1. Product Function Specification

1.1 Base Function

Suitable to Size of the Sensor (mm)

15、20、25、32、40、50、65、80、100、125、150、200、250、300、350、400、450、500、

Power Supply

85VAC --- 265VAC

The Velocity Range

0.3 - 15 m/ s, velocity resolution: 0.5 mm / sec

Empty-Pipe Check And Full-Pipe Check

Automatic & continuous measure the condition of liquid and display the empty pipe and full pipe message. Do not need the full -pipe calibration and avoid false alarm signal.

Language And LCD Display

English, With LCD, display flow rate , Total flow , velocity etc.,

Output Signal (AC and DC power supply type)

Current output: 4 to 20mA,load;resistance：0～**750Ω,Base deviation**：0.1%±10μA。

Frequency output: Frequency range is 100～5000Hz；Photoelectric isolation, isolation voltage：＞1000VDC；

Pulse equivalent output: user defined pulse width ,automatic conversion to square wave at high frequency ;Photoelectric isolation, isolation voltage：＞1000VDC；

Actual Image

Alarm Output

Alarm output contact：**H-ALM** and **L-ALM** ;

Photoelectric isolation, isolation voltage：＞1000VDC；

Output

Driver： Maximum withstand voltage 36VDC, maximum load current 30mA.

Nonlinear Correction Function

Multi segment linear correction, suitable to variety of sensor
Automatic Zero Calibration Function
Quick Response, Response time of 0.3 seconds
Electrode Self-Cleaning Function

Communication

Communication：RS485 (standard)、HART (option)

MODBUS interface：RTU format，Physical interface：RS-485，Electrical isolation：1000V

HART interface：Support standard HART protocol

Protection

With lightning protection circuit design. High efficiency anti interference circuit, suitable for all kinds of harsh .
Grade of Protection: IP65 or IP68

1.2 Working conditions

Ambient temperature：–20～+65℃

Relative humidity：5%～90%
Power: less than 10W (after connecting the sensor).

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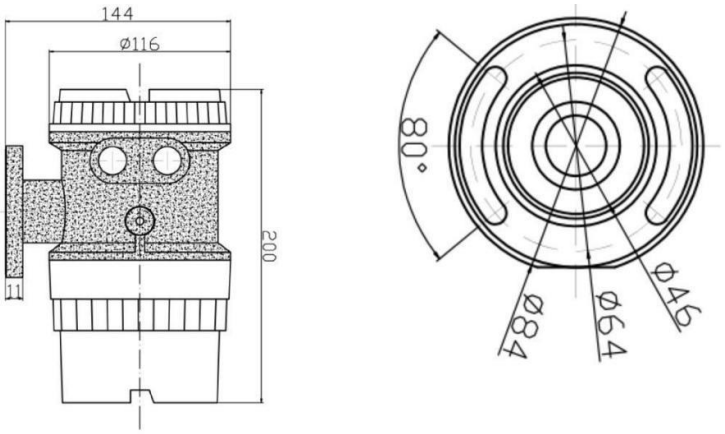
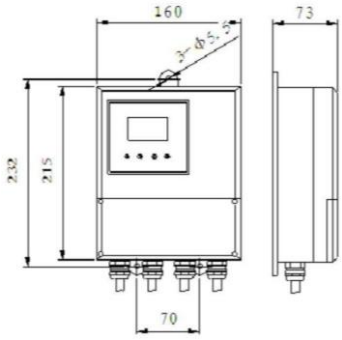
1.3 Connection type with sensor AND Transmitter outline dimension



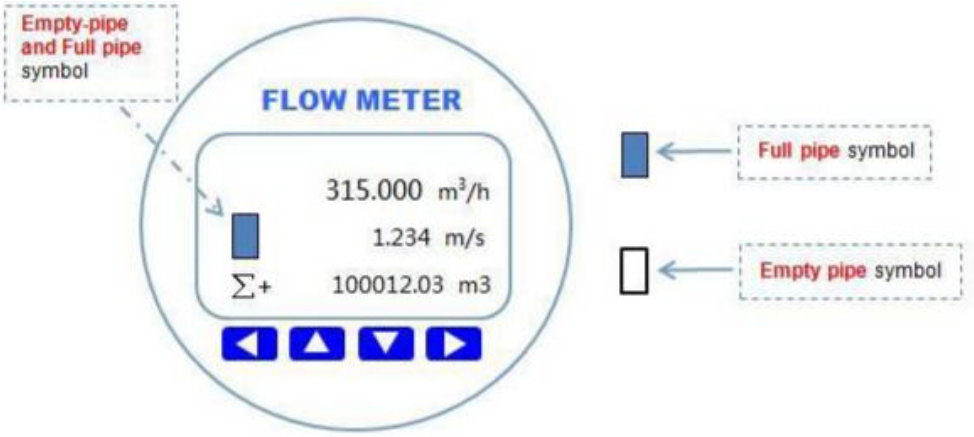
Integral type

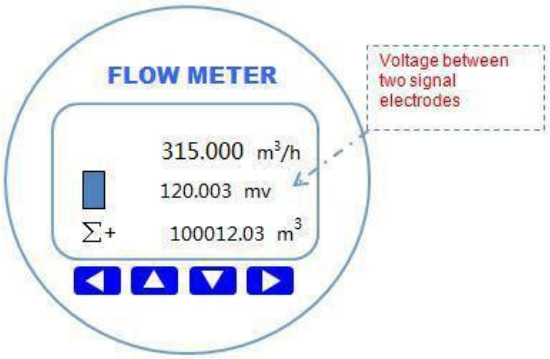


Remote type

2. Transmitter Operation And Parameter Setting

2.1 Keyboard Definition and Display





Left shift, parameter setting confirmation key and exit sub directory key

fast descending button to go to <factory setup>, digital up key。

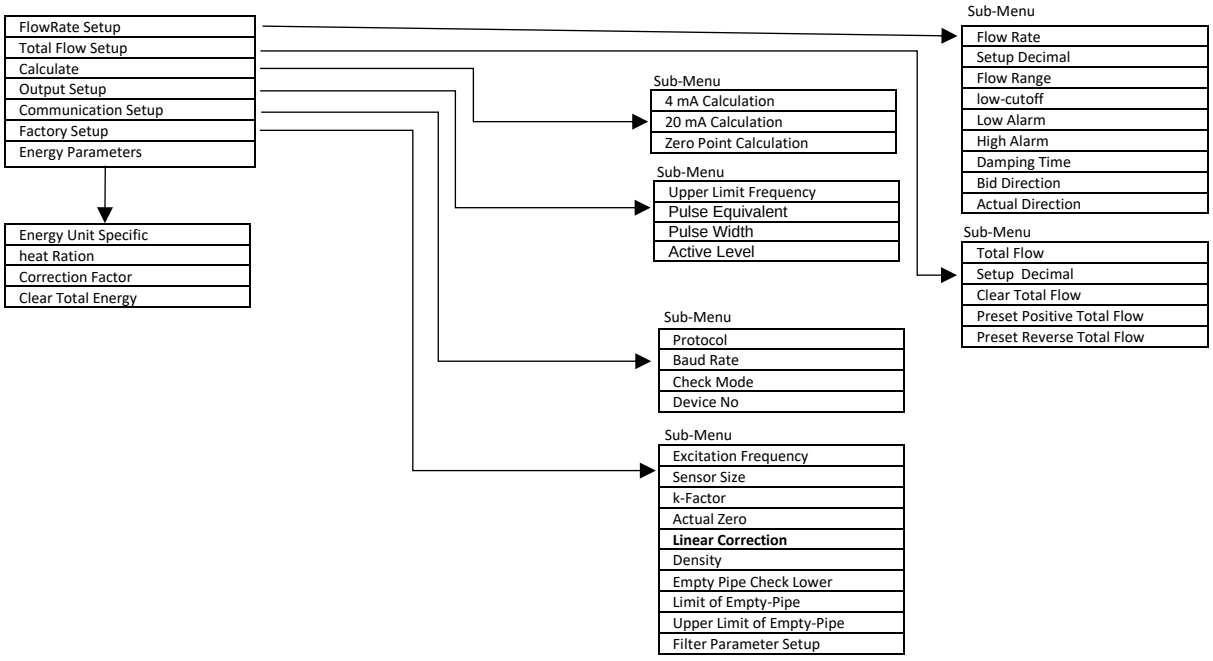
move up and down keys

MOVE right, enter the parameter setting and exit key

Press or ,you can Switch between figure A and figure B

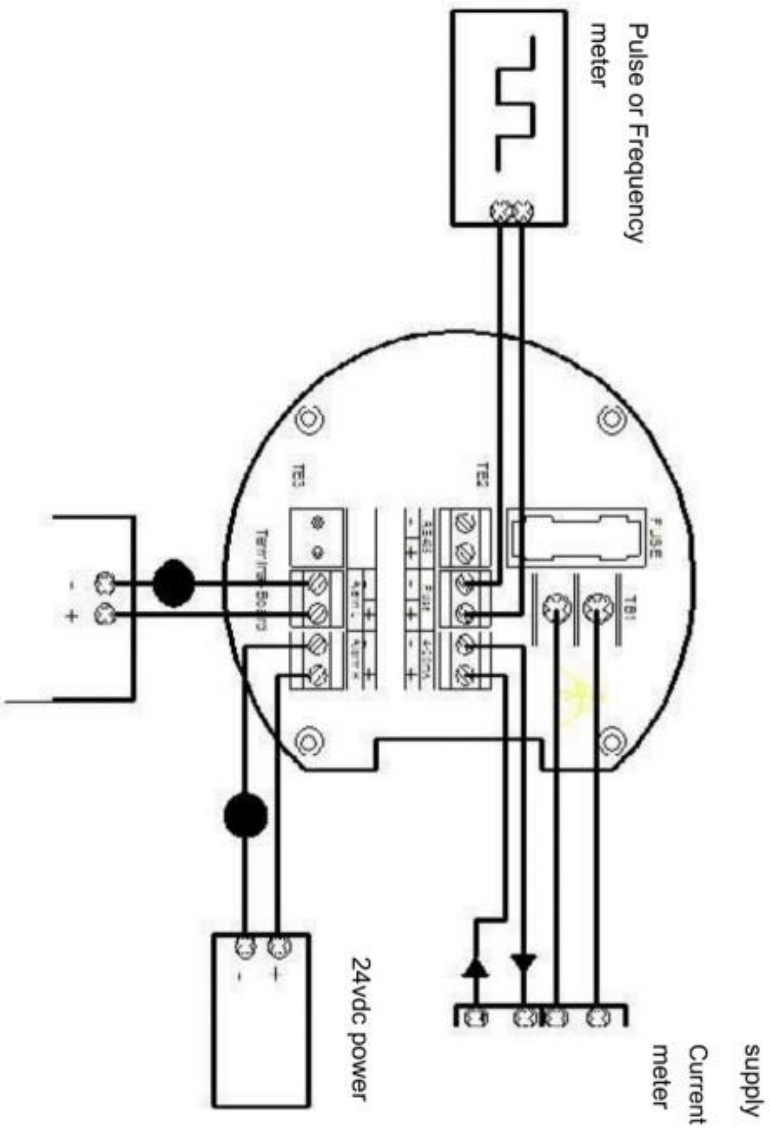
2.2 Transmitter Menu Structure

Main Menu



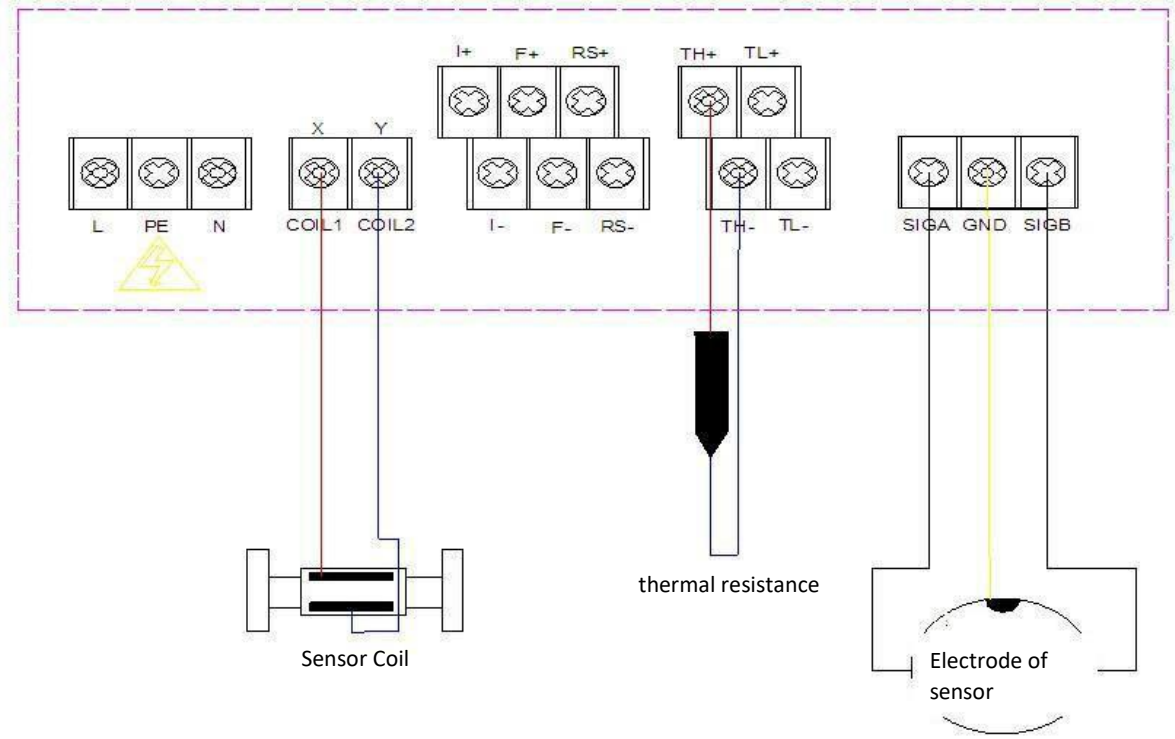
3. Wiring Diagram And Output Define

3.1 Integral Type Wiring Diagram (AC and DC Power Supply Type)



Identification		Function	Remarks
L		AC 85 - 265V	L : AC220V power supply (fire line)
N		AC 85 - 265V	N : AC220V power supply (Zero line)
24V		DC18-36V+	Power supply 24V+
COM		DC 18~36v -	Power supply 24V-
4-20mA	+	4~20Ma +	The load resistance is less than or equal to 500.ohm
	-	4~20mA -	
Pulse	+	Frequency & pulse output +	
	-	Frequency & pulse output -	
RS485	+	RS485 +	RS485 output
	-	RS485 -	
Alarm H	+	High alarm output +	Suggest use 24VDC intermediate relay, **Load current ≤ 30mA**
	-	High alarm output -	
Alarm L	+	Low alarm output +	
	-	low alarm output -	

3.2 Separate Type Wiring Diagram (AC and DC Power Supply Type)

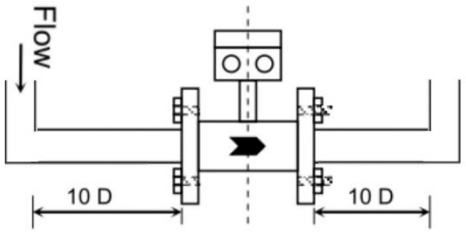


Identification	Function	Remarks
L	AC 85~265V	L: AC 86-220V fire line
PE		
N	AC 85~265V	N : AC 86-220V zero line
24V	DC 16~36V +	24VDC+ power supply
COM	DC 16~36V -	24VDC- power supply
I+	4~20mA output	The load resistance is less than or equal to 500.ohm
I-	4~20mAoutput	
F+	Frequency &pulse output +	
F-	Frequency &pulse output -	
RS+	RS485 +	RS485 output terminal
RS-	RS485 -	
TH+	Pt100 or Pt1000	
TH-		Connect to inlet temperature sensor
TL+	Pt100 or Pt1000	Connect to outlet temperature sensor
TL-		
Coil1(x)	connecting to excitation coil of sensor	
Coil2(y)	。	
SIGA	electrode A	Connect to signal electrode A
GND	Signal ground	Connect to the grounding electrode
SIGB	electrode B	Connect to Signal electrode B

4. Transmitter Operation And Parameter Setting

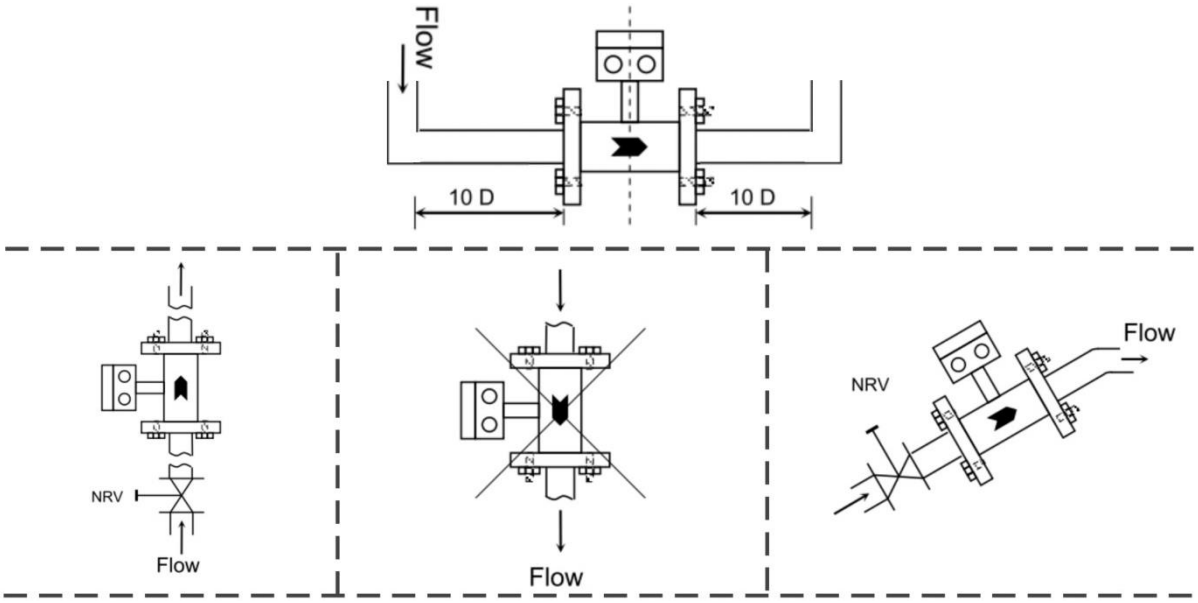
The Primary Flow Tube can be installed at any point in the pipe run either horizontal or vertical provided the following conditions are met:

The **direction of flow** through the pipe is same as indicated on the primary flow tube by a red arrow.

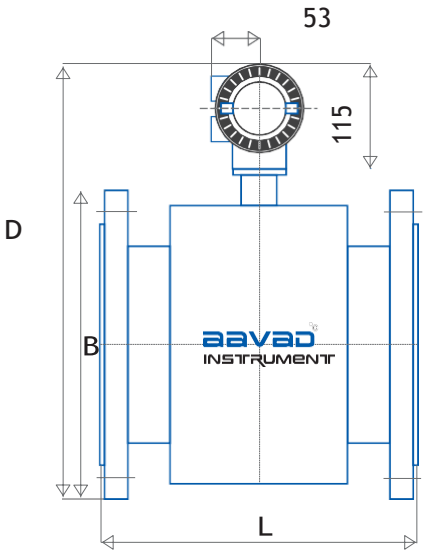


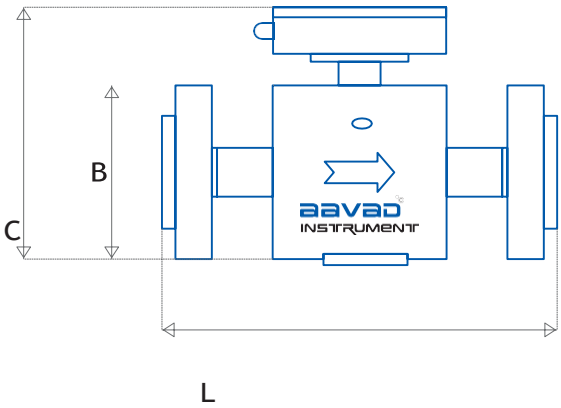
Straight lengths of maximum 10 D on upstream and minimum 10 D on down-stream as shown. If disturbances like cork screwing or vortex flow conditions are present straight length should be increased or flow straighteners should be used. Flaps, slidegates, valves etc should be arranged at a distance of at least 10D downstream of primary flow tube.

Ensure that primary **flow tube remains completely filled** by the fluid under measurement even under no flow condition. This ensures trouble free and reliable operation of the Flow Meter. Select a location on the pipe, which will always run full of liquid. For vertical installations the direction of flow against Gravity ensures full pipe. Some of the recommended installations are as under :



DN	L (mm)	B (mm)	C (mm)	D (mm)	PCD of Flange	Weight kg	Weight ±
DN 15	191	89.9	193.9	253.9	60.5	6.0	1.0
DN 20	191	98.4	293.4	263.4	70.0	6.5	1.0
DN 25	191	107.9	212.9	272.9	79.5	7.5	1.0
DN 32	191	117.5	222.5	282.5	89.0	8.5	1.0
DN 40	191	127.0	232.0	292.0	98.5	9.0	1.5
DN 50	192	152.4	257.4	317.4	120.5	13.0	1.5
DN 65	192	177.8	282.8	342.8	139.5	14.5	1.5
DN 80	192	190.5	295.5	355.5	152.5	18.5	1.5
DN 100	237	228.6	333.6	393.6	190.5	22.0	1.5
DN 125	240	254	359.0	419.0	216.0	26.0	1.5
DN 150	240	279.6	384.6	444.6	241.5	39.0	2.0
DN 200	310	342.9	447.9	507.9	298.5	43.0	2.0
DN 250	362	406.9	511.9	571.9	362.0	57.0	2.0
DN 300	412	482.6	587.6	647.6	432.0	77.0	2.0
DN 350	412	533.4	638.4	698.4	476.0	—	—
DN 400	515	596.4	701.4	761.4	539.5	—	—
DN 450	515	635.0	740.4	800.4	578.0	—	—
DN 500	516	698.5	803.5	663.5	635.0	—	—





5. Minimum - Maximum Flow Table

Size in mm	Flow Range (m^3 / hr) at 0.3 to 10 M/S	
	Minimum	Maximum
15	0.19	6.35
20	0.34	11.34
25	0.53	17.66
32	0.87	29.93
40	1.36	45.21
50	2.12	70.65
65	3.58	119
80	5.42	180
100	8.48	282
125	13.25	441
150	19.08	635
200	33.92	1130
250	53.01	1766
300	76.34	2543
350	103.91	3461
400	135.72	4521
450	171.77	5722
500	212.06	7065