

## ZETALIF™ LED Specifications

# 480nm

### Principle of operation

LED-Induced Fluorescence Detection (LEDIF)

### Performance

The results were obtained with an Agilent 7100 CE using 65 cm total length, 75 µm ID Capillary, a pH = 9.6, 25 mM bicarbonate/carbonate buffer, Zetalif set up : range 50RFU; rise time 1s

Wavelength	480nm <sup>(a)</sup>
Wavelength range of collected fluorescence	From 515 to 760nm
Sensitivity	1.0 x 10 <sup>-12</sup> M (or 2.17. 10 <sup>-19</sup> mol) FITC with Signal to Noise ratio S/N > 5
Limit of detection S/N=3	6.0 x 10 <sup>-13</sup> M (or 13. 10 <sup>-20</sup> mol) FITC
Baseline Noise	< 0.003 RFU peak to peak
Baseline Drift (20 minutes)	< 0.02 RFU max, no flow, conditioned capillary filled with buffer

### Detector Specifications

#### Interface with CE system

Agilent Technologies CE 1600 and 7100	LIF Driver (communication with LAN) or A/D converter is needed.
Beckman P/ACE MDQ and 5XXX series	External Detector Adapter kit (144829), A/D converter, external electrode, and additional options needed (High voltage power supply with software controlled reverse polarity).
PrinCE	Compatible with single lift model (with external electrode) and double lift models. A/D converter is needed.
Other systems	Contact Picometrics™.

#### Interface with HPLC system

Compatible with all LC systems but optimal sensitivity reached at flow rates < 5 µL/min. A lower sensitivity may be observed at higher flow rates. A/D converter is needed.

#### Signal outputs

**Analog (processed)** : 0-1 V (DC) for a range 0-50RFU , 0-100 mV (DC) for a range 0-5RFU

#### Data Acquisition Systems

ZETALIF LED is compatible with Agilent Chemstation and with any data acquisition system featuring an analog input (0-1 V). If no analog input is available, an A/D converter is necessary.

#### Power requirements

100/240 VAC, 47/63 Hz, 1.5 A

#### Operating conditions

**Temperature range** : 10-40°C / 50-104°F;  
**Relative humidity** : <90% non-condensing

#### Dimensions and weight

43.0 (H) x 23.0 (W) x 34.0 (D) cm / 16.9" (H) x 9.1" (W) x 13.3" (D) 12 kg / 26.4 lbs

(a) Maximum wavelength : 475nm to 480nm  
 Spectral bandwidth : 25nm

All specifications are subject to change as a part of our continual efforts for product improvement.