

# MICROCYTE<sup>®</sup> instruments

Easy to use instruments for accurate, rapid and cost effective bio-analysis for the breweries, wineries, pharmaceutical, biotech and military and clients.

## MICROCYTE<sup>®</sup> Field

Multi-purpose, easy to use portable flow cytometer for on-site analysis of microorganisms. MICROCYTE<sup>®</sup> Field is the only mobile flow cytometer on the market for on-site verification of potentially contaminated sources or suspicious material. Well proven technology, in use by several US and European international clients within the beverage, water, pharmaceutical and defense industries. Data presentation as 2-color histogram or as 2-conditional dot plots.



## MICROCYTE<sup>®</sup> Aqua



The MICROCYTE<sup>®</sup> Aqua is targeted at routine analysis of algae and other microorganisms in water. Fluorescent particles such as algae may be used as a surrogate indicator of protozoan parasites such as *Cryptosporidium*, monitoring the various steps in a purification process of drinking water. Minimal sample preparation makes the MICROCYTE<sup>®</sup> Aqua well suited for integration into an online, continuous water surveillance system. The instrument can differentiate between bio and non-bio particles, important for applications where correlation between the total number of particles and microorganisms not always exists.



Both instruments can be used for analyzing and monitoring of the yeast viability to obtain optimal quality and commercial beneficial brewing, wine and alcohol productions processes. Dead yeast cells have leaky membranes and will influence the taste of beer. Controlling yeast viability after storage will optimize storing conditions and make sure only the best yeast is used.



Microcyte Field and Aqua

	Histograms presentation	Dot Plot presentation	Cabinet	AutoRefill/ AutoWaste	Auto Wash	Display	Battery backup
MICROCYTE <sup>®</sup> Field 	√	√	Aluminum		√	√	√
MICROCYTE <sup>®</sup> Aqua 	√		Aluminum		√	√	√

## Easy to use and objective results

The MICROCYTE<sup>®</sup> can be operated from the instrument itself or via a PC. No instrument adjustments are required prior to analysis. Results are presented directly as counts per ml. Files can be saved in several formats for subsequent analysis in e.g. Excel. The software provides four modes of data registration and controls the automatic washing functions. Results are presented as dot plot (MICROCYTE<sup>®</sup> Field) or as color histograms.

### 1. Accuracy

Counting may be performed in two independent regions of interest. The wavelength of the laser reduces the problem with auto fluorescence from most bacteria. Auto fluorescence from algae may be used to analyze these microorganisms without the use of dyes.

### 2. Detection limits

The detection limit is determined by how carefully the background level in the sample is controlled. Fluorescent particles such as algae may be detected at a level below 10 per milliliter.

### 3. Auto clean

AutoWash routines in software.

### 4. Technology

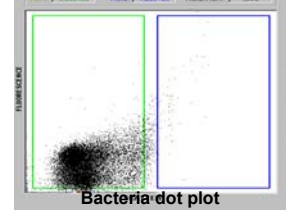
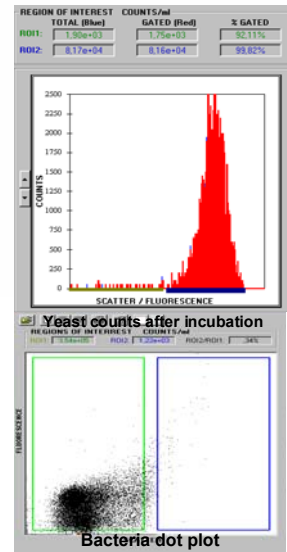
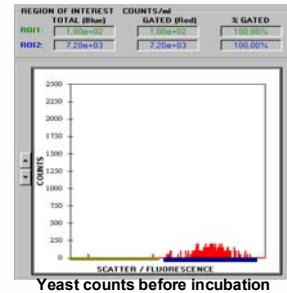
Flow cytometry is a technique for rapid counting and analysis of biological cells and other microscopic particles in a liquid by the use of a laser. This technique provides accuracy, speed, versatility, and excellent precision. The light source is a long life diode laser with 635 nanometers wavelength. MICROCYTE<sup>®</sup> detects fluorescence and light scatter for counting cells or particles in the 0.4 to 15 micron size range. The patented optical design, where all lenses, filters, light source, detectors and flow cell are mounted in one solid aluminum block, facilitates enhanced sensitivity and stability. For detection of scattered and fluorescent light solid-state photo detectors are used.

### 5. Easy calibration

Particles with defined size and fluorescence are used to test and calibrate the instrument to ensure stable operating conditions.

### 6. BioDETECT warranty

BioDETECT provides 1 years warranty on workmanship and materials. In addition, customers can enter into BioDETECT's extended global warranty by signing a service contract. With a service contract, BioDETECT will immediately provide a replacement unit during repair of any non-functioning MICROCYTE<sup>®</sup>.



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BioDETECT develops, manufactures and markets instruments and kits targeted at the pharmaceutical, beverage, water, military/civil defense and OEM markets. The products aim at offering robust, rapid and accurate enumeration and analysis of microorganisms from a liquid, air or powder sample.

7-Feb-07 Specifications subject to change.