

Media Release

08.05.2024, Sensirion AG, 8712 Stäfa, Schweiz

Sensirion product announcement: miniature liquid flow sensor platform for subcutaneous drug delivery

In the changing landscape of the healthcare industry, Sensirion's SLD3x series contributes to the improvement of subcutaneous drug delivery with miniature, and highly accurate digital liquid flow sensors. Customizable solutions ensure optimal dosing and enhanced patient safety for various subcutaneous therapies.



SLD3x liquid flow sensor platform
(Source: Sensirion AG)

Stäfa, Switzerland – The healthcare industry has undergone a significant transformation in recent years, with an increasing focus on patient and home care. This shift has been mirrored in the field of drug administration, with a decrease in hospital stays for certain treatments. The transition from intravenous to subcutaneous injections using large volume injectors (LVIs) has been a key driver of this change.

LVIs are wearable devices that enable continuous subcutaneous drug delivery. They reduce pressure on clinical staff, save costs, and improve patient comfort. Some LVIs require precise dosing of the delivered drug, which in turn requires the pump to be controlled by a flow sensor. Moreover, bubbles, empty lines, occlusion detection, and drug delivery confirmation are desirable to improve patient safety and the regulatory compliance of the device.

To meet these needs, Sensirion is developing the SLD3x platform – a series of digital liquid flow sensors to combine accurate flow measurement, miniature size, and compatibility with several therapies. This makes it the ideal solution for medical devices manufactured in large quantities, where an accurate, disposable liquid flow sensor is required. While flow measurement is at the heart of the SLD3x platform, it also provides a stream of data that can be used to detect occlusions, identify in-line air bubbles, flag up pump malfunctions and measure liquid temperature.

“The SLD3x series features models with maximum flow rates ranging from 100 µl/min to 5 ml/min to meet the varying dosing requirements of different drugs and treatment protocols. We are happy to discuss the customization of sensors to meet the unique needs of specific therapies.” says Dr. Konrad Domanski, Product Director Liquid Flow Sensors at Sensirion.

For more information, please visit our [product page](#) or [join our live webinar on May 23rd](#).

SLD3x series at a glance:

Full scale flow rate (H ₂ O)	5 ml/min
Accuracy (H ₂ O)	5 %
Maximum operating pressure	3 bar
Fluidic connector ports	Downmount
Supply voltage	3.2 - 3.8 V
Size (LxWxH)	12 x 12 x 3.2 mm ³

About Sensirion – Experts for Environmental and Flow Sensor Solutions

Sensirion is one of the world's leading developers and manufacturers of sensors and sensor solutions that improve efficiency, health, safety, and comfort. Founded in 1998, Sensirion now employs around 1'200 people at its headquarters in Stäfa, Switzerland and in numerous international subsidiaries. Sensirion sensors can be used to measure a wide range of environmental parameters and flow rates precisely and reliably. The company's aim is to make the world smarter with advanced sensor technology. As a pioneer in innovation, Sensirion develops solutions for the specific needs of customers and partners from the automotive, industrial, medical technology and consumer electronics markets, as well as high-quality products for cost-efficient mass production. More information and current key figures are available at www.sensirion.com.