

ProFoss™ 2

In-line process analysis in poultry Mechanical Deboned Meat production



ANALYTICS BEYOND MEASURE

ProFoss™ 2 increases profit in poultry MDM production with continuous analysis, directly in the process line without bypass.

Streamline your poultry MDM production with in-line analysis

Get complete control of your MDM production with a continuous flow of real-time results. Optimise the production process, run production consistently closer to target specifications and make timely adjustments to your MDM production.

Increase your profits from day one

Profit opportunities are waiting to be found in your MDM process. For instance, more accurate control of the fat content can increase earnings significantly. At the same time, improved product consistency can provide new pricing options and reduce rework.

Improve your business with accurate control

The continuous flow of results provides full traceability, alerts if products are out of spec and enables you to deliver a consistent high product quality that meets the demands of your customers.

Sample types

Meat slurry

Parameters

Fat, moisture, protein

Technology

High resolution NIR technology with a lateral transmittance interface connected directly to the process line.

Specifications

Measuring technology: Lateral Transmittance	
Analysis frequency	Real time: Average analysis time per result 2 - 3 seconds
Wavelength range	850 - 1050 nm
Detector	Si Diode Array
Spectral dispersion Si Diode Array detector	1.0 nm/pixel
Process line interface	Sapphire, 5 mm thick, with food grade FFPM O-ring seal Fits into standard GEA Tuchenhagen Varinline Access Units with Ø68 mm opening or with Ø50 mm opening or FOSS Stainless steel welding flange.
Product pressure	Production pressure < 30 bar (< 435 PSI). Shock pressure < 75 bar (< 1088 PSI). Note that Varinline access units higher than DN 80 permit a maximum pressure of 10 bar (145 PSI).
Optical fiber protection:	Steel armoured (1, 3, 5 or 10 meters)

Technology	NIR technology
Software package	ISIScan NOVA™ for instrument control
Wavelength accuracy	< 0.5 nm
Wavelength precision	< 0.02 nm
Wavelength temperature stability	< 0.01 nm/ °C
Spectral noise	< 60 micro AU
Vibrations - require optical fiber fixation	0.4 Grms
Ambient operating temperature	Basic configuration -5 °C - 40 °C (23 °F - 104 °F), Cooling with a compressed air line allows use up to 65 °C (149 °F)
Pressurised air – cooling (Amb. Temp. 45 - 65°C)	Cooling air Flow rate minimum 5 l/min, >99.9 % water free, >99.9 % free of oil and fine particles down to 0.3 µm
Ambient humidity	< 90% RH
Dimensions (W x D x H)	w x h x d = 420 x 420 x 135 mm (16.5 x 16.5 x 5.3 inches) + brackets to hold the unit
Weight	25 kg (55.1 lb)
Power supply	1 phase, 100-240 VAC (max ±10 % of the rated voltage), max. 40 VA, 50 - 60 Hz
Cabinet / Housing materials	1.5 mm (lid 2.5mm) Stainless Steel EN 1.4301 (SS2333)
Mechanical environment	Process control equipment
Degree of protection	IP 69*
Hygiene	3-A hygiene and EHEDG hygiene certified
Communication	KEPServerEX (Ethernet, Analogue Profibus/Profinet) to PLC/SCADA; FOSS IQX™
Network	High quality, shielded LAN cable; minimum category 5e. RJ 45 (IP 67) LAN connections
Operation	Indoor use or outdoor shielded from rain and direct sunlight

* IP69 is the highest protection for dust entering the unit. IP69 means protected against the effect of high-pressure water and/or steam cleaning high temperature.