INNO-H

High-End Multimode Microplate Reader (Monochromator base Absorbance + Monochromator base Fluorescence + Filter base Fluorescence + Luminescence)

INNO-H Specification Description

Absorbance, Luminescence & Fluorescence Microplate Spectrophotometer

Certifications

- CE marked
- ISO 9001 / ISO 13485 / ISO 14001
- RoHS

Specification

General (Multimode Microplate reader)	
Detection Modes	UV-Vis Absorbance / Fluorescence intensity / Luminescence / Fluorescence polarization / Time-Resolved Fluorescence
Read Methods	End point, kinetic, spectral scanning, well-area scanning
Microplate Types	6- to 384-well plates
Others	Nano-VC Microvolume plate
Temperature Control	Up to 45 °C ± 0.2 °C at 37 °C
Shaking	Linear, Orbital
Software	INNO-X Ex / INNO-XS (21 CFR part 11 compliance software)

Absorbance	
Light source	Xenon flash lamp
Detector	Photodiode
Wavelength selection	Monochromator
Wavelength range	230 – 999 nm, 1 nm increments
Dynamic range	0 – 4.0 OD
Resolution	0.0001 OD
Pathlength correction	Yes
Monochromator wavelength accuracy	±2 nm
Monochromator wavelength repeatability	±0.2 nm
OD linearity	<1% from 0 to 3.0 OD
OD repeatability	< 0.5% at 2.0 OD

Fluorescence Intensity			
Monochromator Fluorescence Intensity			
Light source	Xenon flash lamp	Dynamic range	>7 decades
Wavelength selection	**Monochromator** (Bandwidth Variable Option)	Sensitivity	Fluorescein 2.5 pM top / 5pM bottom (96well plate)
Wavelength range	250 – 700 nm (Options 850nm)	Detector	PMT

Filter Fluorescence Intensity (Dichroic Intensity)			
Sensitivity	Top Fluorescein 0.25 pM (96-well plate)	Light source	Xenon flash lamp
Wavelength selection	Filters	Dynamic range	>7 decades
Wavelength range	250 – 700 nm (Options 850nm)	Detector	PMT

Fluorescence Polarization	
Sensitivity	Xenon flash lamp
Wavelength selection	Filters
Wavelength range	400 – 700 nm
Detector	PMT

Luminescence	
Sensitivity	10 amol ATP (filter) / 20 amol ATP (monochromator)
Wavelength selection	200 – 750 nm (Options 850nm)
Dynamic range	>7 decades
Detection system	Low noise PMT

Time-Resolved Fluorescence	
Light source	Xenon flash lamp
Detector	PMT
Wavelength selection	Filter

Temperature control & Shaking	
Temperature control	Incubation up to 45 °C, ± 0.2°C at 37°C
Shaking	Linear, Orbital

Physical Charateristics			
Connectivity	1 USB, 1 RS232 for external PC control	Weight	25 kg
Power	100 – 240 Volts AC. 50/60 Hz	Shelf Life	2yrs (when direct or ambient sunlight, extreme temperature is avoided)
Dimensions	408w x 390L x 240H		

Applicable optional products	
Reagent Injector(INNO-D)	• 2 Syringe pumps • 5-1000µL -> 15 ~ 1000µL • Minimum prime Vol. 1.1mL. 100µL with back flush
Read methods	• 2~ 2.5µL total 24 wells • 2.5ml cuvette holder • DNA/RNA, Lysozyme, DsDna, and Etc
Microplate types	• Absorbance linearity and accuracy QC • Luminescence linearity and crosstalk QC • Fluorescence linearity QC

• Dual Injector (Option) • Gas control (Option) (Development schedule has not been specified yet)

• Variable Bandwidth Monochromator (Option)

Optional Accessories

INNO-Q (Option)

• Absorbance Test Plate for Accuracy, linearity & alignment

INNO-QM (Option)

• Absorbance, Luminescence, and fluorescence Q.C plate
• Abs - 9 Wells: 0.14 to 2.2 OD @ 450nm
• Fluo - 8 Wells: Visible Read EX 485nm / EM 530nm or EX 540nm / EM 590nm
• Lumi - 9 Wells: Approximate four-decade dynamic range standard
• Lumi Crosstalk - Provides most challenging scenario

NANO-VC (Option)

24 well DNA/RNA Quantitative measurement

Using 2µL of DNA/RNA samples, quantitative measurement is possible.
This also helps the users to be able to understand or interpret the unknown or unspecified samples by measuring from 240 to 320 nm with 2nm steps.
Total of 24 2µL wells allow you to measure variety types of samples at the same time.
DsDNA, RNA, ssDNA, 1 Abs at 1cm = 1 mg/ml
BSA, IgG, Lysozyme and other samples are measurable.

Specification

2µL Sample capacity	24 wells	Compatible model	INNO, INNO-M&INNO-S
Cuvette capacity	1 slot	Optical path length	0.5 mm
Cuvette size	2.5 ml tube	Detection limit	2 ng/pLdsDNA