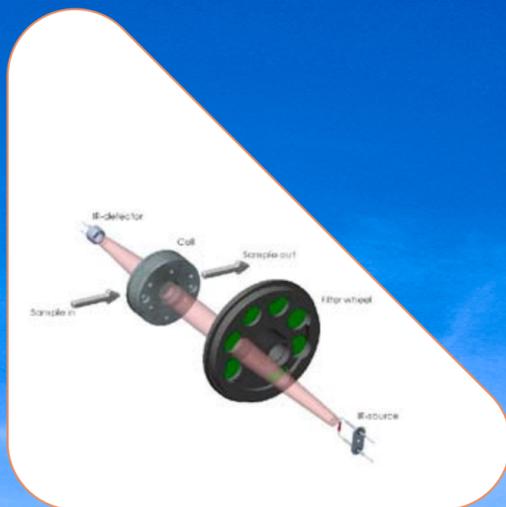


### ✓ Mid infrared technology

The LactoScope makes use of mid infrared filter technology. The specific bandwidth filters in the LactoScope allow only the wavelengths to pass for the components that are useful.

For the measurement of the Freezing Point Depression and salt in cheese the LactoScope makes use of a conductivity cell which is attached to the cell.



### Technical specifications

Version:	LactoScope C3+ (fat, protein & total solids) LactoScope C4+ (fat, protein, lactose & total solids) LactoScope C4+ (fat, protein, lactose & total solids) & cheese application (fat, protein, salt & moisture)
Standard Parameters:	Fat, protein, lactose and total solids
Additional Parameters:	Solids non fat, freezing point depression
Measuring speed:	120-150 Samples per hour
Measuring range for undiluted samples:	
Fat:	0-55%
Protein:	0-15%
Lactose:	0-20%
Total Solids	0-60%
Repeatability	≤ 0.25%
Accuracy:	≤ 1% = (bulk samples from cow milk)
Sample volume:	typical 8 ml
Sample temperature	2-42 °C
System dimensions:	67*51*43
Weight:	42 kg
<b>Standards/Approvals</b>	
	EMC Directive 89/336/EC
	Low Voltage Directive 73/23/EC
	IDF 141 C



**DeltaInstruments**

An Advanced Instruments Company

## New Horizons in Dairy Analysis



## LactoScope Filter

### ✓ Cheese analyzes on the LactoScope filter

Cheese factories can save time and expenses on end product analysis with the addition of an optional sample preparation system for their new LactoScope Filter instrument.

A patented solvent for liquefying the cheese, used in conjunction with a dedicated mixer, permits consistent preparation of fluid samples for analysis by the LactoScope Filter. Instead of using classical methods or sending samples to a reference laboratory, an end user can expand the use of his LactoScope to include almost any type of hard cheese in addition to his raw milk and milk blend measurement requirements. Using the cheese analysis option provides a measurement of fat, protein, moisture and salt within minutes.



### Delta Instruments

Delta Instruments, an Advanced Instruments company, is a well-established manufacturer of rapid routine analytical instrumentation for the analysis of milk and milk derivatives. Our product portfolio includes milk analyzers for dairy processing industries and for payment and dairy herd improvement laboratories, all to the same high quality.

For more than 25 years the Delta Instruments team has focused on customer satisfaction, technological progress and premier quality. The dairy industry is our core business.

### Representative

## Your Partner in Dairy Analysis

**Delta Instruments BV**  
P.O.Box 379 - 9200 AJ Drachten  
The Netherlands

tel. +31 (0)512 54 30 13  
fax +31 (0)512 51 33 79

www.deltainstruments.com  
sales@deltainstruments.com



**DeltaInstruments**  
An Advanced Instruments Company

# LactoScope™

## ✓ Why change a winning team

For decades Delta has been developing mid infrared analyzers for the dairy industry, named LactoScope filter.

The LactoScope analyzes fat, protein, lactose, total solids, solids non fat and Freezing Point Depression in milk, cream, whey and other dairy products.

The LactoScope is developed to be user friendly. Due to its modular construction, even under severe environmental

conditions, the robust and well designed new housing proofs its high standards of reliability. The combination of accuracy, user friendliness and price will make the new LactoScope filter an asset for each dairy.

Hundreds of LactoScope filters are being used all over the world by dairies which depend on the instrument day in, day out. The LactoScope uses a technology that has been proven to be a trust worthy partner.

## ✓ Typical end users

- Small and middle size dairies that need to check the incoming raw milk and end products.
- Cheese processors to check both milk and cheese.
- Back up instrument for dairies with 24 hours a day milk sampling.
- Dairy herd improvement laboratories.
- Payment laboratories.
- Milk collection points.

## ✓ Low cost of ownership

The LactoScope filter has long life time expectancy due to its modular and robust design. The new front- end opening makes it easy accessible for inspections and maintenance. The modular design and easy accessibility of the LactoScope filter helps end users to maintain the instrument themselves. This insures continuous running of the new LactoScope filter. The reagents which are used for the LactoScope Filter are Decon 90 and Triton x-100. The advantage for the end user is that these reagents can be bought locally, this means no high reagents costs and the end user is not depended of Delta Instruments. Within 30 seconds the results of all components are available.

The speed and the accuracy makes the return on investment, compared to the classical method, already within six to twelve months.



## ✓ Integrated design

The re-design of the new LactoScope makes the instrument even more suitable under tough conditions. The small foot print with its integrated cleaning and zeroing buffers of 5 liters each, makes the whole setup user friendly and easy to operate, not only in a laboratory environment, but also on site in the processing area.

## ✓ Freezing Point Depression

To obtain the most accurate results for analyzing the Freezing Point Depression in milk and cream the LactoScope makes use of a conductivity cell. The Freezing Point Depression result is calculated, based on the IR signals in addition to the conductivity (minerals and salts contribute to the conductivity but cannot be measured by Infrared).

