PORTABLE TYPE
ULTRASONIC FLOWMETER
Portaflow-C

Compact and handy

- Consumed heat quantity can be measured
- The measurement data can be stored in a SD memory card for a long time
- 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: φ13mm to φ6000mm
- Fluid temperature: -40 to +200°C
- Flow velocity range: 0 to ±32m/s (±0.3m/s min.)

Fuji Electric Systems Co., Ltd.

Flow transmitter type: FSC

Detector type: FLD

Detector according to application
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.

\[
q = K \cdot Q \cdot (T_1 - T_2)
\]

\(K\) : heat quantity conversion factor
(For heating \(K = 4.123\))

Detector (type: FLD)

Area of inner pipe of flow rate distribution screen

Transit time/receipt

Profile

Logger data

SD card archive date 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

Vastly improved Portaflow-C

Flow transmitter type (FSC)

SD memory card

It can be saved almost a year date by attached date standards (256MB)

Serial communication

Transmission data (data stored in a SD memory card such as instantaneous value, total value, etc)

- USB port is used
- Transmission distance: 3 m max.

Function

- Damping time constant variable within 0 to 100 sec
- Instantaneous value display (10 digits) Various flow rate unit settable
- Total value display (10 digits) Various flow rate unit settable
- Consumed heat quantity computation
- Self diagnosis (diagnoses battery voltage drop and received waveform from the sensor)
- Flash memory (measurement parameter for pipe, fluid, sensor, etc)
- A number of registered sites: 32
- Zero point adjustment (Set zero/Clear available)
- Bi-directional flow measurement
- Low flow cut (0 to 5m/s)

Option

With printer: Display hard copy, periodic printing and logged data printing

Flow velocity profile (Pulse Doppler method):

Displays flow velocity profile of instantaneous value and average value

Specifications

<table>
<thead>
<tr>
<th>Application</th>
<th>Uniform liquid in which ultrasonic waves can propagate (Water, hot-water, distilled water, alcohol, milk, ethanol, etc)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inner pipe diameter</td>
<td>13mm to φ6000mm (depending on the detector)</td>
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<tr>
<td>Fluid temperature</td>
<td>-40 to +200°C (depending on the detector)</td>
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<tr>
<td>Flow velocity range</td>
<td>0 to ±32m/s (±0.3m/s min.)</td>
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<tr>
<td>Measurement accuracy</td>
<td>±1.0% of rate (depending on the flow velocity)</td>
</tr>
<tr>
<td>Response time</td>
<td>1 sec.</td>
</tr>
<tr>
<td>Path</td>
<td>Transit time method (1 Path)</td>
</tr>
<tr>
<td>Display</td>
<td>Color graphic LCD with back light</td>
</tr>
<tr>
<td>Analog output signal</td>
<td>4 to 20mA DC (1 point)</td>
</tr>
<tr>
<td>Analog input signal</td>
<td>4 to 20mA DC / 1 to 5V DC (2 points)</td>
</tr>
<tr>
<td>Supply voltage</td>
<td>Built-in battery (In the fully charged condition, 12 hours of continuous operation is possible)</td>
</tr>
<tr>
<td>Structure</td>
<td>Waterproof (IP64)</td>
</tr>
<tr>
<td>Size</td>
<td>210x120x65mm (without printer)</td>
</tr>
<tr>
<td>Weight</td>
<td>Approx. 1kg</td>
</tr>
</tbody>
</table>

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