FOODLAB®

Analysis systems for quality control of food and beverage

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The system

CDR FoodLab® is a line of chemical analysis systems for quality and process control of foods and beverages, unique in performance and accuracy, easy to use and highly versatile, allowing a wide range of parameters to be determined using a single analyser.

That is why food industries, dairies, milk plants, cattle farms, olive oil mills, companies of wine and brewing sectors, oil companies, egg and egg product producers, as well as chemical laboratories all over the world, are already using **CDR FoodLab®**.

How it is made

CDR FoodLab® consists of:
• a thermostatically controlled analyser with photometric technology using **LED emitters;**
• kits of reagents that are disposable, pre-filled into vials, packaged in **bags of 10 tests**, produced by the CDR research laboratories.

The use of **pre-filled reagents** and the analytical procedures developed by the CDR research laboratories **allow sample preparation to be eliminated** or reduced, analytical methods to be speeded up and simplified, **and complex calibration procedures to be completely eliminated.**

Contact with the chemicals used is minimal compared to standard methods, benefiting operator safety.

The amount of chemical waste is significantly reduced compared to that generated by standard methods.

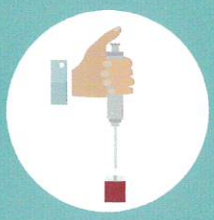
What it analyses

With **CDR FoodLab®** systems you can to determine a wide range of parameters of many foods and beverages.

Oils and fats: all types of animal and vegetable oils and fats such as olive oil, palm oil, fish oil, frying oil and fried foods.

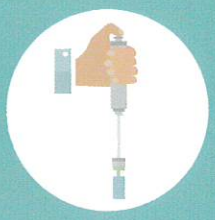
Beverages: wine/must, beer/wort, kombucha, cider, water.

Foods and animal feeds: milk and dairy products, egg products, bakery products, nuts, plant-based products and beverages, vinegar, tomato and its derivatives, pet food.



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

The **CDR FoodLab® system speeds up analytical procedures. In fact, up to 16 samples can be analysed simultaneously** and a constant production process control can be performed, obtaining specific and precise answers within minutes. The multitasking mode allows simultaneous handling of the determination of several analytical parameters, starting a new analysis while another is already in progress and being able to switch from one analysis to another at any time.

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 are simpler than traditional methods and can be performed in just a few steps:
1. Add the sample to the pre-filled reagent.
2. Follow the instructions on the display and, if required, the HELP function will guide the operator step by step through the procedure.
3. The result is automatically calculated, displayed and printed out.

Reliable

CDR FoodLab® is a measuring instrument that guarantees **high sensitivity, a wide measuring range and excellent repeatability** of the results thanks to a 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.

	Top	Junior
Configuration / Analysis		
	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

CDRFoodLab®

OILS AND FATS
Acidity (FFA)
Peroxide value
Anisidine Value (AnV)
Soaps
Total polyphenols/stability index in olive oil
Iodine value

FRYING OILS AND FRIED FOODS
Acidity (FFA)
Peroxide value
Anisidine Value (AnV)
Soaps

NUTS
Acidity (FFA)
Peroxide value
Anisidine Value (AnV)

FISH OIL
Acidity (FFA)
Peroxide value
Anisidine Value (AnV)

TOMATO AND TOMATO DERIVATES
Lactic acid (D+L)
Fermentable sugars
Chlorides

PET FOOD
Acidity (FFA)
Peroxide value
Anisidine Value (AnV)

ANIMAL FEED
Acidity (FFA)
Peroxide value
Anisidine Value (AnV)

MILK AND DAIRY PRODUCTS
Lactose
Urea
Chlorides
Ammonia
Peroxidase (POD)
L-Lactic Acid
Alkaline phosphatase (ALP)
ε-fructosyl-lysine
Hydrogen peroxide

EGG PRODUCT
Lactic Acid
D-3-hydroxybutyric acid
Cholesterol
Color
Acidity (FFA)
Xanthophylls in animal feeds

BAKERY PRODUCTS AND SPREADS
Lactose
Alcohol content
Acidity (FFA)
Peroxide value
Anisidine Value (AnV)

CDRPalmOilTester

PALM OIL
Acidity (FFA)
Peroxide value
Anisidine Value (AnV)
Iodine value
DOBI & Carotene content

CDROxiTester

OLIVE OIL
Acidity (FFA)
Peroxide value
K270
Total polyphenols (biophenols)/stability index
Fermentable sugars in olives

CDRBeerLab®

BEER, WORT
Alcohol content
Bitterness (IBU)
Fermentable sugars
Total sulfur dioxide
FAN (Free Amino Nitrogen by OPA)
Carbohydrates
Calcium
Colour
Starch
pH
Diacetyl - Vicinal diketones (VDKs)
Yeast Vitality
Acetic acid
Polyphenols
Lactic acid (D+L)
Zinc wort

WATER
Alkalinity
Bicarbonates
Zinc
Calcium
Magnesium
Sulfates
Potassium
Chlorides

CDRWineLab®

WINE AND MUST
Acetic acid (volatile acidity)
Total Acidity
Fermentable sugars
L-Malic acid
L-Lactic acid
Alcohol content
Free sulfur dioxide
Total sulfur dioxide
Yeast Assimilable Nitrogen (YAN)
Calcium
Galacturonic acid
Gluconic acid
pH
Colour (tonality and intensity)
Acetaldehyde (Ethanal)
Catechins
Copper
Anthocyanins extraction on grapes
Total anthocyanins
Total Polyphenols Index (TPI)
Total Polyphenols (Folin Ciocalteu)
Polymerised Anthocyanins
HCl Index
Tannins
Glycerol

VINEGAR
Alcohol content
Chlorides
Colour
Sugars
Total acidity
Total sulfur dioxide

CDRCiderLab

CIDER
Alcohol content
Total acidity
Fermentable sugars
Free sulfur dioxide
Total sulfur dioxide
L-Malic acid
L-Lactic acid
Acetic acid (volatile acidity)
pH
Total Polyphenols Index (TPI)
Glycerol
Yeast Assimilable Nitrogen (YAN)

CDRKombuchaLab

KOMBUCHA
Alcohol content
Acetic acid
Fermentable sugars
L-Lactic acid
Gluconic acid
Yeast Assimilable Nitrogen (YAN)
Glycerol
Total polyphenols Index
Galacturonic acid
L-Malic acid
Total acidity

rev 7.1

FOODLAB®

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