MIRIS AB ™

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

The MIRIS Dairy Milk Analyzer is a very attractive alternative to the existing methods due to its unique profile with low cost and high analytical accuracy. Simple, quick and direct analyses of the milk makes it suitable for optimal production control, as well as control of the milk fat content when manufacturing different types of milk products. **The DMA builds on the Mid-IR technique which is approved by IDF (International Dairy Federation) as well as AOAC INTERNATIONAL (Association of Official Analytical Chemists)**. With the MIRIS Dairy Milk Analyzer it is possible to improve the efficiency of quality control in dairy production.

MIRIS Dairy Milk Analyzer

MIRIS DMA Basic

An easy handling device for milk analysis

The DMA Basic makes it possible to perform a quick, simple and reliable analysis of milk for the content of **fat, protein, dry matter and solid non fat** using a small sample size of 1-3 ml. The latest development is the application to indicate added water. The contents of all the above- mentioned components are measured in one single step. Analyses is made without chemical additives. The results are achieved within 60 seconds. The instrument is therefore time saving. Features of the instrument are its small size, robustness and easy handling. The instrument is developed for use at dairy laboratories as an at-line instrument for process control. MIRIS Dairy Milk Analyzer 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 **skimmed milk to coffee cream** (15% fat). The instrument is pre-calibrated at the factory and needs only control of the zero-settings. Analysing is easily done by injecting the sample into the instrument and pressing the start button. The results are presented with two decimals on the display of the instrument and can easily be transferred to your PC.

MIRIS DMA Basic

Features

•Reliable	- Robust construction, without moving parts
	- Simple control and adjustments to keep measurement performance
	- Memory with high storage capacity and battery back-up
•Environment	- Analyses without chemicals and cleaning with harmless detergents
•Flexible	- Stand-alone or connected to an external PC
	- Possibilities to make Slope and Bias adjustments against national reference samples
•Future proof	- Easy to upgrade the soft-ware
•Water indicator	- Indicates if more than 5 % water has been added to the milk
•Measurement range	- Processed and unprocessed milk (cow, buffalo, sheep, goat, camel)
	- Fat 0-15%
	- Protein 0-8%
	- Dry matter 0-55%
	- SNF 0-15%

Technical data

•Dimensions (h x w x d)	98 x 267 x 236 mm
•Weight	3000g
•Power supply	9V 3A DC
•PC connection	USB for transfer of data and upgrading programs
•Display	TFT screen, 240*320 pixels
•Sample temperature	+20 - +40°C[1]
•Ambient air temperature	+15 - +38°C[2]
•Storage capacity	2000 measurements (time-stamped and numbered)
•Back-up of measurement data	~1 week without power supply attached
•Operative system	Windows CE
•Measurement performance	Repeatability (SD): < 0.1%
	Accuracy (SD): < 0.1%
•Shown value	2 decimals
•Time for analysis	< 60 seconds/sample
•Analytical method	Infrared transmission spectroscopy
•Standards	CE approved for EMC and LVD

1. For optimum results preheating of the samples to 40°C is recommended
2. Depending on local conditions it is possible to adjust the DMA for higher ambient air temperature than 38 °C

Consumables

•Start-kit:	Contains syringes, detergents, Power Cord (and AC/DC converter), USB Cable for program installation and file transfer, CD with manual and software for data transfer to computer, quick guide, spare parts to in and outlet, rugged carrying case
•Maintenance kit:	Contains syringes, detergents and spare parts to in and outlet

Options

•On-line data transfer:	RS232 Cable for transferring the results on-line to a PC with a Windows based terminal function
•Receipt printer:	A portable thermal printer for direct out- print of results

Address	**Tel**	**Fax**	**VAT.nr**	**E-mail/Web**
Kungsgatan 109	+46 18 146 907	+46 18 505 051	SE556604-030801	miris@miris.se
753 18 Uppsala SWEDEN				www.miris.se