

Pulsation Damping Kit for Liquid Flow Sensors

The pulsation damping kit at hand enables you to gather first experiences with the concept of flow damping in case of pulsatile flows.

A fluidic system is made of several components. They all influence the way a generated pulse is damped while propagating through the system. The particular combination of resistance and capacity, i.e. the specific design of your fluidic system, defines the damping of such a pulse down- or upstream of the pump and therefore also the way the pulse arrives at and is measured by Sensirion's liquid flow sensor.



Components of Sensirion's pulsation damping kit (labeled in green); example setup with the SLF3S-1300F

Quick Start Guide

To test the pulsation damping kit in combination with a Sensirion liquid flow sensor, proceed as follows:

- 1 Connect the kidney tube (made from PU, 340 mm total length) between pump and liquid flow sensor. Optional: Use the provided union (made from POM, white) to connect the kidney tube to your existing fluidic system if needed.
- 2 Install the restrictor (made from POM, black) on the outlet (downstream) side of the liquid flow sensor.
- 3 Start testing with DI water. Ensure chemical compatibility of the wetted parts of the kit components as well as of the sensor before using other media for your measurement.
- 4 Check the resulting sensor performance with Sensirion's free Sensor Viewer Software. The sampling rate should be set to 2 ms when examining pulsatile flows.

Further details about the handling of pulsations can be found in Sensirion's Application Note

"Pulsation Damping Kit" at www.sensirion.com/download-center

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