SUL815 Ultrasonic Open Channel Flowmeter

MAIN FEATURES

- Built in GPRS, Lora, Nb, RF, Bluetooth, WiFi, etc. (the acquisition system can be customized)
- Backup and restore setting parameters
- Measure material (liquid) level, flow rate, flow rate, volume, weight, etc
- Digital filtering and echo recognition
- Fixed interference filtering function can be set manually
- Custom sound speed
- MiniSD card data acquisition
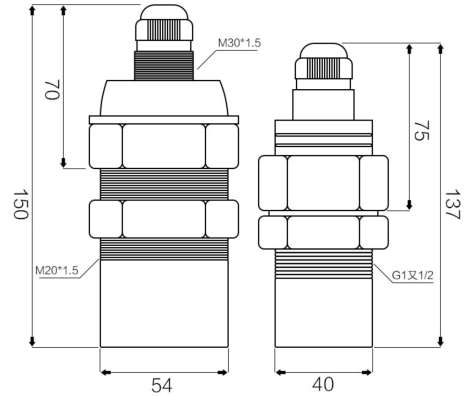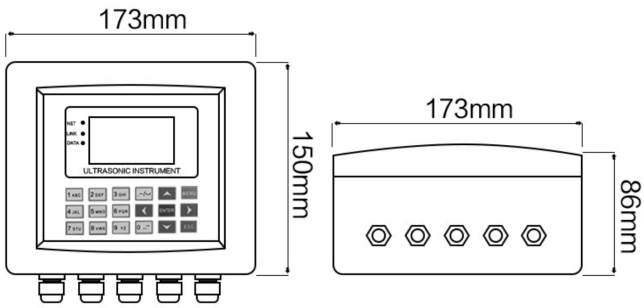- USB output
- Micro printer

OVERVIEW

SUL815 Wall mounted ultrasonic open channel flowmeter is divided into liquid level method and velocity method (time difference method and Doppler method). The liquid level method is suitable for standard channels, such as triangular weir, rectangular weir, equal width weir, basher trough, etc. The velocity method is suitable for irregular flow fields such as trapezoidal, U-shaped, O-shaped, etc. Open channel flowmeter is composed of ultrasonic liquid level meter (current meter), measuring tank and flow totalizer.
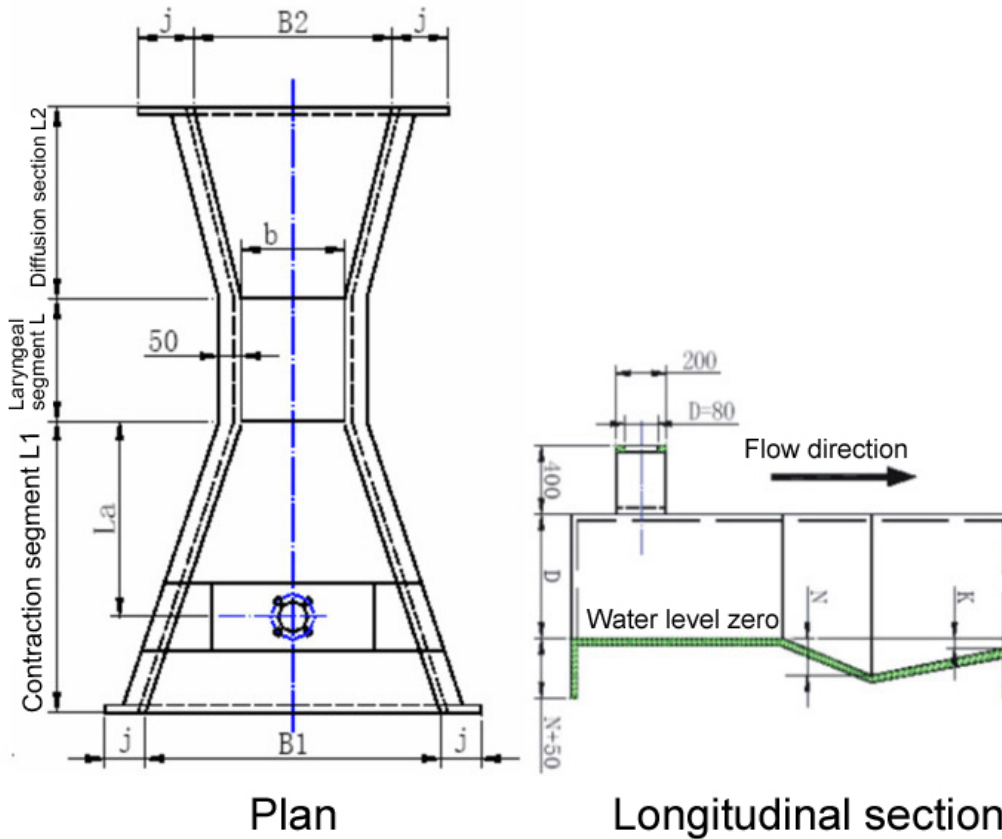
SPECIFICATION

ITEMS	PARAMETER
Cumulative flow range	0 ~ 999999 (full 8 bits clear, at the same time, the cumulative number of times plus 1, the flow unit according to the setting)
Instantaneous flow range	10L / S ~ 100m3 / S (determined by the type and specification of measuring weir)
Flow accuracy	5%
Blind area	0.06-2m (depending on sensor)
Range	0-40meter
Probe material	ABS material
Protection level	IP65
Cable length	10m shielded cable (can be customized with any length)
Host performance	3 inch LCD, 18 Bit keyboard operation, M16 * 1.5 electrical interface
Power supply	AC85 ~ 380V or DC11 ~ 24V power supply
Power comsumption	5W
Input signal	Ultrasonic probe, RS485 serial port
Output signal	1-way or 2-way 4-20mA (standard 1-way), 4-way relay, RS485
Sensor mounting interface	Standard 485 interface (24 V power supply) * 2
Work environment	Normal temperature, normal pressure
Data browsing	Quickly view hourly, daily, monthly and annual traffic records
Option function	Support u disk data export, support wireless transmission (purchase when ordering)

DIMENSION

173mm

150mm

173mm

86mm

M30*1.5

70

150

75

137

M20*1.5

G1又1/2

54

40

APPLICATION

Parshall flume

B2

j

j

L2 Diffusion section

Laryngeal segment L

b

50

Contraction segment L1

La

j

B1

j

Plan

200

D=80

400

D

N

N+50

Flow direction

Water level zero

K

Longitudinal section

Explain

Symbol description: B is the throat pipe, B1 is the inlet channel width, B2 is the outlet channel width, I is the throat length, L1 is the contraction section, L2 is the diffusion section, weir construction and use conditions: $b >= B$, $H/P < 2.5$, $H > 0.03m$

$P > 0.1M$

Probe installation is shown in the figure

Triangular weir


Elevation

Cross section

Flow direction

A-AProfile
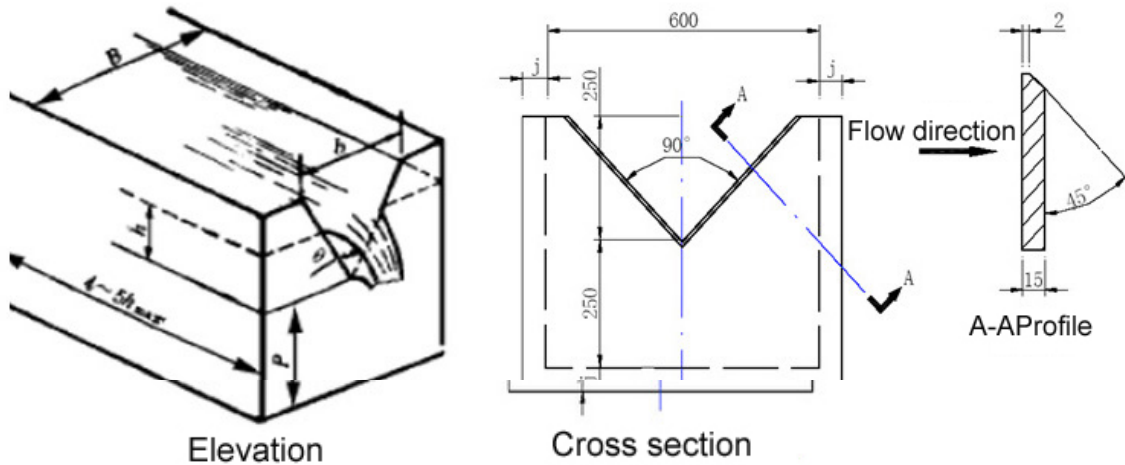
Explain

Symbol description: B is the weir mouth width, * is the weir mouth angle, B is the channel width, P is the weir bottom height, h is the measured water head. Weir construction and service conditions: * = 90 °, b > 5h, H / P < 1, 0.06 < h < 0.65 MFigure 2 shows the recommended size, flow calculation formula: q = 1.343h2.47, select the flow groove astriangular weir.

Rectangular weir

Elevation

Cross section

Flow direction

Material: FRP
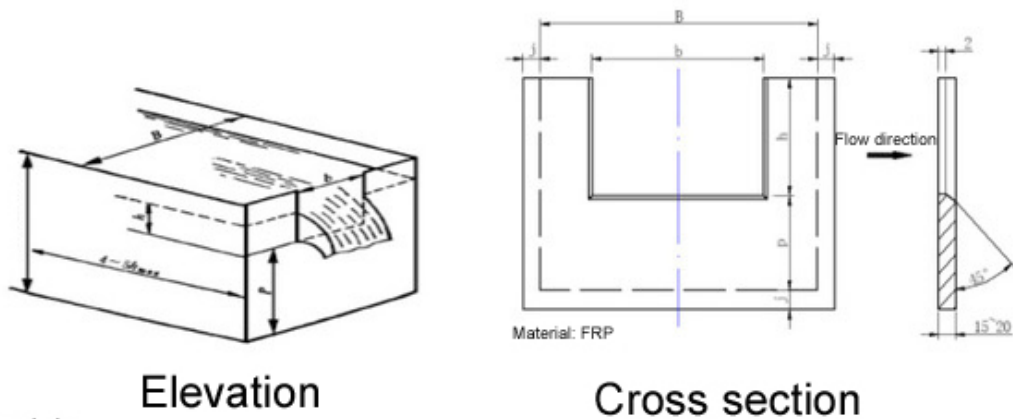
Explain

Symbol description: B is the width of weir mouth, B is the width of channel, P is the height of weir bottom, h is the construction and use conditions of measured head weir groove: b > = B, h/p < 2.5, H > 0.03m, P > 0.1MFlow calculation formula: q=mb (2G) 1/2h1.5, where m is the flow coefficient, when b/b=1, m=0407+00533h/p, when b/b < 1, m= (0.407+00027/h-0.03 (B-B) /b) (1+0.55 (h/ (h+p)) 2 (b/p) 2): g=9.8; select the flow channel type as rectangular weir, and input the width of the weir mouth, channel width and weir bottom height.