

# BIOTECH LIQUID FLOW METER



Measures continuous flow rates without interference in your fluidic systems

# Biotech Introduces a Unique Pocket-Sized High Resolution Liquid Flow Meter

## HPLC Flow Meter AB-40010



The new Biotech Liquid Flow Meter can continuously and accurately determine in-line flow rates in any mode of liquid chromatography without system interference. It is compatible with all HPLC and GPC solvents, conveniently sized and powers itself from a USB connection.

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

The Biotech Liquid Flow Meter comes pre-calibrated and can be connected in-line in any orientation to continuously measure flow rates.



### Improved Results

Supplied digitally calibrated, the AB-40010 delivers high-precision and accuracy across a wide measurement range. Validate your system and get pump performance diagnostics at the same time!



### Ease of Use

Specially designed app for easy interaction.

- 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 AB-40010 is suitable for virtually any flow application and compatible with all standard GPC/HPLC solvents.



### Application Areas

- Chromatography – validation & diagnostic purpose
- Peristaltic pump monitoring
- Flow chemistry
- Process flow applications

## Technical Data

The Biotech Liquid Flow Meter is specifically designed for continuous measurement of flow rate without interference in fluidic systems. Being compatible with most solvents, a wide pH range, and pressures up to 3 MPa (435 psi), it is the perfect tool for high-precision measurement of flow rates ranging from 1-80uL/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 displayed on the Flow Meter's integral high-resolution OLED display while recording and storing the measured flow rates. 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 uL/min	1 uL-5 mL/min	0.1-40 mL/min	0.1-650 mL/min
Maximum resolution	1 nL/min	1uL/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(default), 1172, 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 uL	94 uL	58 uL	276 uL
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
Sensor Module	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 with 1ul Resolution.

Easy Time Factor Selection

Unit connects to any Chromatograph

Perfect for IQ, OQ, & PQ Validation

## 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	



## 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**