BECKMAN
COULTER
Life Sciences

DxFLEX Flow Cytometer

The DxFLEX Flow Cytometer is designed for clinical applications. It offers advanced performance, as well as convenient installation and operation. Simplified system settings, data acquisition, and result exporting functions are integrated into the CytExpert software workflow. The DxFLEX Flow Cytometer has a compact design, integrated excitation and detection optical systems. Four configurations are available with up to 3 lasers and 15 channels. Users can upgrade their configuration at a later date to use more lasers or optical filters.
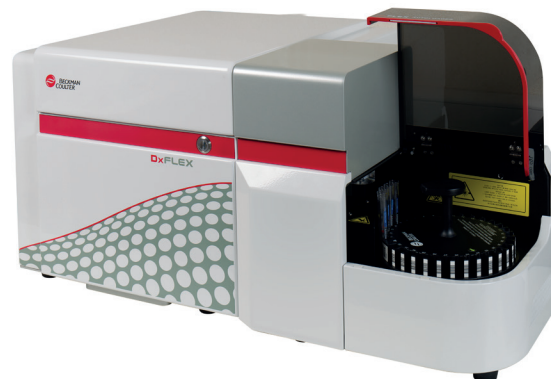
OPTICAL SYSTEM

Laser Specifications

Blue Laser | Wavelength: 488 nm; Power: 50 mW; Beam spot size: 5 μm x 80 μm

Red Laser | Wavelength: 638 nm; Power: 50 mW; Beam spot size: 5 μm x 80 μm

Violet Laser | Wavelength: 405 nm; Power: 80 mW; Beam spot size: 5 μm x 80 μm

Emission Optics

Patent-pending alignment-free integrated optics quartz flow cell design with > 1.3 NA

Flow Cell dimensions: 420 μm x 180 μm internal diameter

Forward Scatter Detection

Proprietary Axial Light Loss (ALL) sensor system using silicon photodiodes with built in 488/8 μm band pass filter.

Fluorescence and Side Scatter Detection

Fluorescence and side scatter light delivered by fiber optics to Avalanche Photo Diode detector arrays. Proprietary design ensures high performance, high efficiency, low-noise signal detection. Emission profiles are collected using reflective optics and single transmission band pass filters.

Side Scatter Resolution

300 nm

PERFORMANCE

Forward and Side Scatter Resolution

Scatter performance is optimized for resolving the white blood cell subsets (lymphocytes, monocytes, and granulocytes), red blood cells and platelets.

Carryover*

Reagent: Overall Ref beads Carryover 0.053%, 95% Upper Limit: 0.085% Specimen: Overall Carryover -0.051%, 95% Upper Limit: 0.286%

Sensitivity

FITC: ≤ 30 molecules of equivalent soluble fluorochrome (MESF-FITC) PE: ≤ 10 molecules of equivalent soluble fluorochrome (MESF-PE)

Fluorescence Resolution

CV ≤ 2%

ELECTRONICS

Nominal Acquisition Rate

30,000 events per second with 15 parameters

Data Resolution

Fully digital system with 7 decades dynamic range

24 bit data resolution

Signal

Pulse area, height for every channel, width for one selectable channel

FLUIDICS

Sample Flow Rates

Pre-set Flow Rates: 10, 30 and 60 μL/min

Fluid Capacity

Standard 4 L tanks

Sheath Fluid Consumption

Average Sheat Consumption: 10 +/- 1 mL/min

Automated Maintenance Cycles

Startup (initialize), sample mix, backflush, prime, shutdown (daily clean), deep clean.

Sample Input Formats

5 mL (12 x 75 mm) polystyrene and polypropylene

1.5 mL and 2 mL microcentrifuge

Dead Volume (Carousel)

25 μL

* Carryover pertaining to DuraClone B27 Reagent Kit, Cat. No. B36862

EMPOWER
life-changing decisions.

DATA MANAGEMENT

Software

CytExpert Software, fully featured proprietary application with exportable file formats for offline analysis, if desired. Can store up to 25 million events per file with 13 colors, more events can be saved when using less channels.

Language

English and Chinese

Operating System

Windows® 7 Professional 64-bit, or
Windows® 10 Professional 64-bit

FCS Format

FCS 3.0

Minimum Specifications

CPU: Intel® I3 @ 2.9 GHz of computer	1 Gigabit Ethernet port
RAM: 4 GB	2 USB 3.0 ports
Storage: 256 GB	4 USB 2.0 ports

Compensation

Automatic or manual full matrix compensation

Novel Compensation Library for storage of spillover values of dyes to easily determine the correct compensation matrix with new gain settings

Ability to import/export compensation values between experiments, using compensation library function

Absolute linear gain amplification, enabling the use of compensation settings between experiments and sample types

Quality Control

Auto daily QC routine with Levey-Jennings tracking and logging

INSTALLATION

Dimensions (W x D x H)

Cytometer	Tanks and Holder
42.5 cm x 42.5 cm x 34 cm	14 cm x 35.6 cm x 43.4 cm
16.7 in x 16.7 in x 13.4 in	5.5 in x 14.0 in x 17.1 in

Weight

Cytometer: 23.4 kg

Power Specifications

Voltage: AC 100 V - 240 V ± 10%, 50 Hz/60 Hz ± 1 Hz

Power: 150VA normal, 250VA max.

Operating Condition

Temperature: 15-30 °C

Humidity: 15% RH-80% RH, Non-Condensing

Acoustic Noise Level

Measure level <65 dBA

OPTIONS

Autoloader

32 tube Multi Carousel Loader (MCL)

Barcode Reading

Individual tube vortexing

CONFIGURATIONS

Three available configurations. Instruments can be easily upgraded with additional lasers and color fluorescent channels.

PN	Detectors	FITC	PE	ECD	PC5.5	PC7	APC	APC-A700	APC-A750	PB450	KO525	Violet610	Violet660	Violet780	Autoloader
		Blue Laser Channels 488 nm Laser					Red Laser Channels 638 nm Laser			Violet Laser Channels 405nm Laser					
		525/40 BP	585/42 BP	610/20 BP	690/50 BP	780/60 BP	660/10 BP	712/25 BP	780/60 BP	450/45 BP	525/40 BP	610/20 BP	660/10 BP	780/60 BP	PN C02846
C47506	5	●	●	●	●	●									●
C47507	6	●	●		●	●	●		●						●
C47508	9	●	●		●	●	●		●	●	●	●			●
C47509	13	●	●	●	●	●	●	●	●	●	●	●	●	●	●
C47510	5	●	●	●	●	●									
C47511	6	●	●		●	●	●		●						
C47512	9	●	●		●	●	●		●	●	●	●			
C47513	13	●	●	●	●	●	●	●	●	●	●	●	●	●	

DxFLEX is an IVD instrument that is available only in countries where the regulatory approval is obtained from the local regulatory agencies.
Please check with your local sales representatives before placing your orders.

For Beckman Coulter's worldwide office locations and phone numbers, please visit "Contact Us" at **beckman.com**

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