

MilkoScan™ FT3

Deliver peak performance in milk and dairy analysis



ANALYTICS BEYOND MEASURE

The MilkoScan™ FT3 offers a new, intelligent approach to dairy analysis including the power to test a wide variety of liquid and semi-solid dairy products and plant-based drinks at a low cost of ownership, exceptional uptime and with unprecedented consistency of results.

One solution covers many jobs

Dairy analysis today is about more than milk. The MilkoScan FT3 helps you to adapt effortlessly to your analysis needs. The smart flow system can handle a wide range of products and auto adjusts to each sample. The MilkoScan FT3 offers the most accurate and comprehensive adulteration screening.

Consistency is the key to effective process control

Based on a patented automatic standardisation you can eliminate instrument drift and variation between instruments. This ensures consistent high performance and that multiple instruments can be managed in a network, significantly reducing cost of operation.

Exceptional uptime made simple

With digital capabilities and unique intelligent diagnostic tools, MilkoScan FT3 provides a new level of assurance that includes unrivalled instrument uptime as well as fast and easy troubleshooting.

Sample types

Compositional analysis of liquid and semi-solid dairy products such as milk, cream, whey, yoghurt, chocolate milk, creme fraiche, milk and whey concentrates, plant-based products and more.

Applications

Platform control of raw material, milk standardisation, milk payment, screening for abnormalities, process control and optimisation and quality control throughout the dairy process.

Parameters

Global calibrations: Fat, protein, lactose, total solids, solids non fat, freezing point, titratable acidity, density, free fatty acids, citric acids, casein, urea, sucrose, glucose, fructose, galactose.

Technology

FTIR technology for analysis of milk, dairy and plant-based products.

Specifications

Area	MilkoScan™ FT3 Specification		
Included calibrations			
Milk	Fat, protein, total solids, solids non fat, lactose (incl. low lactose products), glucose, galactose, density, urea, titratable acidity, free fatty acids, casein, citric acid		
Cream	Fat, protein, lactose, total solids, solids non fat		
Whey & whey permeate	Fat, protein, lactose, total solids, solids non fat, titratable acidity		
Optional calibrations			
Concentrated Whey & Permeate	Fat, protein, lactose, total solids, solids non fat, titratable acidity		
Concentrated & Fortified Milk	Fat, protein, lactose, total solids, solids non fat		
Yoghurt & Fermented	Fat, protein, lactose, total solids, solids non fat, glucose, fructose, sucrose, total sugars, lactic acid		
Desserts & Ice Cream	Fat, protein, lactose, total solids, solids non fat, glucose, fructose, sucrose, total sugars		
Plant-based Drinks	Fat, protein, total solids, total sugars		
Freezing Point (FP)	Milk freezing point, cream freezing point (by applying conductivity sensor)		
*Untargeted models for adulteration screening (ASM Models)	Calibration tool and ready to use abnormal milk screening models. ASM models for: Raw cow's milk, raw buffalo milk, processed milk		
*Targeted models for adulteration screening (TAM)	Ammonium sulphate Cyanuric acid Formaldehyde Glucose Hydroxyproline Maltodextrin	Maltose Melamine Sodium bicarbonate Sodium carbonate Sodium chloride Sodium citrate	Sodium nitrite Sorbitol Sucrose Added urea Added water Added fat indicator
Calibration range	According to application note		
Accuracy (milk)	<1.0% C _v (F, P, L, TS) (guaranteed) <0.8% C _v (F, P, L, TS) (typical) <4.0 m°C (FP)		
Repeatability (milk)	<0.25% C _v (F, P, L) <0.20% C _v (TS) <1 m°C (FP)		
Transferability (milk)	<0.5% C _v (F, P, L, TS)		
Carry over (milk and cream)	<0.5%		
Adjustment routine	Automated slope/intercept procedure		
Sample volume milk and cream	<8.0 mL		
Measurement time (milk)	30 seconds		
Sample temperature	5 - 55 °C (the sample must be homogeneous)		
Ambient temperature	10 - 35 °C		
Advanced flow system	Automatic zero setting and clean. Cleaning defined according to properties and auto-adjust to each specific sample		
Automatic humidity control	Protected automatic drying system		
Intelligent diagnostics	Built-in ID chips for wear-time logging, service history and troubleshooting		
Network connections	LIMS, FossManager™		
Demineralised water quality	ISO Grade 3 / ASTM Type IV or better		
Weight and dimensions (W x D x H)	43 kg / 750 x 450 x 408 mm		

*Using conductivity sensor for optimal performance

MilkoScan™ FT3 is in compliance with AOAC (Association of Analytical Chemists) and IDF (International Dairy Federation).