

# DAIRY ANALYSIS YOU CAN TRUST



## LactoScope 300 System: A Fast, Reliable, Accurate, Easy-to-Use Milk Analyzer

The LactoScope™ 300 FT-IR dairy analyzer combines performance, accuracy, ease-of-use, and speed, analyzing samples and producing results in less than 45 seconds – all in one compact solution. This robust instrument comes with a powerful user interface, step-by-step workflows, and built-in connectivity and reporting software that allows you to master the system with minimal training and access your results from anywhere.

The LactoScope 300 system is designed with all technologies working together to give you a powerful dairy analyzer that's ideal for chilling stations and dairy processing plants.



### Applications and Benefits

#### ▶ DETECT ADULTERANTS AT EARLY INTAKE

Screen for targeted and nontargeted adulterants in milk early in the intake stage, preventing contaminated milk from entering the value chain.

#### ▶ MEASURE DAIRY QUALITY

Identify levels of fat, protein, lactose, solids, and solids-not-fat in milk, whey, cream, so dairy can be segregated and geared toward the end product.

#### ▶ CONTROL YOUR PROCESS

Monitor quality levels during processing to ensure the consistency of end products, eliminating under- and overprocessing; improve yields by quickly optimizing settings based on results.

#### ▶ VERIFY FINISHED-PRODUCT QUALITY

Ensure liquid end products meet specifications.

## Fast Results

The LactoScope 300 system can test and your deliver results in under 45 seconds, allowing you to run at least 60 samples per hour.

## Accurate, Reliable Performance

Our patented Dynascan™ interferometer is designed to withstand the effects of tilts and shifts and ensures that the instrument calibration remains intact after maintenance, for unparalleled data accuracy every time.

## Intuitive, Powerful User Interface

The ResultsPlus™ interface requires minimal training to master the testing and results process. And it allow administrators to validate calibrations and set up automatic data export to LIMS.

## Remote Access and Reporting

Cloud-based NetPlus Report connectivity allows you to access results from anywhere, while NetPlus Remote (sold separately) enables you to configure instruments and send calibrations and settings remotely; monitor performance by comparing instrument results to reference results; and updating calibrations. For example, a processor with 10 sites can access the LactoScope 300 analyzer at all sites from a single computer and configure them simultaneously, without the need to be onsite.

## LactoScope 300 System Specifications

Technology	FT-IR							
Wavelength Range	400 – 4000 cm-1							
Products	Raw and homogenized milk, cream, whey							
Included Calibrations								
Milk	Parameter	Fat	Protein	Lactose	Solids	Solids Non-Fat	Urea	FPD
	Range (%)	0 - 13	0 - 6	0 - 6	0 - 25	0 - 12	10-30 mg/100g	-0.409 °C – 0.550 °C
Cream	Range (%)	0 - 45	0 - 5	0 - 5	0 - 50	0 - 12	--	--
Whey	Range (%)	0 - 10	2 - 5	0-5	0-7.5	--	--	--
Accuracy	≤ 1.2 % CV on major raw bulk tank cow's milk components (fat, protein, lactose, total solids, solids not fat)							
Repeatability	≤ 0.5 % CV on major raw bulk tank cow's milk components (fat, protein, lactose, total solids, solids not fat)							
Targeted Adulterants Limits of Detection (LOD)	Urea:	< 0.1%						
	Ammonium Sulphate:	< 0.1%						
	Maltodextrin:	< 0.6%						
	Sucrose:	< 0.3%						
	Water:	< 20%						
Untargeted Adulterant Detection	Reported as abnormal milk screening							
Sample Capture Time	< 45 seconds							
Sample Temperature	5 °C - 40 °C							
Sample Treatment	Homogenous samples by inversion; best performance on raw milk and cream achieved with preheating to 38-40 °C							
Sample Volume	5 ml -10 ml (milk)							
Ambient Temperature	5° C - 35° C							
Humidity	Noncondensing							
Data Interface	2 x USB ports (for printer, keyboard, mouse, or barcode reader), 1 x Ethernet port							
Operating System	Windows™							
Remote Connection	NetPlus™							
Display	12-in color touchscreen							
Carryover	<1 %							
Cleaning	Automatic and programmable							
Power Supply	100/230 V, 50/60 Hz, 12 V operation							
Dimensions (W x D x H)	460 mm x 440 mm x 600 mm							
Weight	22 kg							

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