

LifeMatch® Fluoroanalyzer



Accuracy and Precision

- Sample uptake volume $\pm 5\%$
- Classification of microspheres $>80\%$
- Misclassification of microsphere $\leq 2\%$.
May vary by xMAP microsphere product lines. Refer to the specific product information sheet for further details.
- Temperature control 0°C to $+2^{\circ}\text{C}$ of target
- Internal sample carryover $<0.9\%$
- Soluble background fluorescence emissions at 575 nm automatically subtracted from fluorescence intensity values

Sensitivity

- Detect 1000 fluorochromes phycoerythrin (PE) per xMAP microsphere
- Reporter channel dynamic range: 3.5 decades of detection

Optics

- Reporter laser: 532 nm, nominal output 10-15 mW, maximum 500mW, frequency-doubled diode; mode of operation, continuous wave (CW)
- Classification laser: 635 nm, $9.1 \pm 6\%$, maximum output 25 mW, diode; mode of operation, continuous wave (CW)
- Reporter detector: Photomultiplier tube, detection bandwidth of 565–585 nm
- Classification detector and doublet discriminator: Avalanche photo diodes with temperature compensation

Fluidics

- Sheath flow rate: $90 \mu\text{L} \pm 5 \mu\text{L}/\text{second}$
- Cuvette: 200 micron square flow channel
- Sample injection rate: $1 \mu\text{L}/\text{second}$
- Sample update volume: 20–200 μL

Capacity

The specifications below reflect minimum capacity values:

- Analyze multiple 96-well plates per batch
- Analyze multiple assay templates per plate
- Automatic sampling from a 96-well plate. The following microtiter plates are compatible with the Luminex® XY Platform plate holder: flatbottom, conical, round, filter bottom, half plates [overall height no more than 0.75" (19mm)], any color.
- Sheath container and waste container hold enough volume to run up to two 96-well plates between refills.
- Distinguish a minimum of 1 to a maximum of 100 unique xMAP microsphere sets in a single sample
- Detect and distinguish surface reporter fluorescence emissions at 575 nm on the surface of 1–100 unique xMAP microsphere sets in a single sample

General

- Operating temperature: 15°C to 30°C (59°F to 86°F)
- Humidity: 20% to 80%, non-condensing
- Altitude: Operation up to 2400 m (7874 ft) above mean sea level
- Physical dimensions: 43 cm (17") W x 50.5 cm (20") D x 24.5 cm (9.5") H
- Weight: 25 kg (60 lbs.)
- UL Installation Category II, as defined in Annex J of the UL 61010A-1
- UL Pollution Degree 2, as defined in Section 3.7.3.2 of UL 61010A-1
- Luminex® 200 analyzer, input voltage range: 100–120V $\sim \pm 10\%$, 1.4 Amp, and 200–240 V $\sim \pm 10\%$, 0.8 Amp, 47–63 Hz

PC Specifications

- Intel Pentium IV or equivalent class PC, minimum speed 933 MHz
- Main memory: minimum of 256 MB
- Hard disk drive: 10 GB minimum storage capacity
- Communication/Ports: minimum of one parallel port, 2 RS-232 compatible serial ports, and one USB version 1.1 compatible high speed port
- Read, write and removable media: CDR/W drive
- Operating system: Microsoft Windows XP Pro SP2
- CE marked and UL listed
- Two-button mouse or equivalent