

SEDEX
LT-ELSD™

Low Temperature - Evaporative Light Scattering Detectors

THE RESULT OF 25 YEARS OF EVOLUTION



SEDEX 100LT
FOR HIGH PERFORMANCE AND HIGH THROUGHPUT

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Low Temperature
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SENSITIVITY
FLEXIBILITY
EXPERIENCE

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The SEDEX Model 100LT Low-Temperature Evaporative Light-Scattering Detector for conventional **HPLC, U-HPLC and SFC** allows for the detection of essentially all compounds: detection is based on a universal property of all analytes and does not require the presence of a chromophoric group, electroactive group, etc. The SEDEX Model 100LT combines the highest sensitivity, reliability, and accuracy for your analyses compared to all other aerosol-based detectors, thanks to unrivalled SEDERE low-temperature technology. This detector presents a number of outstanding innovations thereby providing the best optical and electronic benefits at a reasonable price. The SEDEX Model 100LT can be connected to any HPLC or SFC system, and you can control the detector locally or via a PC for a fully integrated system using a broad range of SEDEX drivers. A remote shut down mode is also provided to minimize cost and enhance system lifetime. **Full SOP protocols are provided for GLP compliance and validation procedures.**

FEATURES AND BENEFITS:

- New generation design for low-temperature evaporation of the mobile phase: optimizes sensitivity of thermally labile and semi-volatile compounds.
- New optical head design based on a new high power laser: provides the highest signal-to-noise ratio for all compounds.
- Enhanced sensitivity using digital signal treatment: an innovative signal processing algorithm minimizes noise and optimizes sensitivity.
- **Direct dynamic range of over five orders of magnitude:** With SAGA (SEDEX Automated Gain Adjustment), an innovative gain control available when it is driver-controlled by software, SEDEX Model 100LT automatically adapts the gain setting to avoid any off-scale saturation of the detector: enhanced determination of very low percentage of impurities.
- Direct linearity on the global dynamic range: enhanced correlation coefficients.
- Minimized band broadening due to an innovative cell design and a wide choice of nebulizers. Four nebulizers are available to optimize your applications. Nebulizers cover a wide flow rate range from a few $\mu\text{L}/\text{min}$ to several mL/min , in addition there is a nebulizer optimized for U-HPLC and a nebulizer specifically optimized for SFC. These nebulizers can be easily changed to meet the specific requirements of the application. In addition, all parts of SEDEX Model 100LT are designed to provide the lowest dispersion, so that the observed peak widths are similar to those obtained with the most advanced UV/Vis detectors (typically below 1 second in U-HPLC).
- Complete Remote Control: gas, heater, photo-detector and light source can be automatically switched off at the end of a series of analyses.



TECHNICAL SPECIFICATIONS

COMPONENTS

Detection	SAGA-Enhanced Photodiode board
Light Source	Blue SEDERE High power laser; with elapsed time counter and high performance power management
Temperature Range	Ambient to 100°C
Nebulizer	Low Flow, HPLC, UHPLC, SFC
Eluent Flow Rate	50 $\mu\text{L}/\text{min}$ to 2 mL/min
Typical Sensitivity	< 250 pg

DATA

Analog Output	0 - 1 Volt
Gain Settings	1 to 7 or SAGA (patented dynamic auto-gain)
Noise Filter	Dedicated numerical algorithm
Data Rate	Up to 100 Hz

COMMUNICATION

Selection & Display	OLED Display with illuminated keypad
Events	Contact closure, TTL for Ready, Autozero
Power-down Methods	Frontpanel or driver activated, with or without delay
Computer Interface	USB or RS-232
Software	Drivers (option): Openlab EZChrom®, Openlab Chemstation®, Chemstation®, EZChrom®, Clarity®, Chromeleon®

EXTERNAL REQUIREMENTS

Power	100V to 240V (50Hz/60Hz)
Gas Supply	Nitrogen or Air 3,5bar/51psi (Less than 3L/min)
Dimensions	250mm (10in) W - 330mm (13in) H - 530mm (21in) D
Weight	15.5kg (33lbs)

SEDERE IS COMMITTED TO USER SATISFACTION WITH EVERY SEDEX DETECTOR, AND PROVIDES YOU WITH:

- A Worldwide distribution network at your service.
- On-site installation and training.
- Full SOP (Standard Operating Procedures) including IQ, OQ, PQ.
- Technical and applications support.
- Web-access to applications in many fields.
- User seminars, on and off-site.
- Flexible service contract options.
- Easy-to-order spare parts and accessories.