EnVision Nexus Multimode Plate Reader

Description

Operating on a brand-new innovative platform, our EnVision® Nexus™ multimode plate reader fast tracks your research, delivering the speed and accuracy you need for your most demanding applications. Combined with a lineup of exciting enhancements, this system elevates your science to the next level.

Detection technologies (filter-based)

- Absorbance
- Fluorescence intensity
- Fluorescence polarization
- Luminescence
- Luminescence (enhanced, with aperture)
- TRF lamp

Options:

- Enhanced Alpha, laser based with aperture
- HTS Alpha, laser based with aperture and designated HTS detection unit
- Ultrasensitive Luminescence, with aperture and designated US detection unit
- TRF Laser

Benefits

- Provides the speed and sensitivity to boost your lab's productivity with ultra-high throughput
- Freely configurable and upgradable to adapt to your needs today and tomorrow
- Fully automatable for walkaway convenience
- Certified for use with HTRF® technology

Key features

- Dual detectors for highest speed measurements
- Optional Ultrasensitive Luminescence detection mode boosts sensitivity up to 25x over Enhanced Luminescence
- Two Alpha detection modes to meet your needs: HTS module for highest speed, or enhanced module to enable AlphaPlex technology
- Optional laser based TRF module for highest speed
- Bottom read mode for all standard technologies
- Standard barcode reading (left side)
- Preconfigured filter modules for optimized optics and simplified workflows
- Enhanced Security software package for regulated environments that provides technological controls and features to support 21 CFR Part 11 compliance
- Plate stackers and robotic integration for HTS

Specifications

Maximum throughput* (time per plate)	
Plate type	**Kinetic cycle (first well to last well)**
96-well	6s
384-well	14s
1536-well	37s

**Fluorescence intensity mode (on-the-fly)*

Typical throughput (time per plate, min:sec)	
Detection	**384-well**
On-the-fly (FI, FP, TRF)	00:13
On-the-fly (Absorbance)	00:09
FI, FP, TRF, LUM, US-LUM (100 ms measurement time)	01:13
Absorbance (30 ms)	00:41
Ultrasensitive Luminescence (10 ms)	00:40
Enhanced Alpha (550 ms)	04:12
HTS Alpha (100 ms)	01:34

Detection limit specifications with default settings	
Detection	**384-well**
Fluorescence (filter: 1001) (fluorescein)	< 2 pM (50 uL, 384 OptiPlate™ F)
Fluorescence Polarization (filter: 2001) (fluorescein)	< 1.15 mP SD (50 µL, 384 OptiPlate F)
TRF (filter: 4001) (europium)	< 0.02 pM (15 uL, 384 ProxiPlate™ Plus, white)
TRF Laser (filter: 4006) (europium)	< 0.004 pM (15 uL, 384 ProxiPlate Plus, white)
Absorbance (@405 nm, filter: 6001) Accuracy @ 0.5 OD <0.05% Precision @ 0.5 OD <0.01%	0-4 OD (50 µ)
AlphaLISA® (enhanced)	0.4 ng/mL (Omnibeads)
AlphaLISA (HTS)	0.2 ng/mL (Omnibeads)
Standard Luminescence (filter: 3001)	< 0.25 pM (15 uL, 384 AlphaPlate™, shallow-well, ATPlite™ 1 step)
Enhanced Luminescence (filter: 3001)	< 0.025 pM (15 uL, 384 AlphaPlate, shallow-well, ATPlite 1 step)
Ultrasensitive Luminescence	< 0.001 pM (15 uL, 384 AlphaPlate, shallow-well, ATPlite 1 step)

Computer specifications
Desktop PC and monitor
Windows®10 IoT Enterprise LTSC 2021, 64 bit, English
LAN/Ethernet (RJ-45) connection: direct network connection between instrument and PC

Physical data	
Dimensions (without stacker)	
Height	485 mm
Depth	576 mm
Width	446 mm
Weight	90 kg
Electrical Requirements	100-240 V AC, 50/60 Hz
Light Source	UV Xenon flash lamp
Plate Format	1 - 1536
Temperature Control	
Temperature range (heating)	15-65°C
Temperature range (maintain ambient temperature)	20-25°C
Shaking	Linear, orbital, double orbital

Revvity, Inc.
940 Winter Street
Waltham, MA 02451 USA

(800) 762-4000
www.revvity.com