FOSS

ProcesScan™ 2

Real-time process control for improved milk standardization

ANALYTICS BEYOND MEASURE

ProcesScan™ 2 is a fully automated on-line process control solution for standardization of liquid milk, giving you the benefit of continuous and simultaneous analysis of milk composition parameters combined with the superior performance and accuracy of FTIR technology.

Hit your targets with continuous FTIR analysis
Detect changes in your production process in real-time. Constant and representative sampling combined with high frequency, FTIR analysis ensures accurate and representative results and allows you to bring your milk standardization closer to specified targets.

Predictable performance made easy
Get your ProcesScan 2 up and running in no time with ready-to-use global calibration models. ProcesScan 2 has no drift and always delivers the same high level of measurement stability and ensures identical performance across multiple instruments.

Efficient operations supported by connected services
ProcesScan 2 is supported by best-in-class digital capabilities ensuring optimal analytical performance and uptime. Get an overview of analytical data across individual or whole populations of instruments, using device management tools and protect your investment with a SmartCare™ service and support plan.

Sample type
Liquid milk, high protein liquid milk, high fat liquid milk.

Parameters
Fat, protein, lactose, total solids (TS), solids non fat (SNF).

Technology
Fourier transform infrared (FTIR) technology for milk analysis.

Installation point
Installed in the production process, where the milk is standardized in the liquid phase.

Specifications

Technology	Fourier transform infrared spectroscopy (FTIR)					
Parameters	Fat, protein, lactose, total solids (TS), solids non fat (SNF)					
Product types	Liquid milk for cheese, powder and consumer milk production, without solid particles or coagulated proteins in the product. Liquid dairy products with total solids concentration < 25% (WPC/MPC, high fat)					
Accuracy*		Guaranteed	Typical		Guaranteed	Typical
	Fat (0-10 %)	< 0.05	0.020	Lactose (0-7 %)	< 0.05	0.02
	Fat (10-20 %)	< 0.15	0.120	TS (8-20 %)	< 0.10	0.05
	Protein (0-10 %)	< 0.04	0.022	TS (20-25 %)	< 0.18	0.10
	Protein (10-20 %)	< 0.13	0.023	SNF (4-20 %)	< 0.10	0.04
Repeatability**		Guaranteed	Typical		Guaranteed	Typical
	Fat (0-10 %)	< 0.015	0.007	Lactose (0-7 %)	< 0.015	0.008
	Fat (10-20 %)	< 0.045	0.022	TS (8-20 %)	< 0.039	0.012
	Protein (0-10 %)	< 0.015	0.006	TS (20-25 %)	< 0.068	0.029
	Protein (10-20 %)	< 0.034	0.022	SNF (4-20 %)	< 0.024	0.018
Result frequency	10 seconds (20 seconds for high viscous products)					

Technical specifications and installation requirements

Protection degree	IP56
CIP and CIP temperature	Fully CIP compatible. Temperature maximum 95°C (203°F)
Product temperature	3-65° C (39-149° F)
Ambient conditions	Humidity: < 93% RH (45 °C). Temperature: 5-45°C (41-113°F)
Process pressure	Maximum 10 bars (145 PSI) static. Pressure shocks maximum 20 bars (290 PSI).
Production line dimension	Minimum DN 40, OD 1 1/2", IPS 2" and ISO 42.4.
Varinline access unit	Ø68 (type N)
Water supply, cooling	Minimum flow rate 0,1 L/min. Temperature: 2-20°C (35.6-68°F)
De-mineralized water (Zero water)	Consumption: 9 litre/day ISO 3696 grade 3 or ASTM D1193-91 type IV. Conductivity (µS/cm) <5.0.
Main cabinet	304 Stainless steel
Dimensions, cabinet (W x D x H)	539 mm x 285 mm x 480 mm (21.1" x 11.2" x 18.9")
Weight, cabinet	39.5 kg (87 lb)
Interface to PLC/SCADA	Standard OPC UA server with the possibility to define specific FOSS tags. Alternative KEPServerEX supporting connection to other PLC protocols.
Network connections	LAN cable: Minimum category 5e STP LAN plug: RJ45 Maximum LAN cable distance to the net connection: 100 meters
Hygiene standards	3-A Sanitary standard EHEDG Guideline: Guideline 8 on hygienic design principles

**The accuracy of individual sets depend on the sampling handling uncertainty, reference method SE and product concentration range. The example outlined should be regarded as a possible achievable target for the expected performance of new installations.*
***60 seconds averaging.*

This instrument is SmartAnalytics™ enabled. Turn your data into actionable insights that give you full control of your production across sites. Increase your efficiency, accuracy and uptime to ensure the safe and consistently high-quality food and feed products your customers expect.

Contact your local sales representative to learn more about the potential value in your business.

smart analytics

FOSS
Tel.: +45 7010 3370
info@foss.dk · www.fossanalytics.com
GB, September 2023