

# Hidex Sense

Multi-technology Microplate Reader



**HIDEX**

**LabLogic**

EXPERIENCE & EXPERTISE

# Technical Specification

Specification		Note
Temperature range	2°C above ambient to 65°C	
Temperature uniformity	< 1.0 °C at 37°C	
Temperature accuracy	±0.5°C at 37°C	
Shaking	Linear , Orbital, Double orbital, 4 speed settings for each	
Shaking time	0-86399 sec (23h:59min:59sec)	
Endpoint measurement	All modes	
Kinetic measurement	All modes	
Well area scanning	YES	
Wide field read	YES	On Sense automatic scanning and results integration of whole area of large well plates (e.g. cell cultures)
Wavelength scanning	Photometry	On Sense entire spectra read in <0.3 sec
Autofocus	FI, FP, TRF and Luminescence	On Sense both top and bottom read
Dimensions W x H x D cm	20 cm x 28 cm x 49 cm	
Weight	< 13 kg	
Power consumption	< 30 Watts	
Plate formats	1 - 1536	
Detectors	1 - 2 PMT, Spectrograph with CCD	
Robotic Compatible	YES	

Fluorometry (FI)		
Reading Capabilities	Cuvette or top or bottom of a microplate	Cuvette utilising optional µDrop™ plate
Guaranteed sensitivity	On Sense 0.025 fmol 384-well, Fluorescein (Top) < 0.05 fmol (Bottom)	
Wavelength Range	230 - 850 nm	
Wavelength Selection	32 pcs on-board optical filters	
Bandwidth (Ex, Em)	7,5 nm - 80 nm	On Sense variable by available filter specifications

Fluorescence Polarization (FP) (Fluorescein 1 nM, SD)		
Wavelength Range	300 - 850 nm	230 nm UV FP is available on Sense as optional
Wavelength Selection	32 pcs on-board optical filters	
Bandwidth (Ex, Em)	7,5 nm - 80 nm	Variable by available filter specifications
Guaranteed precision	≤ 3 mP standard deviation at 1 nM fluorescein in 96 wells	

µDrop is a trademark of ThermoScientific.

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Time Resolved Fluorescence (TRF) (Europium)		
Reading Capabilities	Cuvette or top or bottom of a microplate	Cuvette utilising optional $\mu$ Drop™ plate
Wavelength Range	230 - 850 nm	
Wavelength Selection	32 pcs on-board optical filters	
Bandwidth (Ex, Em)	7,5 nm - 80 nm	Utilising variable by available filter specifications
Precision Data Collection	1 - 9999 flashes, delay 1 - 10000 $\mu$ sec, integration time 1 - 10000 $\mu$ sec	
Guaranteed sensitivity	< 0.5 amol europium in 384 wells	

Luminescence (Lum) (ATP-Glow)		
Reading Capabilities	Cuvette or top or bottom of a microplate	Cuvette utilising optional $\mu$ Drop™ plate
Wavelength Selection	All wavelengths or with selected wavelengths	
Wavelength Range	230 - 850 nm	
Guaranteed sensitivity	$\leq$ 30 amol ATP/196 Well	
Cross-talk	< 0.5% in 96 well microplates	

Photometric		
Cuvette capability	YES	Cuvette utilising optional $\mu$ Drop™ plate
Wavelength Range	220 - 1000 nm	
Wavelength Selection	Spectrograph, 1 nm resolution up to 10 discrete wavelengths	Sense spectrograph reads complete spectrum range in < 0.3 sec
Wavelength Bandwidth	Variable 1 - 980 nm	
Wavelength Accuracy	$\pm$ 0.8%, at 2 OD @ 450 nm	
Wavelength Repeatability	$\pm$ 0.8%, at 2 OD @ 450 nm	
Detection range	0 - 4.0 OD	
Photometric Resolution	0.001 OD	

Direct Luminescence (Optional)		
		Direct luminescence is a separate dedicated luminescence detector and electronics, up to 10 times more sensitive than common luminescence utilising the standard optical channel.
Wavelength Selection	All wavelengths	
Wavelength Range	280 - 630 nm	
Guaranteed sensitivity	$\leq$ 0.1 pM ATP	Equals <6 amol ATP 384 well plate
Cross-talk	< 0.1% in 96 well microplates	

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## Liquid Scintillation (Optional)

Counting efficiency	3H 50% ±3%, 125I > 65%, 14C > 90%	LSC and Beta radiation counting mode with MCA analyser. Measured with 96 B/W Isoplate, 10µL organic sample + 190 µL MaxiLight cocktail.
Background	< 80 cpm	
Time resolved LSC (TR-LSC)	< 20 cpm	
Cross Talk	< 0.05% for H-3 and C-14	On PE white + black isoplate™

## Integrated Dispensers (Optional)

		1 or 2 channel, real-time detection with well bottom read
Plate types	1 - 384	
Injection range	1 µL - 1000 µL (500 µL/stroke)	Using 500µL syringe with refill function
Injection increments	1 µL	
Dead volume	100 µL	With back flush
Precision	< 1% at 100 µL	
Accuracy	< 1%	
Injection Speed	25 µL sec - 415 µL sec	

## Gas Control (Optional)

	Digital 3 gas mixer (input CO <sub>2</sub> , air, nitrogen)	
Range	CO <sub>2</sub> 0 - 20%, O <sub>2</sub> 1 - 20%, 0.1% steps	
Accuracy	CO <sub>2</sub> ± 0.1%, O <sub>2</sub> 0.1%	

## AlphaScreen® (Optional)

Detection Limit	< 8.0 ng/mL Ominbead™	This option requires direct luminescence
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AlphaScreen is a registered trademark of PerkinElmer. Ominbead is a trademark of PerkinElmer.

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Certificate No: 1535  
ISO 9001



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