VERITY® 1601 ELS Detector

INSTALLATION QUALIFICATION PROCEDURES

1. Product Identification

INSTRUMENT NAME	SERIAL NUMBER*
VERITY® 1601 ELS Detector	

*The serial number is on a label on the rear panel of the VERITY 1601 ELSD and is accessible from the menu (Info screen).

Supplier

Organization	
Address	
Phone Number	
Fax Number	
Name of Gilson Representative	

User

Organization	
Department	
Site (Room)	
Primary Contact Name	
Phone	
Email	
Date of Installation	

2. Pre-Installation

Instrument Description

The VERITY 1601 ELSD is a low temperature evaporative light-scattering detector designed to detect compounds in the eluent from a liquid chromatography system. It is capable of monitoring eluent flow rates from 100 µL/min to 5 mL/min (may vary depending on the mobile phase flow characteristics). Evaporative light-scattering detection is a nearly universal technique which can detect any analyte which is less volatile than the mobile phase. Unlike other types of detection mode such as UV detection, it is not dependent on the absorption of radiation and is not affected by the absorption characteristics of the solvent. Thus, solvents which absorb UV radiation can be used. As the solvent is completely evaporated, a gradient can be performed to optimize the separation.

The VERITY 1601 ELSD is controlled via the front panel.

The detector includes a nebulization cell, an evaporation tube and a detection chamber. The evaporation tube is heated in order to evaporate the solvent.

Unpacking

The VERITY 1601 ELSD is delivered with most of the major components already assembled. Retain all packing material so the VERITY 1601 ELSD may be shipped safely in the future.

Follow instructions provided with the VERITY 1601 ELSD.

Documents

VERITY® 1601 ELS Detector Instructions

Installation Site Requirements

SPECIFICATION	DEFINITION OR VALUE
Power Requirements	The VERITY 1601 ELSD requires up to 1.1A at 100V 50/60Hz and 0.5 A at 240V 50/60Hz.
Power Input	The VERITY 1601 ELSD is configured for input voltage from 100 to 240V with 50/60Hz.
Environmental Conditions	Indoor use only Altitude: up to 2000m Temperature: 5°C–40°C Humidity: maximum relative humidity 80% for temperatures up to 31°C decreasing linearly to 50% relative humidity at 40°C Voltage fluctuations: up to ± 10% of nominal voltage Transitory overvoltage of category II Equipment Class 1, Pollution degree: 2
Gas Pressure	2.0 bar (nitrogen or air) A supply of filtered (0.01 µm), clean, dry and oil-free gas is required to operate the detector. The gas supply must be stable and regulated by an external manometer. The VERITY 1601 ELSD gas inlet quick-fitting on the rear panel is for 6.0 mm plastic tubing. Air from an air compressor is acceptable if unreactive with the analysis conditions (not reactive with oxygen) and passes through a suitable (oil-free) 0.01 µm filter. Do not use gas that supports combustion with combustible solvents. Do not use air as a carrier gas when the mobile phase contains flammable components. If the mobile phase includes volatile or flammable solvents, or if this possibility is unknown, use an inert gas (i.e., nitrogen) to nebulize the mobile phase and prevent possible ignition. Do not use any liquid or gas (non-exhaustive examples: pure oxygen or hydrogen) that support combustion under temperatures reached by the detector. Gas quality is mandatory for performance detection with ELSD: The gas should be free from particles (dust) and from oil. The gas purity has negligible impact on the ELSD performance.
Dimensions (W x H x D)	25 x 33 x 55 cm (9.8 x 13 x 21.7 in.)
Weight	15 kg (33 lbs.)

3. Installation

When setting up the VERITY 1601 ELSD, follow the instructions provided.

4. Acceptance

If no installation problems were detected or installation problems that were detected were resolved, have the local Gilson representative who installed the VERITY 1601 ELSD (if applicable) provide the information requested below.

Gilson Representative	
Organization	
Signature	
Date	

❑ End user was provided with a copy of this document.