

**80 G**

## **FM Radar Level Meter**

**Product Manual**

**WERD-9X Series**

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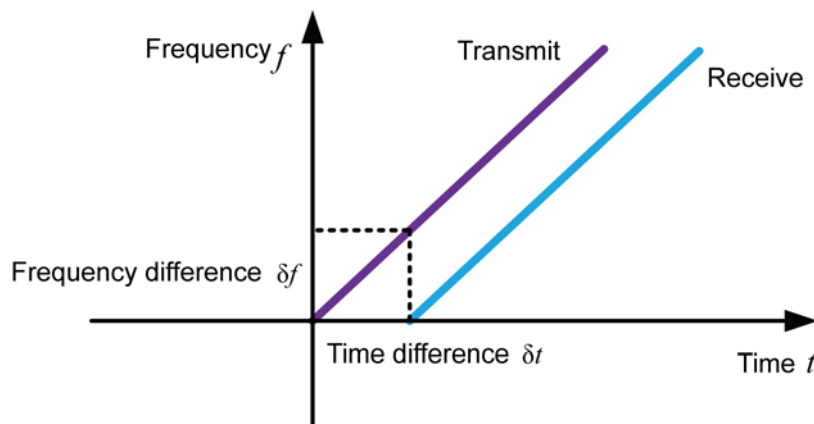
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# 80G FM Radar Level Meter

## 1.Principle:

The general principle of the FM continuous wave radar level gauge is that the radar emits electromagnetic waves on the top of the tank, and the electromagnetic waves are received by the radar after being reflected by the medium. The frequency difference  $\delta f$  between the received signal and the transmitted signal is proportional to the distance  $R$  from the surface of the medium:  $R = C \cdot \delta f / (2 \cdot K)$  (frequency modulation slope). Because the speed of light  $C$  and the frequency modulation slope  $K$  are known, the frequency difference  $\delta f$  can be estimated to obtain the distance  $R$  from the radar installation position to the material surface, and then through the known total height of the tank, subtract the spatial distance from the radar to the material surface (referred to as Empty height) to get the height of the material level.



$$\left. \begin{array}{l} \text{Time difference } \delta t = 2R/C \\ \text{Frequency difference } \delta f = K \cdot \delta t \end{array} \right\} \Rightarrow \text{Distance } R = C \cdot \delta f / 2/K$$

Note:  $K$  is the frequency modulation slope

## 2.Characteristic:

- 1) Millimeter-wave radar, with a measurement accuracy of up to  $\pm 1\text{mm}$ , and a minimum blind area of  $0.1\text{m}$ .
- 2) The smaller antenna size satisfies the measurement of more working conditions.
- 3) A variety of lens antennas, smaller launch angle, more concentrated energy, stronger echo signal, under the same industrial and mining conditions, compared to

Other radar products have higher reliability.

4) With stronger penetrability, it can be used normally even if there is adhesion and condensation.

5) The dynamic signal range is larger, and the measurement of low dielectric constant medium is more stable.

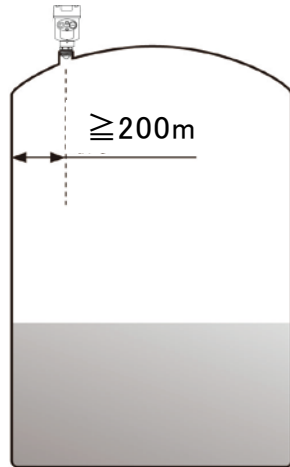
6) A variety of measurement modes, the radar reaction time in the fast measurement mode is less than 1S.

### 3. Technical Specifications Table:

Transmit frequency	76GHz~81GHz
Measuring range	0.3m~ 60m 008m~30m 0.6m~ 120m 008m~ 10m
measurement accuracy	±1mm
Measurement interval	As fast as 100ms
Beam angle	3°/8°/20°
Use dielectric constant range	>=2
Power supply range	12~28.0VDC,
Output	4~20mA HART or RS-485 (Modbus)
Fault output	3.8mA, 4mA, 20mA, 21mA, keep
On-site operation/programming	128×64 dot matrix display/4 buttons Configurable upper computer setting software
Industrial temperature/humidity	T0: -40~85℃/≤95%RH; T1: -40~200℃; T2: -40~500℃; T3: -40~1000℃
shell material	Aluminum alloy, stainless steel
Process connection type	Pipe thread/universal flange/anti-corrosion flange/sanitary chuck/quartz isolation flange
Process pressure	-0.1~2MPa
Product Size	Ø100*270mm
Cable entry	M 20*1.5
Recommended cable	AWG18 or 0.75mm <sup>2</sup>
Protection level	IP67
Explosion-proof grade	ExdialICT6
Installation method	Thread or flange
Net weight/Gross weight	2.480Kg/2.995Kg
Packing box size	370*270*180mm

## 4. Installation Methods

- 1) Threaded installation:

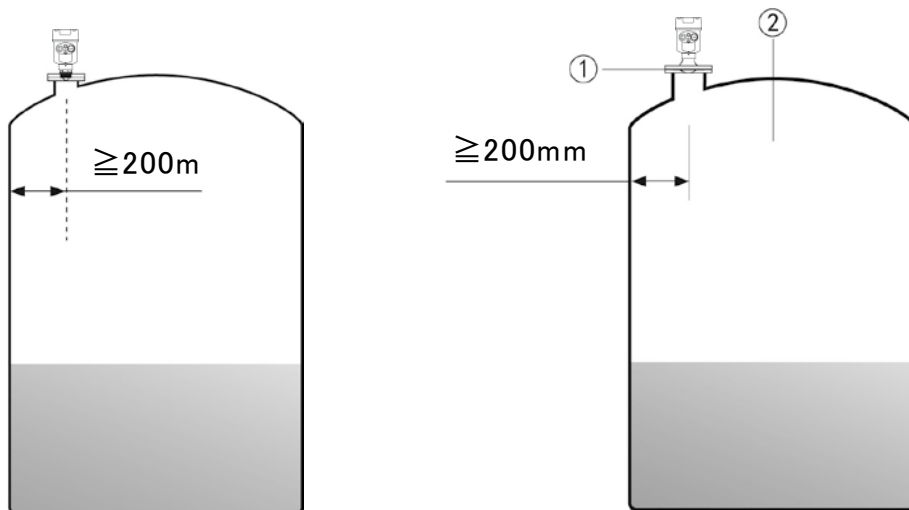


- 2) Flange installation:

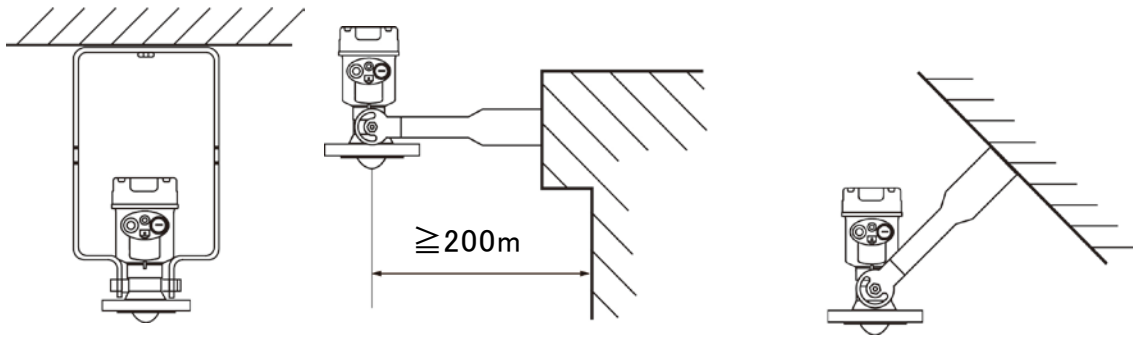
The meter should be installed at 1/4 or 1/6 of the diameter of the tank when using flange, and the minimum distance between the meter and the tank wall should be more than 200mm.

Note: ① Datum

② Container center or axis of symmetry

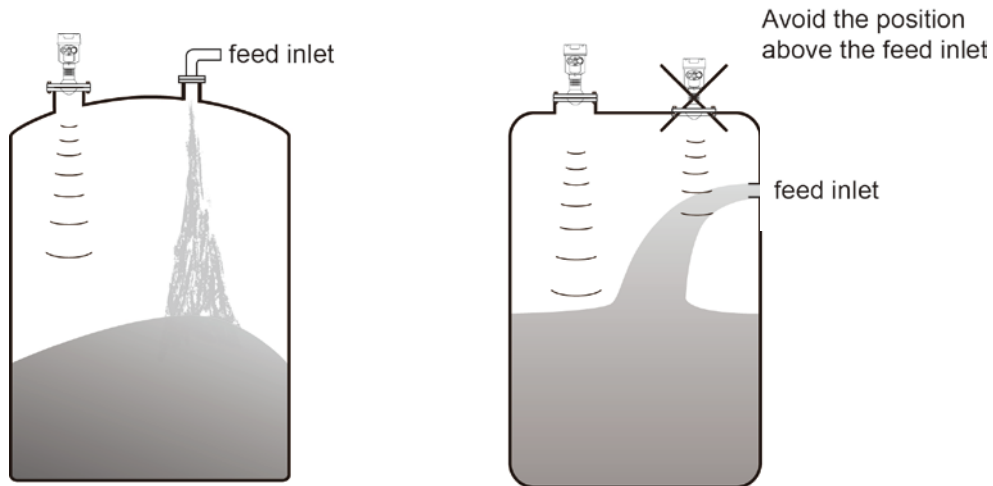


- 3) Lifting (selected according to specific installation conditions):



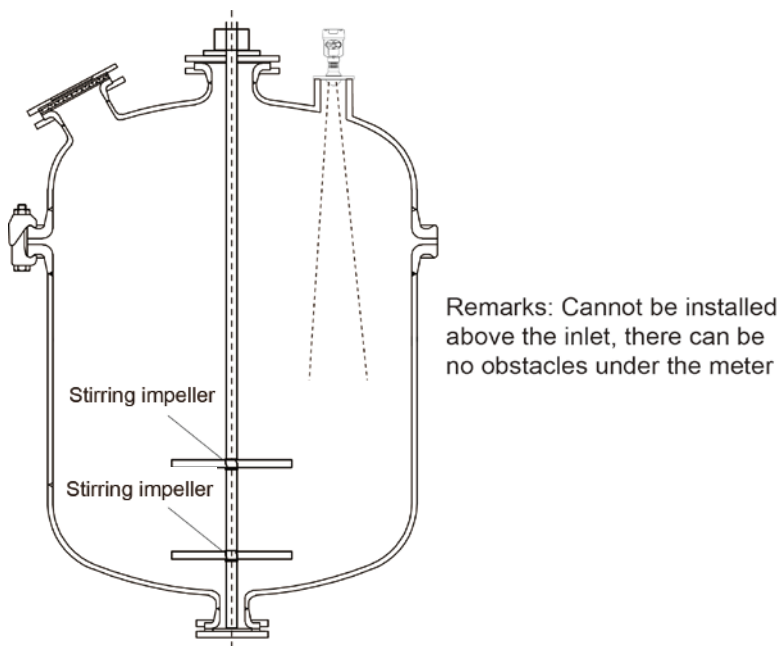
## 5. Installation Requirements:

1) When installing the instrument, avoid installing it above the material inlet, and try to avoid various objects that affect the signal, such as stirring paddles, etc.

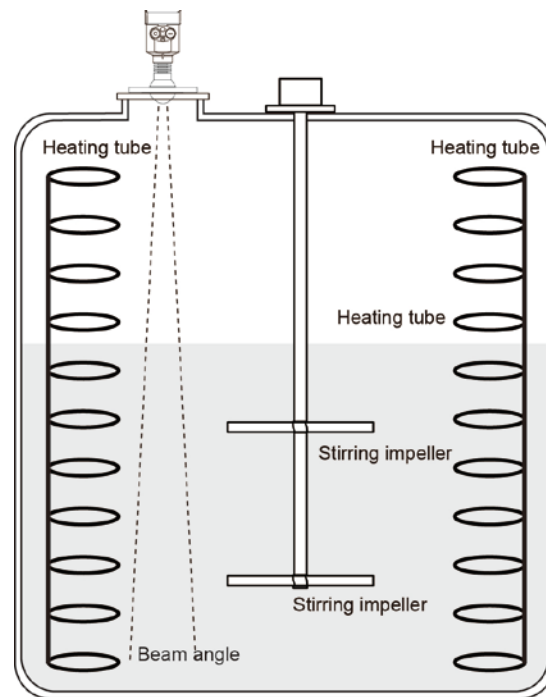


Solid measurement

Measuring liquid



2) Under extremely complex working conditions, the instrument can work normally with the radar installation point as the center and no obstacles in the area with a radius of 20 cm.



Extremely low emission angles ensure accurate measurements under extreme conditions

## 6. Electrical Connection

### 1) Power Supply

(4~20) mA (2-wire)

The power supply and the output current signal share a two-core shielded cable. See technical data for specific power supply voltage range.

(4~20) mA (4/6-wire)

The power supply needs to be supplied separately, and the power supply and the current signal use a four-core shielded cable (the current signal and the RS485 interface can be output at the same time, and the output needs to use a six-core shielded cable).

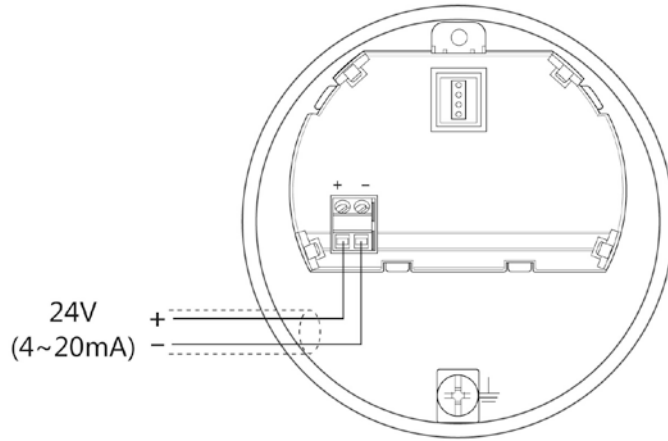
Modbus-RS485

The power supply needs to be supplied separately, and the power supply and the digital use a four-core shielded cable .

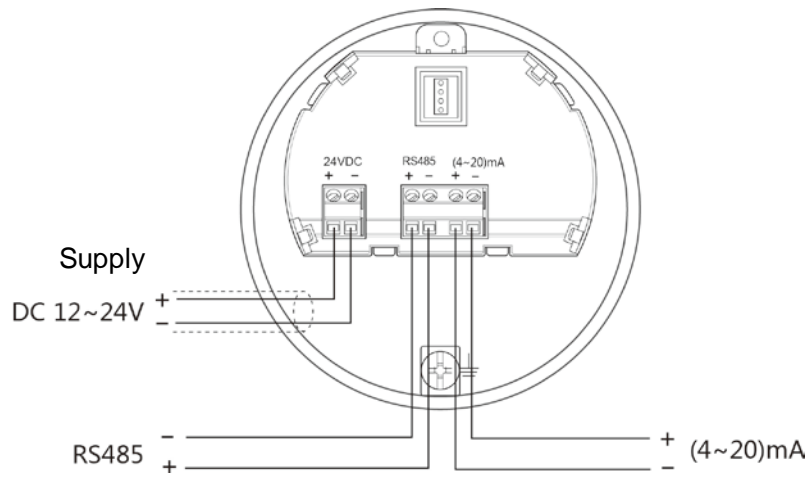
### 2) Connection Method

● **Single Chamber**

➤ 24V two-wire system wiring diagram is as follows:

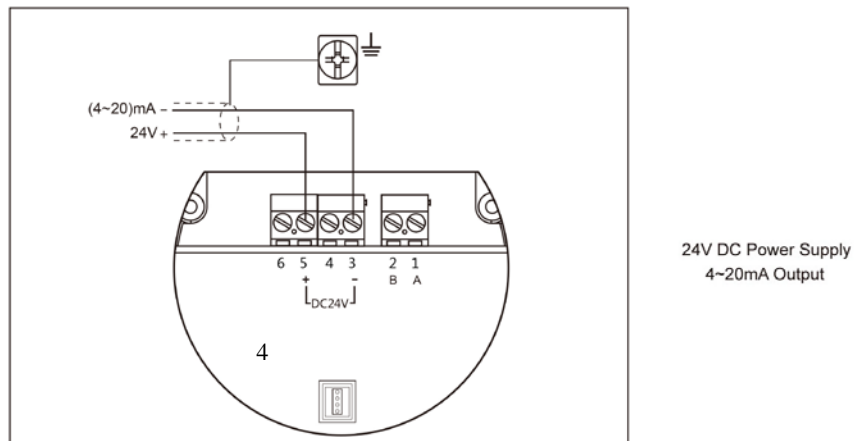


➤ Six-wire wiring diagram of the four-wire system is as follows:



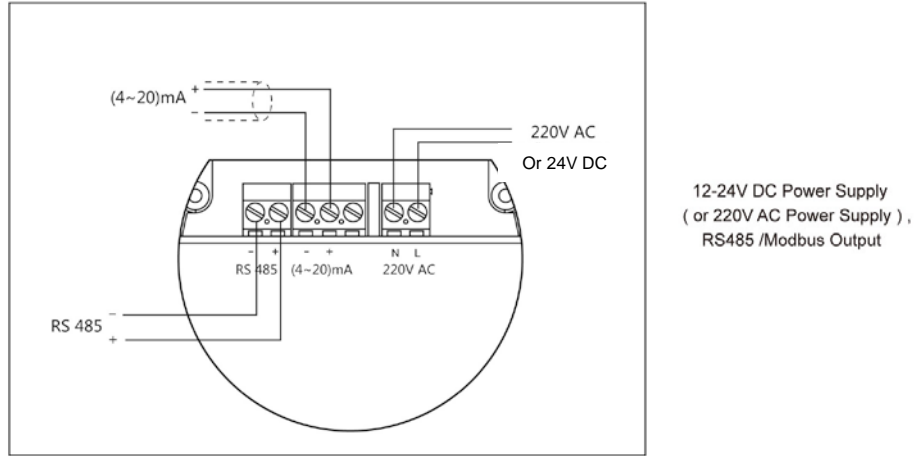
● **Double Chamber**

➤ Two-wire and two-chamber wiring diagram shown on the side is as follows:





➤ Four-wire, two-room wiring diagram:

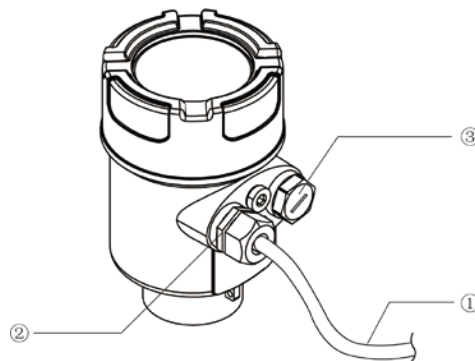


### 3) Safety guidance

Please observe the requirements of the local electrical installation regulations!  
 Please observe local regulations regarding the health and safety of personnel. All operations on the electrical components of the instrument must be performed by trained professionals.  
 Please check the nameplate of the instrument to ensure that the product specifications meet your requirements. Make sure that the supply voltage is the same as that on the instrument nameplate.

### 4) Protection level

This instrument fully meets the requirements of protection grade IP66/67. Please ensure the waterproof performance of the cable gland. As shown below:

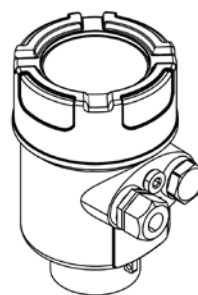
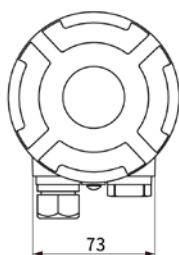
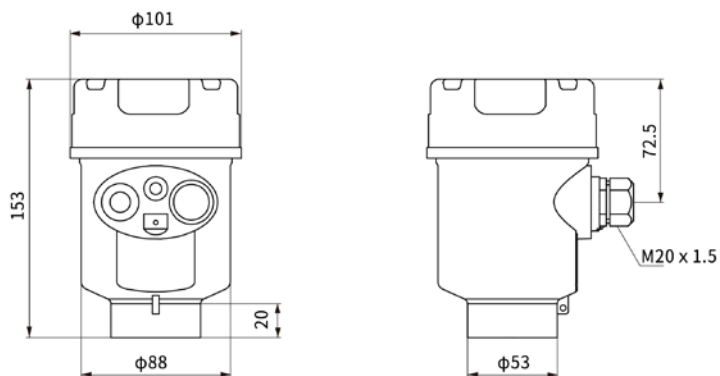


How to ensure that the installation meets the requirements of IP67:  
 Make sure the seal head is not damaged.  
 Make sure the cable is not damaged.  
 Make sure that the cable you are using meets the electrical connection specifications.  
 Before entering the electrical interface, bend the cable down to ensure that water does not flow into the housing, see ①  
 Please tighten the cable gland, see ②  
 Please block the unused electrical interface with a blind plug, see ③

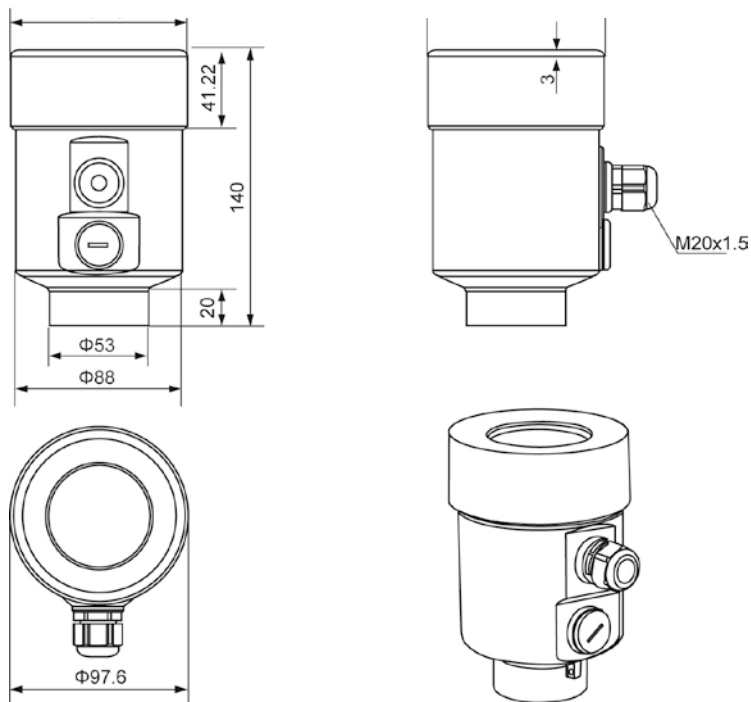
## 7. Structure Size:

- The outer housing casing size (unit: mm)

➤ Aluminum case:

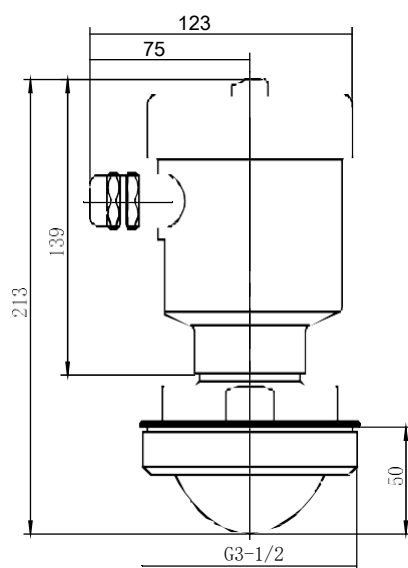


➤ Stainless steel case:

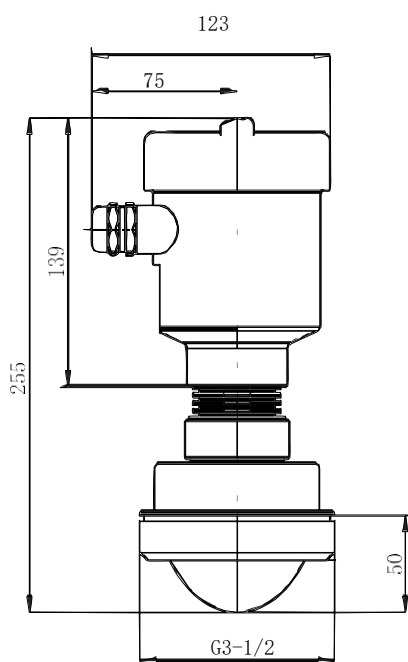


- Product Size (unit: mm)

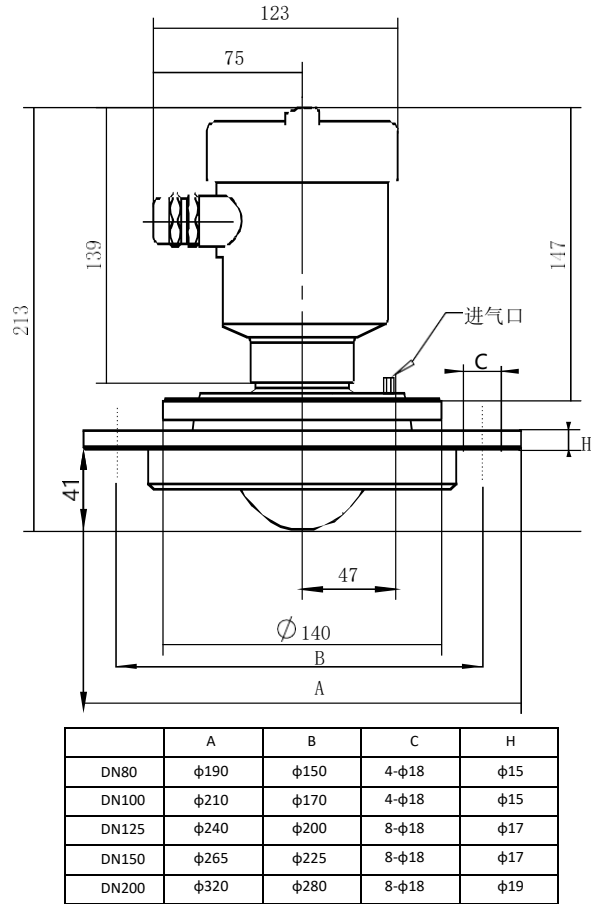
➤ Thread Connecting For Normal Temperature:



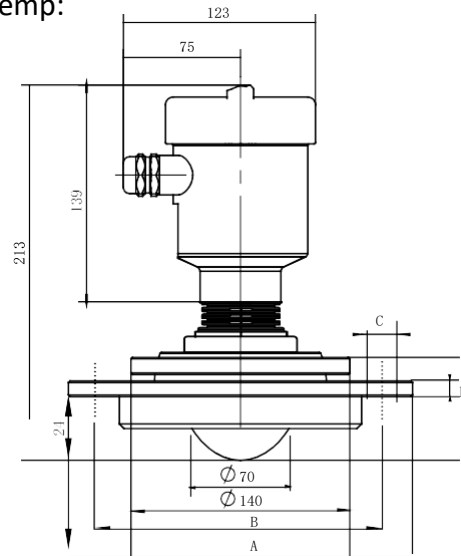
➤ Thread Connecting For High Temperature:



➤ Universal Flange Structure For Normal Temperature :

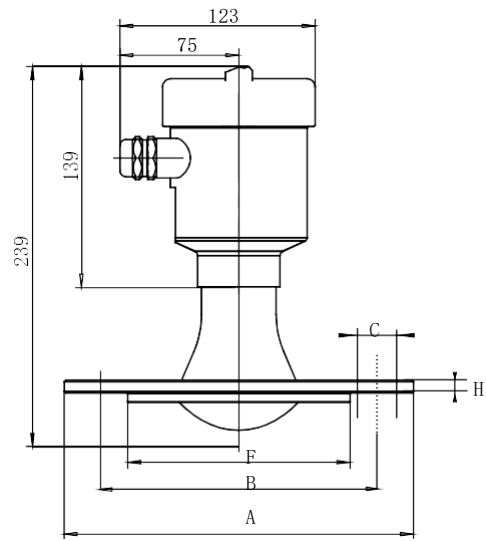


➤ Universal Flange Structure For High Temp:

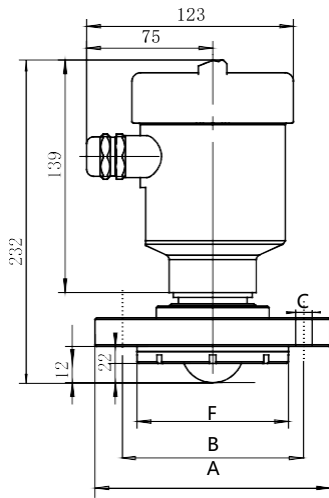


	A	B	C	H
DN80	φ190	φ150	4-φ18	φ15
DN100	φ210	φ170	4-φ18	φ15
DN125	φ240	φ200	8-φ18	φ17
DN150	φ265	φ225	8-φ18	φ17
DN200	φ320	φ280	8-φ18	φ19

➤ Anti-corrosion Flange Structure For Normal Temperature & Pressure

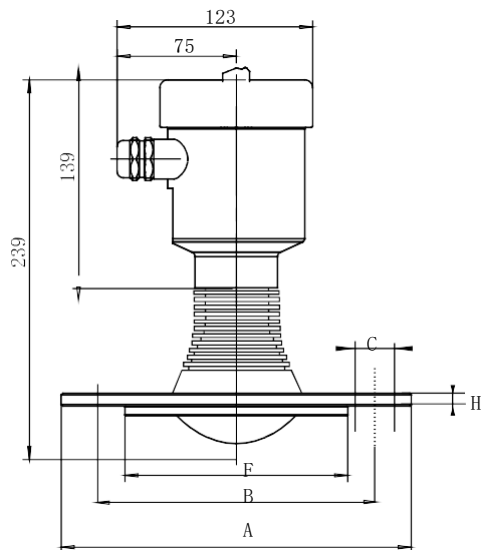


	A	B	C	H	H
DN80	φ190	φ150	4-φ18	φ128	φ18
DN100	φ210	φ170	4-φ18	φ148	φ18
DN125	φ240	φ200	8-φ18	φ178	φ20
DN150	φ265	φ225	8-φ18	φ202	φ20
DN200	φ320	φ280	8-φ18	φ258	φ22

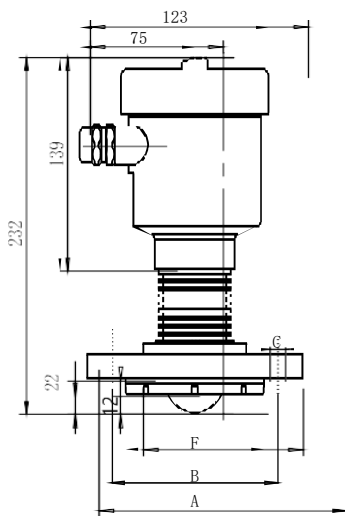


	A	B	C	H	H
DN50	φ140	φ110	4-φ14	φ90	φ16
DN65	φ160	φ130	4-φ14	φ110	φ16

➤ Anti-corrosion Flange Structure For High Temperature & Pressure :

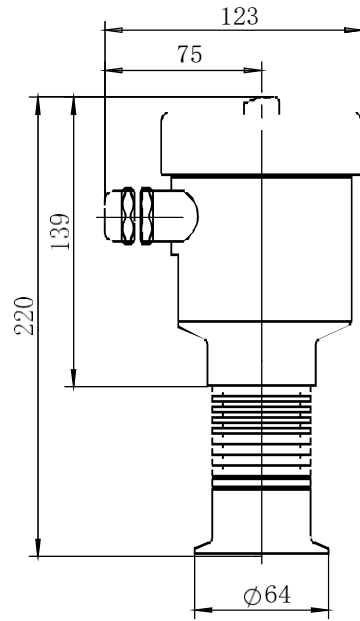


	A	B	C	H	H
DN80	φ200	φ160	4-φ18	φ138	φ20
DN100	φ220	φ180	4-φ18	φ158	φ22
DN125	φ250	φ210	8-φ18	φ188	φ22
DN150	φ285	φ240	8-φ22	φ212	φ24
DN200	φ340	φ290	12-φ22	φ268	φ26

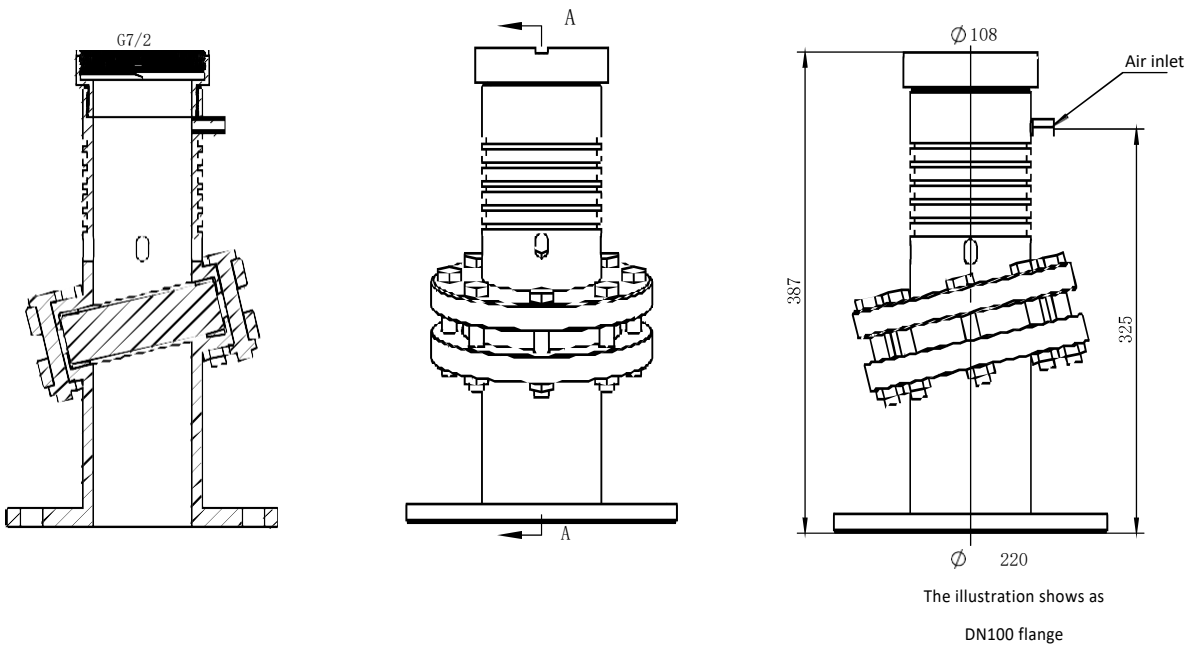


	A	B	C	H	H
DN50	φ140	φ110	4-φ14	φ90	φ16
DN65	φ160	φ130	4-φ14	φ110	φ16

➤ Sanitary Chuck Connecting

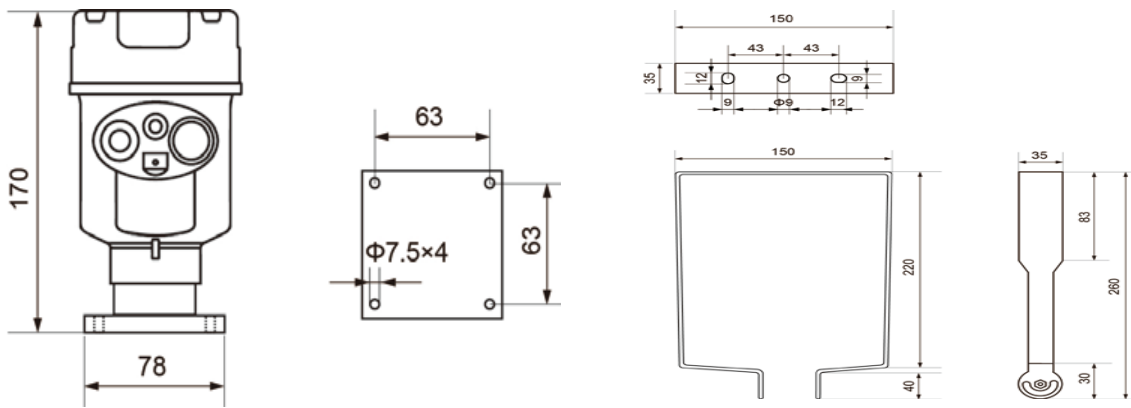


➤ High Temperature Structure :



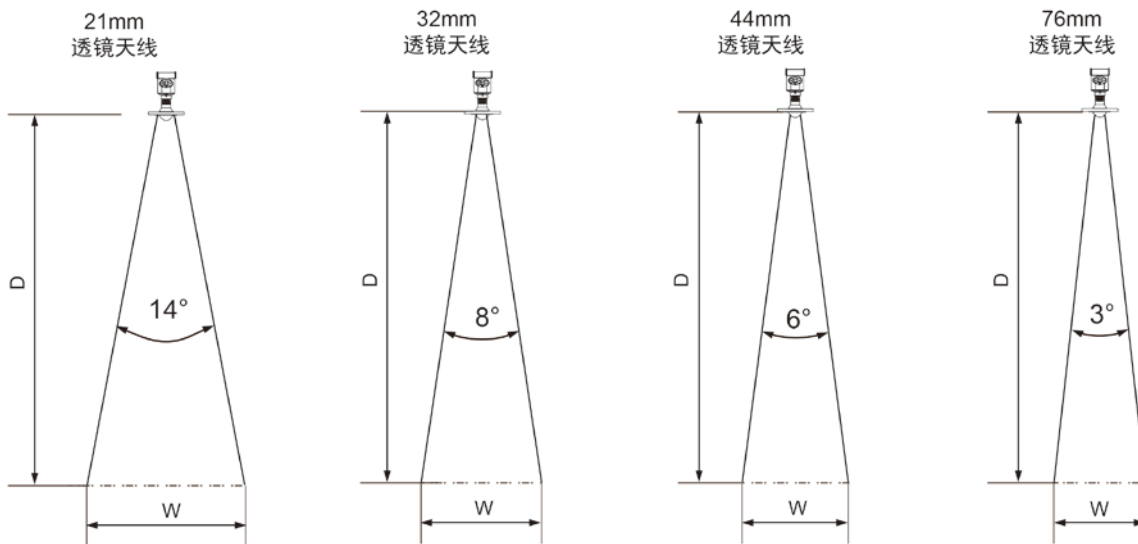
● With split display, split size:

● Gantry frame size:



## 8. Beam Angle

The beam angle is the beam angle when the radar wave energy density reaches half of its maximum value (3dB width). Microwaves emit signals outside the beam range and can be reflected by interference objects.



Lens antenna diameter	Φ21mm Lens antenna	Φ32mm Lens antenna	Φ44mm Lens antenna	Φ78mm Lens antenna
Beam angle	14°	8°	6°	3°

The larger the antenna size, the smaller the beam Angle alpha, the less the interference echo will be generated.

For more accurate measurements, avoid installing any internal devices (such as limit switches, temperature sensors, bases, vacuum rings, heating coils, baffles, etc.) within the signal beam range.



## 9. Technical Parameters:

Process Connection	Flange
	Material PP, PTFE, stainless steel, stainless steel +PTFE flanging
Antenna Material	PTFE
The outer shell	Cast aluminum / stainless steel / plastic ABS
The seal between the shell and the shell cover	Silicone rubber
Casing window	Polycarbonate
The ground terminal	Stainless steel

### Power supply pressure

#### 2-wire system (single cavity/double cavity)

(15-28) V DC

Power dissipation max 80mA DC24V/ 2W

Allowable ripple <100Hz  $U_{ss} < IV$

(100~100K) Hz  $U_{ss} < 10mV$

#### 4-wire system (double cavity)

(198~242)V AC

110V AC

### Cable parameter

Cable entrance / plug	1 M20×1.5 cable entrance 1 blind plug M20×1.5
Cable outer diameter	6~12mm
Terminal	Conductor cross section 2.5mm <sup>2</sup>

### Output parameters

Output signal	(4~20) mA /HART
Resolution	1mm
Fault signal	current output unchanged; 20.5mA; 22mA; 3.9mA
Damping time	0~999
Blind zone	0.1m/0.3m
Maximum measuring distance	150 m
Measurement interval	1 second (depending on parameter settings)
Adjustment time	about 1 second (depending on parameter settings)
Working storage and transportation temperature	(-40~80) °C
Relative humidity	< 95%
Shockproof	Vibration frequency (10~150) Hz, Maximum vibration acceleration 10m/s <sup>2</sup>

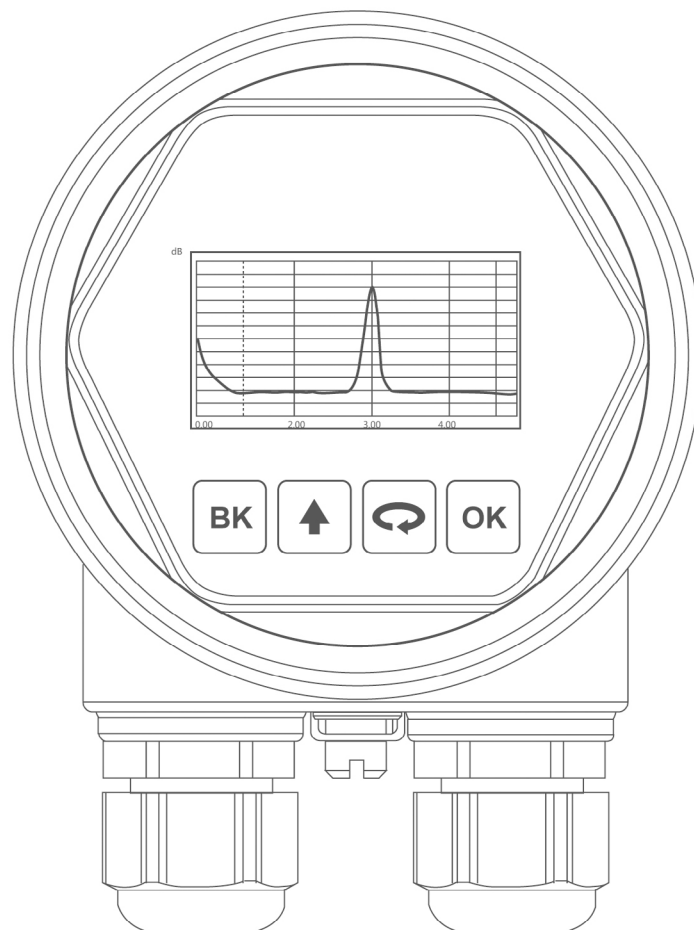
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# 80G FM Radar Level Meter

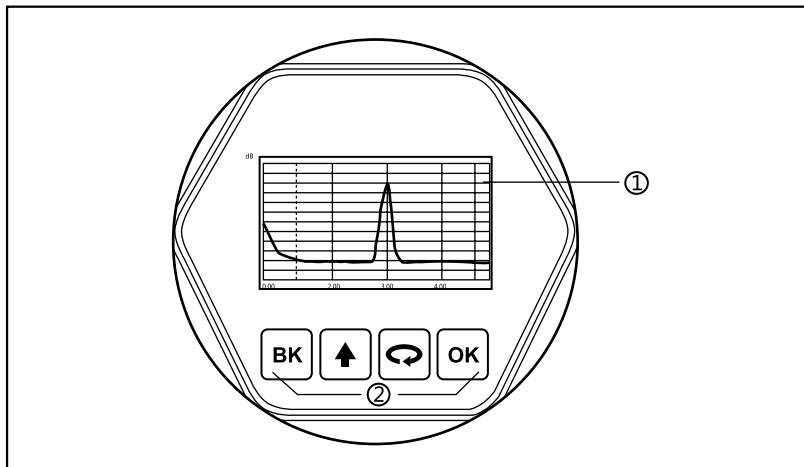
## Commissioning Instructions

### WERD-9X Series



## Key function description:

There are 4 buttons on the instrument panel, through which the instrument can be debugged. The language of the debugging menu is optional. After debugging, the LCD screen displays the measured value, and the measured value can be clearly read through the glass window.



1. LCD display

2. Buttons

## Key Functions:

[ **OK** ] key

- Enter programming state;
- Confirm programming items;
- Confirm parameter modification.

[ **▲** ] key

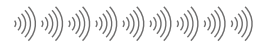
- Select programming items;
- Modify the parameter value;
- Air-to-air/material-high switching during operation;

[ **↻** ] key

- Select programming items;
- Select edit parameter bit;
- Content display of parameter items;

[ **BK** ] key

- Exit programming state;
- Return to the previous menu;
- During operation, the measured value/echo waveform is switched.



## Programming instructions

We can use the four buttons on the panel to realize the parameter setting, debugging and testing functions of the instrument.

## Programming menu structure

The menu structure can be found in the final table. In the figure, the transition to the right horizontal arrow is realized by the **OK** key; the downward arrow transition is realized by the key; the upward arrow transition is realized by the key; and the **BK** key realizes the horizontal arrow to the left.

## Programming submenu

### basic settings

The basic settings include the basic parameters of the instrument: high and low adjustment, range, blind range, material properties, range offset ,current output and track setting.

### Display

The display is to set the language, curve range and unit of the instrument.

### Advanced settings

Advanced settings includes more specialized content of meter, clutter update, no target set, damp time, damp coeff.

### Service

Services include password, current emulation, current bias, factory Settings restoration, firmware updates.

### Information

The information includes the factory date, serial number, and version number of the instrument.

## Programming method

When the meter is in the running state, press **OK** to enter the programming state and display the programming main menu. After editing each parameter, you need to confirm with **OK**, otherwise the editing is invalid. After finishing editing, press the **BK** to exit the programming state and return to the running state. At any time during programming, you can press **BK** to abandon programming and exit the parameter item programming state.

## Optional parameter programming

### *Character/number parameter programming*

When the menu enters the character/number programming state, the first digit of the edited parameter is reversed to black. At this time, you can press to change the character/number until the desired character/number, press , the character bit/number Anti-black, you can program other bits. After programming, press **OK** to confirm programming.

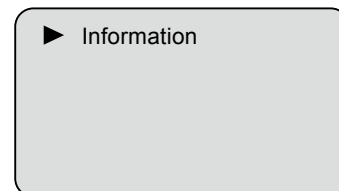
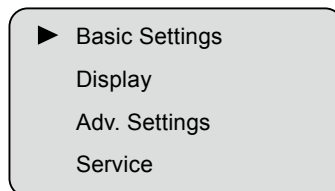
### *Optional parameter programming*

Optional parameters means that there are several selected parameter items for the user to choose. Use the or to point the arrow to the desired parameter item, and press the **OK** to confirm the programming.

## Programming menu description

The basic settings include the settings of the main instrument parameters, such as high and low adjustment, range, material properties, blind range, etc. In the running state, press the **OK** button to enter the programming state, the LCD displays the main menu

## 1 Basic Settings



When the arrow points to the basic settings, press **OK** to enter the basic settings submenu

▶ Min.-Max. adj.  
Range  
Near blanking  
Detect scene

Range adj.  
Current set  
Track set  
Gain set

### 1.1 Min.-Max. adj.

Min -Max adj is used to set the range, which together determine the ratio of the linear correspondence between current outputs.

In the sub-menu of basic settings, when the arrow points to high-low adjustment, press **OK** key to enter the corresponding value of Min adjustment, the LCD display

Low Pos (m)  
005.000  
High Pos (m)  
000.300

### 1.2 Range

Refer to the character/digit parameter programming method in the preceding parameter editing method, edit the distance value corresponding to the low level adjustment and the distance value corresponding to the high level adjustment, press **OK** key to confirm the modification after editing, and press **BK** key to abandon the programming.

For accurate measurement, it is necessary to set the measuring range.

When the arrow points to high-low adjustment, press **↻** to move to range, press **OK** to enter range setting menu, the LCD displays

Range (m)  
006.000

At this time, the cursor is on the first digit field of the parameter, press **↻** key to move the cursor position, press **↑** key to modify the parameter value, press **OK** key to confirm the modification, press **BK** key to abandon the programming

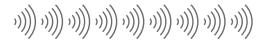
### 1.3 Near blanking

When there is a fixed obstacle near the surface of the sensor that interferes with the measurement, and the maximum material height will not reach the obstacle, the setting function of the near blanking range can be used to avoid measurement errors.

When the arrow points to range, press **↻** to move to blind range, press **OK** to enter the setting menu, the LCD displays

Blind Range (m)  
00.100

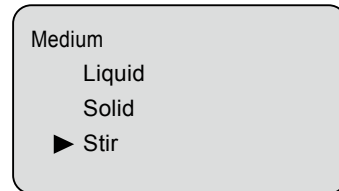
At this time, the cursor is on the first digit field of the parameter, press **↻** key to move the cursor position, press **↑** key to modify the parameter value, press **OK** key to confirm the modification, press **BK** key to abandon the programming



## 1.4 Detect scene

Detect scene menu is used to select solid or liquid or stir, so as to further determine other properties of the material that affect the measurement.

When the arrow points to blind range, press to move to material properties(cuurent set), press to enter the setting menu, the LCD displays

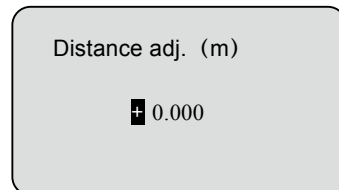


use and keys to select the material property as liquid, solid or stir, After editing, press to confirm.

## 1.5 Range adj.

Range adj is used to modify the measurement error, and its value is the difference between the actual air height value and the displayed air height value.

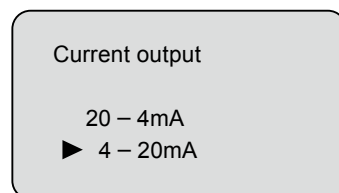
When the arrow points to material properties(Cuurent Set), press to move to distance offset, press to enter the setting menu, the LCD displays



At this time, the cursor is on the first digit field of the parameter, press key to move the cursor position, press key to modify the parameter value, press key to confirm the modification, press key to abandon the programming

## 1.6 Current set

When the arrow points to range adj, press to move to Current set, press to enter current output menu setting, the LCD display

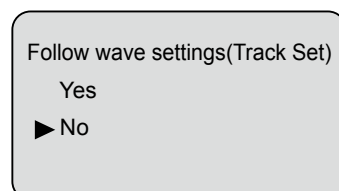





use the to select, press the to confirm.

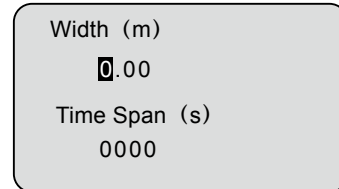
## 1.7 Track set





Track set is to control the echo tracking by setting the tracking width and holding time. It can be kept for a period of time within the setting range to prevent sudden changes when the radar collects values.

When the arrow points to current output(Detect Secene), press to move to follow wave settings(Track Set), press to enter the menu , the LCD display





Press  or  to select Yes or No. When yes, press  to enter tracking width and holding time setting menu, LCD display

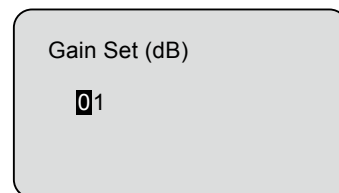






At this time, the cursor is on the first digit field of the parameter, press  key to move the cursor position, press  key to modify the parameter value, press  key to confirm the modification, press  key to abandon the programming

## 1.8 Gain set

Changing the gain value will change the size of the echo signal, but also the size of the noise. Choose different gain values according to different working conditions to achieve the most stable measurement.gain modification ranges from 1 to 15dB



When the arrow points to the follow wave setting, press  to move the arrow to the gain setting, press  to enter the gain set menu setting, the LCD display

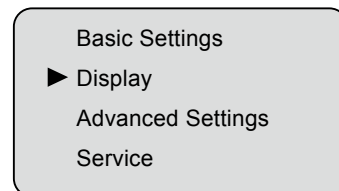



At this time, the cursor is on the first digit field of the parameter, press  key to move the cursor position, press  key to modify the parameter value, press  key to confirm the modification, press  key to abandon the programming

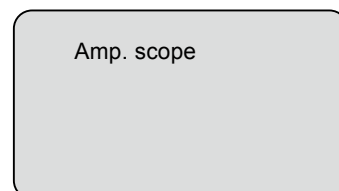
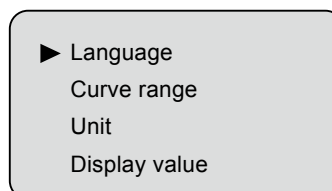
## 2 Display

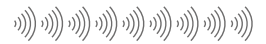
This function is used to program the display mode.

When the LCD displays the main menu, press the  or  to move the arrow to the display options, the LCD displays



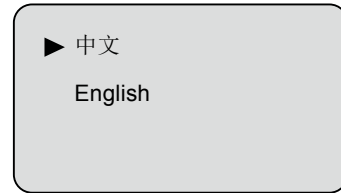
Press  to enter the display menu, LCD display





## 2.1 Language

This item is used to control the language of the LCD display. When the arrow points to the language, press **OK** to enter the language menu, the LCD display

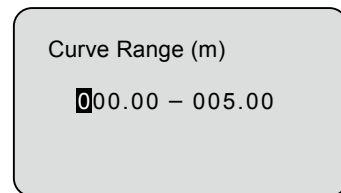


Press **↶** to select the language type, and press **OK** to confirm.

## 2.2 Curve Range

Curve range is to display the echo curve within the specified range.

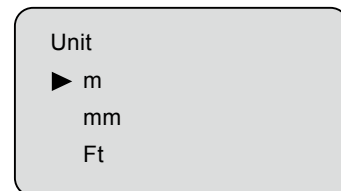
When the arrow points to language, press the **↶** to move to curve range, press **OK** to enter the setting menu, the LCD displays



At this time, the cursor is on the first digit field of the parameter, press **↶** key to move the cursor position, press **↑** key to modify the parameter value, press **OK** key to confirm the modification, press **BK** key to abandon the programming

## 2.3 Unit

Units are units of distance and bit height. When the arrow points to curve range, press **↶** to move to unit, press **OK** to enter the menu setting, the LCD display

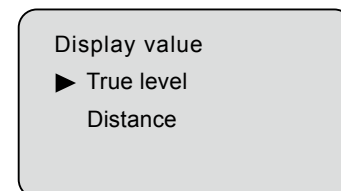


use the **↶** or **↑** to select, press the **OK** to confirm, Press **BK** to give up

## 2.4 Display value

The display content refers to the distance value or true level value measured by the meter.

When the arrow points to the unit, press the **↶** key to move the arrow to the display content, press the **OK** key to enter the display content menu, the LCD display





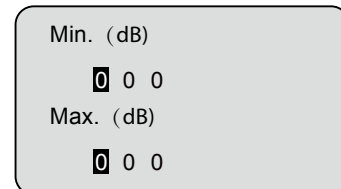
use the **↶** or **↑** to select, press the **OK** to confirm, Press **BK** to give up







## 2.5 Amp. scope

The advanced Settings menu contains more specialized functions.




When the arrow points to the display content, press the  key to move the arrow to the amplitude range, press the  key to enter the amplitude range menu, and the LCD display

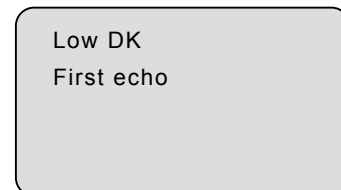
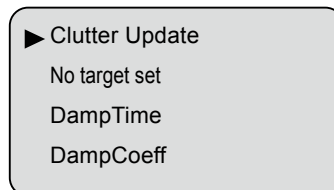


At this time, the cursor is on the first digit field of the parameter, press  key to move the cursor position, press  key to modify the parameter value, press  key to confirm the modification, press  key to abandon the programming

## 3 Adv. settings

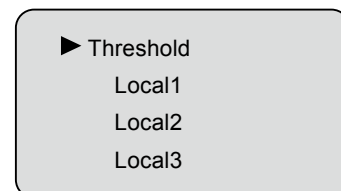
The adv. settings menu contains more professional functions.

When the LCD displays the main menu, press  or  to move the arrow to adv. settings, press  to enter the advanced setting, the LCD displays




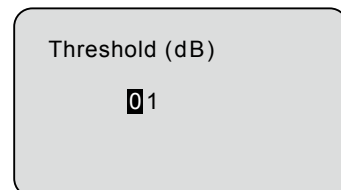
### 3.1 Clutter Update





When the arrow points to clutter update, Press  to move to clutter update, press  to enter the menu, LCD display

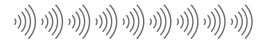


#### 3.1.1 Threshold Setting

Threshold setting is a uniform setting of the detection threshold within the measurement range. When the arrow points to the threshold setting, press  to enter the threshold setting, the LCD display



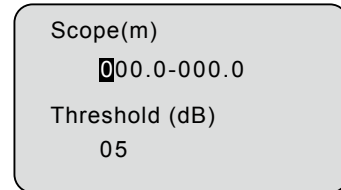
At this time, the cursor is on the first digit field of the parameter, press  key to move the cursor position, press  key to modify the parameter value, press  key to confirm the modification, press  key to abandon the programming



### 3.1.2 Local Setting

The local setting is to learn the false echoes in the container containing known obstacles within the specified range to eliminate the influence of fixed obstacles on the measurement. A total of three intervals can be set.

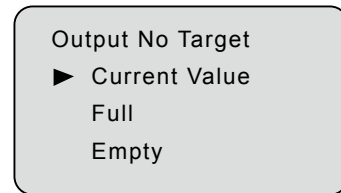
When the arrow points to global reset, press to select local setting 1, local setting 2, local setting 3, press to enter the local setting menu, the LCD displays



At this time, the cursor is on the first digit field of the parameter, press key to move the cursor position, press key to modify the parameter value, press key to confirm the modification, press key to abandon the programming

### 3.2 No target set

No target setting is the setting of the radar output signal when there is no echo signal. When the arrow points to clutter update, press to move to no signal output(No Target Set), press to enter the menu, the LCD display

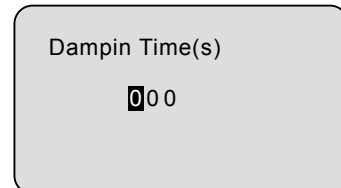


Use the key or the key to select no target output value, press the key to confirm the selection, and press the key to abort the programming.

### 3.3 Damping Time

Damping time is set to the speed at which the radar display value and output signal change, ranging from 0-999.

When the arrow points to no target set , press to point to damping time, press to enter the damping time menu, LCD display







At this time, the cursor is on the first digit field of the parameter, press key to move the cursor position, press key to modify the parameter value, press key to confirm the modification, press key to abandon the programming

### 3.4 Damping Coeff

The damping coeff is used to set the refresh speed of radar echo curve, which can be set in the range of 0-99

When the arrow points to damping time use  points to damping coeff, press  to enter the menu, the LCD display

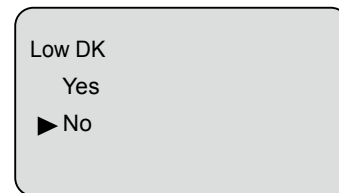





At this time, the cursor is on the first digit field of the parameter, press  key to move the cursor position, press  key to modify the parameter value, press  key to confirm the modification, press  key to abandon the programming

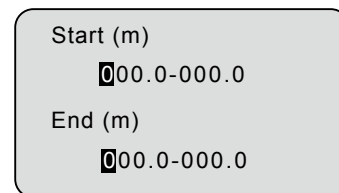
### 3.5 Low DK





Low DK is aimed at the working condition where the dielectric constant of the tested medium is relatively small. The starting and ending values are set to suppress the tank bottom signal generated by radar penetration within this range.

When the arrow points to damping coeff use  points to low DK, press  to enter the menu, the LCD display





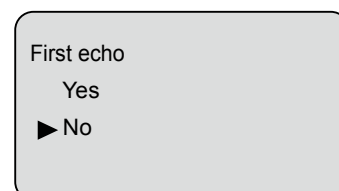
You can use the  key or  key to select whether to set low DK. If yes, press  to enter the start value and end value Settings. The LCD displays

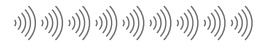





At this time, the cursor is on the first digit field of the parameter, press  key to move the cursor position, press  key to modify the parameter value, press  key to confirm the modification, press  key to abandon the programming

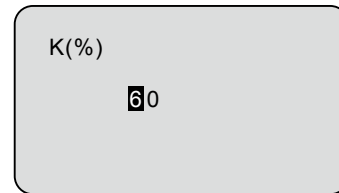
### 3.6 First Echo





First echo is used to collect front-end signals more stably by setting K% value. It is generally used in conditions that are easy to generate multiple echoes. When the arrow points to low DK, press  key. Arrow moves to first echo, press  key to enter first echo menu, LCD display








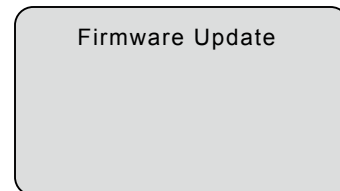
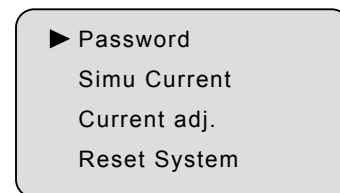
You can use the  key or  key to select whether to set first echo. If yes, press  to enter the K(%) Settings. The LCD displays



At this time, the cursor is on the first digit field of the parameter, press  key to move the cursor position, press  key to modify the parameter value, press  key to confirm the modification, press  key to abandon the programming

## 4 Service

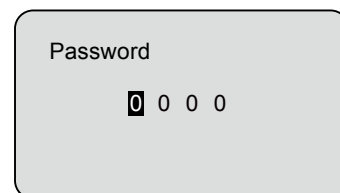
The service menu contains five options: password, current simulation, current bias, factory setting restoration, and firmware update. When the LCD displays the main menu, press  or  to move to service, press  to enter the menu, the LCD displays







### 4.1 Password

When modifying the current bias or firmware update, you need to enter the correct password to enter.

When the arrow points to password, press  to enter the password menu, the LCD displays

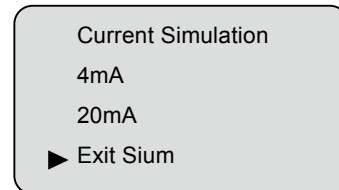


At this time, the cursor is on the first digit field of the parameter, press  key to move the cursor position, press  key to modify the parameter value, press  key to confirm the modification, press  key to abandon the programming

## 4.2 Current Simulation

Current simulation is the simulation output of 4mA and 20mA, which is used to verify whether the current output function of the instrument is normal, and can also be used for system debugging. When the radar works normally, the current simulation option is no.

When the arrow points to current simulation, press **OK** to enter the menu, the LCD displays

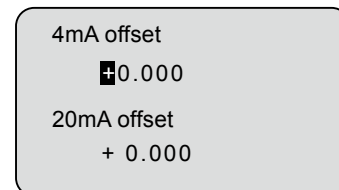


Use the **↶** key or the **↑** key to select the current value to be simulated, press the **OK** key to confirm the selection, and press the **BK** key to abandon the programming.

## 4.3 Current Offset

The current offset is to set the bias for the output current of 4mA and 20mA. This function requires the verification password.

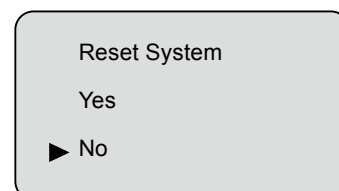
When the arrow points to current simulation, select current bias with **↶**, enter the correct password, and press **OK** to enter the current offset menu, you can modify the output 4mA and 20mA current.



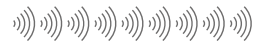
## 4.4 Reset System

To restore factory Settings is to reset all contents in basic Settings, display units and amplitude ranges, and all contents in advanced Settings

When arrow points to the current offset, press **↶** to move to reset system, press **OK** to enter the menu, the LCD display



Press **↶** or **↑** to select whether to restore the factory settings, and press **OK** to confirm.






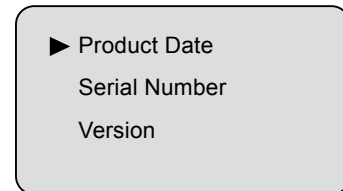
## 4.5 Firmware Update



Firmware update is used for professional engineers to update the firmware of the radar, which can be ignored in normal use.

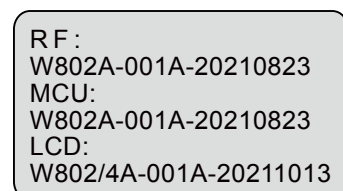
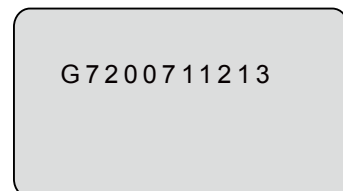
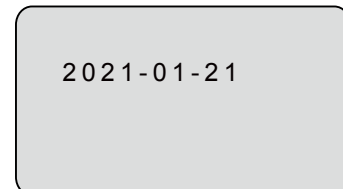
## 5 Information

The information is to check some basic information of the radar when it leaves the factory, including the factory date, serial number and version number.

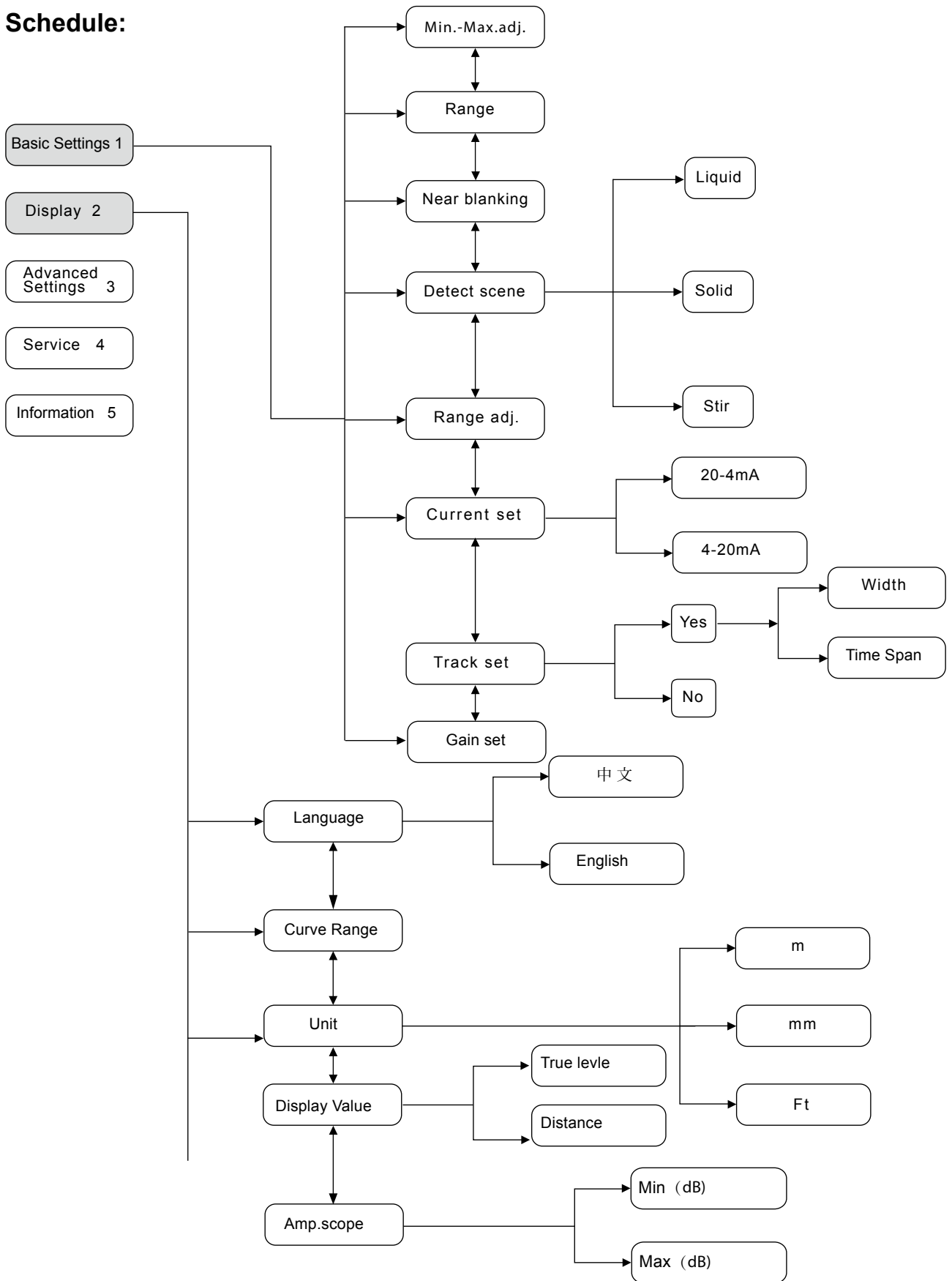
When the LCD displays the main menu, use  and  to select information item, and press  to enter the menu, LCD display

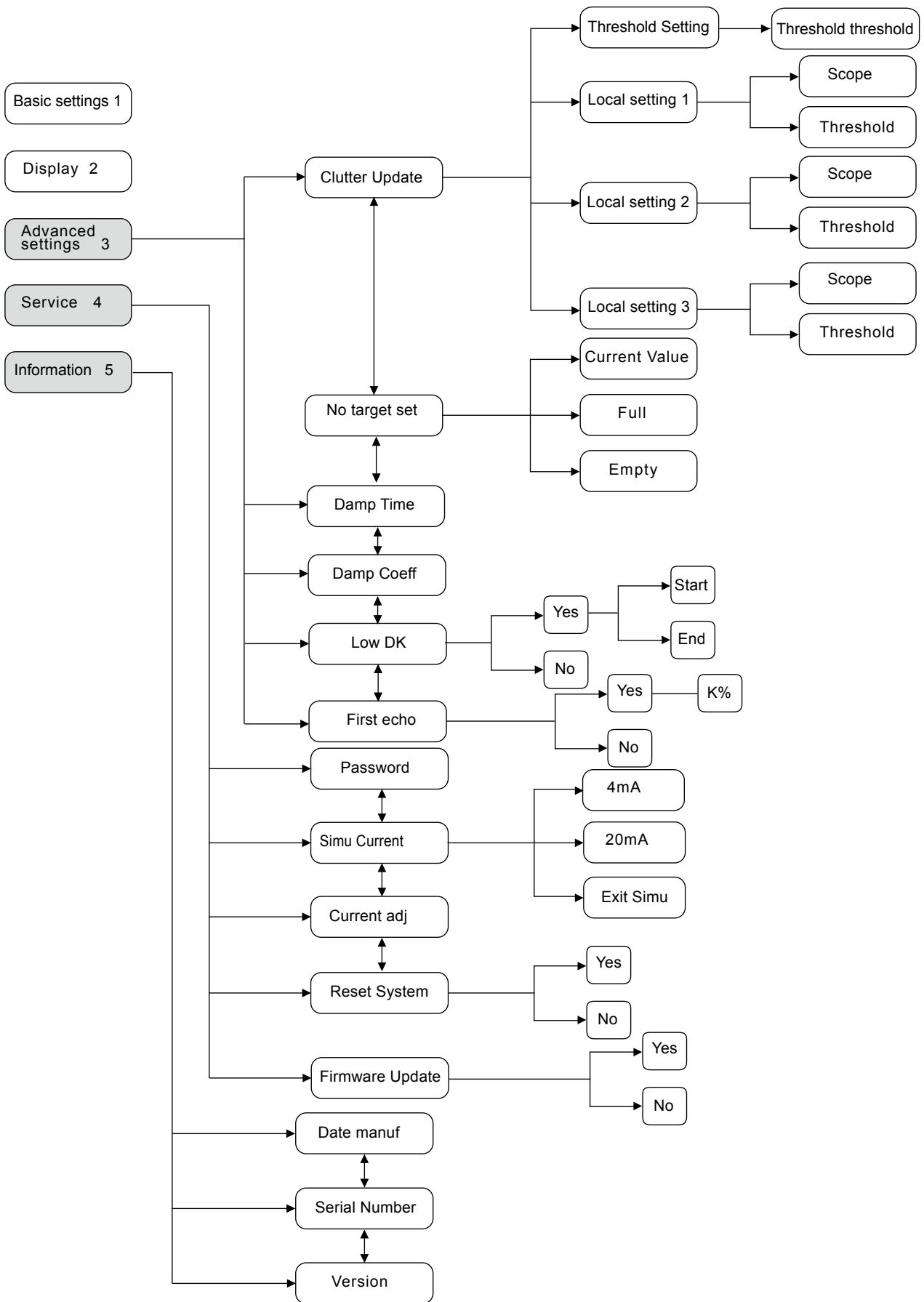
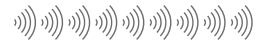


Use  to move the arrow to product date, serial number, and version, and then press  to view.

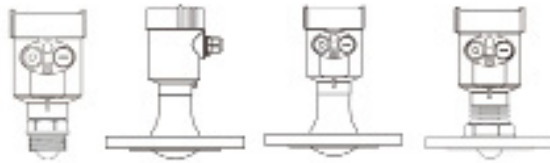


**Schedule:**









**80G FM Radar Level Meter  
Commissioning Instructions**