

OPAL LED

FIXED WAVELENGTH VIS DETECTOR

is a detector with an **interference filter**(optional) and **LED diode** as light source. By means of this filter and diode can be this unit adjusted at one fixed wavelength in range of **350-900 nm**. LED diode has higher light energy in VIS range of spectrum what cause lower noise and drift level as against deuterium lamp. Noise level at 460 nm is $\pm 5 \cdot 10^{-6}$ AU with test cell. (Filter is not include price)

The unit may be used for routine **analytical** chromatography as well as for **preparative** chromatography, according to the selected cell.

The unit is easy to operate; **reference and sample** signals are available for detector



diagnostics as well as information on **lamp operating hours**.

Output signal is available in both digital and analogue form on the output connector. **It is possible to control the unit using the keypad or a RS232 interface**. Connecting capillaries are led from the detector's right side.

This detector was developed and used for CDT analysis with 460/470 nm LED lamp.

SPECIFICATION

TECHNICAL PARAMETERS:

Wavelength range	350 - 900 nm
Bandwidth	According to the LED/filter used
Light source	LED
Noise level with the test cell (460 nm)	$\pm 5 \times 10^{-6}$ AU
Drift with the test cell (460 nm after 1 hr.)	2×10^{-4} AU/hr.
Materials coming into contact with mobile phase	PTFE, fused silica, stainless steel, Vespel
Time constant	Ca. 1 s
Analog output	1 V/0.1 AU
Digital output	1 V/AU
Interface	RS232
Power supply	100, 115, and 230 V, 50/60 Hz
Power input	55 VA
Dimensions (w x h x d)	220 x 170 x 450 mm
Weight	7kg

CELLS:

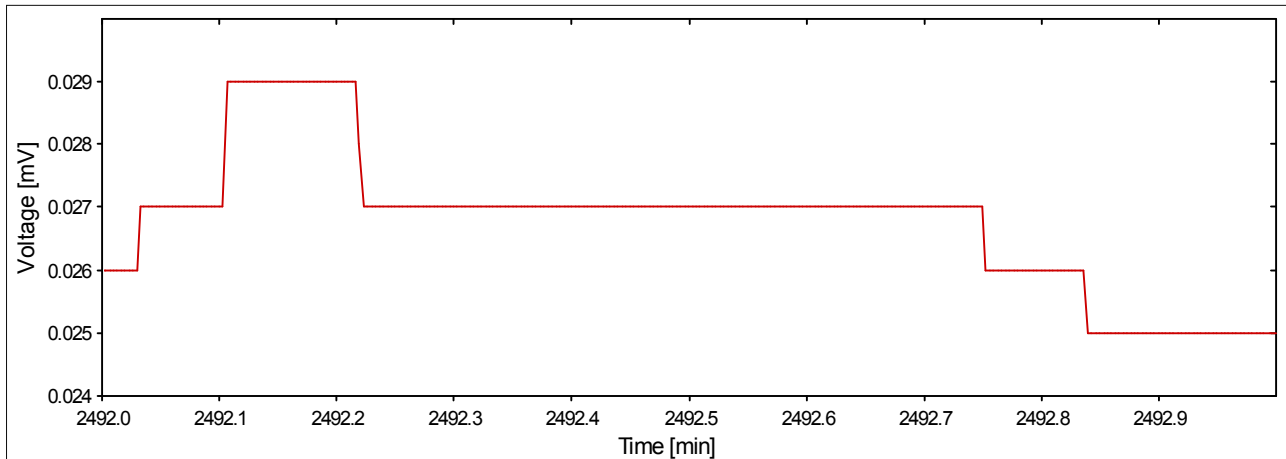
Analytical cell HPLC 04 is supplied with unit.

Optional microcell MLCC 02 or preparative cells PLCC 04 or PLCC 05 may be supplied.

Do not forget specify the wavelength in order.

NOISE EXAMPLE

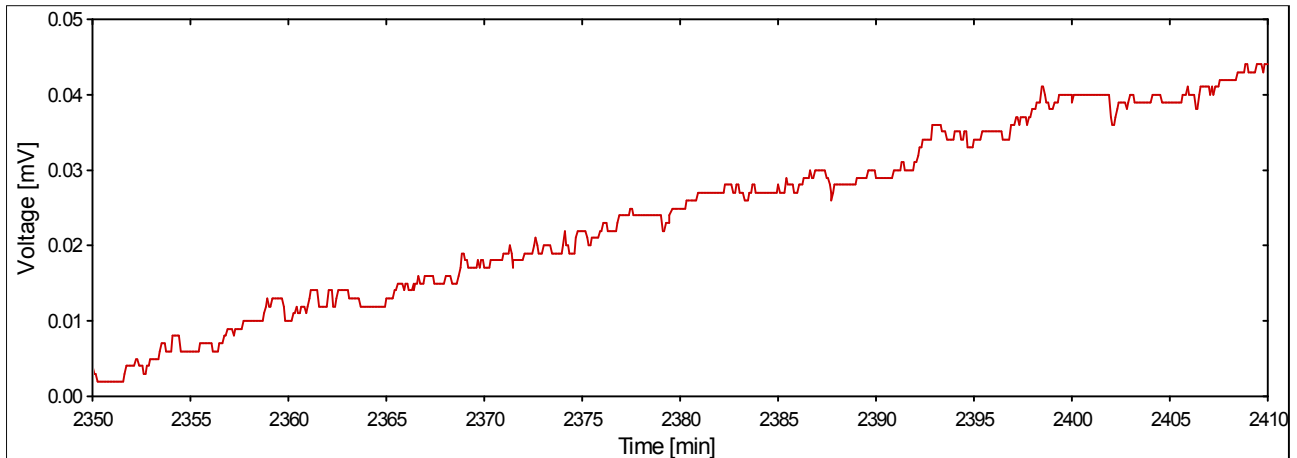
This example comes from three days continuous testing measurement with test cell. Detector is CDT version with 470 nm LED and without interference filter. Data is from digital output (1mV = 1mAU) with 5 Sps sampling frequency.



1 min. peak-peak noise is 0.004mV = 0.004mAU. Last bit is 0.001mV.

DRIFT EXAMPLE

This example comes from three days continuous testing measurement with test cell. Detector is CDT version with 470 nm LED and without interference filter. Data is from digital output (1mV = 1mAU) with 5 Sps sampling frequency.



1 hour drift is 0.04mV = 0.04mAU.