

OPTICAL SAMPLE ANALYZER FOR COFFEE & GRAIN

PRODUCT DESCRIPTION AND SPECIFICATIONS

An inspection system for analyzing granular shapes, plastics, foods and other products in a laboratory or factory environment precisely measuring granulometry, shapes, sizes and colors detailing spatial and dimensional information. The system combines state-of-the-art computerized graphics processing with a high resolution optics arrangement that can process weighed samples and count grains faster and more consistently than a human being for quality analysis.

OPTICS & ELECTRONICS

Self-contained powerful EDGE Artificial Intelligence computing device coupled with advanced image processing in real time. An embedded AI supercomputer with massive computing capabilities processes images identifying imperfections by color, deformities of shape, size, and fissures in the sample analyzed.

Analysis and images can be seen on the full color display. Information can also be stored to generate reports for statistical quality evaluation, records and quality assurance. The unit is programmed by the user through test samples and image captures of desired and defective products to be analyzed, or by providing high resolution photos of samples to be analyzed.

The unit also trains itself based on sample data and history. Software and specific algorithms can be customized for each application. The type of information displays and reports can be customized by the user. Analysis is done in real time; latency in processing speed is eliminated improving image acuity.

Sample
Analyzer™



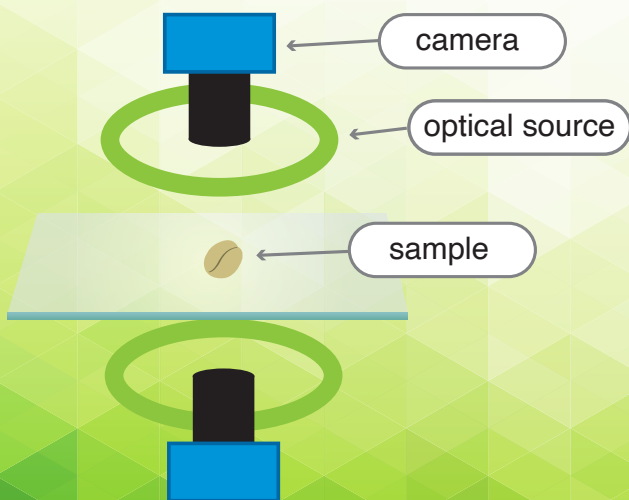
Discover the power of the Optical Sample Analyzer for coffee and grains, now enhanced with Artificial Intelligence.


Always **A STEP AHEAD!**

TECHNICAL SPECIFICATIONS AND OPERATING REQUIREMENTS

Computing Architecture	Distributed edge computing Upper computer: Embedded industrial computer (with 16GRAM/256GROM) Lower computer: AI computing unit (ARM A53 8core up to 32 TOPS INT8)
System Processing Speed	32 TOPS (Trillions of operations per second, I.E.,Tera operations per second)
Cameras	Line scan camera —— 2 pcs (2048×3 resolution up to 10kHz,4096×3 resolution up to 10kHz)
Lens	Line scan lens —— 2 pcs. Canril XF-MH03X65. Magnification: 0.3x. Forcal length: 7.3mm Max sensor size: 2/3”
Illumination System	QA lighting —— 2 sets. QA-T120-50-W
Analyzing Speed	100g/min
Housing	304SUS
Display	Embedded industrial computer. With 21.5” LCD touchscreen. Resolution: 1920×1080
Safety	Conforms to UL standards Sealed enclosure provides protection from dust, oil, and other non-corrosive material and protection from water
Voltage	110VAC 50/60Hz
Power Consumption	≤1000w
Operating Temperature	0~50%
Humidity	0~95%RH
Net Weight	137kg
Dimensions	877mm × 741mm × 767mm

THE OPTICAL STRUCTURE:



The structure is similar to that of a color sorter machine but the image quality is superior because of the use of a telecentric lens with high depth of field and because of the advanced GPU.



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