

# PORTABLE TYPE ULTRASONIC FLOWMETER **Portaflow-C**

**Compact and handy**

**The measurement data can be stored in a SD memory card for a long time**

**Consumed heat quantity can be measured**



Flow transmitter type: FSC

Detectors according to application



Detector type: FSS

**Pulse Doppler method is selected to observe flow velocity profile (option)**

**Designed for 12 hours of continuous operation with its own built-in battery**

**A useful USB port given for connecting with a PC**

**Provided with a printer (option)**

**Wide range measurement**

- Measurement fluid: Water, hot-water, distilled water, alcohol, milk, ethanol or other uniform liquid in which ultrasonic waves can propagate.
- Pipe size:  $\phi$ 13mm to  $\phi$ 6000mm
- Fluid temperature: -40 to +200°C
- Flow velocity range: 0 to  $\pm$ 32m/s ( $\pm$ 0.3m/s min.)

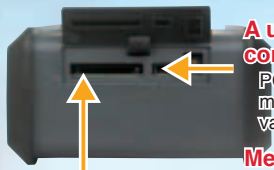
# Vastly improved Portaflo-C



Flow transmitter type (FSC)



Provided with printer for screen hard copy

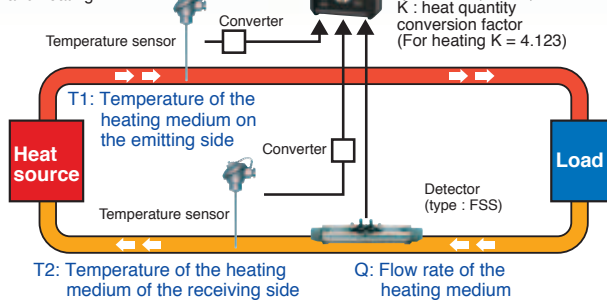


**A useful USB port given for connecting with a PC**  
Sends the data stored in a SD memory card such as instantaneous value, total value, etc to a PC

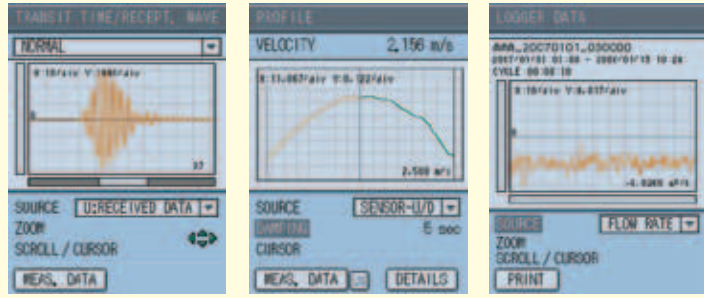
**Measurement data can be stored in a SD memory card**  
Saves instantaneous value, total value, error information

## Computation function of consumed heat quantity:

This function calculates the heat quantity received and sent with liquid (water) in cooling and heating.



## Large easy-to-read LCD display



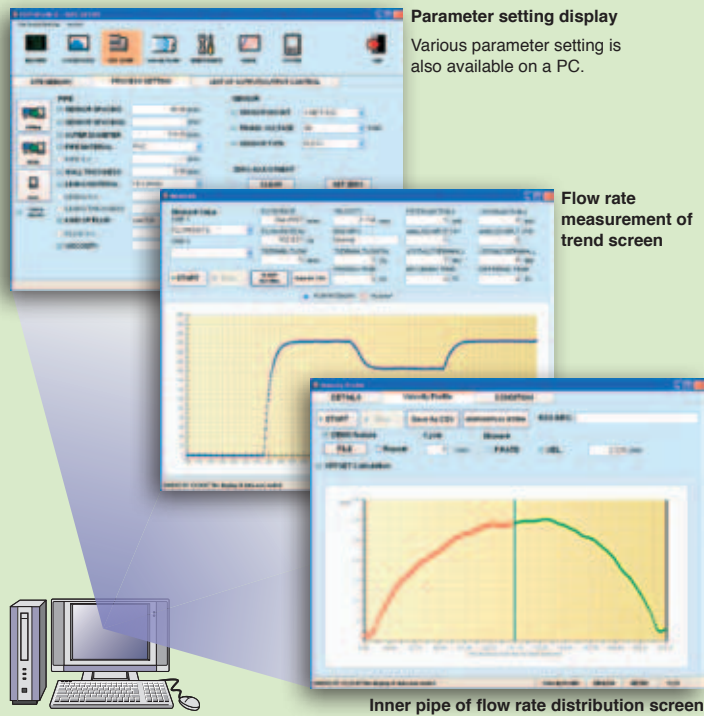
TRANSIT TIME/RECEPT

PROFILE

LOGGER DATA

## SD card archive data is playable on a PC

[Attached standard loader software]



Parameter setting display

Various parameter setting is also available on a PC.

Flow rate measurement of trend screen

Inner pipe of flow rate distribution screen

## Specifications

|                      |   |
|----------------------|---|
| Application          | Uniform liquid in which ultrasonic waves can propagate Water, hot-water, distilled water, alcohol, milk, ethanol, etc |
| Inner pipe diameter  | 13mm to $\phi 6000$ mm (depending on the detector)  |
| Fluid temperature    | -40 to +200°C (depending on the detector)   |
| Flow velocity range  | 0 to $\pm 32$ m/s ( $\pm 0.3$ m/s min.)   |
| Measurement accuracy | $\pm 1.0\%$ of rate (depending on the flow velocity)  |
| Response time        | 1 sec.  |
| Path                 | Transit time method (1 Path)  |
| Display              | Color graphic LCD with back light   |
| Analog output signal | 4 to 20mA DC (1 point)  |
| Analog input signal  | 4 to 20mA DC / 1 to 5V DC (2 points)  |
| Supply voltage       | Built-in battery (In the fully charged condition, 12 hours of continuous operation is possible.)                      |
| Structure            | Waterproof (IP64)   |
| Size                 | 210X120X65mm (without printer)  |
| Weight               | Approx. 1kg   |

|                      |   |
|----------------------|---|
| SD memory card       | It can be saved almost a year date by attached date standards (512MB)   |
| Serial communication | Transmission data (data stored in a SD memory card such as instantaneous value, total value, etc)<br>• USB port is used<br>• Transmission distance: 3 m max.  |
| Function             | <ul style="list-style-type: none"> <li>Damping time constant variable within 0 to 100 sec</li> <li>Instantaneous value display (10 digits) Various flow rate unit settable</li> <li>Total value display (10 digits) Various flow rate unit settable</li> <li>Consumed heat quantity computation</li> <li>Self diagnosis (diagnoses battery voltage drop and received waveform from the sensor)</li> <li>Flash memory (measurement parameter for pipe, fluid, sensor, etc)</li> <li>A number of registered sites: 32</li> <li>Zero point adjustment (Set zero/Clear available)</li> <li>Bi-directional flow measurement</li> <li>Low flow cut (0 to 5m/s)</li> </ul> |
| Option               | With printer: Display hard copy, periodic printing and logged data printing<br>Flow velocity profile (Pulse Doppler method): Displays flow velocity profile of instantaneous value and average value  |

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