FOSS

ProFoss™

In-line process analysis in the dairy industry

ANALYTICS BEYOND MEASURE

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

Streamline your dairy production with in-line analysis
Get complete control of your production with a continuous flow of "real time" results of the product quality. Optimise the use of raw materials, run production consistently, get closer to target specifications and make timely adjustments to your butter, fresh cheese or cultured dairy products.

Increase your profits from day one
Profit opportunities are waiting to be found in your dairy process. For instance, more accurate control of the total solids or moisture and SNF content can increase earnings significantly. At the same time, improved product consistency can provide new pricing options, reduce rework and help to optimise the mass-balance.

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
Butter, WPC/MPC, fresh cheese, mozzarella, greek yogurt, quark, whey and milk protein concentrates

Parameters
Moisture, SNF, fat, salt, total solids, protein and calculated parameters such as P/TS

Technology
High resolution NIR technology with a lateral transmittance interface connected directly to the pipe

Installation
Outlet of butter churn, after the evaporator, after ultrafiltration or diafiltration, after the cooker stretcher or fresh cheese separator

Specifications

Light source lifetime	Dual lamp system = 12,000 hour average lamp time
Software package	ISIscan™ Nova for instrument control
Wavelength accuracy	0.5 nm
Wavelength precision	< 0.02 nm
Wavelength stability	< 0.01 nm/°C
Noise	< 60 micro AU
Random vibrations:	0.4 grms at 10 – 150 Hz according to IEC 60068-2-64 0.4 grms at 10 – 1250 Hz according to FOSS internal standard (more information available on request)
Temperature:	-5 – 40°C (23 – 104°F). With purge -5 – 65°C (23 – 149°F)
Purge air:	Flow rate minimum 5 l/min, > 99.9% water free, > 99.9% free of oil and fine particles down to 0.3µm
Ambient humidity:	10 – 90 % relative
Dimensions (w × h × d)	42 × 42 × 13.5 cm (16.5 × 16.5 × 5.3 inches) + brackets to hold the unit
Weight	25 kg / 55 lbs
Cabinet	1.5 mm (lid 2.5mm) stainless steel EN 1.4301 (SS2333)
Protection	IP69K* according to IEC 60529 and DIN 40050 part 9, NT ELEC 023
Communication	KepServerEX (Ethernet, OPC 4-20 mA, Profibus/Profinet) to PLC/SCADA; FossManager™
Power supply	Recommended isolated or conditioned line power 100 – 240 VAC, 50 – 60 Hz, 2.0 A, 150W

** IP69K is the highest protection for dust entering the unit. IP69K means protected against the effect of high-pressure water and/or steam cleaning at high temperature.*

ProFoss Transmittance	
Analysis time	Average time per result 15 - 30 seconds
Measurement mode	Transmittance (lateral transmittance)
Wavelength range	850 – 1050 nm
Detector	Si diode array
Spectral dispersion	1.0 nm / pixel

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