Application Note Liquid Flow Sensors
Sensor Selection Guide

This Application Note aims to help you in finding the right sensor for your application. This decision is typically based on the flow rates, pressures and liquids used in your application.

	Model	Full Scale Flow Rates	Typ. Accuracy of Measured Value	Fluidic Connector Ports	Maximum Pressure	nl/min		µl/min			ml/min		
						10	100	1	10	100	1	10	100
SLG	SLG-0150	8 µl/min H_2O	5 %	Stainless steel 10-32 coned port for 1/16" OD tubing	500 bar								
SLI	SLI-0430	80 µl//min H_2O 500 µl/min HC	5 %	1/4"-28 flat-bottom port for 1/16" or 1/8" OD tubing	50 bar								
SLI	SLI-1000	1 ml/min H_2O 10 ml/min HC			12 bar								
SLI	SLI-2000	5 ml/min H_2O 80 ml/min HC			12 bar								
SLS	SLS-1500	40 ml/min H_2O	5 %	1/4"-28 flat-bottom port for 1/8" OD tubing	12 bar								
SLQ	SLQ-QT500	120 ml/min H_2O 120 ml/min HC	10 %	PFA tube with 6.35 mm (1/4") OD, 4.35 mm ID	12 bar								
SLF3x	SLF3S-1300F	40 ml/min H_2O 40 ml/min HC	5 % 10 %	1/4"-28 flat-bottom port for 1/8" OD tubing	12 bar								

Calibrated flow rates for ▬ water (H_2O) ▬ hydrocarbons (HC)

Figure 1: Sensors and their performance characteristics.

1 Flow rates

Sensors with full scale flow rates between 8 µl/min and 120 ml/min are available as Flow Meter Kits. Please pick the sensor that best suits your desired flow ranges.

2 Pressures

Liquid Flow Meter Kits are available for sensors with maximum pressure ratings between 12 bar and 500 bar. Please make sure that the sensor capillary is never subjected to pressures beyond their maximum pressure rating.

3 Calibration

All our Flow Meter Kits are calibrated with water. Additionally, some (the SLF3x, SLI, and SLQ range) offer a second calibration. This calibration is for IPA and will yield more accurate results if the main liquid components of your application are hydrocarbons.

4 Chemical Compatibility

While the sensing element is never in direct contact with the measured liquid, some chemical restrictions may arise from the wetted materials (fittings, seals and capillaries). Please see the datasheet of the sensor you have chosen for a list of the wetted materials and ensure their compatibility with your application.

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