

BactoScan™ FC+

The approved rapid method for determination of total bacteria in raw milk



ANALYTICS BEYOND MEASURE

Based on Individual Bacteria Count (IBC), BactoScan™ FC+ gives an accurate determination of the hygienic quality of raw milk with a capacity of testing up to 200 samples per hour. BactoScan is the industrial standard in many countries all over the world, and in the EU more than 75% of all milk supplies are paid based on BactoScan results.

Superior accuracy through Individual Bacteria Count

BactoScan FC+ measures the hygienic quality of milk by analysing bacteria in raw milk. As the automated BactoScan FC+ counts the total bacteria as single cells and not clusters, it gives a uniform high accuracy of results.

High capacity with confidence

High performance capacity enables a high throughput of milk samples. Reduce labour time and get instant results for fast response to farmers. The repeatability and reproducibility of BactoScan FC+ is excellent compared to plate count methods, while a self-cleaning program minimises carry-over contamination from previous samples.

Optimise instrument management with FOSS digital services

Ensure consistent performance of all instruments in your network and avoid downtime by making upgrades and adjustments while instruments continue to run. Protect your data with automatic back up.

Sample type

Cow, goat, sheep and buffalo milk

Parameters

Individual Bacteria Count (IBC/ml)

Technology

Flow cytometry technology that enables precise and instant milk bacteria analysis

Approvals

BactoScan FC+ is a FDA/NCIMS and MicroVal (EURL) approved rapid electronic counting method and complies with ISO/IDF guidelines

Specifications

Performance

Measuring range: 5.000 - 20.000.000 IBC/ml

Repeatability

Range (IBC/μl)	SR (log-units)	Typical SR (log units)
10 – 50	0.07	0.06
51-200	0.05	0.04
>200	0.04	0.02
Entire range	0.05	

Reproducibility (between instruments):

Range (IBC/μl)	SR (log-units)	Typical SR (log units)
10 – 50	0.11	0.08
51 –200	0.07	0.06
>200	0.06	0.04

Carry-over effect	< 0.5 % (uncompensated)
Sample type	Cow, sheep, goat and buffalo
Speed*	65, 130, 200 samples per hour
Working factor	Standard 300, (optionally: 95, 600 and 1200)
Accuracy	Typical $Sy.x < 0.25$ log units in the entire measuring range
Reference or anchor method:	Standard Plate Count (SPC) (IDF Standard100B:1991)

Application data

Analysis time	9 minutes
Sample intake	approx. 4.5 ml
Sample temperature	2 – 42°C (35.6-107.6 F)
Sample quality	Raw milk of normal composition and good quality. Unpreserved or preserved with azidiol

Instrument management

Networking software	FossManager™
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*BactoScan™ FC+ Semiautomatic is only available at a capacity of 65 samples per hour. This version does not include Conveyor and Stirrer system.

Standards and Approvals

BactoScan™ FC+ is CE-labelled and complies with the following directives and regulations:

- EMC (ElectroMagnetic Compatibility) Directive 2004/108/EC
- LVD (Low Voltage) Directive 2006/95/EC
- Machinery Safety Directive 2006/42/EC
- Regulation (EC) 1272/2008 on classification, labelling and packaging of substances and mixture, CLP (EC)
- WEEE Directive 2002/96/EC
- Packaging and packaging waste Directive 94/62/EC
- REACH 1907/2006/EC

BactoScan™ FC+ technology complies with:

- FDA/NCIMS approved
- MicroVal (EURL) approved
- ISO/IDF standards, AOAC Number of national approvals e.g.:
Germany: Bundesanstalt für Milchforschung, France: Ceca Lait.

Data output

Real-time display/print-out, storage on hard disk.
Host transmission (RS232) and PC network transmission (TCP/IP).
Data export using CSV files, CS83 protocol or XML.

Standard equipment

Basic analyser incl. table and reagent containers, PC *, software.

Optional equipment

Printer, extra reagent containers*, ID bar code laser scanner*, 2D reader*, ID bottle rotation*, Conveyor 4000*, Conveyor 5000 basic*, Conveyor 7*, Conveyor extensions*, Output buffer*, Sample racks*.

**Not included in semi-automatic version.*

FOSS