

Ultrasonic liquid flow meter

In-line type

Model : U101 series

Spec. sheet no. UD01-02

Description

WISE aquasonic U101 series In-line ultrasonic transit time flow meters are highly accurate, compact and economic flow measurement instruments.

WISE aquasonic measuring method is non-intrusive with no moving parts so it has no pressure drop and energy loss.

Advantages

- 1% accuracy In-line liquid flowmeter for industrial applications
- No pressure drop and energy loss
- Temperature compensation
- Wide turn-down ratio over 100:1
- No flow-stop for zero-calibration
- Datalog memory size over 700 Mbytes
- Versatile external input / Output interfaces
- One time calibration
- Multi-processing capabilities in Linux OS



Specification

Fluid

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

Fluid temperature range

-20°C ~ +60°C

Measurement method

Correlation transit time

Pipe size

80A ~ 6000A

Range

-24 m/s ~ +24 m/s

Accuracy

1% \geq 0.3 m/s

Non-linearity

\pm 0.1%

Repeatability

\pm 0.25%

Data refresh rate

1 Hz

Display

128*64 graphics LCD

Keypad

4 keypad buttons

Power supply

20 to 30 VDC
100 to 240 VAC 50/60 Hz
Power consumption : <15 W

Input / Output

Analog 4-20 mA I/O
Relay / Pulse I/O

1. Base model

U101 Ultrasonic In-line type flow meter

2. Body material

4 304SS
5 316SS
6 316L SS
O Other

3. Line size (Meter size)

| JIS | mm | ANSI | inch | DIN | mm |
|-------------|-------|-------------|------|-------------|------|
| J080 | 80A | A007 | 3B | D080 | 80A |
| J100 | 100A | A008 | 4B | D100 | 100A |
| J150 | 150A | A010 | 6B | D150 | 150A |
| J200 | 200A | A011 | 8B | D200 | 200A |
| J250 | 250A | A012 | 10B | D250 | 250A |
| J300 | 300A | A013 | 12B | D300 | 300A |
| J400 | 400A | A015 | 16B | D400 | 400A |
| J500 | 500A | A017 | 20B | D500 | 500A |
| J600 | 600A | A018 | 24B | D600 | 600A |
| XXXX | Other | | | | |

4. Flange rating (Slip on / Raised face)

| JIS | | ANSI | | DIN | |
|-------------|---------|-------------|-----------|-------------|------|
| J010 | JIS 10K | A010 | ANSI 150# | P010 | PN10 |
| J016 | JIS 16K | 0000 | Other | P016 | PN16 |

5. Power supply

D 20 to 30 VDC
A 100 to 240 VAC

6. Serial communication

2 RS-232
4 RS-485

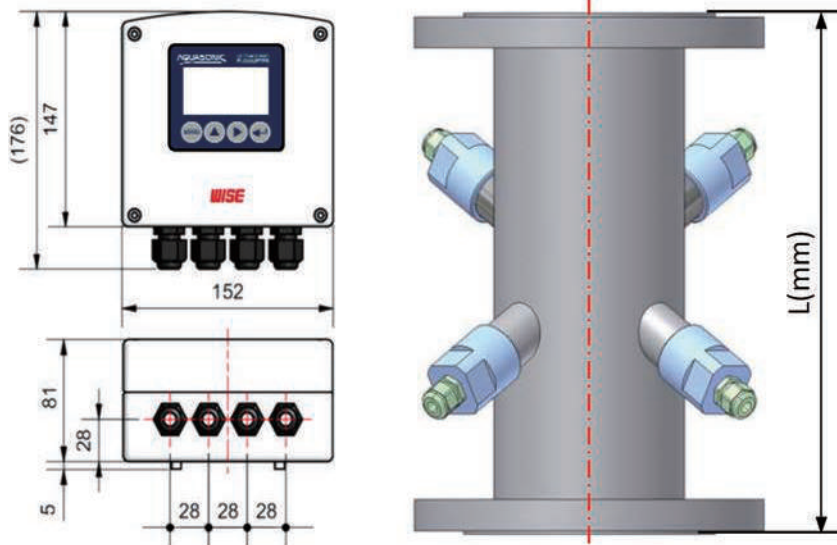
7. Mounting

P Pipe mount
W Wall mount

| | | | | | | |
|-------------|----------|-------------|-------------|----------|----------|----------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| U101 | 4 | A008 | A010 | A | 2 | W |

Sample ordering code

Electrical connection



Dimensions

| Size | | Flow rate (m ³ /h) | Length (mm) |
|------|-----|-------------------------------|-------------|
| 80A | 3B | 2 ~ 233 | 250 |
| 100A | 4B | 3 ~ 397 | 300 |
| 150A | 5B | 7 ~ 885 | 370 |
| 200A | 6B | 13 ~ 1519 | 430 |
| 250A | 7B | 20 ~ 2377 | 490 |
| 300A | 8B | 28 ~ 3360 | 550 |
| 350A | 9B | 34 ~ 4063 | 610 |
| 400A | 10B | 45 ~ 5343 | 670 |
| 500A | 11B | 70 ~ 8379 | 790 |
| 500A | 12B | 10 ~ 12089 | 900 |

Large empty rectangular area for writing or drawing.