

VERITY® 1601 ELS Detector

Light scattering technology to ensure detection of compounds of interest from your extracts



SPEC SHEET | PURIFICATION

VERITY® 1601 ELS DETECTOR

- **Ultimate Detection Mode for New Compounds Discovery**
- **Low Temperature Evaporation**
- **Simply Set a Single Parameter and Run**
- **Specially Designed for Purification**

The VERITY® 1601 ELS Detector is an evaporative light scattering detector (ELSD). An ELSD is not dependent on UV absorbance and can detect compounds or impurities even if they do not contain chromophores, making it an ideal complementary detector to a UV-based purification system. With the use of conditional logic fraction collection in TRILUTION® LC and GLIDER Software, the VERITY 1601 ELSD can ensure pure fractions by detecting and separating out impurities that are not seen by other detection methods.

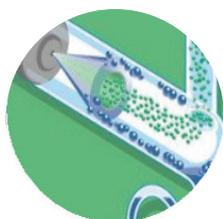


VERITY® 1601 ELSD Expands Your Capabilities and Secures Your Purification

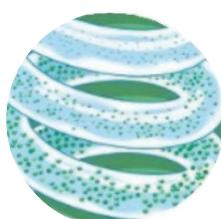
- Detect any analytes with and without chromophore groups that are less volatile than the eluent
- Compatible with LC gradient solvent systems
- Compatible with most LC solvents whatever their absorption characteristics
- Provides a very stable baseline that improves fraction collection triggering
- Low-temperature evaporation allows detection of semi-volatile or thermally labile compounds
- The nebulization chamber has been specially designed to work with highly concentrated eluents frequent in preparative separations by HPLC or centrifugal partition chromatography (CPC)

Simple Evaporative Light Scattering Detection

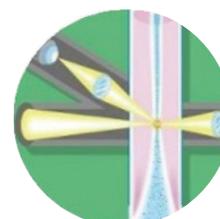
Set the evaporation temperature and you're ready to start detecting your compounds.



1. Nebulization
The nebulizer converts the eluent into a fine aerosol.



2. Evaporation
The solvent is vaporized in the drift tube and evaporated at the lowest temperatures.



3. Detection
The scattered light intensity is directly related to the mass of the eluted compound.

VERITY® 1601 ELS DETECTOR SPECIFICATIONS

VERITY® 1601 ELS DETECTOR SPECIFICATIONS	
COMPONENTS	
Nebulizer	LC semi-preparative to preparative
Eluent Flow rate	100 µl/min to 5 ml/min
Temperature Range	Ambient to 100°C
Light Source	Blue LED (470 nm) with Elapsed Time Counter
Detection	Photodiode
Typical Sensitivity	100 ng
DATA	
Analog Output	0 - 1 Volt
Gain Settings	1 to 8
Filter	Moving Average (0 - 0.5 - 1 - 2 - ... - 10)
Signal Amplification	Automated Gain Adjustment (Only applicable with GLIDER Software control)
Data Rate	10 Hz
CONTROL	
Selection & Display	Keypad and OLED display
Events	Contact Closure, TTL for Ready, Autozero
Power-down Methods	- Shut-off: Gas, Light Source, Heating and/or Photodiode - Cleaning Mode
Computer Interface	USB, RS232
Software	GLIDER Software or Analog input with TRILUTION® LC

VERITY® 1601 ELS DETECTOR SPECIFICATIONS	
EXTERNAL REQUIREMENTS	
Power	100V to 240V (50Hz/60Hz)
Gas Supply	Nitrogen or Air (gas must be oil-free, dry and filtered) Pressure: 2-4.5 bar (29-67 psi) Typical Operating Pressure: 2 bars (less than 3L/min)
Dimensions	250 mm (10 in.) W 330 mm (13 in.) H 550 mm (21 in.) D
Weight	15 kg (33 lbs.)
Environmental Conditions	Indoor use only Altitude: up to 2000m Ambient Temperature: 5°C-40°C Maximum humidity of 80% for temperatures under 31°C, with linear decrease down to 50% at 40°C Voltage fluctuations: up to ± 10% of nominal voltage Transitory overvoltage of class II Pollution degree 2
Safety and Compliance	The detector has been certified to safety standards specified for Canada, Europe, and the United States. Refer to the instrument rear panel label and the Declaration of Conformity document for the current standards to which the instrument has been tested.

VERITY® 1601 ELS DETECTOR SPLIT PACKAGES SPECIFICATIONS	
SPECIFICATION	DESCRIPTION
Split ratio 1/16 kit	Passive Splitter selectable from 1:25 to 1:400 for flow up to 150ml/min
Split ratio 1/8 kit	Passive Splitter selectable from 1:50 to 1:2000 for flow up to 500ml/min