



# FOSS

## Deliver peak performance in analysis of plant-based products

### MilkoScan™ FT3



ANALYTICS BEYOND MEASURE

MilkoScan™ FT3 delivers the peak performance required for success in the evolving dairy-industry landscape. Now, due to the availability of readymade calibrations for plant-based milk alternatives, it is also a perfect platform for quality and production control of plant-based drinks.

#### Test plant-based products without calibration work

Benefit from global calibrations for plant-based products and a range of parameters for each product type. Representing the latest in rapid analysis with FTIR, MilkoScan FT3 is the perfect platform for both regular dairy and plant-based production.

#### Fast and cost-effective development of new products

Smart flow system handles multiple product categories and auto adjusts to each specific sample. Key calibrations cover multiple products with excellent transferability, reducing the cost of reference testing and calibration management. FossCalibrator™ software enables rapid and effective development of further calibrations.

#### Immediate gains in production and quality control

Secure immediate gains with precise and consistent control of fat, protein, total solids and total sugars. Intuitive touchscreen and software make operation easy for anyone in the plant, ensuring long-term consistency. Rapid and reliable checks on final products.

#### Sample types

Compositional analysis of plant-based products covering: Soy, almond, oat, coconut, rice and pea, including flavoured and unflavoured varieties.

#### Applications

Platform control of raw material, standardisation, process control and optimisation and quality control throughout the production process.

#### Parameters

Global calibration models: Fat, protein, totals solids, total sugars and more.

#### Technology

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

# Specifications

Area	MilkoScan™ FT3 Specification																		
<b>Included calibrations</b> Milk  Cream Whey & whey permeate	Fat, protein, total solids, solids non fat, lactose (incl. low lactose products), glucose, galactose, density, urea, titratable acidity, free fatty acids, casein, citric acid Fat, protein, lactose, total solids, solids non fat Fat, protein, lactose, total solids, solids non fat, titratable acidity																		
<b>Optional calibrations</b> Concentrated Whey & Permeate Concentrated & Fortified Milk Yoghurt & Fermented  Desserts & Ice Cream Plant-based Drinks	Fat, protein, lactose, total solids, solids non fat, titratable acidity Fat, protein, lactose, total solids, solids non fat Fat, protein, lactose, total solids, solids non fat, glucose, fructose, sucrose, total sugars, lactic acid Fat, protein, lactose, total solids, solids non fat, glucose, fructose, sucrose, total sugars 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)	<table border="1"> <tbody> <tr> <td>Ammonium sulphate</td> <td>Maltose</td> <td>Sodium nitrite</td> </tr> <tr> <td>Cyanuric acid</td> <td>Melamine</td> <td>Sorbitol</td> </tr> <tr> <td>Formaldehyde</td> <td>Sodium bicarbonate</td> <td>Sucrose</td> </tr> <tr> <td>Glucose</td> <td>Sodium carbonate</td> <td>Added urea</td> </tr> <tr> <td>Hydroxyproline</td> <td>Sodium chloride</td> <td>Added water</td> </tr> <tr> <td>Maltodextrin</td> <td>Sodium citrate</td> <td>Added fat indicator</td> </tr> </tbody> </table>	Ammonium sulphate	Maltose	Sodium nitrite	Cyanuric acid	Melamine	Sorbitol	Formaldehyde	Sodium bicarbonate	Sucrose	Glucose	Sodium carbonate	Added urea	Hydroxyproline	Sodium chloride	Added water	Maltodextrin	Sodium citrate	Added fat indicator
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Calibration range	According to application note																		
Accuracy (milk)	<1.0% C <sub>v</sub> (F, P, L, TS) (guaranteed) <0.8% C <sub>v</sub> (F, P, L, TS) (typical) <4.0 m°C (FP)																		
Repeatability (milk)	<0.25% C <sub>v</sub> (F, P, L) <0.20% C <sub>v</sub> (TS) <1 m°C (FP)																		
Transferability (milk)	<0.5% C <sub>v</sub> (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).

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