# Ultrasonic liquid flow meter
# Clamp-on type
## Model : U100 series

## Description

WISE aquasonic U100 series clamp-on ultrasonic transit time flow meters are highly accurate, compact and economic flow measurement instruments.
These are used for all pipes and fluids that can be penetrated by ultrasonic wave.
WISE aquasonic measuring method is non-intrusive with no moving parts so it has no pressure drop and energy loss.

## Advantages

- 1% accuracy clamp-on liquid flowmeter for industrial applications
- Easy and quick installation
- Temperature compensation
- Wide turn-down ratio over 100:1
- No flow-stop for Zero-calibration
- Versatile external input / output interfaces
- One time calibration
- Minimal maintenance

## Specification

**Fluid**
Ultrasonically conductive fluids
Pure water, Clean water
Waste water, Industrial water
River & sea water, etc.

**Fluid temperature range**
-20ºC ~ +60ºC

**Measurement method**
Correlation transit time

**Pipe size**
40A ~ 6000A

**Range**
-12 m/s ~ +12 m/s

**Accuracy**
1% ≥ 0.3 m/s

**Non-linearity**
±0.1%

**Repeatability**
±0.25%

**Data refresh rate**
1 Hz

**Display**
128*64 graphics LCD

**Keypad**
4 keypad buttons

**Power supply**
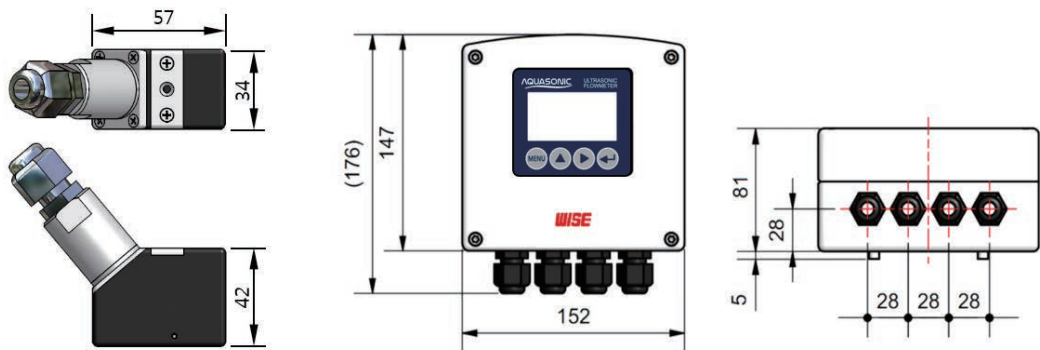20 to 30 VDC

**Input / Output**
Relay output 2 channel
Pulse output
4-20 mA DC output
Contact input
RS-232C serial communication

**WISE**®

### 1. Base model

**U100**    Ultrasonic liquid flow meter clamp-on type

### 2. Number of path

**S**    Single path
**D**    Dual path

### 3. Serial communication

**2**    RS-232
**4**    RS-485

### 4. Power supply

**D**    20 to 30 VDC
**A**    100 to 240 VAC

### 5. Pipe size

**S**    Small pipe (40 ~ 100A)
**M**    Middle pipe (80 ~ 500A)
**L**    Large pipe (450A ~ )

### 6. Mounting

**P**    Pipe mount
**W**    Wall mount

| 1 | 2 | 3 | 4 | 5 | 6 | |
|------|---|---|---|---|---|---|
| U100 | S | 2 | D | S | P | **Sample ordering code** |

**WISE**®

## Electrical connection



### Input / Outputs

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 |
|---|---|---|---|---|---|---|---|---|----|----|----|----|
| GND | RX(B) | TX(A) | AO(-) | AO(+) | $DO_3$(-) | $DO_3$(+) | $DO_2$(-) | $DO_2$(+) | $DO_1$(-) | $DO_1$(+) | DI(-) | DI(+) |
| RS-232/RS-485 | | | 4-20 mA | | Pulse output | | Relay2 | | Relay1 | | | |