Effective Optical Systems

A SPES ahead in particle analysis

*Fully compatible with **CLASSIZER™ ONE***
*Controlled by the standard **EOS***
***CLASSIZER™ SW** software platform*

User Friendly
Improve reproducibility
High Chemical Compatibility

LMS™

STANDARD LIQUID SAMPLE MANAGER

Early R&D

- Formulation QbD & SbD
- Heterogeneous Samples
- Complex-But-Real Particles

Formulation

- Classify particle mixtures
- Formulation behaviour
- In target complex liquids

Product QC

- Continuos Flow Analysis
- Process QC/PCA
- Impurities Identification

Effective Optical Systems

The standard version of **EOS liquid sample manager LMS™** enables **CLASSIZER™ ONE** to operate in stable and repeatable conditions. It drastically reduces operator-dependent issues respect using a standard external pump. It occupies only a small space on the table. Fully compatible with **CLASSIZER™ ONE** and controlled by the **EOS** user software, **LMS™** relies on a robust syringe pump and a customizable syringe made of PTFE and borosilicate, stainless steel or PEEK connectors, and a four-way valve for waste management and basic system cleaning reduces contaminants from previous samples.

How LMS™ works. A sample is dispersed in a filtered solvent or in a diluted heterogeneous liquid. **LMS™** pulls through **CLASSIZER™ ONE** the liquid sample at optimized flow to measure them. The measured liquid is pushed to drain or recovered for further analysis. The operation is automatically repeated until the desiderata statistics is reached, as the number of observed particles, or until the user stop the acquisition process. **LMS™ automatically performs a basic cleaning procedure after every acquisition to ensure the highest quality and reduce the out of specifics due sample cross-contamination.**

- **Automatic Flow Managment.** The **LMS™** is controlled directly by the **EOS** software ensuring streamlined easy to use managment of the flow and start/stop operations.
- **High Reproducibility.** High quality components and industrial level electronics guarantee highest reproducibility reducing operator dependency in **SPES** results.
- **Very High Chemical Compatibility.** The wetted surfaces are made with high technical grade polymers and materials compatible with most of solvents and liquids.
- **Wide Range of Flow Speeds.** The **LMS™** operates different stable laminar flows as 0.1, 0.2, 0.5, 1, 2, 4 ccm and with viscosity ups to 30cS. Custom solutions are available.
- **Customisable washing routines.** An internal system of valves allows to cleaning the device after each analysis flushing a cleaning solutions from an external bottle.
- **Reduce sample waste.** The **LMS™** is designed to reduce the waste of sample and of cleaning solutions. Sample may be recovered to perform further analyses.

LMS™ operates in batch mode and in semi-Continuous Flow Analysis mode taking a volume to be analysed at regular intervals from processes and systems operating online.

Recommended applications: LMS™ is designed to speed-up and standardize operations, reduce human errors, measure samples which are mostly already diluted, and to deliver to customer a ready-to-use for the management of liquid sample with CLASSIZER™ ONE.

EOS LMS™

Syringe Size[1]	12.5 mL
Sampling Mode[1]	Fully Automatic, no dilution
Wetted Surfaces[1]	PTFE, PCTFE, PEEK, Borosilicate, Stainless Steel
Sampling Volume[1]	Minimum volume of 3mL[1]
System Aligment[1]	Automatic (fabs preset)
Sample Flow[1]	Stable, laminar flow, typ. 0.2, 0.5, 1, 2, 4 ccm, viscosity up to 30cS [typical]
Net Weight and Dimension (WxDxH)	8 kg; 15cm x 26cm x 34cm (depending on configuration)
Environment	Temperature: 18–27 °C; RH: 35% – 75% RH @25°C
User Software	Standard EOS GUI for CLASSIZER™ ONE
PC System Requirements	Intel® Core™ i5 – min 4 cores @2GHz or similar, 40GB SSD, 8GB RAM, Windows 10, x2 USB 3.0, 1080p monitor
Accessories	¼-28 flanged connectors, PTFE 1/16"OD flanged tubing, PTFE 1/8" tubing, external bottles

[1]Technical details may depend on the system model, configuration, sample and sample preparation.

HeadQuarter - EOS S.r.l.
viale Ortles 22 | 20139 Milan | Italy
Phone +39 02 5666 0179
VAT IT08737210966
www.eosinstruments.com
info@eosinstruments.com

EU H2020 SME Instruments Ph 1 research & innovation programme under grant agreement n° 781906

located in FONDAZIONE UNIMI

Visit EOS website to discover the CLASSIZER™ family