

LactiCheck™ 02

RapiRead
MILK ANALYZER

A streamlined ultrasonic spectroscopic method for rapid, reliable milk composition results



Just 40 Seconds!



DEDICATED ANALYTICAL TOOLS FOR THE DAIRY SUPPLY CHAIN

LactiCheck™ 02 RapiRead MILK ANALYZER

Affordable Approach to Real-Time Results

A practical alternative to previous options for milk composition testing, the straightforward simplicity, affordability and reliability of the LactiCheck bring the benefits of technology to you today!

Artisanal Cheesemakers: Many cheesemakers had to rely exclusively upon costly tests and experienced delays in results by sending samples to independent laboratories. New real-time rapid results are achievable on-site.

Dairy Processors: The move from bench chemistry to automation has been outside of the budget of many small and mid-sized dairy processors. Costs of equipment, maintenance and training have been high - but today there is an affordable alternative.

Large Dairy Processors: The LactiCheck is a cost effective back-up to fully automated infrared systems and can easily be integrated into satellite positions (milk receiving, production, etc.) at critical control points.

A Purchase Decision that Pays Off!

Rapid, objective results and automated recording, reporting options save time; improve productivity.

- ✓ Minimize the "sneaker network" by screening incoming milk at the receiving station or on the production floor. Gain more in-depth profiles on suppliers or valuable production time, while freeing up lab resources
- ✓ Make the break from bench-chemistry testing to automation and realize true transparency plus improved process control!
- ✓ Save valuable time during product change-overs by giving Production at-line results. Reduce backups caused by heavy throughput and routine maintenance requirements of other instruments or personnel issues in the lab!



Cost-effective composition testing Anywhere! Cow-side to customer



Automated, affordable testing of milk composition!

An ultra-user-friendly, affordable and automated system, the LactiCheck™ provides fat, solids not fat, protein, added water and lactose results simultaneously in just 40 seconds! A compact, closed unit featuring simple, push-button operation, the Model LC-RR is designed for testing both unprocessed and processed cow or goat milk products.

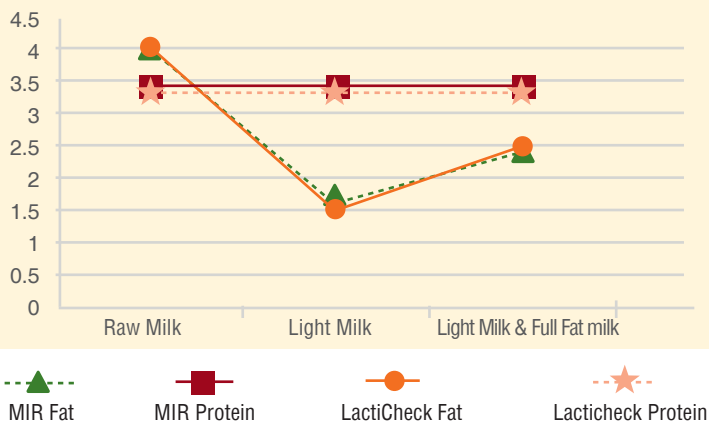


Improved accuracy and convenient calibration!

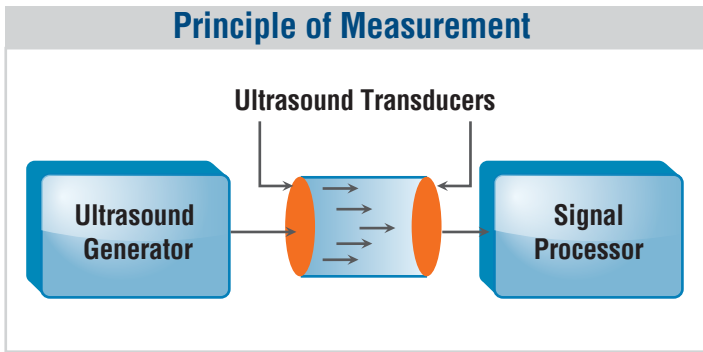
Based upon the latest advances in ultrasound spectroscopy, the LC-RR provides an alternative to tedious, time-consuming, bench-chemistry methods for composition testing. Ease-of-use and reliability make it a good back-up for other automated systems as well! Featuring improved accuracy in fat determination, the dual channels are factory slope calibrated. New LACTICAL™ milk-based controls and simple, push-button procedures facilitate validation and calibration as required.



LactiCheck™ Correlation Study: Mid-Infrared (MIR)



Theory of Operation: Ultrasound



Ultrasound Spectroscopy:

Ultrasonics is a measurement modality that has been recognized and highly utilized for more than 50 years in a variety of fields and applications from medical diagnostics and therapeutics to process control analysis. Ultrasonic (or acoustic) spectroscopy presents a practical alternative to optic (or infrared) spectroscopy for material analysis. This technique brings many distinct benefits to dairy and food analysis, including the ability to readily propagate thru opaque samples.

- ✓ High frequency acoustical or sound waves probe intermolecular forces within the sample.
- ✓ By monitoring feedback relative to the attenuation and velocity of the sound waves, levels of molecular organization are characterized.
- ✓ Compositional structure of fat and solids not fat are directly measured; other parameters are algorithmically determined using this data.
- ✓ Results for milk composition are presented simultaneously on the readout and thru a standard RS-232 output, or RS-232/USB, for transfer to PC or Printer.

P&P provides results-oriented solutions to the dairy and food industries. Focusing on innovative technologies that meet real requirements, we identify unique instrument-based solutions and bring them to food, dairy and bio-tech firms around the globe at an exceptional value.

For more details about our "fit for purpose" solutions for your requirements, we invite you to visit us on the web at: www.pagepedersen.com

LactiCheck™ Specifications:

Measuring Parameters: (cow or goat milk)

Fat	
Calibrated to fixed range	
(within +/- 1.0% fat)	0.3 -9% (±0.06 %)
High Fat:	9 -14% (±0.08%)
Protein	
Calibrated to fixed range (True or Total)	
(within +/- 1.0% protein)	2 - 5% (+/- 0.1%)
Standard	2 - 5% (+/- 0.2%)
Solids Not Fat (SNF)	6 -12% (±0.1%)
Density	1.0260-1.0330 g/cm ³ (±0.0005 g/cm ³)
Added Water in Milk	2 - 60% (± 2%)
Lactose	3 - 7% (±0.1%)
Electric Parameters:	
AC Power Supply Voltage	110/220V +10/-15%
DC Power Supply Voltage	12-14.2 Volt Battery
Power Consumption	30 W max
Data Transfer	RS-232 (USB optional)
Environmental:	
Ambient Air Temperature	10 to +35° C
Milk Temperature	15 to +30° C
Humidity	30 - 80% Relative Humidity
Technical Data:	
Measuring Cycle	~ 40 seconds
Dimensions (W x H x D)	95 x 230 X 250 mm / 3.75 x 9.0 x 9.8"
Shipping Dimensions	120 x 310 x 310 mm / 17 x 17 x 14"
Net Weight	7.3 lbs / 3.3 Kg
Gross Weight	17.5 lbs. / 8 Kg
Sample Volume	20.0 ml
Start-Up Time	<5 minutes

The LactiCheck™ ships complete with:

- Sample Vials
- Cleaning Solvent Concentrate
- Protein Cleaner
- Cleaning Sheet (Laminated) and Manual Pump
- LactiCAL™ Control(s)
- Power Cord
- User's Manual

Options:

- (Not delivered with the standard Unit)
- LactiLog™, Data Collection Package
 - CheeseCrafter™ Total Production & Quality Control Program
 - DC Power Connector
 - LactiTote™, Sturdy Canvas Carrying Bag
 - LactiPrinter™, Thermal RS-232 Portable Printer
 - USB Interface for use with LactiLog™ (see above)
 - CompuLog™ portable data logger
 - LactiPrep™ Automated Sample Rocker



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