

产品

# 测量 & 检测

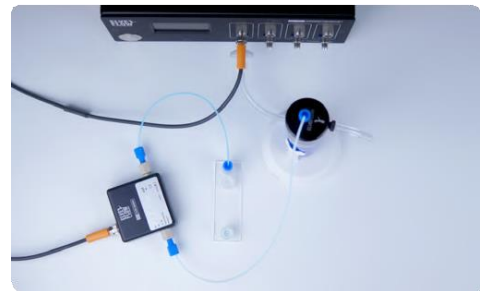


# MFS 热式流量传感器



## 高准确度

## 流量监测与控制



高精度液体流量传感器，用于**超低流量监测**。热式流量传感器配有M8 4针电气接口，可通过Elveflow 软件直接控制。

✓ 5种流量量程

✓ 高化学兼容性

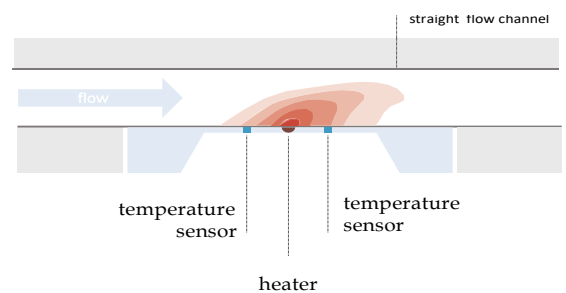
### 独一无二的性能

- > 校准流量从 **0.07 µL/min** 到 **5,000µL/min**
- > 传感器响应时间: **40ms**
- > 分辨率 **低至 1.5 pL/s**
- > 润湿材料: **玻璃或者石英**

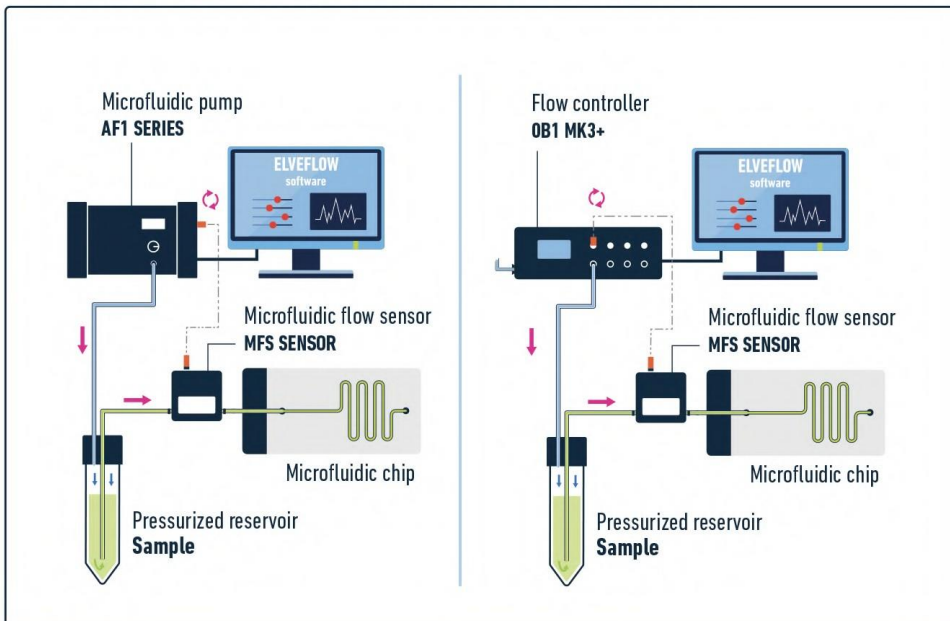
### 应用

- > 耦合OB1流量控制器，实现直接流量控制。
- > 双向流量测量(正向 & 反向)

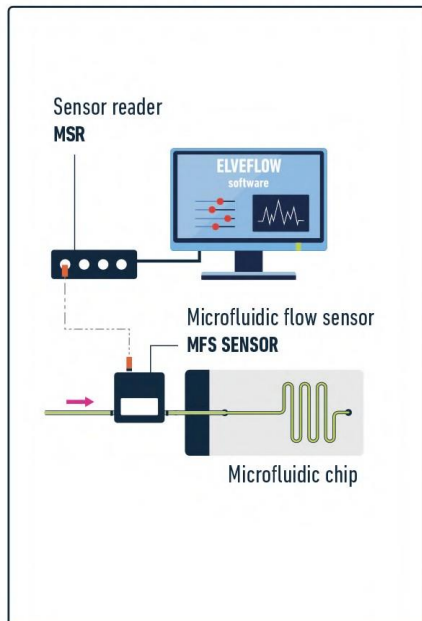
### 工作原理



WITH ELVEFLOW FLOW CONTROLLERS: MONITORING + CONTROL

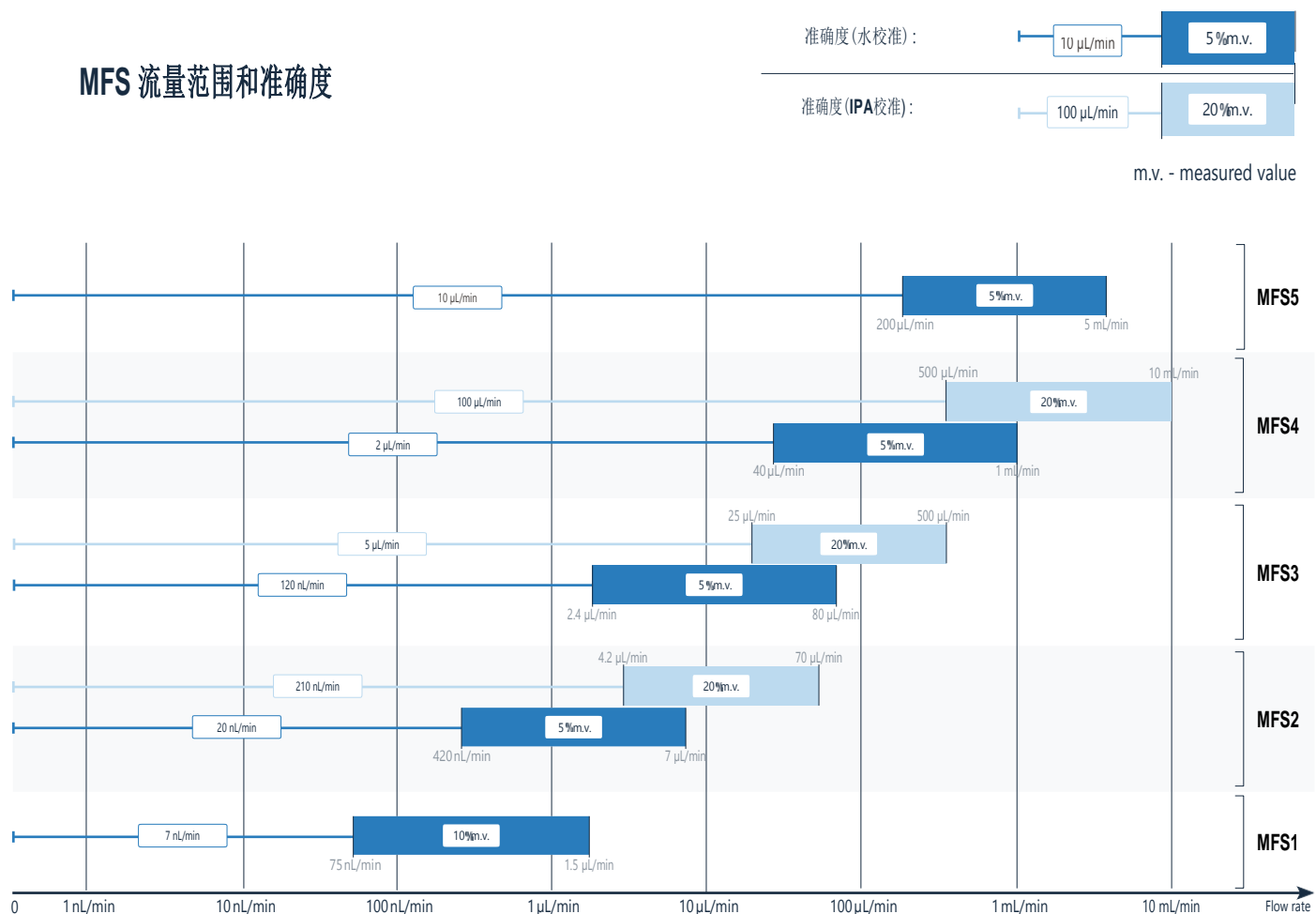


WITH SENSOR READER: MONITORING



技术规格

MFS 流量范围和准确度



MFS 流量传感器	MFS 1	MFS 2	MFS 3	MFS 4	MFS 5			
介质校准	water	water	IPA	water	IPA	water	IPA	water
流量范围	0 to ± 1.5 µL/min	0 to ± 7 µL/min	0 to ± 70 µL/min	0 to ± 80 µL/min	0 to ± 500 µL/min	0 to ± 1 mL/min	0 to ± 10 mL/min	0 to ± 5 mL/min
准确度 m.v. – 测量值	7 nL/min between [0 to 75] nL/min	20 nL/min between [0 to 0.42] µL/min	210 nL/ min between [0 to 4.2] µL/min	120 nL/ min between [0 to 2.4] µL/min	5 µL/min between [0 to 25] µL/min	2 µL/min between [0 to 0.04] mL/min	100 µL/ min between [0 to 0.5] mL/min	10 µL/min between [0 to 200] µL/min
	10 % m.v. between [75 to 1,500] nL/min	5 % m.v. between [0.42 to 7] µL/min	20 % m.v. between [4.2 to 70] µL/min	5 % m.v. between [2.4 to 80] µL/min	20 % m.v. between [25 to 500] µL/min	5 % m.v. between [0.04 to 1] mL/min	20 % m.v. between [0.5 to 10] mL/min	5 % m.v. between [0.2 to 5] mL/min
重复性 m.v. – 测量值	0.9 nL/min between [0 to 80] nL/min	3.5 nL/ min between [0 to 0.7] µL/min	7 nL/min between [0 to 0.7] µL/min	8 nL/min between [0 to 1.4] µL/min	0.25 µL/ min between [0 to 25] µL/min	0.2 µL/ min between [0 to 0.04] mL/min	5 µL/min between [0 to 0.5] mL/min	1 µL/min between [0 to 0.2] mL/min
	< 1 % m.v. between [80 to 1,500] nL/min	0.5 % m.v. between [0.7 to 7] µL/min	1 % m.v. between [0.7 to 70] µL/min	0.5 % m.v. between [1.4 to 80] µL/min	1 % m.v. between [25 to 500] µL/min	0.5 % m.v. between [0.04 to 1] mL/min	1 % m.v. between [0.5 to 10] mL/min	0.5 % m.v. between [0.2 to 5] mL/min
压强 满量程流量, 23 °C	1 bar	3 mbar	60 mbar	1 mbar	7 mbar	< 1 mbar	5 mbar	< 1 mbar
总内部体积	1 µL	1.5 µL		5 µL		25 µL		80 µL
传感器内径	25 µm	150 µm		430 µm		1.0 mm		1.8 mm
工作压力	200 bar			100 bar		15 bar		15 bar
突发压力	400 bar			200 bar		30 bar		30 bar
微流体配件类型	UNF 1/4-28							
浸湿材料	PEEK							
内部传感器毛细管材料	石英				硼硅酸盐玻璃			

非合同信息，如有更改，恕不另行通知。

电气输入: 8V.....100mA 模拟输出: 0-5V

流量传感器尺寸 (长 x 宽 x 高): 58 x 52 x 23 毫米 重量: 102 克

确保了优异的耐化学性和生物兼容性  
 液体流量传感器可实现低于5mL/min的极低液体流量的快速、非侵入式测量  
 该产品完全针对水进行校准  
 可根据要求提供甲醇或其他介质的流量校准 (所有数据均为介质H2O, 20°C, 1 bar, 除非另有说明)

建议储存温度范围为 -10°C 到 +60°C  
 工作温度为 +10°C 至 +50°C  
 流量传感器显示双向和线性传递特性