



Seg-Flow S₃ & Agilent Sampling Integration System

Flownamics Seg-Flow S₃ is an automated sampling system for withdrawing samples from up to 8 reactors/process streams. It can be controlled locally or remotely. When paired with a Sample-Mod S3, the Seg-Flow S3 can perform in-line dilutions (up to 1:20 ratio) and deliver samples to up to 4 analyzers.

The **Agilent InfinityLab Online LC Solution** enables online sample collection and analysis between a reaction process and analytical instrumentation. Its built-in interface connects the analytical and process worlds in a PAT environment.

Combining the Seg-Flow S3 with the Agilent InfinityLab Online LC Solution creates a **fully automated on-line system** that provides both classical flow-through injection and Agilent Feed Injection for up to 8 bioreactors. This user friendly integration requires minimal set-up due to the Seg-Flow S3 and the Agilent InfinityLab Online LC Solution being designed for automation and having a complete library of functions readily available for implementation. The Seg-Flow

S3 pulls continuous and/or scheduled samples from a bioreactor, performs in-line dilution, if needed, and delivers the samples to the external sampling interface of the Agilent 1260 Infinity II Online Sample Manager. After receiving the sample, the Online Sample Manager can perform dilutions up to 1:1000, store samples as retains for further processing, perform automated sample prep, and initiate analysis of the processed samples. The Agilent InfinityLab Online LC Solution provides the analyzed data to the Seg-Flow S3 via the API, which is then sent to the SCADA system. All fluid paths and sample reservoirs are fully cleaned to ensure consistent and accurate measurements for the next sample.

This integration is fully compatible with both automated and manual walkup samples. Manual samples can be loaded into the 432 vial capacity sample racks. The external sampling valve is reserved for online sample analysis. Injection volumes can range from 0.1 to 100 μ L.

