



Dairy Milk Analyzer



We make the invisible, visible!

A revolution in modern dairy milk analysis

- RESULTS WITHIN 60 SECONDS
- NO CHEMICALS NEEDED
- BUILT-IN COMPUTER
- CAN BE CONNECTED TO EXTERNAL PC
- PUMP FOR SAMPLE AND CLEANING
- ROBUST AND PORTABLE

**New version
with pump!**



A cost efficient Mid-IR instrument designed for fast milk analysis.

Dairy Milk Analyzer (DMA) is a very attractive alternative to existing methods due to its unique profile, low cost and high analytical accuracy. Simple, quick and direct analyses of milk makes it suitable for optimal production control. Miris DMA is built on the Mid-IR technique, which is approved by IDF (International Dairy Federation) as well as AOAC (International Association of Official Analytical Chemists).

Miris DMA reliably analyses milk for fat, protein, lactose and dry matter content. All components are measured in one single step with no preparation of the sample. No chemicals needed. Features of the instrument are its small size, accuracy, robustness and easy handling.

Miris DMA is based on approved IR technology in combination with a new, unique patent pending technique. The accuracy is very high and the measurement range is skim milk to coffee cream (15 % fat). With an option, it is also possible to analyze cream (up to 50 % fat). The instrument is calibrated at the factory and only needs adjustment of the zero-settings.

By pressing "start" the sample is automatically pumped into the instrument and analysed. The result is presented with two decimals on the display of the instrument and can easily be transferred to your PC. It is possible to manage the instrument either as a stand alone unit or by using a key board and/or a mouse.



TECHNICAL DATA

Dimensions (HxWxB)	11.5 x 26 x 37 cm
Weight	4.2 kg
Power supply	15V, 4A DC
PC connections	USB B for data transfer and Program updates via ActiveSync or Windows Mobile Device Center USB A for memory stick, and devices i.e. keyboard, mouse, scanner, etc. RS232 and Ethernet
Display	TFT QVGA 320*240
Environmental temperature	+15C° (59F°) to + 35C° (95F°)
Sample temperature	+20C° (68F°) to + 40C° (104F°)
Internal Storage capacity	4000 measurements
Backup of measurement data	Internal persistent flash memory
Operative system	Windows CE 5.0
Measurement performance	Repeatability <0.05% Accuracy (SD) <0.1 %
Shown value	2 decimals
Time for analysis	60 seconds / measurement
Analytical method	Mid infrared transmission spectroscopy
Standards	CE class B LVD , FCC, Medical Device
Sample / Cleaning volume	10 ml / 15 ml

1.) For optimum results preheating of the samples to 40C° (104F°) is recommended

STARTER KIT

- » Contains detergents, AC/DC adapter
- » USB Cable for datatransfer to PC, CD with manual,
- » Quickguide, spare parts to inlet filter,
- » Robust carrying case.

CONSUMABLES

Maintenance kit with detergents and spare parts to inlet filter.

OPTIONS

Measurement

- » Cream up to 50%.
- » Water indication.
- » Mastitis indication.

Equipment

- » Terminal cable for real time data transfer to PC (RS232).
- » Portable thermal printer for printouts of result.
- » Portable rechargeable battery for mobile use.

Milk refresher

An external device for pretreatment of frozen and/or deteriorated* milk samples for optimum results.

Frozen milk, when thawed, can give aggregation of casein micelles and/or fat separation (oiling off). This might occur when milk is slow-frozen or during long storage time (age-gelation). Such milk must be pretreated to ensure reproducible results. This is independent of analytical methods. The aggregation of Casein micelles can cause blockage in the measuring unit, giving false results. Rapid freezing is recommended to avoid these pitfalls. Avoid repeated freezing and thawing of the milk samples.