Cyto-Mine®

Technical Specifications

System Specifications	
Weight	85 kg (187 lbs)
Dimensions	874 x 570 x 481 mm (w x h x d) (34 x 23 x 19 in)
Voltage and Frequency	100 V - 240 VAC ± 10% 50 Hz / 60 Hz
Fuse	Fast Acting, 10A HBC 250V, 5x20 mm
Power Consumption	**Main Instrument:** 300 W (typ.) **Monitor:** 12 W (typ.)
Electrical Safety	According to EN 61010-1, Overvoltage category II
Compressed Air Supply	ISO 8573-1:2010 Class 2.3.2 3.5 to 6.0 bar (50.8 - 87.0 psi) 0.85 L/min free air (0.03 cfm) minimum.
LASER Product Classification	CLASS 1 - BS EN / IEC 60825-1:2014
Sound Level	Sound pressure level less than 70 dB(A)
Work Environment	
Humidity	30 - 50%, non-condensing
Operating Temperature	18°C to 25°C (65-77°F)
Altitude	Suitable for up to 2,000 meters above sea level
Pollution Degree	According to EN 61010-1, Pollution Degree 2
Containment	Suitable to use in a biological safety cabinet
Storage Environment	
Ambient temperature	10-40°C (50-104°F)
Relative humidity	5-80%, non-condensing and non-corrosive
Assay Specifications	
Sample input format	Cell suspension in culture medium containing bioassay probes.
Sample volume	0.5-1 mL
Number of picodroplets generated per run	1, 1.5, 2 million per experiment. User definable.
Selected Picodroplets	50,000 maxiumum, per sort
Incubation time	0-24 hours
Picodroplet volume	450 pL
Dispensing mode	Single picodroplet dispensing or pooled dispensing
Single droplet dispensing speed	Application dependent, typically 1 well per second

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Run time	Application dependent, typically 5 hours
Detectors	
Detection modes	Laser induced Fluorescence (LIF) Fluorescence Intensity (FI) Brightfield Imaging
Cyto-Mine® LIF	**Excitation wavelengths:** 488 nm **Detection wavelengths:** Green 520/18 nm Red 620/14 nm
Processor	
Computer	Embedded internally as part of Cyto-Mine®
PC operating system	Microsoft Windows 11 LTSC
Monitor	24" Color LCD
Cyto-Mine® data formats	.bmp, .pdf, .csv, .xml, PostgreSQL
External Connections - Main Instrument	
USB	USB 3.0 Type A, Cable: Basic Insulation, Shielded [supplied]
Ethernet	Cat 6 RJ-45, non-PoE, Cable: Basic Insulation, Shielded [not-supplied]
Power Inlet	IIEC C13, max. 268V AC 10 A, Cable: double insulation, protection class 1 (earth required) [supplied]
Display Connector	Mini-DisplayPort, DisplayPort 1.2 or newer, Cable: Basic Insulation, Shielded [supplied]
LASER Module Control Connector	Not Used
Software Specification	
System control software	Cyto-Mine® Studio Software Suite: Instrument Control, Data Manager and Data Analysis
Monoclonality verification	Image capture and processing
Electronic records	US FDA 21 CFR part 11 ready
Consumables	
Microfluidic biochips	Cyto-Cartridge®
Specialist chemicals	Cyto-Surf® A and B Solutions
Microplate compatibility	24-well culture plates, 96- and 384-well culture and PCR plates

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