#SUS TURBINE FLOWMETER WITH RS-485 REMOTE TRANSMISSION

LCD DISPLAY + CONTROL + RS-485

REAL-TIME DISPLAY flow / temperature / velocity
the velocity value CONTROL, the total quantitative CONTROL
485 REMOTE TRANSMISSION

Characteristic:

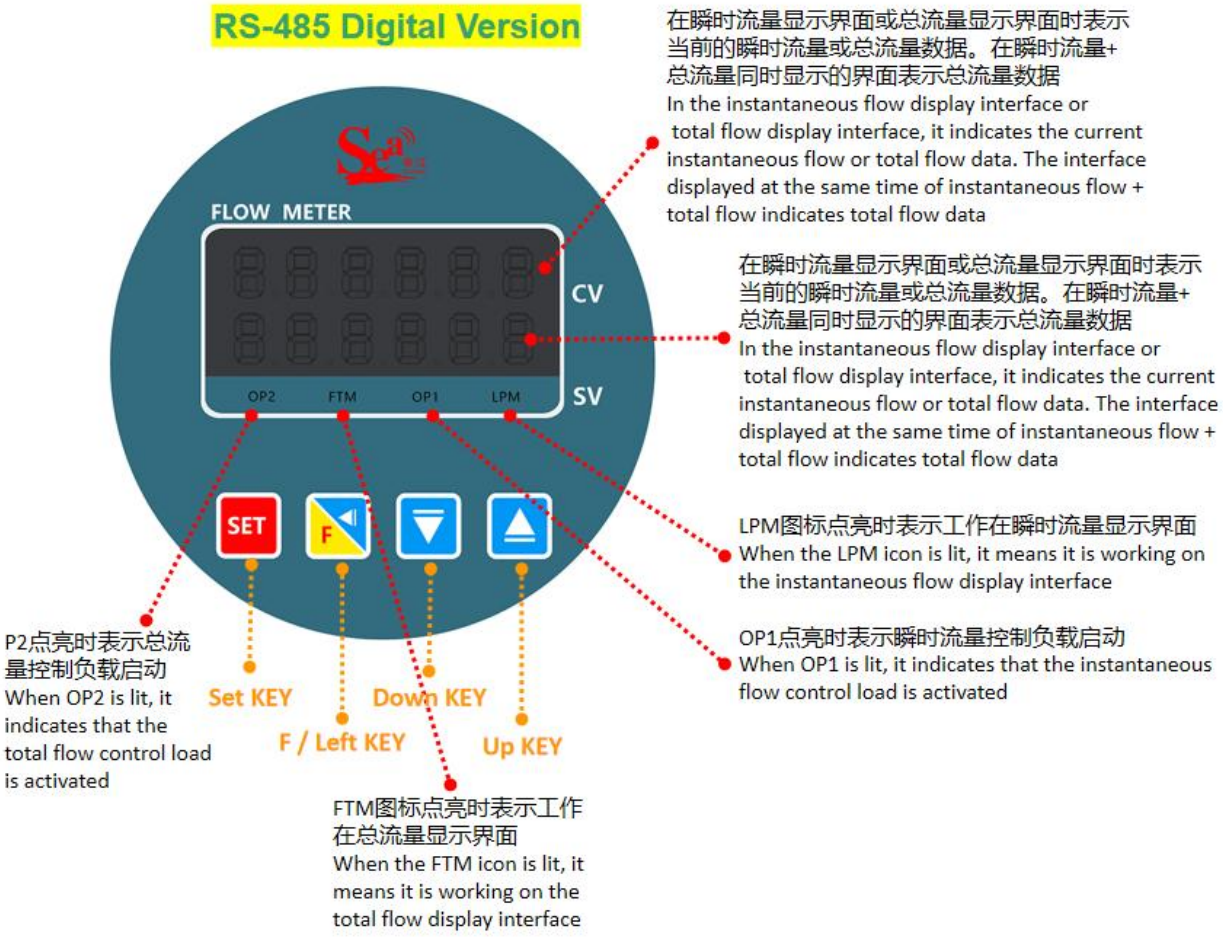
1. Measurement accuracy: ±5%
2. Adjustable K value
3. The unit of total flow can be selected: L/Gal/KL
4. The unit of pulse output flow can be selected: L/Gal/KL
5. Instantaneous flow alarm output status (NO / NC) can be set
6. Instantaneous flow alarm output power transmission delay time can be set
7. The alarm output of instantaneous flow and total flow can be set
8. Acid and alkali resistant, corrosion resistant; long service life; not easy to block the pipe.
9. With RS-485 remote transmission

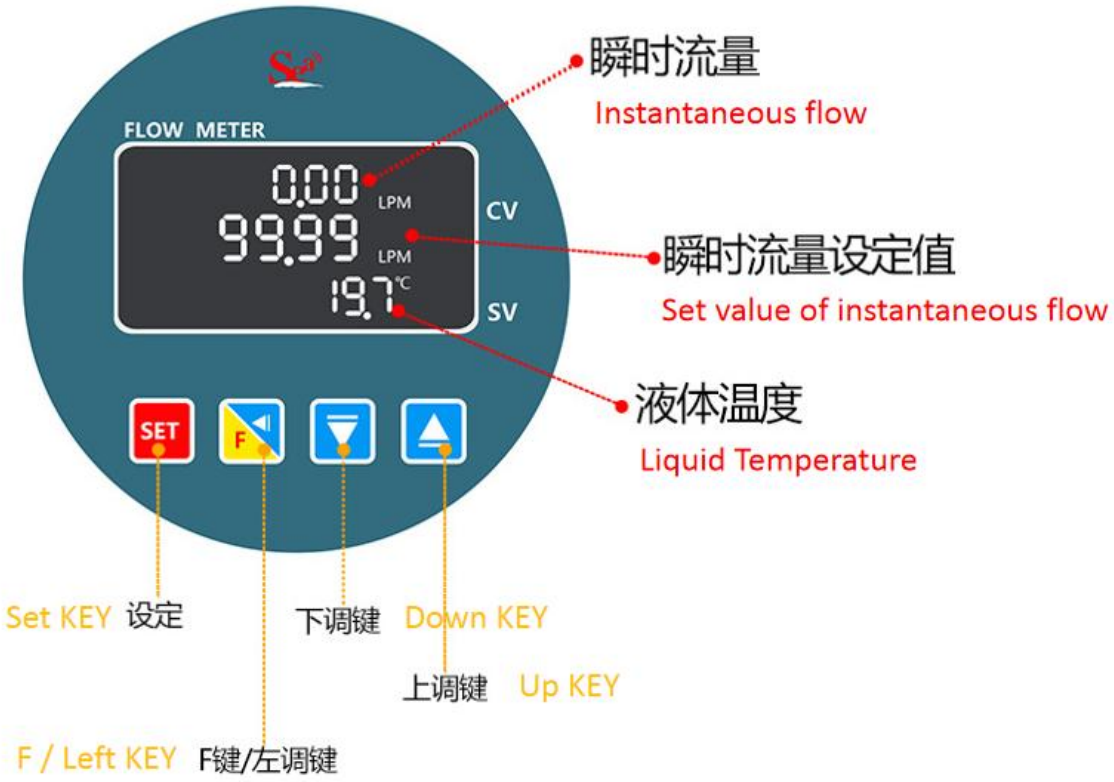
Specification:

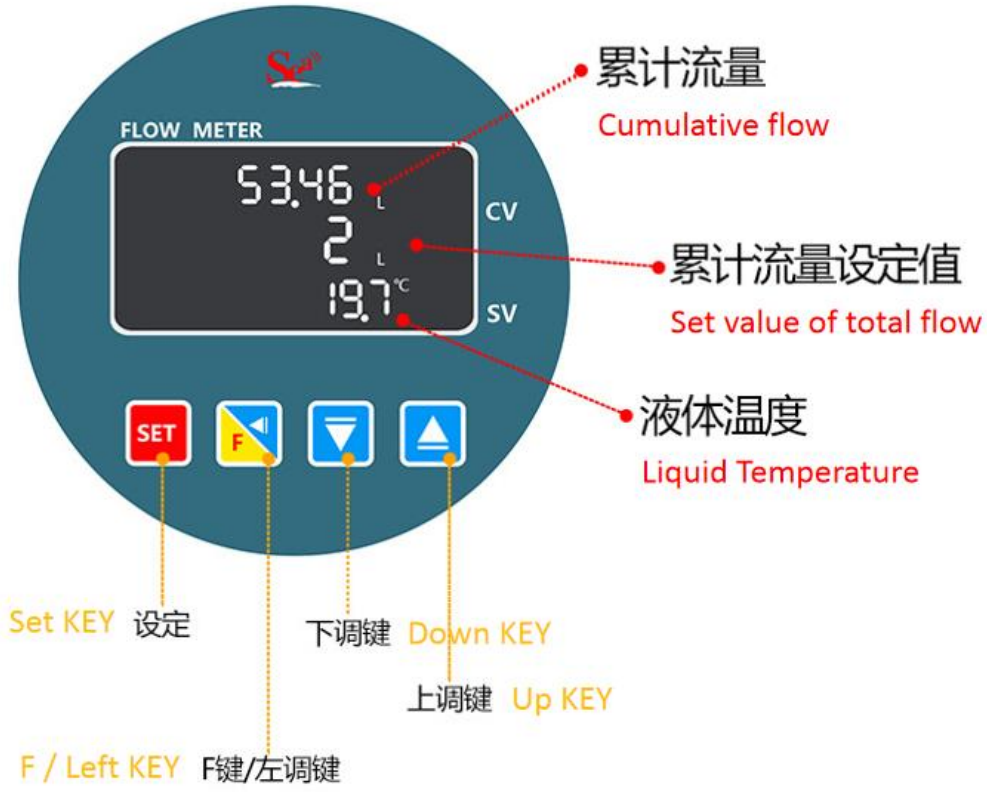
Series No.	ZJSUS-LCD
Material	#304 Stainless Steel
Pipe Connection	1/2’’, 3/4’’, 1’’, 1.25’’, 2’’
Operating Voltage	10-30VDC
Max Working Current	60mA (30VDC)
Flow Range	As below chart
K Factor Setting	As below chart
Max Pressure	≦ 1.75MPa
Setting Range of Instantaneous Flow (LPM)	0 - 999.99
Setting Range of Total Flow (FTM)	0 - 999999
Instantaneous Flow Control Output	NPN（150mA Max）
Total Flow Control Output	NPN（150mA Max）
Medium	Fluid Water
Max Flow Rate	10m/s max
Min Flow Rate	0.3m/s min
Respond Time	Real-time
Working Environment Temperature	-10℃ - 70℃
IP Grade	IP65
Display Unit (Flow、Rate、Temperature)	L/KL/GA;　LPM、KLPM、GPM; Celsius or Fahrenheit

Specification					
Model No.	**DN15**	**DN20**	**DN25**	**DN32**	**DN50**
G Threaded Connection	1/2’’ Female Female	G3/4’’	G1’’	G1.25’’	G2’’
Flow Rate (L/min)	10-150	10-150	20-280	40-460	60-1100
K Factor Setting	130	130	68	41	15
Net Weight (g)	655	655	670	725	1150

Display Screen:







When there is a flow signal, the water drop icon is dynamically displayed, and when there is no flow signal, the water drop icon is not displayed.

Key Instruction:

4 Keys: SET、F/LEFT、DOWN、UP

SET key: Press this key in the instantaneous flow alarm or total flow alarm setting interface to confirm the currently set data; press this key in the parameter setting or control setting interface to carry out the currently set parameter or control mode. Confirm and enter the next parameter or control setting interface; press continuously for 3 seconds in the non-setting state to enter the control setting interface.

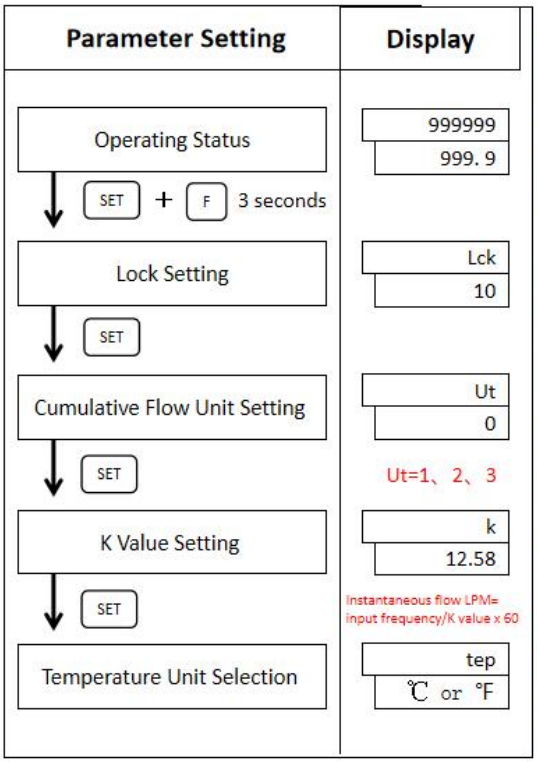
F /Left adjustment key: Press this key in the data setting interface, you can adjust the setting value digit from right to the left, and then recycle from right to the left.

DOWN key: Press this key in parameter setting or control setting or flow alarm value setting interface to select parameters or reduce data.

UP key: press this key in parameter setting or control setting or flow alarm value setting interface to select parameters or increase data; when not in the setting interface, press this key to switch to the display interface of the total flow + instantaneous flow、 instantaneous flow、total flow.

Combination key: Long press the setting key + F key for 3 seconds to enter the parameter setting interface; long press the setting key + down key for 3 seconds to reset the total flow data to zero.

Parameter Setting:



Press the set key + F key at the same time for 3 seconds to enter the lock setting interface. The upper row of the screen displays Lck, and the lower row displays the set value. If Lck=10, it means that the system parameters can be set. At this time, press the set key to switch to the next setting interface, if Lck≠10, the system enters the protection state, and then press the set key again to exit the parameter setting interface.

In the above interface of Lck=10, press the setting key to enter the total flow unit setting interface. The upper row of the screen displays Ut, and the lower row can set five options of 0, 1, 2, 3, 4. 0 for L; 1 for gallons; 2 for kL.

Continue to press the set button on the above interface to enter the K value setting interface. The upper row of the screen displays k, and the lower row displays the value. The K value can be set in the range of 0 to 999.99. If K value = 0, the flowmeter will not count.

Continue to press the set button on the above interface to enter the temperature unit selection setting interface, and you can select the display unit Celsius or Fahrenheit.

In the above interface, press the set key again, the system will exit the parameter setting interface. If you do not press the set key after setting parameters in any of the above interfaces, the set parameters will flash for 10 seconds and then exit the setting interface and automatically save the set parameters.

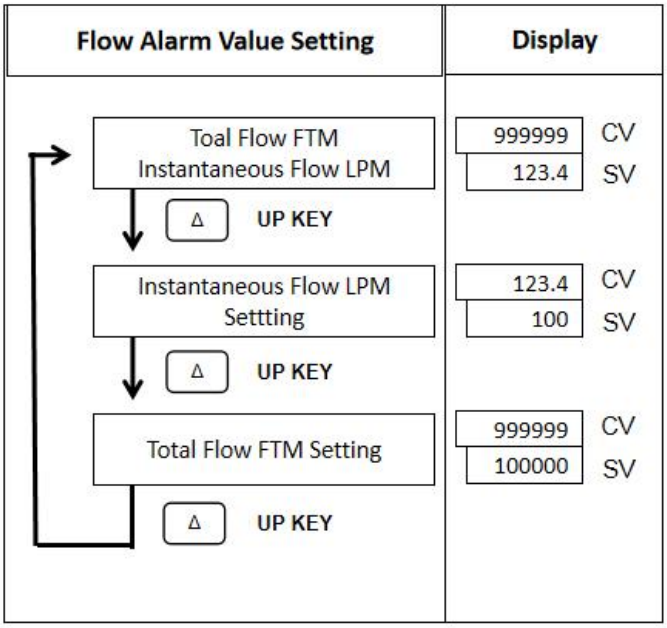
Notice:

① When you want to set the unit in the case of the total flow has accumulated value, the current total flow value will not be automatically converted with the different units. For example, there is currently a total flow of 1234L. After setting the unit to kL or gallon, the data of the total flow is still 1234. **Therefore, set the unit before use, and then reset the current total flow data to zero**, so that the measured data is accurate.

②When the input frequency exceeds 1000Hz, the system stops counting

③When the unit is selected as liter or kiloliter, if the total flow data is less than or equal to 9999.99, the display precision is 0.01; if it is greater than 9999.99, the decimal point will not be displayed.

Flow Alarm Value Setting:

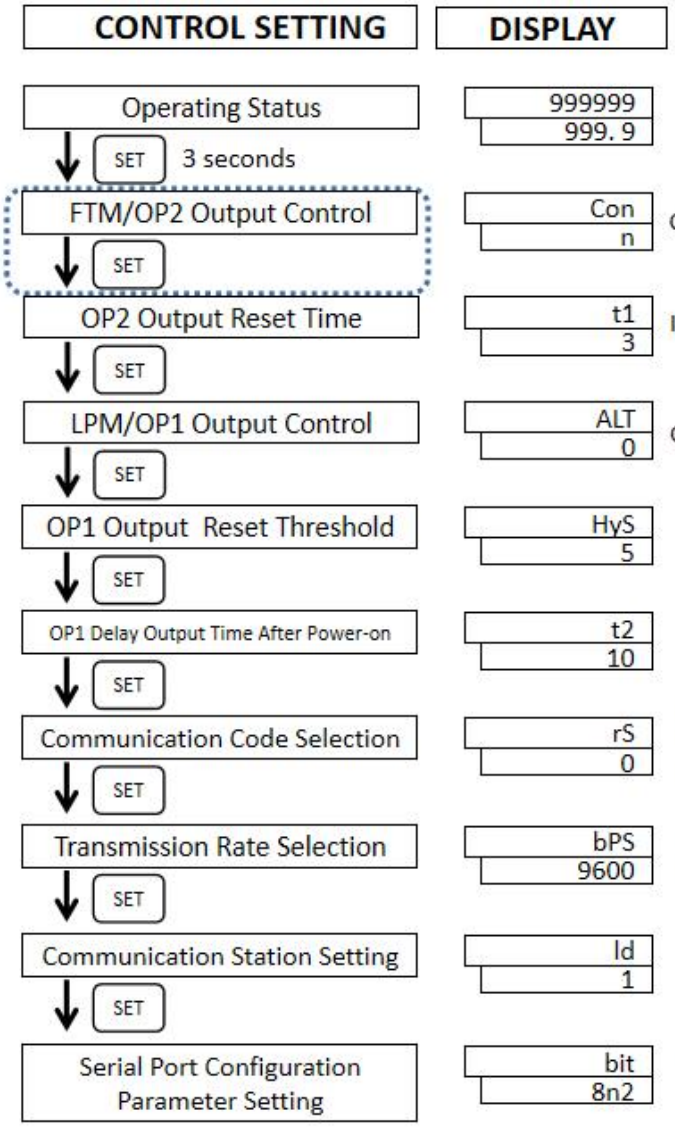


Before power-on, the display interface before power-off will be maintained. Press the up key to switch the display nterfaces of "total flow + instantaneous flow", "instantaneous flow alarm value setting" and "total flow alarm value setting".

When setting the alarm value data in the "Instantaneous flow alarm value setting" and "Total flow alarm value setting" interface, it starts from the rightmost digit. Press the F key to move to the left to set the value of the corresponding digit. After setting, press the set key can save the set data, or the system will save the set data after the flashing display for 10 seconds. The alarm value cannot be set on the "Total Flow + Instantaneous Flow" interface.

Regardless of the interface, when the total flow (FTM) and/or instantaneous flow (LPM) exceeds the set value, the OP1 and/or OP2 icons will light up accordingly.

Control Setting:



Con (configurable options) = E、F、n、f、c

It would not show t1 when Con = E / F / n

Configurable Options of ALT: 0、1、2、3

rs=0、1
rs=0 : Modbus-RTU mode
rs=1 : Modbus-ASCII mode

bPS = 96、192、384
96=9600bps、192=19200bps、384=38400bps

bit = 8n2、8E1、8o1、7E1、7o1

1、Total flow FTM/OP2 output control

① When Con=n, OP2 is always output when it exceeds the set value, and the total flow is not cleared. Only when manually pressing the setting key + down key at the same time, OP2 and total flow will stop output and reset respectively at the same time.

② When Con=c, the total flow is automatically cleared when it exceeds the set value, and then starts counting from zero, and OP2 stops outputting after the time set by the t1 menu. If t1=0, OP2 outputs 0.35 seconds

③ When Con=r, if t1≠0, when it exceeds the set value, the total flow continues to accumulate to the time set by the t1 menu and then clears to zero, then starts counting from zero, and OP2 outputs the time set by the t1 menu and stops outputting. If t1=0, even if it exceeds the set value, it will continue to accumulate and not zero, and OP2 will always output.

④ When Con=F, the frequency output by OP2 is equal to the frequency input by the Hall sensor. If the Hall sensor stays in the high-level state when it stops outputting the frequency signal, OP2 keeps outputting; on the contrary, if it stays in the low-level state, OP2 does not output.

⑤ When Con=E, if the unit is liter, OP2 outputs one pulse for every 1L increase; if the unit is kiloliter, OP2 outputs one pulse for every 10L increase.

2、OP2 output reset time t1 setting

When the cumulative total flow reaches the set value, OP2 will stop outputting after the time set by the t1 menu. The unit is seconds.

3、LPM / OP1 output control

Actual instantaneous flow and set instantaneous flow require OP1 to be activated or not to be activated in various situations. You can refer to the following "Alarm Mode" and select the corresponding number in the ALT menu.

4、OP1 output reset threshold HyS setting

Used in conjunction with the ALT menu, such as ALT=1, HyS=5, OP1 is turned on when the instantaneous flow rate is less than the set flow rate, and OP1 is turned off when the instantaneous flow rate is greater than the set flow rate+5.

5、OP1 delay output time t2 setting after power-on

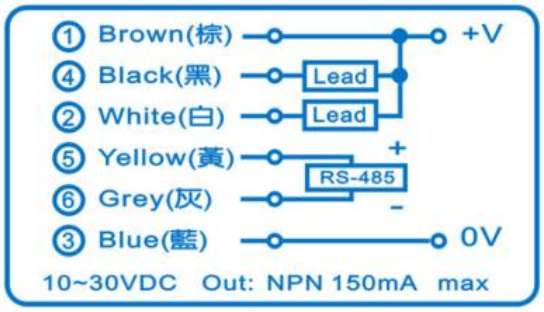
After power-on, you need to wait for the time set by t2 (in seconds), such as 10 seconds, and then judge whether OP1 meets the output conditions in the selected ALT mode. In the case of uninterrupted power, it will be judged in real time whether OP1 needs to be output in the selected ALT mode.

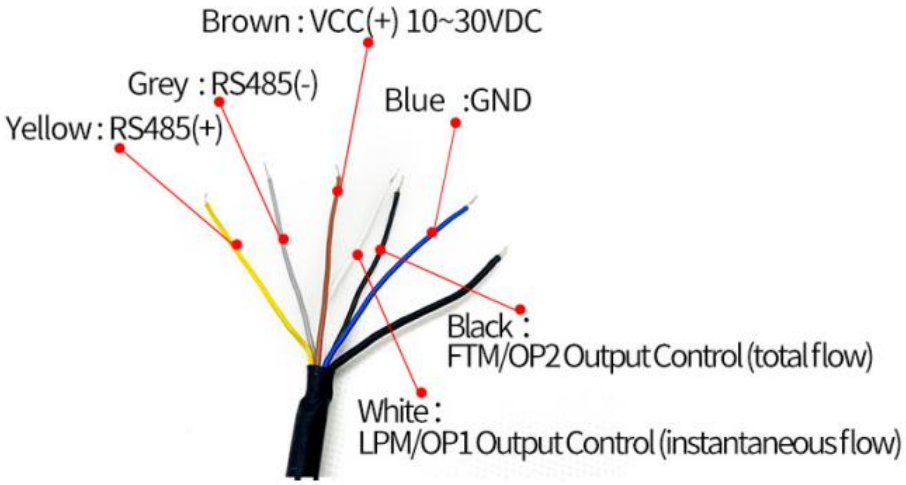
6、The LCD backlight screen shows that bL=0 is selected, it lights up when the button is pressed, and goes out without any operation for 20 seconds. bL=1 will always light up

Instantaneous flow control OP1 output mode:

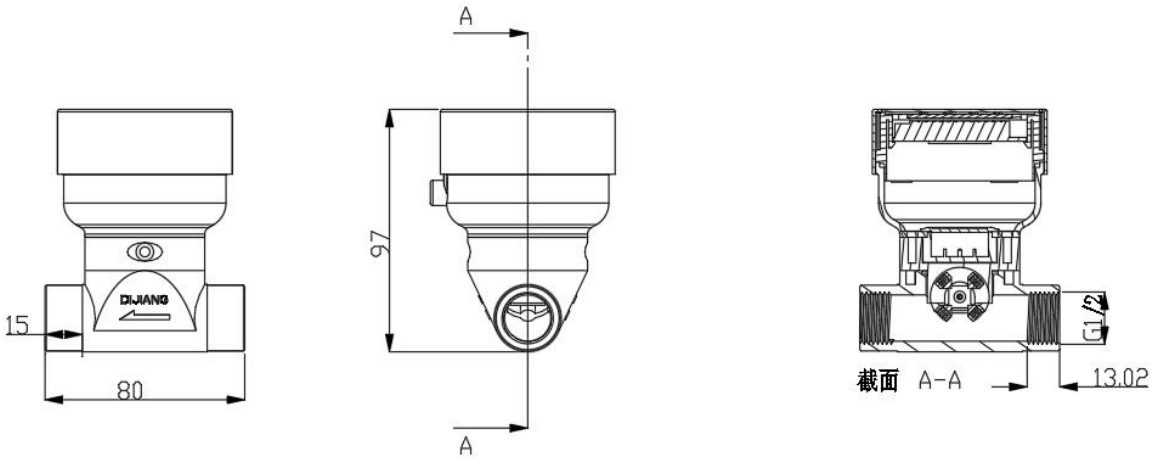
ALT Setting	OP1 Output (ON)	OP1 Not Output (OFF)
ALT=0	CV≥SV	CV＜SV-HyS
ALT=1	CV≤SV	CV＞SV+HyS
ALT=2	SV+HyS≥CV≥SV-HyS	CV＞SV+HyS　OR　CV＜SV-HyS
ALT=3	CV＞SV+HyS　OR　CV＜SV-HyS	SV+HyS≥CV≥SV-HyS

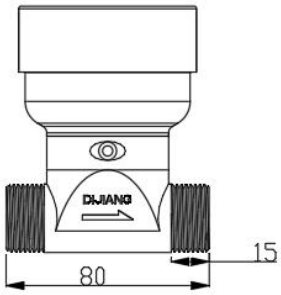
Wiring Diagram:





Product Size:

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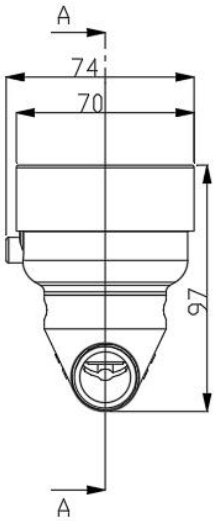
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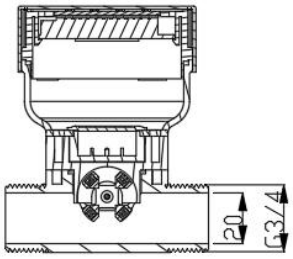
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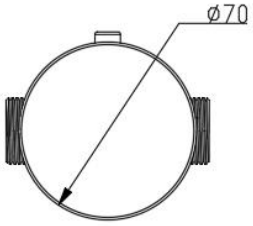
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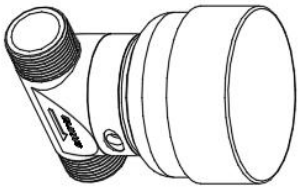

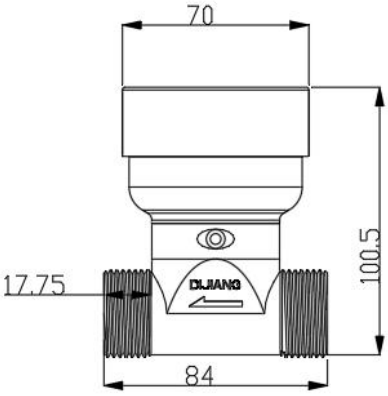
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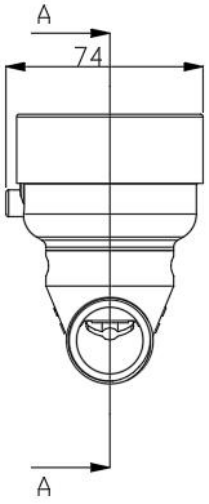
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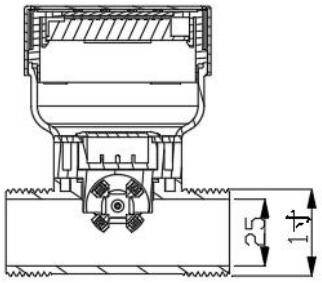
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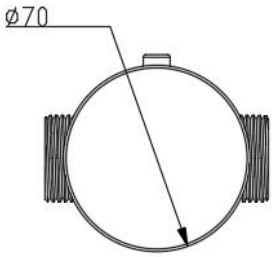
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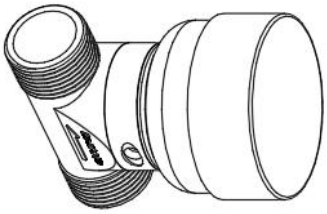

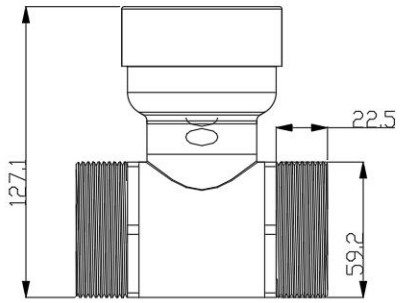

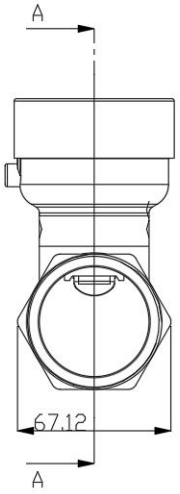

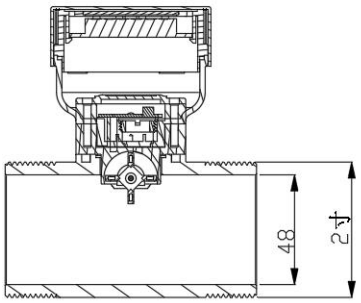

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