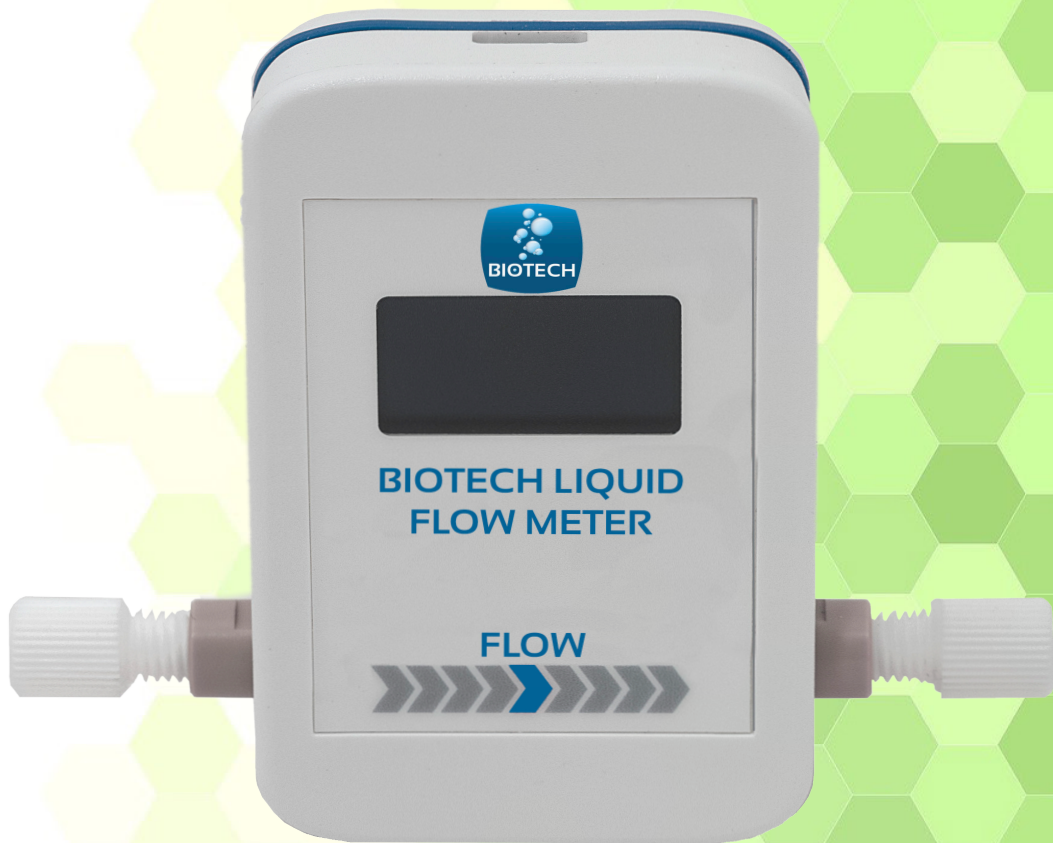


# BIOTECH LIQUID FLOW METER



Monitor and control flow rates continuously  
in-line your fluidic system without interferences

# Biotech Introduces a Unique Series of High-Resolution Liquid Flow Meters



The new Biotech Liquid Flow Meter can continuously and accurately monitor in-line flow rates without system interference.

It is very easy to use, small enough to fit in your hand or lab coat pocket – weighing less than your cell phone!

Four different versions covering flow rates ranging from nl/min up to 650 ml/min.

The Biotech Liquid Flow Meter comes pre-calibrated with a certificate of conformity and can continuously monitor the performance of your flow.

With the included PC-app you control the unit and collect the data to your computer.



## Improved Results

Supplied digitally calibrated with a certificate of conformity, our flow meters deliver high-precision and accuracy across a wide measurement range. Monitor your fluidic system and get pump performance diagnostics at the same time!



## Ease of Use

Use the specially designed app for easy interaction and control.

- Save the data to your system
- Set the integration time - from continuous reading up to 10 seconds
- Choose between 5 different pre-calibrated solvents or add your own



## Reliable Trouble-free Operation

The ultra-reliable flow meters are suitable for virtually any flow application. The Micro- and HPLC-flow versions are compatible with all standard GPC/HPLC solvents.



## Application Areas

- Chromatography – monitoring-, validation- & diagnostic purpose
- Peristaltic pump monitoring
- Flow chemistry
- Process flow applications
- And more...

## Technical Data

The Biotech Liquid Flow Meters are specifically designed for continuous measurement of flow rate without interference in fluidic systems. Being compatible with a wide range of solvents/pH and pressures up to 3 MPa (435 psi), it is the perfect tool for high-precision measurement of flow rates ranging from 1-80µl/min up to 650 mL/min.

Via its USB interface and modern PC application, data is recorded as time series, which is helpful when troubleshooting pumps, check valves or other malfunctioning components in liquid chromatography equipment.

The app allows the user to select the integration interval for average flow rate or pump performance. Current flow rate is indicatively displayed on the Flow Meter's integral high-resolution OLED display while recording and storing the measured flow rates to the PC-app. Extraordinary high resolution and wide dynamic range make the Biotech Liquid Flow Meter the perfect flow monitoring tool for the most demanding fluidic systems.

	<b>Micro Flow</b> AB-40008	<b>HPLC Flow</b> AB-40010	<b>Prep Flow</b> AB-40040	<b>High Flow</b> AB-40650
Measuring range	10 nL-80 µl/min	1 µl-5 mL/min	0.1-40 mL/min	0.1-650 mL/min
Maximum resolution	1 nL/min	1µl/min	0.1 mL/min	0.1 mL/min
Accuracy	>0.2% FSD	>0.2% FSD	>0.2% FSD	>0.2% FSD
Precision	>0.2% FSD	>0.2% FSD	>0.2% FSD	>0.2% FSD
Integration time factor	78, 312, 1172 (default), 5781 or 9844 milliseconds			
Maximum pressure	3 MPa(435 psi)	3 MPa(435 psi)	1.2 Mpa(174psi)	0.3 Mpa(43psi)
pH operating range	1 to 11	1 to 11	1 to 11	1 to 11
Measuring cell volume	5 µl	94 µl	58 µl	276 µl
Cell diameter	0.43 mm	1.8 mm	1.4 mm	4
Cell length	37 mm	37 mm	22 mm	22
Fluidic connectors	Female 1/4''-28 flat bottom	Female 1/4''-28 flat bottom	Female 1/4''-28 flat bottom	8 mm Barbed end with tubing***
Pressure drop	1 mbar	0.12 mbar*	<4 mbar	<4 mbar
Wetted materials	Quartz glass (borosilicate) and PEEK		PPS, SS-316 and epoxy resin	
Display	High resolution OLED display			
Control	USB-powered plug-and-play software			
Calibration	Validated with water. Calibrations factors included			
1. Water (validated)	Yes	Yes	Yes	Yes
2. Methanol	Yes	Yes	Yes	Yes
3. THF	Yes	Yes	_**	_**
4. Acetonitrile/water	Yes	Yes	Yes	Yes
		*@ 5 mL/min with water	** THF is not tolerated *** Tubing type to be agreed on	
	Temperature range 10-50 °C			

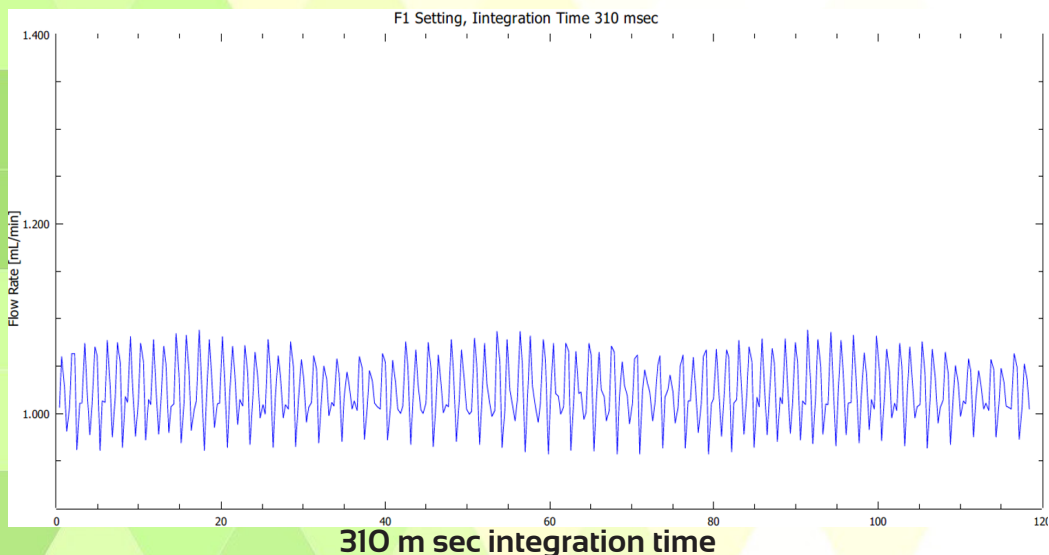
Portable robust Unit  
down to 1nL Resolution.

Easy Time Factor  
Selection

Unit connects to  
any Chromatograph

Perfect for IQ, OQ,  
& PQ Validation

## Measurement of pump pulsation, example:



### AB-40010 PACKING LIST

Qty	Content	P/N
1	Liquid Chromatography Flow Meter	
1	USB Cable, 1 m	
2	Plug, PFA, 1/4"-28 Flat-Bottom	P-316
2	Tubing, FEP, 1/16" OD x 0.75 mm ID x 0.4m Long	
3	Nut, One-piece Super Flangeless™, PEEK, Flat-Bottom, 1/4"-28, 1/16" ID	P-249
1	Coned Fitting, One-piece, PEEK, 10-32, 1/16" ID	F-120
2	Sticky pads	
1	User Manual	
1	White Case with Blue Caps	
1	Link to Download App	

Other Flow Meter versions are supplied with adapted content.

#### Ordering Information

**AB-40008 Biotech Micro Liquid Flow Meter**  
**AB-40010 Biotech HPLC Liquid Flow Meter**  
**AB-40040 Biotech Prep Liquid Flow Meter**  
**AB-40650 Biotech High Flow Liquid Flow Meter**

