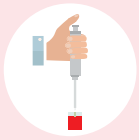
CDRFoodLab®

Analysis system for
milk and dairy products
quality control

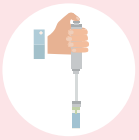
CDR FoodLab® system

CDR FoodLab® consists of a thermostatically controlled analyser with photometric technology using LED emitters and kits of reagents that are pre-filled into vials and ready to use.



1

Take the sample
to be analysed using the pipettes supplied with the system.



2

Place the sample
in the test tube containing the pre-filled reagent.

3

Insert the test tube
into the reading cell to obtain the analysis result.

Reduced analysis times

With **CDR FoodLab®** you are finally free to carry out the analyses independently, either in your quality control laboratory or directly on the production line, quickly and easily, without having to rely on an external laboratory.
In fact, it is possible to analyse **16 samples simultaneously** and constantly monitor the production process, obtaining specific and precise answers in a few minutes.

Easy to use

The system has been designed so that it can be used not only in the laboratory, but also on the production line for real-time results, by personnel without specific technical training.
The analysis methods, shown on the display, are simpler than traditional methods and can be performed in just a few steps.
If required, the HELP function will guide the operator step by step through the procedure. The result is automatically calculated, displayed and printed out.

Reliable

CDR FoodLab® guarantees high sensitivity, a wide measuring range and excellent repeatability of the results thanks to the innovative photometric technology using LED light sources and fixed wavelengths ranging from the ultraviolet to the visible spectrum (with a range of 0 to 6 optical density).
The analysis results are correlated with those of the reference methods.

Pre-filled and disposable reagents are packaged in bags of 10 tests, developed and produced by the CDR research laboratories.

The quality control of the production process of milk and dairy products has never been so easy!

CDR FoodLab® is the analysis system for milk and dairy products that simplifies and speeds up traditional quality control procedures.

CDR FoodLab® allows to analyze **low-fat milk or whole milk, raw or pasteurized, without any kind of previous sample treatment.**

Cheese, mozzarella, ricotta cheese, yoghurt, butter, margarine and other dairy products just require an extremely easy sample preparation, in comparison with the one requested by the official method.

It allows to analyze in a simple and rapid way Lactose, L-Lactic acid and Chloride in milk and dairy products as well as Urea, Ammonia, Alkaline Phosphatase (ALP), Hydrogen Peroxide, ε-Fructosyl-lysine (furosine) and Peroxidase (POD) in milk.

More tests with just one analyzer.

Milk and dairy products

TEST	Measuring range	Resolution	Repeatability	Test time
Lactose	0.01-2 g/100g 1.50 – 5.50 g/100g	0.01 g/100g 0.01 g/100g	0.05 g/100g 0.09 g/100g	10 mins 10 mins
L-Lactic Acid in milk and cream	1.5 – 250.0 ppm	0.1 ppm	1.6 ppm	8 mins
L-Lactic Acid in yogurt, ricotta and mozzarella cheese	0.1 – 1.5 g/100g 0.01 – 1.75 g/100g	0.1 g/100g 0.01 g/100g	0.1 g/100g 0.01 g/100g	8 mins 8 mins
Ammonia	1.00 – 80.00 ppm	0.01 ppm	0.97 ppm	8 mins
Chlorides in milk	50 – 400 mg/dL NaCl	1 mg/dL NaCl	12 mg/dL NaCl	5 mins
Chlorides in cheese and sauce	0.20 – 7.00 % g NaCl	0.01 % g NaCl	0.22 % g NaCl	5 mins
Chlorides in water solutions	0.01 – 5.00 gr/dL NaCl	0.01 gr/dL NaCl	0.07 gr/dL NaCl	5 mins
Hydrogen peroxide	1.5 - 25.0 ppm H_2O_2	0.1 ppm H_2O_2	0.6 ppm H_2O_2	6 mins
Peroxidase (POD) Serum proteins	100 – 8000 U/L 13.60-17.72%	1 U/L 0.01%	172 U/L 0.09%	10 mins
ε – Fructosyl-lysine	10.00 – 1000.00 Δ/min 10.0 – 500.0 mg/100 g (of furosine)	0.01 Δ/min 0.1 mg/100 g (of furosine)	5.91 Δ/min 5.4 mg/100 g (of furosine)	5 mins
Urea	5.0 – 100.0 mg/dL	0.1 mg/dL	1.2 mg/dL	8 mins

CDR FoodLab® allows to determine also Acidity and Peroxide Value in **butter, margarine and cream**, just after a simple sample treatment.

Extracted fats

TEST	Measuring range	Resolution	Repeatability	Test time
Acidity (FFA)	0.01 - 1.10 % of oleic acid 1.0 – 3.5 % of oleic acid 1.0 – 26.0 % of oleic acid	0.01 % of oleic acid 0.1 % of oleic acid 0.1 % of oleic acid	0.02 % of oleic acid 0.1 % of oleic acid 0.5 % of oleic acid	1 min 1 min 1 min
Peroxides	0.01 – 5.50 meqO_2/Kg 0.30 – 15.00 meqO_2/Kg 1.0 – 50.0 meqO_2/Kg 4.0 – 550.0 meqO_2/Kg	0.01 meqO_2/Kg 0.01 meqO_2/Kg 0.1 meqO_2/Kg 0.1 meqO_2/Kg	0.05 meqO_2/Kg 0.24 meqO_2/Kg 0.5 meqO_2/Kg 5.2 meqO_2/Kg	3 mins 3 mins 3 mins 3 mins

CDRFoodLab®

CDRFoodLab® Jr

	CDRFoodLab®	CDRFoodLab® Jr
Analyses on milk and dairy products	Complete analysis panel	Customisable configuration
Samples that can be analysed simultaneously	16	3
Multitasking Mode	Yes	No
Calibration	Pre-calibrated No periodic calibration is necessary	Pre-calibrated No periodic calibration is necessary
Maintenance costs	No	No
Storage of results	Sufficient internal memory for storing thousands of analysis results in CVS and XML files compatible with all database formats (e.g., XLS, SQL)	Sufficient internal memory for storing thousands of analysis results in CVS and XML files compatible with all database formats (e.g., XLS, SQL)
Photometric module	Up to 8 wavelengths in 4 reading cells	Up to 8 wavelengths in 4 reading cells
Incubation module	37 ° C thermostated block with 16 positions	37°C thermostated reading block with 3 positions with incubation function
Connection with barcode and QR code scanners	Yes, via Bluetooth	No
Display	5.7" TFT colour LCD with touch screen	4.3" TFT colour LCD with touch screen
Connectivity	1 USB port type B for transferring the performed analysis database, configuration and software update, PC connection 1 USB port type A for technical service and computer connection 1 Ethernet port (LAN) for connection to intranet Bluetooth 4.0	1 USB port type B for transferring the performed analysis database, configuration and software update, PC connection Bluetooth 2.1
Printer	80 mm wide printer with integrated graphics	Wireless connection for external printer
Dimensions and weight	32 x 29.5 x 13 cm (W x D x H) 2.80 kg	15 x 22 x 8,3 cm (W x D x H) 0,80 Kg
Power supply	24 V	24 V or optional lithium-ion battery

rev 7.0

CDRFoodLab®

CDR FoodLab®, system of FOODLAB® line, is a trademark of CDR S.r.l. Phone. +39.055.871431 • Fax +39.055.8714322
Via degli Artigiani, 6 • 50055 Ginestra Fiorentina • Florence - ITALY • info@cdrfoodlab.com - www.cdrfoodlab.com