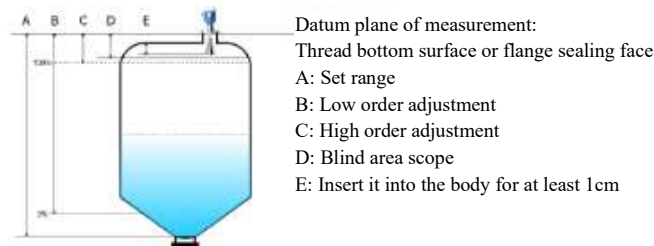
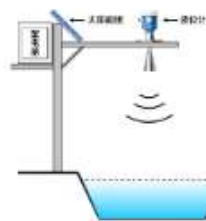


### Product overview

The RHF radar level measurement instrument outputs the 4~20mA analog signal, and the maximum measurement distance can reach to 70m. The new quick microprocessor is used to carry out signal analysis and processing at a higher rate, meeting very complicated measurement conditions of reaction still or solid bin.

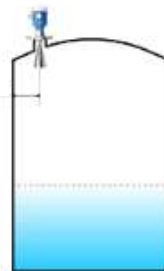


Note: Ensure that the highest material level cannot enter the blind area of measurement when the radar level meter is used



When the microwave pulse is transmitted by the radar antenna, there is a certain launching angle from the lower edge of the antenna to the surface of the medium measured, and the area radiated by the microwave beam shall not be obstructed

Minimum: 200mm



1. Carry out installation as per 1/6 or 1/4 of tank diameter
2. Avoid strong vibration of installation environment
3. Reserve enough installation space

Note: A minimum distance of 200mm between installation site and tank wall shall be kept to ensure there are no obstacles in the radar launching angle

### Product principle

- Time 1: Produce the inceptive impulse;
- Time 2: Advance downward along the horn antenna with speed C (velocity of light);
- Time 3: The pulse is reflected when it meets the surface of the medium;
- Time 4: The reflected pulse is received and recorded by the processor;
- The time difference T between the pulse signal being transmitted and received;
- Being directly proportional to the distance D from the datum plane to the surface of the medium:  $D = C \times T / 2$ ;
- Datum plane of measurement: Thread bottom surface or flange sealing face;
- A: Measuring range B: Low order C: Full order D: Blind area;
- Ensure that the highest material level cannot enter the measurement blind area D at the moment of operation;

### Product features

- The 26GHz transmitting frequency is used;
- The field angle is small with energy concentration and stronger anti-interference ability with measurement accuracy and reliability greatly improved;
- The measurement blind area is smaller and an excellent effect will be achieved for cannikin measurement;
- The wave length is shorter and the measurement effect is better for small particle medium and tilted medium surface;

- Sensitive measurement, fast refresh rate, small antenna size, simple installation of high frequency radar level meter, and solid and durable and maintenance-free;
- Non-touching measurement, no wear or pollution and measurement of material level of liquid and solid medium;
- Almost not influenced by temperature, pressure, water vapor, foam, dust and other complex working conditions;
- The advanced microprocessor and unique echo processing technology are used and it's applicable to various complex working conditions;
- The transmitted power is extremely low and it can be installed in various metal and non-metal containers with no harm to human environment;
- The display screen with buttons makes it easy to set the parameters of the instrument.

## Product application

It's mainly used for process tank, agitation tank, etc. of intermediate bunker, warehouse, hopper, storage tank, papermaking and pulp, water and sewage, food and drink and pharmacy in the industries (such as chemical engineering and petrification, thermal power generation, steel and metallurgy, mineral products and lithium battery new energy).

## Product parameters

### RHF-Z

Application: Various strongly corrosive liquid ;  
Frequency range: 26GHz;  
Measuring range: 0~10m;  
Precision:  $\pm 5\text{mm}$  ;  
Medium temperature:  $-40\sim 120^{\circ}\text{C}$ ;  
Process pressure:  $-0.1\sim 0.3\text{Mpa}$ ;  
Process connection: Thread and flange;  
Explosive-proof grade: Exia II CT6; Exd II CT6;  
Explosive-proof grade: IP67;  
Signal output: 4~20mA / HART (two-wire/four-wire)RS485/Modbus.



### RHF-X

Application: Temperature and pressure resistant and slightly corrosive liquid ;  
Frequency range: 26GHz;  
Measuring range: 0~30m;  
Precision:  $\pm 3\text{mm}$  ;  
Medium temperature:  $-40\sim 250^{\circ}\text{C}$ ;  
Process pressure:  $-0.1\sim 4.0\text{Mpa}$ ;  
Process connection: Thread and flange;  
Explosive-proof grade: Exia II CT6; Exd II CT6;  
Explosive-proof grade: IP67;  
Signal output: 4~20mA / HART (two-wire/four-wire) RS485/Modbus.



### RHF-C



Application: Solid material level, process container, strong dust, and easy crystallization and moisture condensation occasions;  
 Frequency range: 26GHz;  
 Measuring range: 0~70m;  
 Precision:  $\pm 15\text{mm}$   
 Medium temperature:  $-40\sim 250^{\circ}\text{C}$ ;  
 Process pressure:  $-0.1\sim 4.0\text{Mpa}$ ;  
 Process connection: Thread and flange;  
 Explosive-proof grade: Exia II CT6; Exd II CT6;  
 Explosive-proof grade: IP67;  
 Signal output: 4~20mA / HART (two-wire/four-wire)  
 RS485/Modbus.

### RHF-V



Application: Solid material level, process container, strong dust, and easy crystallization and moisture condensation occasions;  
 Frequency range: 26GHz;  
 Measuring range: 0~70m;  
 Precision:  $\pm 15\text{mm}$  ;  
 Medium temperature:  $-40\sim 250^{\circ}\text{C}$ ;  
 Process pressure:  $-0.1\sim 4.0\text{Mpa}$ ;  
 Process connection: Thread and flange;  
 Explosive-proof grade: Exia II CT6; Exd II CT6;  
 Explosive-proof grade: IP67;  
 Signal output: 4-20mA / HART (two-wire/four-wire)  
 RS485/Modbus.

### RHF-B



Application: Solid particle, dust and water conservancy project;  
 Frequency range: 26GHz;  
 Measuring range: 0~30m;  
 Precision:  $\pm 10\text{mm}$  ;  
 Medium temperature:  $-40\sim 250^{\circ}\text{C}$ ;  
 Process pressure:  $-0.1\sim 4.0\text{Mpa}$ ;  
 Process connection: Thread and flange;  
 Explosive-proof grade: Exia II CT6; Exd II CT6;  
 Explosive-proof grade: IP67;  
 Signal output: 4~20mA / HART (two-wire/four-wire)  
 RS485/Modbus.

# RHF high-frequency radar level meter



## RHF-N

Application: Sanitary liquid storage container and highly corrosive liquid container;  
 Frequency range: 26GHz;  
 Measuring range: 0~20m;  
 Precision:  $\pm 3\text{mm}$  ;  
 Medium temperature:  $-40\sim 150^{\circ}\text{C}$ ;  
 Process pressure: Normal pressure;  
 Process connection: Flange;  
 Explosive-proof grade: Exia II CT6; Exd II CT6;  
 Explosive-proof grade: IP67;  
 Signal output: 4~20mA / HART (two-wire/four-wire) RS485/Modbus.



## Product model selection

RHF	High-frequency radar level meter									
Explosion-proof type	W		Standard type (used for non-explosion proof area)							
	E		Explosion suppression type (Exd II CT6)							
	D		Intrinsic safety type (Exia II CT8)							
Antenna form/material/process temperature	Z		Sealed horn/PTFE/(-40 ~ 130) °C X horn antennaØ46mm/ stainless steel 316L							
	C		Horn antennaØ76mm / stainless steel 316L				V horn antennaØ96mm / stainless steel 316L			
	B		Horn antennaØ121mm / stainless steel 316L				N horn antennaØ246mm / stainless steel316L			
	M		Special customization							
Antenna extension tube	F			No extension						
	A			100mm						
Process connection/material	N			Thread 1 1 / 2NPT						
	1			Thread DN50 / PTFE / PP						
	2			Flange DN80 / PTFE / PP						
	3			Flange DN100 / PTFE / PP						
	4			Flange DN125 / PTFE / PP						
	5			Flange DN250 / PTFE / PP						
	6			Special customization						
Electronic building brick	1				(4 ~ 20) mA / HART / DC 24V (two-wire system)					
	2				RS485/Modbus					
Enclosure/ protection level	A				Aluminum / IP67					
	G				Stainless steel 304 / IP67					
Cable incoming line	M				M20*1.5					
	N				1/2 NPT					
Live display/button	Y								With	
	N								Without	
RHF-										