

Diode Array 7300

In-Line Analyzer



Whole Grains



Flour & Powders



Feed



Food

Reliable, Accurate, Real-time

Diode Array In-Line Analyzer

The DA 7300 is an advanced modern In-line NIR instrument, with built-in digital color camera, for use in Grain, Flour, Food and Feed processing. It performs continuous analysis of multiple parameters simultaneously, such as moisture, protein, fat/oil, ash and more. As the DA 7300 is easily integrated into process control systems, its continuous measurement enables automatic process control, leading to optimized production. The real-time monitoring also reduces scrap and re-work while improving product consistency and quality. A wide range of mounting options are available providing flexibility for use in many different manufacturing processes. The DA 7300 is installed and used at a large number of flour mills, feed mills and other agri & food production sites.

Feature and Benefits

Continuous Quality Measurements: Monitor, adjust and optimize your production processes in real-time to save costs, increase yield and improve product consistency.

Based on Proven NIR Technology: The DA 7300 is based on the highly successful DA 7200/7250 bench top instrument.

In-line and At-line: Calibrations transfer directly between the DA 7200/7250 and DA 7300, offering full agreement between in-process, at-line and lab analysis.

Integrated Digital Color Camera: Display snap-shots or streaming video of the production at your operator station. Camera application for color measurements and image analysis for speck counting.

OPEN Interface: Industry standard, open communications protocol enables true information integration with existing plant systems.

Ethernet Connectivity and Remote Access: The system can be accessed easily through TCP/IP to manage calibrations, settings and for system back-up. Remote diagnostics is carried out using standard Window tools.

Applications

The DA 7300 is designed to measure into a chamber or vessel, and can be installed in many different process points. The optical front end – a sapphire window – protrudes through the wall and into the product stream. This provides trouble-free operation with a minimum of external disturbances.

Flour Milling: Maximize flour extraction through accurate real-time ash measurements. Blend wheat and flour streams to reach target specification. Optimize gluten addition.

Grain and Oilseed Processing: Measure moisture, protein and oil in grain for pricing and binning. Monitor and optimize extraction and drying.

Feed Milling: Optimize moisture, protein and fat in the mixer, and throughout the process. Control drying to minimize moisture loss. Optimize fat coating.

Food: A wide variety of dairy and food products can be measured, enabling continuous process monitoring/control.

Specifications

Power Requirements: 24V DC, 5 A

Dimensions (HxWxD): 220 x 230 x 340 mm (8.75" x 9" x 13.5")

Net Weight: 15 kg (33 lbs.)

Operating Temperature Range: -10 to 40°C, extended temperature range upon request

Ingress Protection: IP65

Measurements: NIR, Digital color camera

Communication: OPC over TCP/IP Ethernet, modbus ASCII, analogue output

Products: Grains, Meals, Flour, Pellets, Extruded products, etc

Parameters: Moisture, Protein, Fat/Oil, Ash, Starch, Sugar, Speck count, Color in the CIE L*, a* b* color space etc

Approvals: CE, Ex II 2/3 D Ex t IIIC T90°C Db/Dc IP6X

CPU: Intel ATOM, 1,6 GHz, 2GB RAM or higher

Data Storage: 32 GB SSD