

# Ultrasonic Flowmeter

## HLF800 series

DSP circuit enables high accuracy and stable measurement.



**HLFS810**

**HLF820**



**HLFS01-04**

**HLFS01-06**

**HLFS01-08**

**HLFS01-12**

### Features

- Specially programmed DSP (Digital Signal Processor) enables stable measurement even under critical conditions.
- 2 channels measurement is possible by one unit.
- Sensor part is detachable. Easy installation is possible.
- No moving mechanism is included. Low pressure loss.
- All exposed surface is made of "NEW PFA". Wide capability for various fluid.
- Compliant to EMS regulation (EN61326) and ROHS
- Choice of with and without display.

### Applications

- Capable to the measurement of CMP (Chemical Mechanical Polishing) slurry
- Capable to ultrapure water for semiconductor process.
- Flow control for dispensation process with corrosive fluid.

### Specification

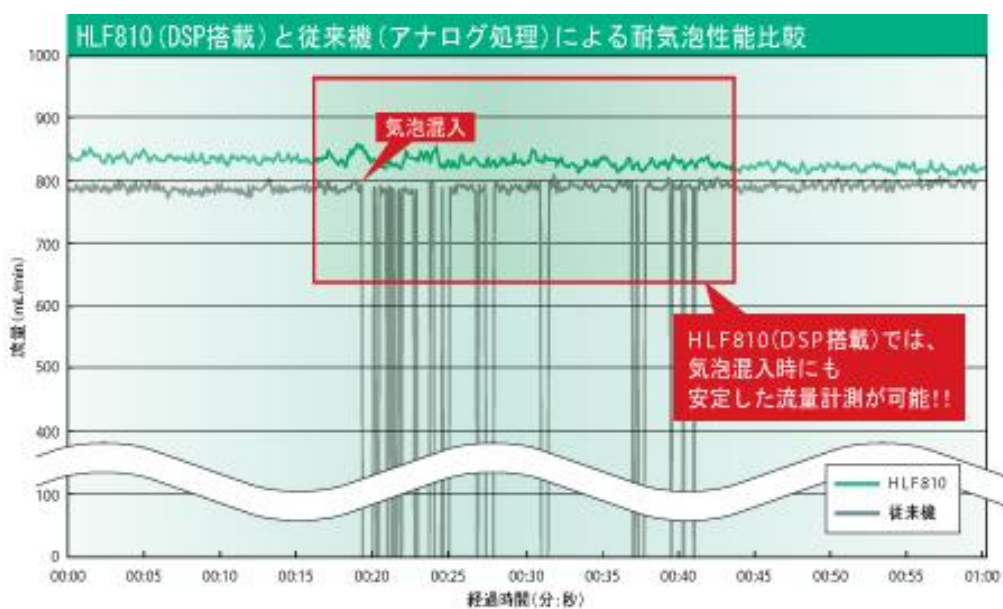
#### Main Unit

Model		HLF810	HLF820
Display		—	VFD 16 charctors / 2 lines
Detecting method		Propagation time difference between transmission and reception of ultrasound wave	
Data refresh rate		10 sec.	
Flow rate accuracy		±1 % F.S.(pure water 20°C)	
Digital input		2 channel open collector-input selectable from integration, comparison or 0 point	
Output	Analog	4 - 20 mA x 2 channel resolution: 12bit (load max. 600 Ω)	
	Digital	Open collector (35 V / 0.1 A max.) x 2 ch. selectable from compariosn, integration, momental frequency or error	
Interface		RS-485 (MODBUS protocol, RTU mode) x 1 ch. concatenate up to 32 unit (adress: 1 - 32) Bit rate: 9600 · 19200 · 38400 · 57600 bps	
Power supply	Voltage	24 VDC ± 10 % (21.6 to 26.4 V)	
	Power consumption	4 W approx.	5 W approx.
Case material		ABS	
Operating temperature		0 - 50 °C (no condensation)	
Storage temperature		-30 - 80 °C	
Weight		140 g approx.	225 g approx.
Installation		DIN Rail	Panel

Sensor part

	HLF501-04	HLF501-06	HLF501-06	HLF501-08
Application	Ultrapure water / Pure water / Chemical solution			
Flow rate range (L / min.)	0.05 - 2	0.1 - 6	0.5 - 20	1 - 50
Connection tube	1/4 inch	3/8 inch	1/2 inch	3/4 inch
Max. operating pressure	0.5 MPa			
Detector heat resistance	80°C Max.			
Operating temperature	0 - 80 °C			
Storage temperature	-30 - 80 °C			
Surface material	NEW PFA			
Weight	100 g approx.	130 g approx.	170 g approx.	230 g approx.

●Cable material: FEP, legnth:5m, weight:150



※グラフを見易くするため、データにオフセットをかけています。