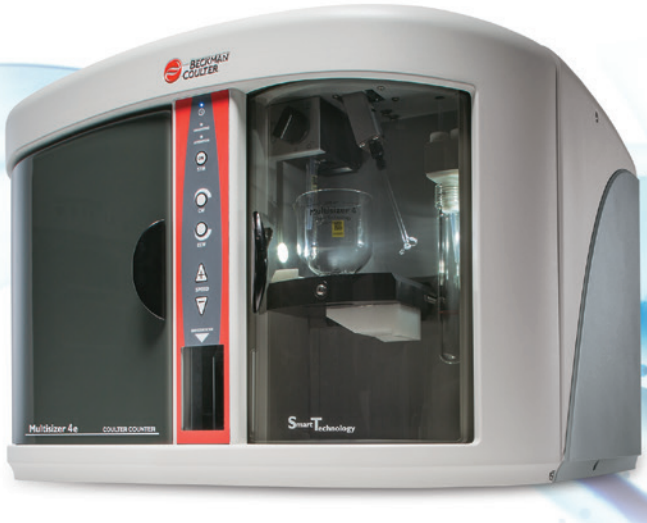
Multisizer 4e COULTER COUNTER for Quality Control

High resolution sizing, counting and size distribution of cells, particles or sub-visible particles.

Quality Assurance-Friendly System

The Multisizer 4e for QC is the newest member of the COULTER COUNTER family of high resolution particle counting, sizing and distribution products. The Quality Assurance-friendly system includes the following features:

- User-defined standard operation procedure
- Multiple security levels
- Software that enables 21 CFR Part 11 compliance
- Automated calibration and calibration verification for reliable results for both size and counts
- V-check validation package provides a comprehensive solution for today's quality assurance requirements
- Certification program to ensure instrument performance
- Software for the processing and presentation of data for industrial, biological and quality control applications



Pharmaceutical QC

- Filtration efficiency
- Sub-visible particle monitoring and characterization
- Bioprocessing monitoring

Food & Beverage QC

- Yeast monitoring
- Flavor emulsions
- Monitoring particle levels

Industrial QC

- Toner
- Abrasives
- Cosmetics
- Emulsions
- Beads
- Powders

Key Features:

- Digital Pulse Processor (DPP)
- Dynamic size measurements
- Provides number, volume, mass and surface area size distributions in one measurement
- Overall sizing range of 0.2 µm to 1600 µm
- Not affected by particle color
- Increased dynamic range
- Increased resolution
- Proven technology
- Quality assurance friendly

Characterized *by ingenuity*

BECKMAN COULTER
Life Sciences

Multisizer 4e COULTER COUNTER Specifications

Overall Particle Size Range	0.2 µm to 1600 µm in diameter. 0.033 fL to 2.145 x 10^9 fL or $µm^3$ in volume
Aperture Diameter	10 µm to 2000 µm apertures (nominal diameters)
Aperture Dynamic Range	Standard 1:30 (by diameter) Total 1:40 (by diameter) Standard 1:27,000 (by volume) Total 1:64,000 (by volume)
Aperture Range	Total range: 2% to 80% of aperture diameter. Standard Range: 2% to 60% of aperture diameter. Extended Range: 60% to 80% of aperture diameter
Resolution	User selectable
Number of Channels	Pulse data is digitized and can be processed to achieve up to 400 size channels for a selected pulse range. Number of channels and range can be reprocessed as necessary
Electrolyte Solutions	All aqueous and non-aqueous electrolyte solutions recommended for use with aperture technology will be suitable for use with the Multisizer 4e. Electrolytes should be compatible with glass, fluoropolymers, fluoroelastomers and stainless steel
Digital Pulse Processor	Proprietary high-speed digitalization of the signal
Pulse Data	Time stamped pulses up to 525,000 per single analysis
Size Distribution Data	Size distribution by diameter, volume and area for number, number%, number/ml, volume, volume%, volume/ml, surface area, surface area% and surface area/ml
Pulse Distribution Data	Pulse distribution by time, sequence and width for pulse height diameter, pulse height volume, pulse height volt, pulse width, pulse area, average pulse height diameter, average pulse height volume and average pulse width. Number distribution by width
Linearity	± 1% for diameter ± 3% for volume
Aperture Current Range	30 µA - 6000 µA in 0.2 µA steps
Aperture Current Accuracy	± 0.4% of setting
Polarity Error	Less than 0.5%
Time Mode	0.1 to 999 seconds, selectable in 10 ms increments. Typically, time analysis is 10 to 90 seconds
Total Count Mode	50 to 500,000 counts
Modal Count Mode	10 to 100,000 counts
Volumetric Mode	Continuously selectable from 50 µl to 2000 µl
Metering System	Mercury-free, wide range metering pump
Volumetric Pump Accuracy	Better than 99.5%
Regulatory Compliance	The software enables 21 CFR Part 11 compliance
Dimensions, Weight and Power (excluding computer)	Unpacked weight: 45 kg (99 lb) Width: 64 cm (25 in) Depth: 61 cm (24 in) Height: 51 cm (20 in) Input voltage within set ranges: 100 - 120 VAC; 230 - 240 VAC ± 10%; single phase
Supply Frequency	47 to 63 Hz inclusive
Power	Less than 55 volt-amps (watts)
Fuse Types	250 V, IEC (5x20 mm), Time delay (TD), 2.0 A
Environmental Conditions	a) This instrument is safe for indoor use only. b) Installation category: II c) Pollution degree: 1
Operating Temperature	5°C to 40°C
Relative Humidity	30% to 85% non-condensing
Altitude	Up to 2000 m (6560 ft)

Ordering Information

Part Number	Description
B43095	Multisizer 4e COULTER COUNTER

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For Beckman Coulter's worldwide office locations and phone numbers, please visit www.beckmancoulter.com/contact

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