FOSS

MilkoScan™ Mars
The first MilkoScan for everyone

MilkoScan™ Mars for milk analysis helps you to avoid slow and labour-intensive traditional testing methods and improves your ability to spot deliberate or accidental adulteration of the milk supply.

It allows you to control and standardise milk or cream products for optimal use of raw material and consistent quality products.

Sample	Parameters
Milk, cream and whey	Fat, Protein, Lactose, Total Solids, Solids non-fat, Freezing Point (milk only)

With MilkoScan Mars you can:

- Ensure that you pay exactly the right price for deliveries
- Stop adulterants entering your production process
- Check deliveries before they leave the plant

MilkoScan™ Mars is easy to run and cost-effective

FOSS MilkoScan™ analysers using proven FTIR technology are giving dairy producers improved profit and product quality. Now it is your turn to share in the benefits of rapid testing with FTIR.

MilkoScan Mars is supplied pre-calibrated. Plug it in and you are ready to start testing immediately.

- High performance and reliability of the ready-to-use calibrations ensures optimal use of raw material and consistent milk products
- Robust flow system for low maintenance
- Proven FTIR technology for milk analysis - more than 5000 major dairy users worldwide

The simple way to analyse milk – up to six parameters within a minute

Simple-to-use by anyone in the dairy, the MilkoScan Mars delivers up to six parameters in a minute without the use of chemicals. Results are displayed on the touch screen.

The instrument performs an automatic zero setting every hour. It can be password controlled so that users cannot change any of the settings.

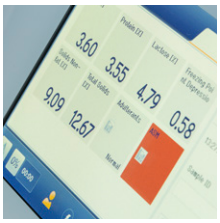
- Instant quality control - six parameters and adulteration screening delivered in one minute.
- Replacement of complicated and time consuming analysis methods with the need for skilled lab technicians
- No chemicals or disposables – just place sample and push start

Adulteration screening options

Check milk for abnormalities at the same time as other quality checks are performed. No extra equipment or time is required. With this simple procedure, MilkoScan Mars provides a screening solution that helps to detect contaminants and allows timely and more targeted tests of suspicious samples with the appropriate laboratory equipment.

- FTIR technology offers unique ability to screen milk for adulterants
- Ready-to-use screening options supported by the FOSS global support network
- Screen for known adulterants or simply anything that looks abnormal

How does it work?



1. Place sample under the pipette
2. Press start
3. Check the results on the screen

Technology

The Milkoscan Mars is based on the same technology employed in top of the range FOSS milk analysers used for official central milk testing around the world.

Proven accuracy is based on decades of development of renowned FOSS Fourier Transform Infrared (FTIR) technology, widely recognised as the most powerful and reliable method for routine testing of milk.

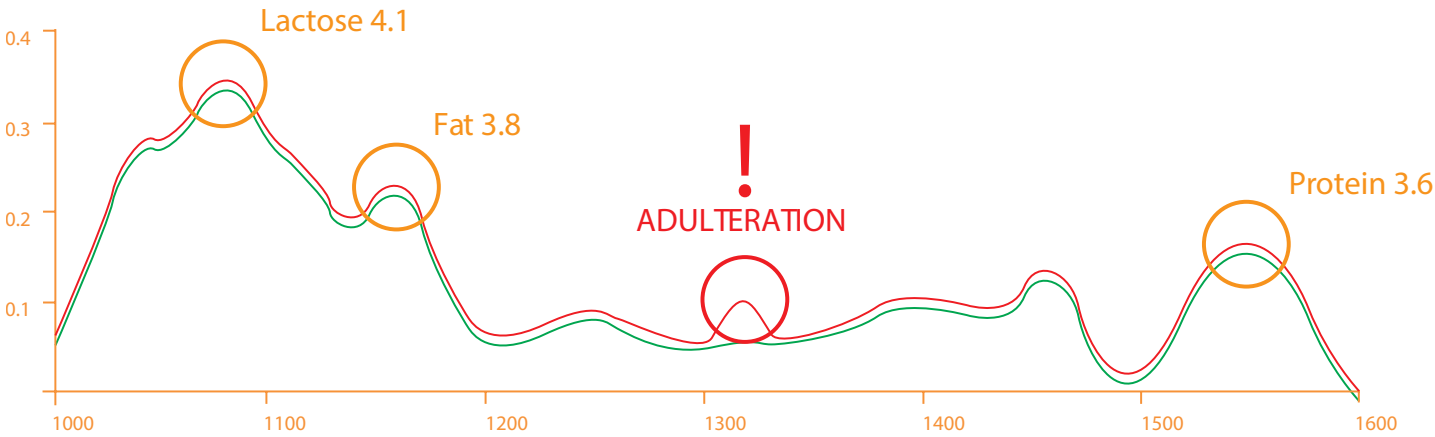
Measurements are in compliance with IDF standards and are traceable with results automatically stored.

The secrets revealed by FTIR analysis

The FTIR technology behind the MilkoScan Mars is particularly useful for liquid samples, making it the ideal infrared method when testing milk. Applications include raw milk testing, milk and cream standardisation for consistent final products based on parameters such as fat and protein and screening for adulteration to help safeguard quality.

Measurements are in compliance with international dairy standards.

Immediate detection of abnormal milk samples



Natural raw milk has a particular spectrum – a unique fingerprint. Using FTIR analysis, it is possible to program an analyser to recognise the spectra (or fingerprint) representing pure raw milk. A warning is then given when samples do not meet the criteria for pure milk. If the sample is somehow different from pure milk it will be detected immediately as shown by the red line for an abnormal sample against the normal shown in green.

Secure your investment with a FossCare™ Support Agreement

Let FOSS take care of you for a maximum return on your analytical investment. Get a four year warranty as part of the new FossCare Premium Preventive Maintenance Agreement or two years as part of any other FossCare agreement. In addition to the peace of mind afforded by the warranty period, the continual preventive maintenance pays off by keeping your analytical instruments working perfectly every day, year after year.

Why preventive maintenance?

As with any analytical solution, it is essential that your FOSS instrument receives regular maintenance to ensure optimal performance and extended lifetime. Avoiding expensive downtime is a matter of following factory standards and preventively replacing parts before they wear out. In turn, this helps ensure reliable and consistent results at the highest level.

Preventive and predictive maintenance combined with global support from 300 dedicated service, application, software and calibration specialists keeps your instrument running perfectly all year round.

Benefits of a FossCare™ Support Agreement:

- Extended Warranty (two or four years depending on the chosen agreement)
- Regular maintenance; the instrument is diagnosed, cleaned, adjusted, tested, fine tuned and recalibrated
- Minimal downtime from replacing components before they are worn out
- Consistent, accurate and reliable results you can always trust
- Preventative maintenance visits when it suits you (your business)
- 24/7 phone support - no need to worry about closing hours or PO
- Low, fixed service budget prevents unexpected expenses
- Discounts on additional services, spares, training and software upgrades

Contact your local Foss office for more information.

Specifications

MilkoScan™ Mars	
Feature	**Specification**
Dimensions (W x D x H)	345x280x285mm
Weight	10.5 kg
Power supply	(100 to 240V) V - 50/60 Hz
Power Consumption	12V, 5A, - 60 W
Ambient Temperature	5 - 35 °C
Ambient Humidity	< 80 RH
Environment	For best performance place the instrument on a stable surface away from excessive and continuous vibration
Noise Level	< 70 db (A)

Measuring range	0-48 % Fat 0-6 % Protein 0-50 % Total solids	0-12 % SNF 0-6 % Lactose

Accuracy	≤ 1.2 % CV* on major raw cow Milk components (Fat, Protein, Lactose, Total Solids, solids non fat)
Repeatability	≤ 0.5 % CV* on major raw cow Milk components (Fat, Protein, Lactose, Total Solids, solids non fat)
Analysis time	1 min. for milk
Sample volume	6 ml.
Sample temperature	5 – 40 °C (the sample must be homogeneous)
Cleaning	Automatic and programmable
Calibration Routine	Slope / Intercept adjustment
Network connections	Mosaic

**Coefficient of variation*

Included calibrations	
Milk	Fat, Protein, Lactose, Total Solids, Solids non fat, Freezing point
Cream	Fat, Protein, Lactose, Total Solids, Solids non fat
Whey	Fat, Protein, Lactose, Total solids, Solid non Fat.
Untargeted model for adulteration screening	Ready to use model for screening for abnormal raw cow milk
Targeted models for adulteration	Ready to use screening models for urea, sucrose, formaldehyde, sodium bicarbonate, potassium nitrate

MilkoScan™ Mars is CE labelled and complies with the following directives:

- ElectroMagnetic Compatibility (EMC) Directive 2004/108/EC
- Low Voltage Directive (LVD) 2006/95/EC
- Packaging and packaging waste Directive 94/62/EC
- WEEE Directive 2002/96/EC
- REACH Directive 1907/2006/EC

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

MilkoScan™ Mars

Easy to run and cost-effective

- Proven FTIR technology for milk analysis - more than 5.000 major dairy users worldwide
- High performance and reliability of the ready-to-use calibrations ensures consistent milk products
- Robust flow system for low maintenance

The simple way to analyse milk – up to six parameters within a minute

- Instant quality control - six parameters and adulteration screening delivered in one minute.
- User friendly interface eliminates the need for skilled lab technicians
- No chemicals or disposables – just place sample and push start

Adulteration screening options

- FTIR technology offers unique ability to screen milk for known and unknown adulterants
- Screen for added water
- Start screening from day one with ready-to-use screening models

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