

LSC
LIQUID SCINTILLATION

Lum
LUMINESCENCE

FI
FLUORESCENCE

TRF
TIME-RESOLVED FLUORESCENCE

FP
FLUORESCENCE POLARIZATION

Phot
ABSORBANCE

The
NEW,

compact,

six-in-one

personal

multilabel

plate reader

PLATE CHAMELEON



MULTILABEL PLATE READER THAT IS SIX COUNTERS IN ONE

PLATE CHAMELEON

Never before has there been such a compact and versatile plate reader as the new Hidex PLATE CHAMELEON. It measures not just radiometric labels, but all of the main non-radiometric ones too. It is ideal for luminescence and absorbance readings as well as fluorescence including fluorescence intensity, fluorescence polarization and time-resolved fluorometry. Modular design means you choose just those technologies you need to make up your own personal reader.

PLATE CHAMELEON has a footprint only slightly bigger than a laptop, so it fits in everywhere and is easy to transport. In routine use you can run it from its own keypad and display, while for sophisticated analysis of results, you connect it to an external PC or notebook

PLATE CHAMELEON is an ideal tool for researchers who need a personal reader to give them reliable, authenticated results when and where they need them.



Whatever your applications portfolio, your measuring technologies and your labels, and however varied your experiments, PLATE CHAMELEON meets your needs with 6 different technologies and 10 preset counting modes.

PLATE CHAMELEON

AS A LIQUID SCINTILLATION COUNTER

PLATE CHAMELEON measures nuclides up to 2000 keV. Preset values are provided for commonly used nuclides such as ^3H , ^{14}C , ^{32}P , ^{33}P and ^{125}I . Other nuclide channels are easy to program as you personalize your instrument to meet your own needs. As a plate reading LSC, PLATE CHAMELEON saves you time by dealing with up to 96 samples at a time. In applications requiring larger volume samples, the instrument also accepts 24-well plates. Ideal for:

- ☑ Cell studies
- ☑ Cytotoxicity
- ☑ RIA and IRMA



PLATE CHAMELEON

AS A LUMINOMETER

To give you fast and sensitive results for luminescence assays, PLATE CHAMELEON supports both glow and flash-type reagents. To introduce the latter, an optional injector module is supplied. Luminescence detection sensitivity reaches 5 fmol ATP/well and the measuring range exceeds 6 decades. Ideal for:

- ☑ ATP detection
- ☑ Reporter gene assays
- ☑ Luminescence immunoassays
- ☑ Toxicology applications



PLATE CHAMELEON is based on a modular design, which supports the production of customized instruments, that include any or all of the technologies listed on these pages.

PLATE CHAMELEON AS A FLUOROMETER

Three different fluorescence technologies are available.

- ☑ Fluorescence intensity (FI)
- ☑ Fluorescence polarization (FP)
- ☑ Time-resolved fluorometry (TRF)

The instrument is ideal for conventional short decay-time fluorophores, and for long decay-time lanthanide chelate fluorophores. Measurement of the latter, by time-resolved fluorometry, is characterized by extremely high sensitivity and wide dynamic range.

PLATE CHAMELEON also supports the exciting new fluorescence polarization assay technology.

Typical fluorescence applications include:

- ☑ DNA hybridizations
- ☑ Binding studies
- ☑ Enzyme assays
- ☑ Receptor ligand assays
- ☑ Cytotoxicity
- ☑ Immunoassays



For clinical diagnostics laboratories working with both radiometric and a variety of non-radiometric labels, PLATE CHAMELEON provides an excellent back-up. It is an open system, providing reliable results for all technologies.

PLATE CHAMELEON AS A PHOTOMETER

PLATE CHAMELEON is as easy to use as a photometer. Its wavelength range is from 230 nm to 620 nm, making it ideal for:

- ☑ DNA quantification
- ☑ Coloured substrates
- ☑ Enzyme assays



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PLATE CHAMELEON

Specifications

Dimensions	370 mm (w) 400 mm (d) 300 mm (h)
Weight	27 kg
Plate types	96-well 24-well for LSC applications 384-well for certain technologies
Optical type	Direct illumination (fibreless optics)
Light source	Xenon flash lamp, closed loop intensity control
Detector	1, 2 or 3 photomultiplier tubes
Wavelength range	Excitation: 230 nm to 620 nm Emission: 360 nm to 670 nm, depending on PMT type
Filters	(not included with standard instrument model) High quality interference filters. The filter changer can hold 4 excitation and four emission filters, in addition to this, polarization filters can be added.

Fluorometry

Sensitivity	Fluorescence intensity (FI): 0.01 pmol fluorescein/well in a white 96-well plate Fluorescence polarization (FP): 0.5 pmol fluorescein/well in a white 96-well plate Time-resolved fluorometry (TRF): <50 amol Eu Excitation: 230 nm to 620 nm Emission: 360 nm to 670 nm
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Dynamic range	>5 decades
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Luminometry

Sensitivity	5 fmol ATP/well in a white 96-well plate. Dynamic range > 6 decades
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Instrument background	<50 CPS
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Liquid scintillation counting

Counting efficiency	30% for ³ H in a 96-well plate, 50% for ¹²⁵ I and ¹⁴ C in a 96-well plate
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Background	<50 CPM
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Dynamic range	Up to 2,000,000 CPM
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Background	<50 CPM
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Background	<50 CPM
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Absorbance

Linearity	2%
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Dynamic range	3.0 OD
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Wavelength range	230 nm to 620 nm
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Representative:

Designed and manufactured in Finland:

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