

FLOW UNIT

BIDIRECTIONAL INDIVIDUAL FLOW SENSORS

FLU-XS
FLU-S-D
FLU-M-D
FLU-L-D
FLU-XL



Fluigent's FLOW UNIT is a unique tool to easily monitor all the flow-rates in any microfluidic system with the best precision and accuracy:

- A micro heater provides a minimal amount of heat to the medium monitored (around 1°C)
- Two temperature sensors, located on both sides of the heater, detect any temperature variation. The flow-rate is then calculated based on the spread of heat, which is directly related to the flow-rate.

BENEFITS



High repeatability
Tunable to your liquids



Wide range of detection
From 7nL/min to 5mL/min



EASY TO USE
Set and measure in a minute



VERSATILITY
compatible with any flow controller

SPECIFICATIONS

SENSOR PERFORMANCE					
Sensor model	XS	S	M	L	XL
Part number	FLU-XS	FLU-S-D	FLU-M-D	FLU-L-D	FLU-XL
Calibrated media	Water	Water, IPA	Water, IPA	Water, IPA	Water
Range	0±1.5µL/min	0±7 µL/min 0±70 µL/min	0±80µL/min 0±500 µL/min	0±1 mL/min 0±10 mL/min	0±5 mL/min
Accuracy (m.v.= measured value) also applies to negative values	10% m.v. above 75 nL/min 7.5 nL/min below 75 nL/min	5% m.v. above 0.42 µL/min 21 nL/min below 0.42 µL/min 20% m.v. above 4.2 µL/min 210 nL/min below 4.2 µL/min	5% m.v. above 2.4 µL/min 0.12 µL/min below 2.4 µL/min 20% m.v. above 25 µL/min 5 µL/min below 25 µL/min	5% m.v. above 0.04 mL/min 1.5 µL/min below 0.04 mL/min 20% m.v. above 0.5 mL/min 100 µL/min below 0.5 mL/min	5% m.v. above 0.2 mL/min 10 µL/min below 0.2 mL/min
Repeatability (m.v.= measured value) also applies to negative values	<1% m.v. above 90 nL/min 0.9 nL/min below 90 nL/min	0.5% m.v. above 0.7µL/min 3.5 nL/min below 0.7 µL/min 1% m.v. above 0.7µL/min 7 nL/min below 0.7 µL/min	0.5% m.v. above 1.6 µL/min 8 nL/min below 1.6 µL/min 1% m.v. above 25 µL/min 0.25 µL/min below 25 µL/min	0.5% m.v. above 40 µL/min 0.2 µL/min below 40 µL/min 1% m.v. above 500 µL/min 5 µL/min below 500 µL/min	0.5% m.v. above 200 µL/min 0.4 µL/min below 200 µL/min
Lowest detectable flow	3.7 nL/min	10 nL/min	0.06 µL/min	0.7 µL/min	3 µL/min

SPECIFICATIONS

MECHANICAL SPECIFICATIONS					
Sensor model	XS	S	M	L	XL
Part number	FLU-XS	FLU-S-D	FLU-M-D	FLU-L-D	FLU-XL
Sensor inner diameter	25 µm	150 µm	430 µm	1.0 mm	1.8 mm
Total internal volume	1 µL	1.5 µL	5 µL	25 µL	80 µL
Max pressure	200 bar	200 bar	100 bar	15 bar	15 bar
Wetted materials	PEEK & Quartz Glass	PEEK & Quartz Glass	PEEK and Borosilicate Glass	PEEK and Borosilicate Glass	PEEK and Borosilicate Glass
Fluid connector ports	UNF 6-40 for 1/32" OD tubing	UNF 6-40 for 1/32" OD tubing	UNF 6-40 for 1/32" OD tubing	Flangeless fitting 1/4-28	Flangeless fitting 1/4-28
Weight	97 g	97 g	97 g	97 g	97 g
OPERATING & STORAGE CONDITIONS					
Operating temperature	15°C to 45°C				
Short term storage temperature	0 to 50°C				

Please do not forget to rinse and clean your Flow UNITS after use to maintain their performance.