



# BactoSense™

Automated flow cytometer for online monitoring of bacteria in water



- Fast** Results available within 20 minutes, analyses up to 48 samples in 24h
- Safe** No handling of chemicals, all components are in a sealed and recyclable cartridge
- Accurate** Flow cytometry technology allows precise detection of more than 99.9% of microbial cells
- Secure** 24/7 monitoring: set a threshold value to get an alarm in time to act accordingly
- Reliable** Self-check routines, factory calibration and low maintenance

- Easy to use** Fully automated sample preparation, measurement and cleaning – can be used by anyone
- Cost saving** Reduce the required number of plating tests (HPC) for a very low total cost of ownership
- Universal** For process monitoring, lab analysis and field intervention, online or manual sampling, gives TCC, ICC, HNAC/P and LNAC
- Compact** Built for process or field operations, IP65
- Integrated** Choice of multiple interfaces

### Main applications

Monitoring of raw water quality, water treatment processes, water distribution networks, flushing procedures, etc.

- Disinfection control
- Filtration efficiency
- Distribution network validation
- Reservoir surveillance

### Industries

- Water treatment & distribution
- Food & beverage
- Laboratories & universities

### Parameters provided

- TCC Total Cell Count
- ICC Intact Cell Count
- HNAC High Nucleic Acid Count
- LNAC Low Nucleic Acid Count
- HNAP High Nucleic Acid Percentage

# Specifications

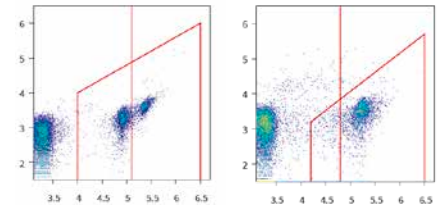
Measuring principle	
Light source	Laser diode 488nm
Optical detection	Fluorescence: 535/43 (FL1), 715 LP (FL2), Side scatter 488/10 (SSC)
Lower size detection limit	0.1 µm
Measuring range	1'000 - 2 Million cells/ml
Detection limit	100 - 5 Million cells/ml
Accuracy	< 5 % relative
Automatic measuring interval	Minimum 30 minutes, maximum 6 hours
Microbial parameters	TCC/ml, ICC/ml, LNA/ml, HNA/ml, HNAP(%)

Sampling	
Sample volume	260 µl sampled, 90 µl for analysis
flow rate (online)	200 - 400 ml/min
chlorine concentration	max. 3 mg/l
turbidity	1 - 10 FTU
pH-value	5 - 12
temperature range	5..40°C
conductivity	0 - 100'000 µs/cm à 20°C

Instrument	
Display	Touchscreen
Data storage	32 GB
Protection level enclosure	IP 65
Dimensions (WxDxH)	350 x 240 x 373 mm
Weight	14.5 kg
Power supply	100 - 240 VAC, 50/60 Hz, 1.4 A, IP 67
Power consumption	20 W
Ambient temperature	5..30°C
Relative humidity	10 - 90% RH
Cartridge	Hermetically sealed enclosure for reagents, cleaning liquids and waste
Cartridge capacity	Max. 1'000 measurements, 9 months validity

Interface	
Inputs	4 x digital, freely configurable
Outputs analogue	2 x 0/4 .. 20 mA, galvanically isolated
Outputs digital	4 x digital, freely configurable
Digital interfaces	Sealed USB, Ethernet connections, Modbus

Accessories	
TCC Refill	Filling and servicing of cartridge - to measure Total Cell Count of up to 1'000 samples
ICC Refill	Filling and servicing of cartridge - to measure Intact Cell Count of up to 1'000 samples
IO box	Input/Output connection box
Cleaning kit	Deep cleaning in case of cross contamination
Validation kit	Easy way to check your instrument after transport or long period out of use
Transport case	For safe transport of your BactoSense



Dotplots showing TCC and ICC



Online sampler / manual sampler



Cartridge



IO box



Validation & Cleaning kits



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