

HPC 100/150 PERSONAL CYTOMETERS



The HPC-150 Personal Cytometer is a compact, portable and flexible flow cytometer that incorporates Dx Biotech's patented FiberFlowFluidics technology, a novel microfluidic flow cell which allows for a very rugged and powerful instrument.

Features

- ✓ Fiber optic flow cell
- ✓ Micro-sheath fluidic system
- ✓ Ultra-compact and lightweight
- ✓ 1- or 2-laser configurations, with up to 4 colors and 6 parameters
- ✓ Sensitive, standard and fast scan modes

Benefits

- ✓ Fully portable
- ✓ No laser alignment needed... ever!
- ✓ Small waste volume - 125 mL per typical workday
- ✓ Fits in biological hoods and glove boxes
- ✓ Lowest total cost of ownership of its category

Take a closer look!



Fast access to 125 mL fluid containers



Easy top-cover access to interchangeable filters



1.5 mL standard microcentrifuge tubes

HPC 100/150 SPECIFICATIONS

Laser Configuration Options	Emission Channels (standard filters)	Typical Fluorochromes
Blue 488 nm & Red 638 nm (2 lasers, collinear)	FL1 (520/28)	FITC, GFP, YFP, CFSE, AF488
	FL2 (585/40)	PE, PI, EtBr
	FL3 (635 LP)	PerCP-Cy5.5, APC
	FL4 (785/62)	PE-Cy7, APC-Cy7
	SSC (488/10), FSC	
Blue 488 nm (1 laser)	FL1 (520/28)	FITC, GFP, YFP, CFSE, AF488
	FL2 (585/40)	PE, PI, EtBr
	FL3 (635 LP)	PerCP-Cy5.5, PE-Cy5, PE-Cy7
	SSC (488/10), FSC	
Green 532 nm (1 laser)	FL1 (585/40)	PE, PI, SYTOX82, EtBr
	FL2 (650 – 730)	PE-Cy5, PerCP – Cy5.5, PI, 7-AAD
	FL3 (785/62)	PE-Cy7, PE-Alexa Fluor® (AF 750)
	SSC (530/11), FSC	
Custom configurations available – contact us for more information		

Optical, Fluidic and Performance information	
Scatter detection	Forward ($\pm 5^\circ$), Side ($\pm 24^\circ$)
Optical alignment	Not required
Flow cell	75 x 75 μm^2
Particle size (minimum detectable)	0.5 μm
Recommended sample volume	100 μL
Sample concentration (linear regime/max.)	5x10 ⁶ per mL / 10x10 ⁶ per mL
Scan modes (flow rate $\mu\text{L}/\text{min.}$)	Sensitive (25), standard (35) and fast (60)
Sheath-to-sample ratio (constant)	10:1
Fluorescence sensitivity ^a	< 100 MESF for PE; < 150 MESF for FITC
Fluorescence linearity	< 1% for CEN
Fluorescence precision	< 5 % CV for CEN
Scatter resolution	Resolves human peripheral blood lymphocytes, monocytes and granulocytes
Maximum event rate ^b	10,000/sec.
Installation information	
Weight	< 7 kg (< 15.4 lbs)
Dimensions (H x W x D)	13 x 35 x 27 cm ³ (5.1 x 13.8 x 10.6 in ³)
Power requirements	AC 100-240V, 50-60Hz, 2.0A / 15VDC, 5.0A, 75W
Operating ranges	15°-30°C (59°-86°F); < 80% relative humidity
Warm-up time	15 min.
Computer interface	Ethernet (RJ-45)
Acquisition software	Cytodyem™ Light
Accessories	Laptop computer, travel case, starter kit

a – using Thermo Scientific Cyto-Cal™ Multifluor Plus Violet beads in sensitive mode; b – fast mode

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Flow Cell	50x50x100 μm	75x75x100 μm
Recommended sample concentration (max.)	5×10^5 per ml	10×10^6 per ml
Event rate (max.)	1,000 events/sec. at 35 $\mu\text{l}/\text{min}$.	2,000 events/sec at 35 $\mu\text{l}/\text{min}$.
Sheath: sample ratio	Sheathless 0:1	Microsheath 10:1
Sample recovery	YES (undiluted)	NO
Laser alignment	NEVER	NEVER
Portable	YES	YES
Fluid bottles	60 mL	125 mL