Ultra-Wide Range Luminometer

-Achieved a hundred billion range of ATP concentration based CLIA-

Photon counter
M014-01

Light shielding cover
Easily detachable

Optical filter
Commercial products can be used

[Exterior photo]

Cell insertion port
Commercial products can be used

Light shielding dark box
Prevent damage given to highly sensitive sensor and samples by external light

Reaction cell/optical filter insertion port
Remove light shielding cover when used.

ND filter
Filter wheel selectable

Knob to select filters
Easy selection by 5 steps

[Transparent image]

175mm

270mm

155mm

＊Specification and external appearance are subject to change without prior notice.

▶ Main features

· Enables wide dynamic range measurement as high as 10^{11} from extremely low light level region

· Suitable to measurement of samples with autofluorescence

· Applicable to extremely low light level measurement

· Possible to use commercial 10x10 square type cell

· Power supply as well as data transfer simply by connecting USB interface to PC

▶ Examples of application

· Bioluminescence and living tissue luminescence (evaluation of stress response and environments)

· Measurement of circadian rhythm

· Agriculture breeding and food inspection

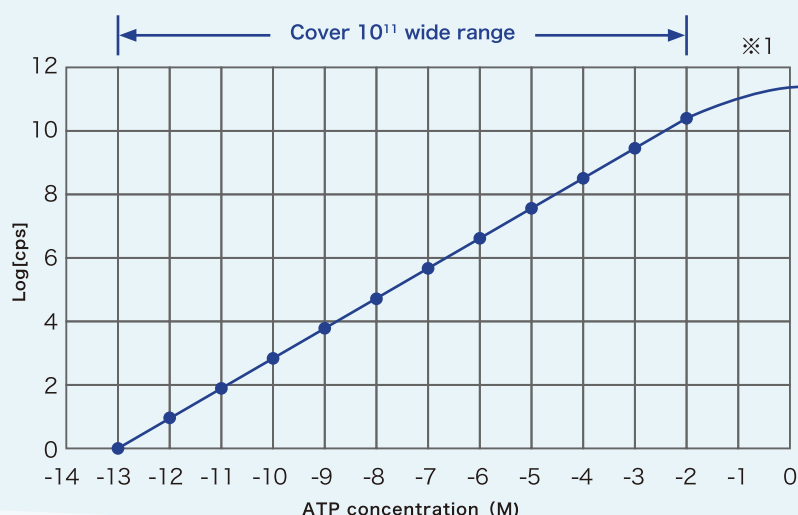· Quantification of carry over in dispensing nozzle (cleaning inspection)

Should you look for any solution, please feel free to contact us at,

◀ Result of ATP concentration and cps value measuremed by S009 luminometer. ▶

Cover 10^{11} wide range   ※1

Graph — vertical axis: Log[cps] (0 to 12); horizontal axis: ATP concentration (M) (-14 to 0)
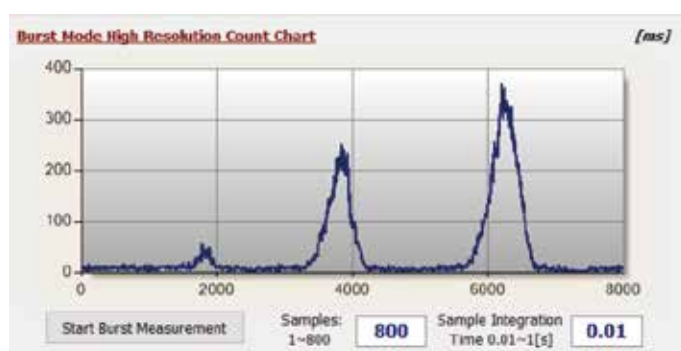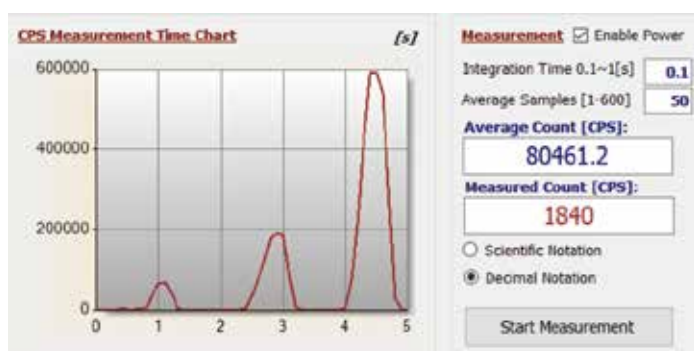
[Measurement method]

Photon counting by S009 luminometer by measuring the luminescence of ATP solution with concentration of 10^{-3} to 10^{-13} M using Luciferin-Luciferase reagent produced by Kikkoman.

*1
Up to ATP concentration 10^{-3} M is an actual data with standard reagent.
More than 10^{-3} M concentration is measured data by LED light source calibrated.

❯ Software display (software is included as standard under Windows 10/64 bit)

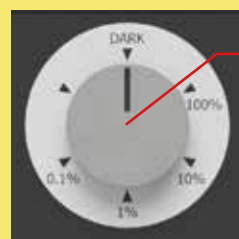Example of measured data (horizontal axis: Time, vertical axis: # of count)

❯ Main specification

Optical module	Photon counter
Selection of filters	Manual wheel type 0%（Dark）、0.1%、1%、10%、100%
Functional optical filters	Option on request（□50×t3、Φ25×t3、Φ12.5×ｔ3）
Interface	ＵＳＢ2.0 (cable included)
Power supply	Supply by PC via USB
Dimension(mm)	W(155)×Ｈ(１75)×Ｄ(270)
weight	Approximate 3.8kg
Standard cell	Path length10mm、Width 10mm Cell size 12.5mm×12.5mm×45mm Cell capacity 3.5mmL

❯ Easy handling

Optical filter insertion port
Commercial filter can be used.

Cell insertion port
Commercial 10x10mm square type cell and adaptors can be used.

5 steps mode to be selectable
By turning a knob easily enables to select filters in 5 steps
0%(Dark), 0.1%, 1%, 10%, 100%

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