen
- **Rugged Modular Design:** Isolates the most sensitive electronics away from the manufacturing line
- **Cloud-Based Updates:** Receive the latest software enhancements automatically
- Patented method of filtering the light after it hits the product, rather than before, for greater accuracy
- **Data Reports & Analytics:** Detailed reports that show live data, SPC charts, shift results and historical data
- **Automatic Product Code Switching:** Your PLC changes the sensor between saved product calibrations
- Enhanced external trigger capabilities to control when the sensor measures product
- Integrates with most PLC brands, including Allen-Bradley, Siemens and Omron

Benefits

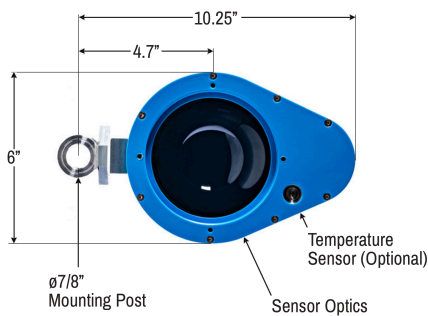
- Continuous, accurate and non-destructive measurement for:
 - Regulation and industry-standard compliance
 - Higher profitability
 - Improved product quality & waste reduction
 - Elimination of the need for multiple lab samples per day
- IoT continuous monitoring of sensor health increases uptime
- **Versatile Placement:** Built to withstand harsh conditions and can be used on screw conveyors, belts, chutes, silos or even lab environments
- Real-time measurement data to improve process control

Dimensions

Side View



Bottom View



HMI controller



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Specifications

SENSOR

Moisture Range	Min: 0.1%, Max: 95%
Moisture Accuracy	Up to ±0.1% depending on application
Coat Weight	Min: 0.1 gr./m ² , Max: 200 gr./m ² (± 0.1% gr./m ²)
Ambient Operating Temperature	-20° to 80°C (-4° to 176°F)
Measurement Area	Approximately 25 mm (1 in.)
Product Distance	8-16" (20.3 - 40.6 cm)
Sample Rate	60 calculations/second
Power	24-36 VDC
Outputs	4x 4-20 mA, Optional Discrete I/O
Enclosure/Weight	Aluminum/12 lbs. (5.4 kg)
Key Certifications	CE, IP69K

HMI CONTROLLER

Optional Bus Interfaces	Ethernet, Ethernet/IP, Profinet, Profibus-DP, Modbus-TCP/IP, Modbus RTU, RS485, DeviceNet
Software	Windows-based application, Requires Win7 or newer
Display	7-inch color touchscreen
Power	90-260 VAC, 47-63 Hz
Enclosure/Weight	Fiberglass/9 lbs. (4.1 kg)

ACCESSORIES (OPTIONAL)

Temperature Sensor	Measures material in 0 - 400°C (32 - 752°F) range
Opto-Port Attachment	This stainless-steel attachment allows the sensor to adapt to a variety of situations such as screw conveyors and free fall conveyors. Can be ordered with an air blast system for free falling samples.
Dust Shield	Ensures the sensor will provide consistent and accurate results by preventing the build-up of dust and grime on the lens