

pocketFLOW

Your Mobile Cytometer.



+++ mobile +++ battery operated +++ powerful +++ efficient +++

Features

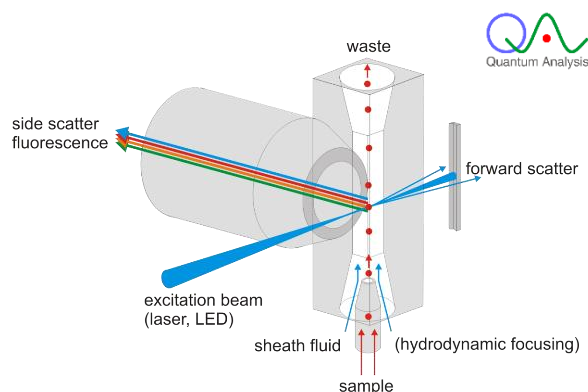
- **Mobile**
- **Battery Operated**
- **Precise Cell Counts and Analysis**
- **Sensitive Particle Analysing System**
- **CyPAD® Touch Software**
- **Laser and LED configurations**
- High Quantum Efficiency Wide Dynamic Range Light Detection
- Proven Cytometer Technology
- Precise Flow Cell
- Powerful Light Sources
- Support for New Applications
- Modular Open System Architecture
- Compact Size
- Easy and Cost Efficient Maintenance

Applications

| | | |
|---------------------------------------|--|---------------------------------------|
| Plant Cell Animal Cell Bacteria | DNA Ploidy/ Aneuploidy Screening | Cell Growth Cell Cycle |
| Cell Counting Analysis | Live/Dead Analysis | Bioreactor Fermentation Control |
| Ultra Sensitive | Cell Research | Hygiene Screening |

Quantum Analysis' (QA) innovative spirit and expertise directly sources from the pioneer days of flow cytometry in the early 1970es. QA technology, eventually less-noticed yet, worldwide drives more than 2500 flow cytometers (FCM) of well-known brand FCM companies for a wide range of particle analysis applications, including on-site systems for essential healthcare in developing countries and in lab-free industrial environments. Understanding todays' demands for more simple, efficient and direct personal access to powerful and most precise cytometers, and building on decades of proven experience in FCM, it was now time for QA to go public with the Quantum P, your personal cytometer.

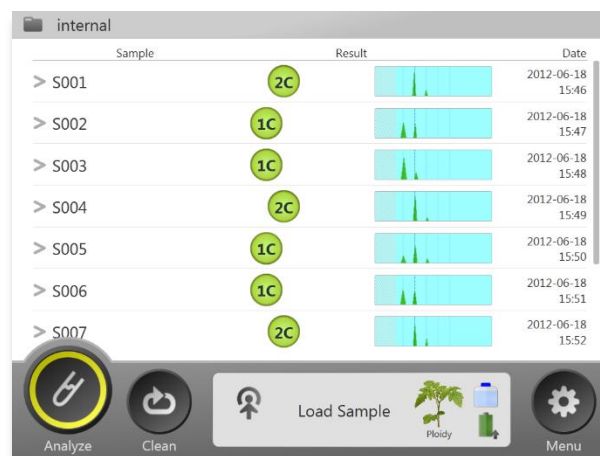
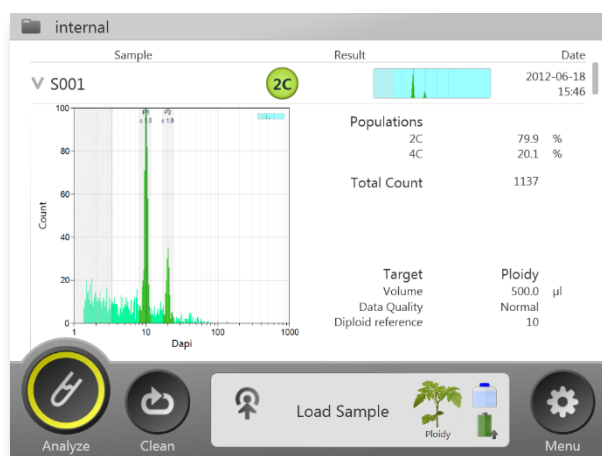
pocketFLOW is designed for you. Careful attention is paid towards simplicity, precision and cost efficiency of operation and maintenance. This makes pocketFLOW different from larger FCM equipment usually found in specialized routine clinical labs. QA all in-house hard- and software development, including CyPAD® *touch*, precisely match to the pocketFLOW and provide seamless instrument operation and automation within a single integral system.



At the heart of Quantum Analysis FCM: QA's microfluidic flow cell where cells precisely cross and interact with the light source beam.

pocketFLOW is an open system based on QA's proven modular cytometer platform technology. This allows flexible integration into your specific environment. Data exchange is transparent and connectivity provided on various levels, from synchronizing to other equipment as bioreactors over international FCS data format standards to configurable Excel lab requests and reports, network and data base systems.

pocketFLOW

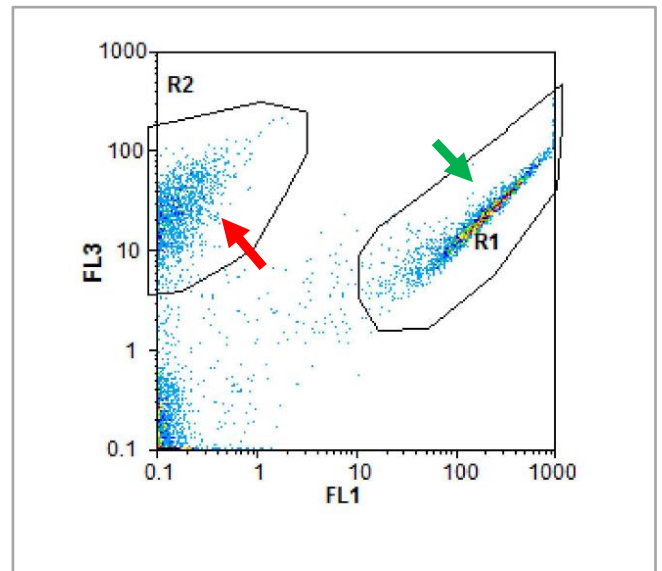


Routine Plant Ploidy Analysis: Single measurement (left), batch result (right).

Applications

pocketFLOW is made to be your universal daily cell and particle analysis tool. It will assist you to solve your particular application task by simplicity, precision and routine automation, in:

- Ploidy Analysis and Aneuploidy Screening
- Cell Cycle Analysis
- Live/Dead Cell Analysis and Counting
- QA lab-on-bead™ Technology
- Cell and Particle Research, Nanoparticles



Live/Dead discrimination and counting (enzymatic activity).

| ML01 | | | | |
|--------|---|------------|------------------------|------------------|
| Sample | | Result | | Date |
| ✓ S638 | ✓ | 16.60 /μl | <div><div></div></div> | 2011-11-29 14:20 |
| ! S637 | ✓ | 267.80 /μl | <div><div></div></div> | 2011-11-29 14:20 |
| ✓ S636 | ✓ | 0.90 /μl | <div><div></div></div> | 2011-11-29 14:20 |
| ! S635 | ✓ | 20.80 /μl | <div><div></div></div> | 2011-11-29 14:20 |
| ✓ S634 | ✓ | 1.50 /μl | <div><div></div></div> | 2011-11-29 14:20 |
| ✓ S633 | ✓ | 1.80 /μl | <div><div></div></div> | 2011-11-29 14:20 |
| ✓ S632 | ✓ | 2.80 /μl | <div><div></div></div> | 2011-11-29 14:20 |

| S001-1020 | | | | LabUser |
|------------|-----------|----------|--|---------|
| BA-01 | | | | |
| 2011-03-15 | | | | |
| Yoghurt | | | | |
| Well | Counts/μl | Time | | |
| ✓ A1 | 0.8 | 14:16:52 | | |
| ! A2 | 32.2 | 14:17:01 | | |
| ✓ A3 | 0.4 | 14:17:11 | | |
| ✓ A4 | 0.8 | 14:17:20 | | |
| ✓ A5 | 0.3 | 14:17:29 | | |
| ✓ A6 | 0.8 | 14:17:38 | | |
| ✓ B1 | 0.7 | 14:17:47 | | |
| ✓ B2 | 0.9 | 14:17:57 | | |
| ✓ B3 | 0.4 | 14:18:06 | | |
| ✓ B4 | 0.2 | 14:18:15 | | |

Hygiene screening, manual (left) and with multi sample automation (right).

Technical Specifications

| Feature | Specification |
|--|---|
| Analysis Time¹⁾ | manual: <10...30 s/sample (typ.) |
| Counting Precision/Accuracy | <1%/3% (standard deviation) |
| Analysis Volume Range | 5-1000 µl |
| Minimum Sample Volume | 50 µl |
| Sample Cross Contamination¹⁾ | <0.1% |
| Particle Size Range | 0.05-100 µm |
| Molecular Sensitivity¹⁾ | <500 MESFL |
| Sample Analysis Speed | 0.5-20 µl/s |
| Supported Sample Entry | 3.5 ml tube Eppendorf vial |
| Customer Specific Configurations | open system design, individual support |
| Excitation Light Source¹⁾ | solid state laser light emitting diode (LED) |
| Optical Detection¹⁾ | high efficiency light collection modular spectral selection filter sets (user exchangeable) Photomultiplier (PMT) with wide dynamic range |
| Software/Computer System | CyPAD® <i>touch</i> instrument control and data analysis, linear/2D barcode support, multi-touch operation |
| Automated Results Reporting | Microsoft Excel (macro-free), XML, LIMS connections |
| Data Formats | FCS 3.0, XML, CSV, Excel |
| Sample Re-Suspension | yes |
| Compact Size | 340 x 170 x 320 mm (w x h x d), 7 kg |
| Standards | CE (Safety, EMC), CDRH/FDA ³⁾ , RoHS (EU/China), TÜV ISO 9001:2015 (QA manufacturer certificate) |

Application Configurations

(details and other application configurations upon request)

| Article No. Config. Code | Applications | Light Sources Excitation ¹⁾ | # | Optical Channels |
|-----------------------------|---|--|---|--|
| 01 | Ploidy Analysis (UV) | LED UV 465 nm/500 mW | 1 | FL1 Blue (> 435 nm), DAPI |
| 02 | Cell Counting Process Control (Life/Dead) | Laser Blue 488 nm/50 mW | 2 | SSC Side Scatter FL1 Green (510-540 nm), FITC, FDA FL2 Orange (540-590 nm), PE, PI |
| 03 | Cell Counting and Analysis | Laser Blue 488 nm/200 mW | 3 | SSC Side Scatter FL1 Green (510-540 nm: FITC, FDA, GFP, ...) FL2 Orange (540-590 nm: PE, PI, ...) |

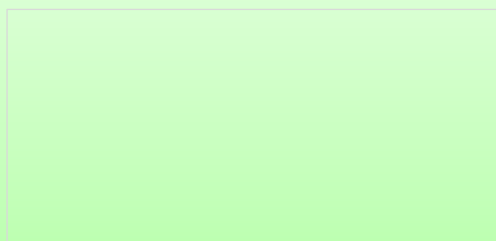
¹⁾ application and configuration dependent ²⁾ option ³⁾ in preparation PI = Propidium Iodide PE = Phycoerythrine

Options

| Article No. Config. Code | Option |
|-----------------------------|--------------|
| | upon request |

Accessories, Reagents, Disposables, Spare Parts

| Article No. | Option |
|-------------|---------------------------------|
| | Quantum Stain UV and PI for DNA |
| | Cleaning Reagents |
| | Calibration Check Beads |
| | Sample Vials, Well Plates |
| | Tubing Replacement Sets |



Quantum Analysis GmbH
Mendelstraße 17
48149 Münster



Tel. +49 (0) 251 26 59 79-0
Fax: +49 (0) 251 26 59 79-90
E-Mail: info@quantum-analysis.com
Web: www.quantum-analysis.com