



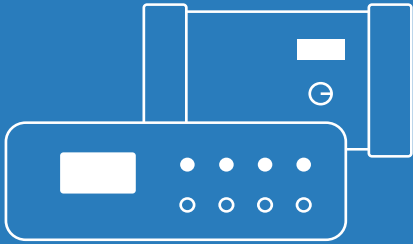
盛慶企業有限公司

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OB1 MK3+



PRODUCTS

FLOW CONTROL SYSTEMS



OB1 MK3+

MULTI CHANNEL PRESSURE & VACUUM CONTROLLER

ELVEFLOW.COM/MICROFLUIDIC-FLOW-CONTROL-PRODUCTS/FLOW-CONTROL-SYSTEM/PRESSURE-CONTROLLER/



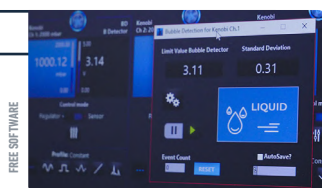
★ BEST SELLER

**DON'T LET YOUR PUMP
LIMIT YOUR RESEARCH**
BEST RESPONSIVENESS
AND ACCURACY ON THE
MARKET



The OB1 MK3+ is a **high performance** microfluidic pressure and flow controller. Customize your unit: **choose up to four channels** among the five pressure ranges available.

- ✓ MODULAR
- ✓ UPGRADABLE
- ✓ SOFTWARE INCLUDED



UNIQUE PERFORMANCES

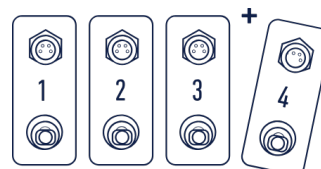
- > Pressure stability **0.005 % FS**
- > Response time **9 ms**
- > Pressure resolution **0.006 % FS**
- > Settling time **down to 35 ms**

PIEZOELECTRIC
TECHNOLOGY

**CUTTING EDGE
PIEZOELECTRIC CONTROL
FOR MICROFLUIDICS**

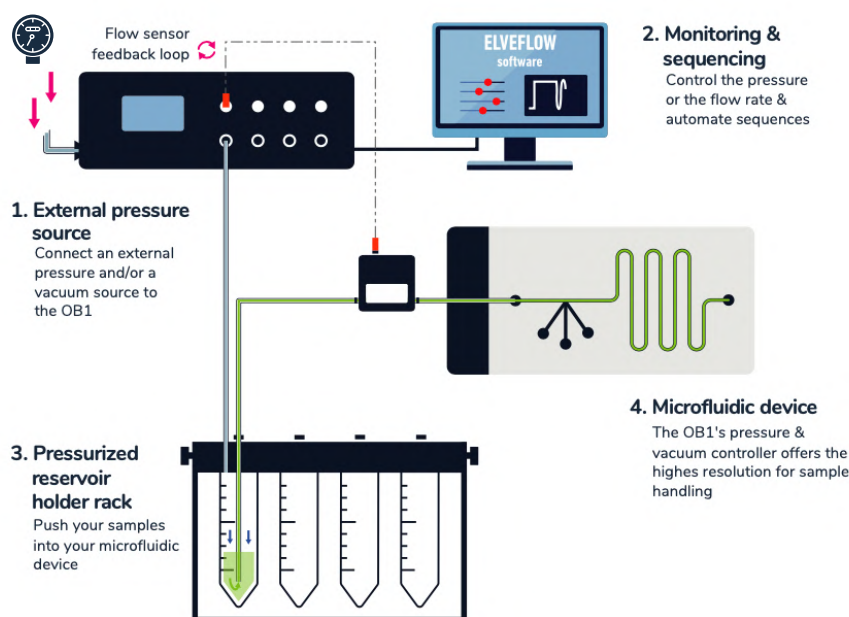
APPLICATIONS

- > Digital microfluidics
- > Flow chemistry & polymer synthesis
- > Cell culture: cell perfusion, sequential injection
- > Droplet-sequencing: RNA sequencing
- > Organ on chip
- > Enhanced oil recovery
- > Lab on a chip



**CHOOSE FROM 1 TO 4
CHANNELS, AND MORE...**

Get a one-channel today and
add more channels later



- 1 External pressure source**
Connect a pressure and/or a vacuum source to your OB1 (required).
- 2 Monitoring & sequencing**
Automate pressure and flow control using the Elveflow software on your computer.
- 3 Sample**
Depending on your choice, the liquids can be pulled into the reservoir or be pushed from there since the OB1 can use pressure or vacuum within the same channel.
- 4 Microfluidic device**
The OB1's pressure & vacuum features offer precise sample handling, and provide full control over injection.

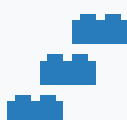
FEATURES & BENEFITS



- **Short settling time**
Operate blazing fast changes in any microdevice with our Piezo technology
- **Highest flow stability**
Ensure superior flow performance over a large flow range, with pressure stability down to 10 μ bar
- **Accurate flow control**
Input a flow value into the software. Flow regulation down to 7.5 nL/min



- **Software automation**
Control all instruments through a single panel. Powerful script module to automate control and injection over days
- **Create your own program**
Software Development Kits (C++, Python, MATLAB® and LabVIEW® libraries)
- **Enhanced data saving**
Up to 10 ms sampling rate to take out the best of your results

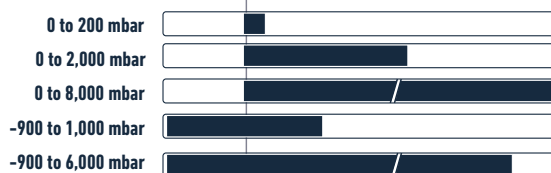


- **Easy to install and use**
Start out of the box and set everything up within minutes
- **Customizable**
Choose from one to four channels among the five pressure ranges available
- **Upgradable later**
Get a one-channel today and add more channels later

PRESSURE RANGES



**FOR EACH CHANNEL:
5 PRESSURE RANGES AVAILABLE**

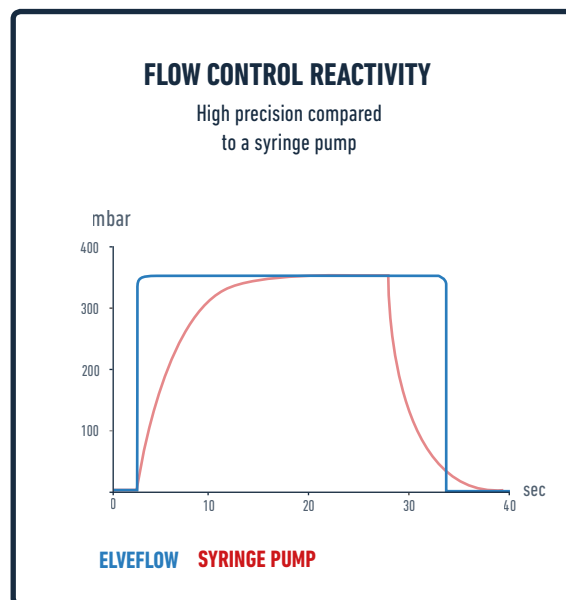
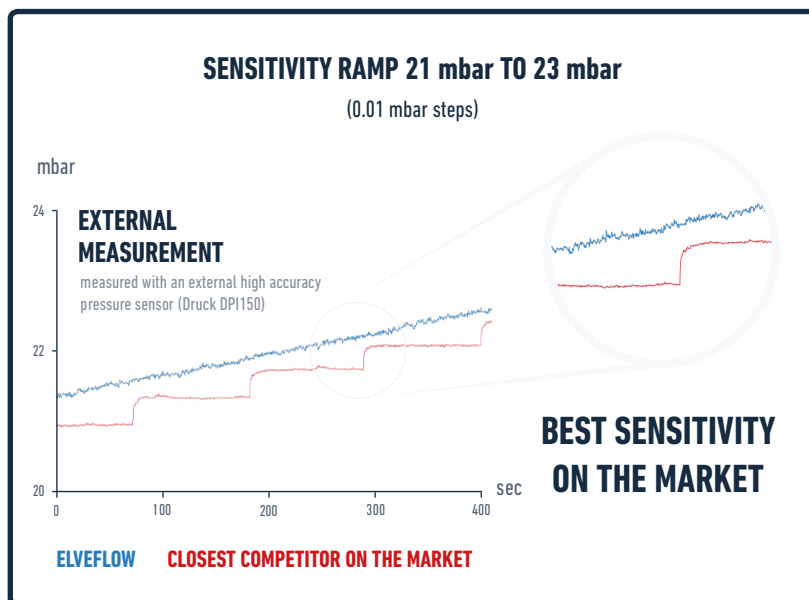


OB1 MK3+ CHANNEL PRESSURE RANGE	0 to 200 mbar (0 to 2.9 psi)	0 to 2,000 mbar (0 to 29 psi)	0 to 8,000 mbar (0 to 116 psi)	-900 to 1,000 mbar (-13 to 14.5 psi)	-900 to 6,000 mbar (-13 to 87 psi)
Pressure stability ⁽¹⁾	0.005 % FS 10 µbar (0.00014 psi)	0.005 % FS 100 µbar (0.0014 psi)	0.006% FS 500 µbar (0.007 psi)	-900 to 500 mbar:	-900 to 2,000 mbar:
				0.005 % FS 100 µbar (0.0014 psi)	0.005 % FS 350 µbar (0.05 psi)
				500 to 1,000 mbar:	2,000 to 6,000 mbar:
				0.007 % FS 150 µbar (0.0021 psi)	0.007 % FS 525 µbar (0.076 psi)
Response time ⁽²⁾	down to 9 ms				
Settling time ⁽³⁾	down to 35 ms				
Minimum pressure increment	0.006 % FS 12.2 µbar - 0.00017 ps	0.006 % FS 122 µbar - 0.0017 psi	0.006 % FS 480 µbar - 0.007 psi	0.0064 % FS 122 µbar - 0.0017 psi	0.0061 % FS 420 µbar - 0.006 psi
Input pressure	1.5 bar - 10 bar non corrosive, non explosive, dry and oil-free gases, e.g. air, argon, N2, CO2, ...				
Input vacuum ⁽⁴⁾	/			any value from 0 to -1 bar	
Liquid compatibility	no liquid should enter the OB1 any aqueous or organic solvent, oil or biological sample solution can be propelled				

Non-contractual information, may be changed without notice.

POWER CONSUMPTION (maximum): 12 W **CASE DIMENSIONS** (length x width x height): 240 x 223 x 80 mm **WEIGHT**: 1.7 kg to 3.04 kg (3.1 Kg) **TTL TRIGGER**: input/output 3.5 V

(1) Pressure stability (standard deviation) measured over the full pressure range with an external high accuracy pressure sensor (Druck DPI150) (2) Depending on your computer operating system (3) Volume dependent – Measurement done on 12 mL reservoir for a set point from 0 to 200 mbar (4) The vacuum channels can be used without vacuum source if only positive pressures are desired. If no vacuum channels are present the Vacuum Input can be left open



They trust Elveflow's performances and quality:



ELEMENTS PROVIDED BY ELVEFLOW	INCLUDED	OPTIONAL
Software & libraries Control all Elveflow instruments with the same smart interface	•	
OB1 connection kit A complete set of accessories fitted for the OB1 flow generator		•
Reservoirs Gas tight reservoirs with ergonomic fluidic connection		•
Flow sensors A line of sensors to monitor very low liquid flow rates		•
Compressor A safe & secure pressure source for the OB1 pressure controller		•
Service The Elveflow expertise & support to offer you individually tailored solutions	•	

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SOFTWARE FEATURES

ELVEFLOW.COM/MICROFLUIDIC-FLOW-CONTROL-PRODUCTS/FLOW-CONTROL-SYSTEM/ELVEFLOW-SOFTWARE/

- > Pressure & flow rate **visualization** and **recording**
- > **Programming & automation** of complex sequences
- > Easy alternative instrument control through the provided **C++**, **Python**, **MATLAB®** and **LabVIEW®** libraries



National Instrument is our technological partner for embedded electronics



More information:



ESI - FREE SOFTWARE
ELVEFLOW SMART INTERFACE - ALL INSTRUMENTS _____ P.37



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