

ULTRASONIC LIQUID FLOWMETER LF-2000

- **Clamp-on type sensor**
- **Easy installation to existing piping**
- **Non intrusive, no moving parts**



Sensor

A pioneer in environmental statistical measurement by ultrasonic, cost-competitive ultrasonic intelligent liquid flowmeter

Features

- Equipped with wide screen LCD
- Simple flow trend graph
- Wider measurement range
- No pressure loss
- Flexible parameter configuration
- Various output port (analog x2, digital x1, contact x4)



■Specification

Fluid condition / Applicable liquid : water, seawater

Turbidity : 1000ppm or less

Liquid temperature : -10~ 60°C(must not be frozen)

No air bubbles and dust

No drift and swirl flow

Pipe condition / Nominal Diameter : 50 mm ~ 6000 mm

Pipe material : Steel, SUS, cast iron,

PVC, FRP,

Installation requirement : Upper stream side 10D,

Lower stream side : 5D or more

(D is inner diameter)

Upper stream pump or valve : more than 30D ~ 50D

■Converter

Measurement method / Ultrasound transit time method

Display / LCD (240 x 128 dots, backlight)

Display content/ instantaneous flow, instantaneous flow velocity, integrated flow(normal/reverse)

Self-diagnosis / Upper and lower limit alarms, Detection for received wave abnormality, power supply abnormality, memory abnormality and range over

Chordal path / 1path or 2path, 4path(option)

Accuracy / $\pm 1.0\%$ RD (flow velocity 0.8 ~ 30 m/s)

± 0.8 cm/s (flow velocity 0.0 ~ 0.8 cm/s)

Damping / 0 ~ 120 sec (1 second steps)

Flow rate range / Measurement range : 0 ~ ± 30 m/s

Flow unit : m3, L, ton , kg

Time unit : h, min, sec

Range number : Maximum 4 ranges

(normal/reverse flow every 2 ranges)

Range switch : Automatic or Manual

Current output / Output number : Output x 2

Signal : DC4 - 20mA

Load resistance : 1k Ω or less

Contact output / Output number : Contact x 6

Output signal : Open collector standard 30V, 0.25A

Output mode : normal flow integrated pulse, reverse flow integrated pulse, self-diagnosis

Integrated output / Pulse width : 1 ~ 200 msec

Integrated unit : m3, L, ton , kg

Integrated rate : 0.01~ 1000

Digital output / RS-232C, RS-422

Content : Instantaneous flow rate, integrated flow rate,

Boudrate : 19200 bps

Ambient temperature / -10 ~ +60°C

Humidity / less than 90%RH

Surge protection / Built-in surge absorber (VDD line, signal line)

Power supply / AC100V $\pm 10\%$, 50/60Hz (OptionAC115V, AC220)

Power consumption / less than 20VA

Structure / Waterproof type (IP67 equivalent)

Material / Aluminium alloy casting (AC4C)

Weight / Approximately 8.5 kg

Installation condition / The product must not be installed in places where it will be exposed to direct sunlight.

■Sensor probe

Model / LFT-10 : more than 300 mm

LFT-20 : less than 300 mm

Installation method / V or Z

Cable length / Standard 5m (5C-2T cable equivalent)

Material / SCS13, Acryl

Ambient temperature / -20 ~ +60°C

Structure / Waterproof type (IP67 equivalent)

*Consult sales representative about underwater type (IP68 equivalent)

Weight / LFT-10 : approximately 3.5 kg

LFT-20 : approximately 1.5kg

■Connection cable

Model type / JCL

Cable / Max. 300m (5C-2T cable equivalent)

External diameter / approximately 9 mm

Weight / approximately 0.1 kg/m

■Junction box

Model type / LFB-50

Material / FRP, SUS304

Ambient temperature / -20 ~ +80°C

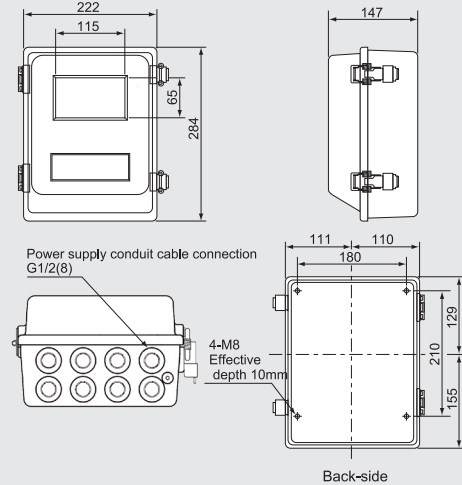
Structure / Waterproof type (IP67 equivalent)

Weight / approximately 1.3 kg

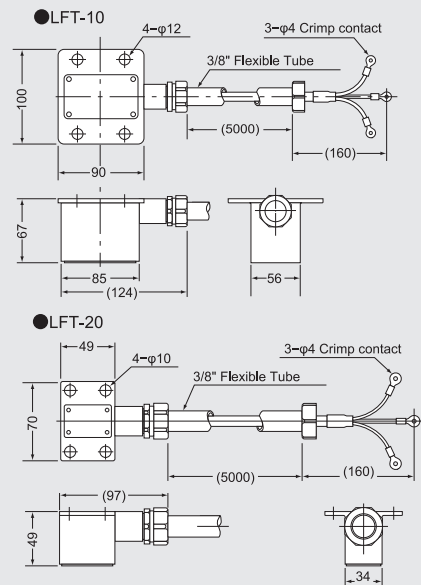
*Conection cable and Junction Box required if distance is more than 5m.

■Dimension

●Converter



●Sensor probe



⚠ CAUTION FOR SAFETY : Please read surely INSTRUCTION MANUAL before operating.

●Specification is subject to change without prior notice for improvement.



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