

80 G

FM radar level gauge

Product specifications

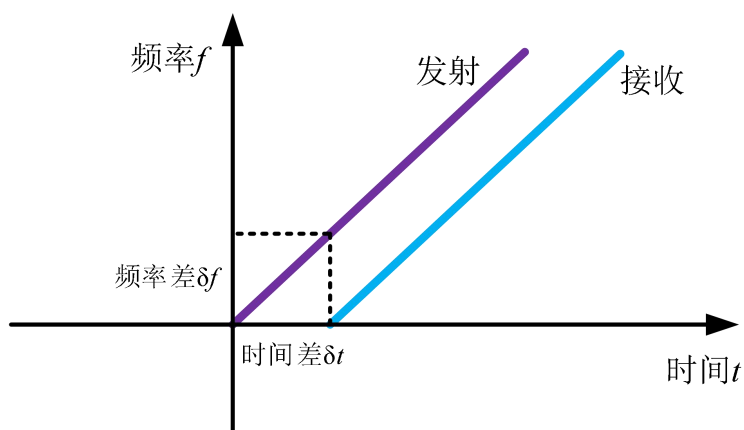
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80G FM radar level meter

How it works:

The general principle of the FM CW radar level gauge is that the radar emits electromagnetic waves on the top of the tank, which are reflected by the medium and then received by the radar, the frequency difference between the received signal and the transmitted signal δf is proportional to the distance from the surface of the medium r : $R = C$ (speed) * δf (frequency difference) / $2/K$ (frequency modulation slope). Since the speed of light c and the slope K of the FM are known, the frequency difference δf is estimated, and the distance R of the material surface at the radar installation position is obtained, and the total height of the tank is known, the height of the material level is obtained by subtracting the space distance from the radar to the material level (short for air height).



$$\left. \begin{array}{l} \text{时间差 } \delta t = 2R/C \\ \text{频率差 } \delta f = K \cdot \delta t \end{array} \right\} \Rightarrow \text{距离 } R = C \cdot \delta f / 2/K$$

注: K 为调频斜率

Features:

1. The measurement precision of millimeter wave radar is up to $\pm 2\text{mm}$ and the minimum blind area is 0.1 m.
2. The smaller the antenna size, to meet the more working conditions of the situation measurement.
3. Multiple lens antennas, smaller transmitting angle, more concentrated energy, stronger echo signal, and higher reliability than other radar products under the same industrial and mining conditions.
4. With stronger penetration, in the case of adhesion and condensation can also be used normally.
5. The dynamic signal range is larger and the measurement is more stable for low permittivity medium.
6. The radar response time is less than 1s in the fast measurement mode.

● Product introduction

● 11S

Measuring medium: liquid

Measurement range: 0.1 M ~ 10m

Process Connection: G 3/4" 4A/3" 4NPT thread/flange \geq DN25

Process Temperature: -40 ~ 100 °C

Process Pressure: -0.1 ~ 1.6 MPa

Antenna size: 21mm lens antenna

Antenna material: PTFE

Accuracy: \pm 5 mm

Protection level: IP67

Center frequency: 80 GHz

Launch Angle: 14 °

Power supply: two-wire/DC24V

Four-wire System/AC220V

Six-wire/DC12-24V

Housing: aluminum/plastic/stainless steel

Signal output: 2-wire/4... 20mA/Hart Protocol

Four-wire/4... .20 Ma/Hart Protocol

Six-wire/4... 20mA/RS485/Modbus Protocol



● 11

Measuring medium: liquid

Measurement range: 0.1 M ~ 30m

Process Connection: G 1 1/2" 2A/1 1/2" 2NPT thread/flange \geq DN40

Process Temperature: -40 ~ 80 °C

Process Pressure: -0.1 ~ 0.3 MPa

Antenna size: 32mm lens antenna

Antenna material: PTFE



Accuracy: ± 2 mm
Protection level: IP67
Center frequency: 80 GHz
Launch Angle: 8°
Power supply: two-wire/DC24V
Four-wire System/AC220V
Six-wire/DC12-24V
Housing: aluminum/plastic/stainless steel
Signal output: 2-wire/4... 20mA/Hart Protocol
Four-wire/4... 20 Ma/Hart Protocol
Six-wire/4... 20mA/RS485/Modbus Protocol



● 12

Measuring medium: liquid
Measurement range: 0.1 M ~ 30m
Process connection: flange \geq DN40
Process Temperature: $-40 \sim 100$ °C
Process Pressure: $-0.1 \sim 1.6$ MPa
Antenna size: 32mm lens antenna
Antenna material: PTFE
Accuracy: ± 2 mm
Protection level: IP67
Center frequency: 80 GHz
Launch Angle: 8°
Power supply: two-wire/DC24V
Four-wire System/AC220V
Six-wire/DC12-24V
Housing: aluminum/plastic/stainless steel
Signal output: 2-wire/4... 20mA/Hart Protocol
Four-wire/4... 20 Ma/Hart Protocol
Six-wire/4... 20mA/RS485/Modbus Protocol



● 13

Measuring medium: liquid

The range of measurement is 0.2 m ~ 30m/0.3 m ~ 150m

Process connection: Flange \geq DN80/g 3a thread

Process Temperature: -40 ~ 120 ° C/-40 ~ 110 ° C (thread connection)

Process Pressure: -0.1 ~ 1.0 MPa

Antenna size: 76mm lens antenna

Antenna material: PTFE

Accuracy: \pm 2 mm

Protection level: IP67

Center frequency: 80 GHz

Launch Angle: 3°

Power supply: two-wire/DC24V

Four-wire System/AC220V

Six-wire/DC12-24V

Housing: aluminum/plastic/stainless steel

Signal output: 2-wire/4... 20mA/Hart Protocol

Four-wire/4... 20 Ma/Hart Protocol

Six-wire/4... 20mA/RS485/Modbus Protocol



● 13S

Measuring medium: liquid

The range of measurement is from 0.2 m to 30 m/0.3 m to 150 m

Process connection: flange \geq DN80/gantry frame

Process Temperature: $-40 \sim 80$ °C

Process Pressure: $-0.1 \sim 0.3$ mpa

Antenna size: 76mm lens antenna

Antenna material: PTFE

Accuracy: ± 2 mm

Protection level: IP67

Center frequency: 80 GHz

Launch Angle: 3°

Power supply: two-wire/DC24V

Four-wire System/AC220V

Six-wire/DC12-24V

Housing: aluminum/plastic/stainless steel

Signal output: 2-wire/4... 20mA/Hart Protocol

Four-wire/4... 20 Ma/Hart Protocol

Six-wire/4... 20mA/RS485/Modbus Protocol



● 14

Measuring medium: liquid

The measuring range: 0.1 M \sim 30m

Process connection: flange \geq DN50

Process Temperature: $-40-200$ °C

Process Pressure: $-0.1 \sim 2.5$ MPa

Antenna size: 44mm lens antenna

Antenna material: PTFE

Accuracy: ± 2 mm

Protection level: IP67

Center frequency: 80 GHz

Launch Angle: 6°

Power supply: two-wire/DC24V



Four-wire System/AC220V

Six-wire/DC12-24V

Housing: aluminum/plastic/stainless steel

Signal output: 2-wire/4... 20mA/Hart Protocol

Four-wire/4... 20 Ma/Hart Protocol

Six-wire/4... 20mA/RS485/Modbus Protocol

● 15

Measuring medium: liquid

Measurement range: 0.3 ~ 30m

Process connection: flange \geq DN80

Process Temperature: -40-200 °C

Process Pressure: -0.1 ~ 2.5 MPa

Antenna size: 76mm lens antenna

Antenna material: PTFE

Accuracy: \pm 2 mm

Protection level: IP67

Center frequency: 80 GHz

Launch Angle: 3°

Power supply: two-wire/DC24V

Four-wire System/AC220V

Six-wire/DC12-24V

Housing: aluminum/plastic/stainless steel

Signal output: 2-wire/4... 20mA/Hart Protocol

Four-wire/4... 20 Ma/Hart Protocol

Six-wire/4... 20mA/RS485/Modbus Protocol



● 21

Measuring medium: solid

The range of measurement is 0.1 m ~ 30m/0.3 ~ 150m

Process connection: flange \geq DN80

Process Temperature: -40 ~ 110 ° C/-40 ~ 200 ° C

Process Pressure: -0.1 ~ 0.3 mpa

Antenna size: 76mm lens antenna

Antenna material: PTFE

Accuracy: \pm 5mm

Protection level: IP67

Center frequency: 80 GHz

Launch Angle: 3°

Power supply: two-wire/DC24V

Four-wire System/AC220V

Six-wire/DC12-24V

Housing: aluminum/plastic/stainless steel

Signal output: 2-wire/4... 20mA/Hart Protocol

Four-wire/4... 20 Ma/Hart Protocol

Six-wire/4... 20mA/RS485/Modbus Protocol



● 21S

Measuring medium: solid

The range of measurement is 0.1 m ~ 30m/0.3 ~ 150m

Process connection: flange \geq DN80

Process Temperature: -40 ~ 80 ° C

Process Pressure: -0.1 ~ 0.3 mpa

Antenna size: 76mm lens antenna
Antenna material: PTFE
Accuracy: $\pm 5\text{mm}$
Protection level: IP67
Center frequency: 80 GHz
Launch Angle: 3°
Power supply: two-wire/DC24V
Four-wire System/AC220V
Six-wire/DC12-24V
Housing: aluminum/plastic/stainless steel
Signal output: 2-wire/4... 20mA/Hart Protocol
Four-wire/4... 20 Ma/Hart Protocol
Six-wire/4... 20mA/RS485/Modbus Protocol

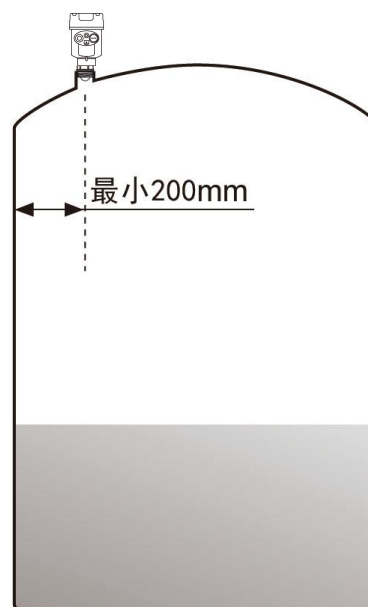


Installation Requirements:

❖ Installation: Thread mounting (for 11S, 11,13)

Installed at $1/4$ or $1/6$
tank diameter.

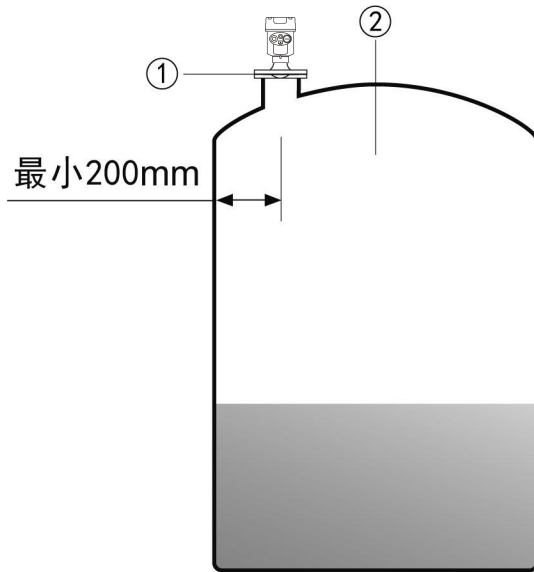
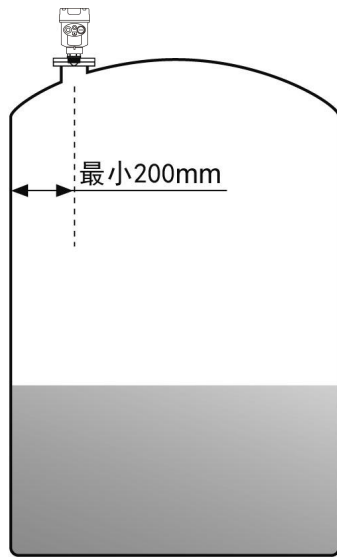
The minimum distance from
the tank wall shall be 200mm.



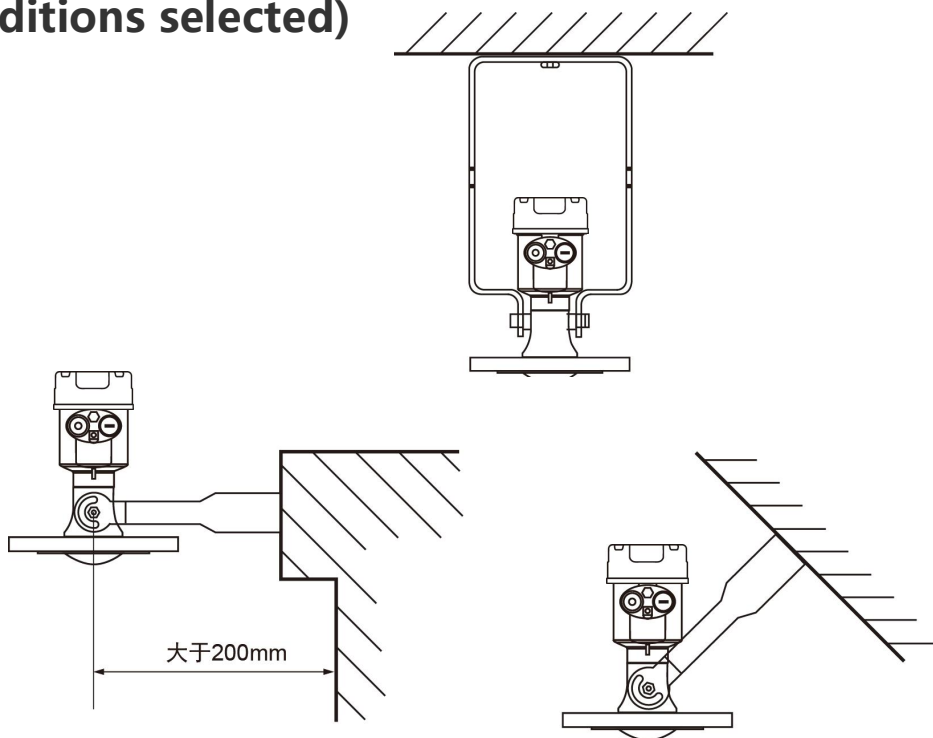
❖ Installation Mode 2: Flange mounting

When the flange is used, the instrument should be installed at $1/4$ or $1/6$ of the tank diameter. The minimum distance between the instrument and the tank wall should be more than 200 mm.

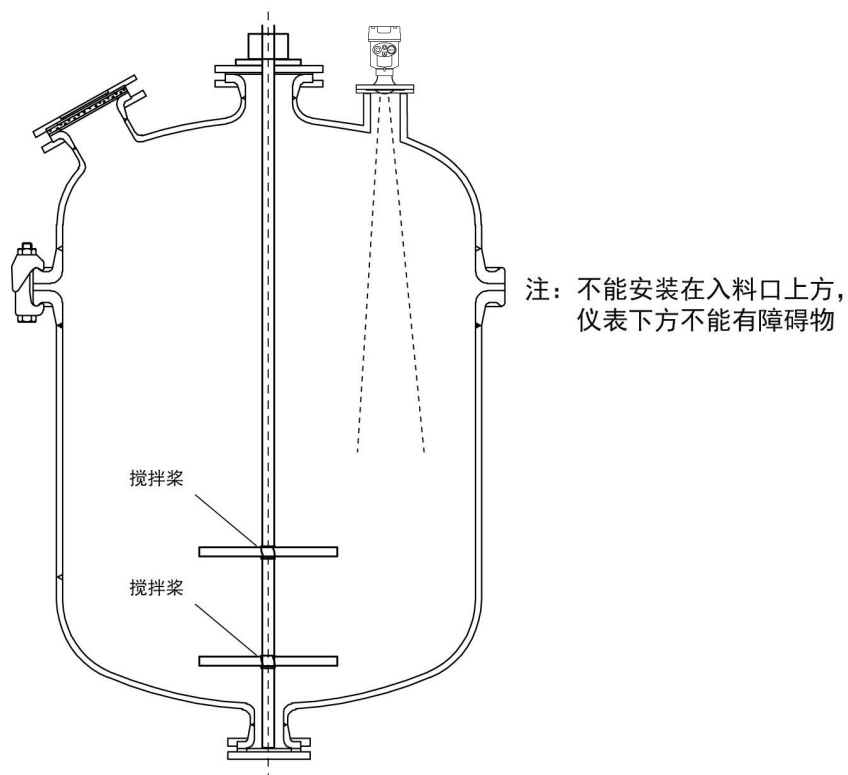
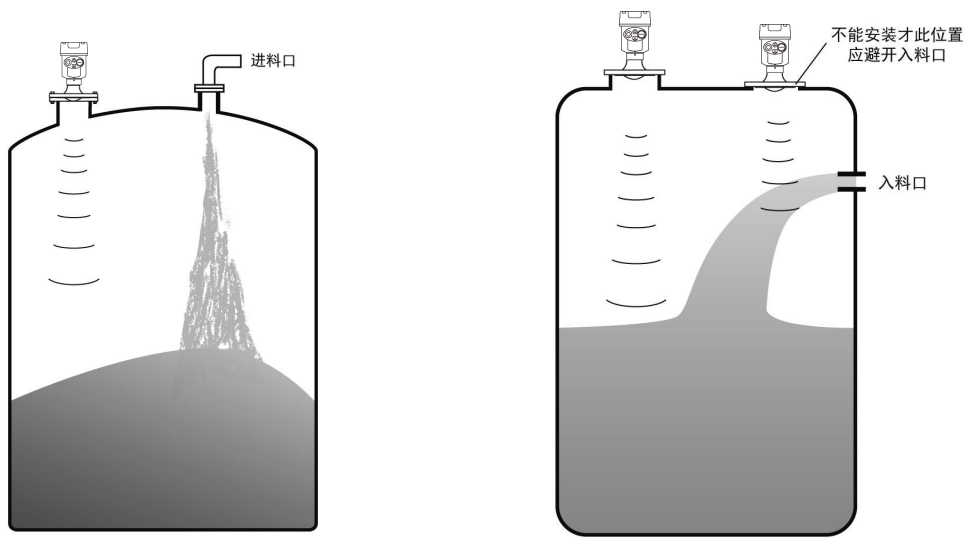
- ①Datum ②The central or symmetrical axis of a container



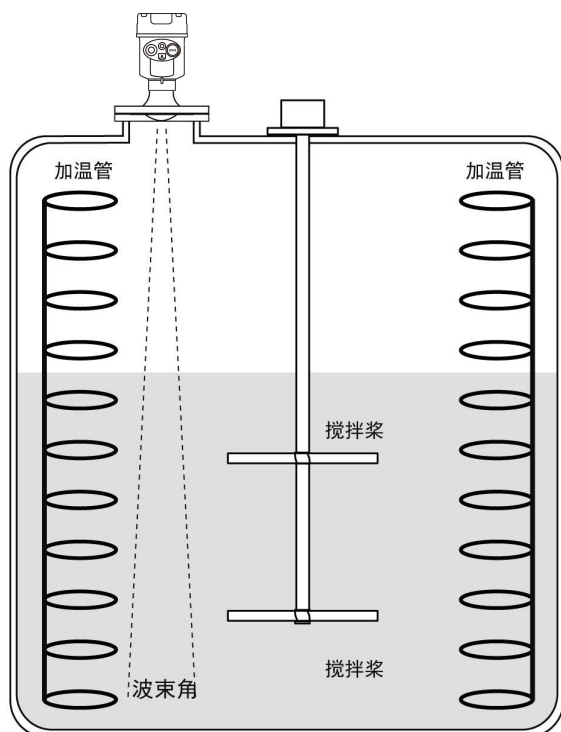
❖ Installation 3: lifting (according to the specific installation conditions selected)



Installation Requirements: When the instrument is installed, avoid installing on the top of the feed port, try to avoid all kinds of objects that affect the signal, such as stirring paddle, etc. .



Under extremely complex working conditions, the instrument can work normally without any obstacles in the area with a radius of 20cm, taking the radar installation point as the center.



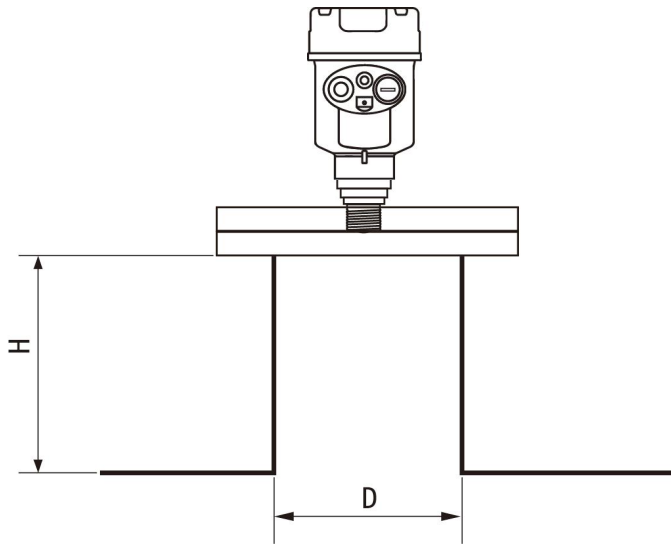
极低的发射角在极端恶劣的条件下，也能保证精确的测量

Schematic diagram of installation and take-over:

The maximum height H_{Max} depends on the diameter d of the short pipe and the size of the launch angle of the product.

Too long installation of take-over, will affect the radar performance.

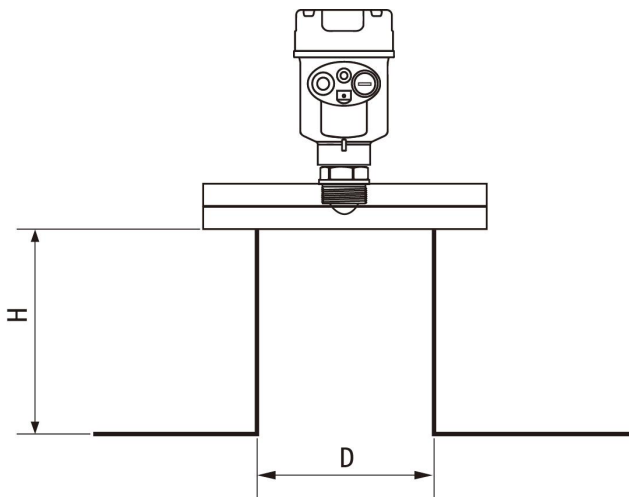
➤ 11s



法兰	D	H max
DN25	25mm (2")	90mm
DN40	40mm (2.5")	140mm
DN50	50mm (3")	180mm
DN65	65mm (4")	240mm

*All of the above values for nozzle inner diameter and height are for calm liquid, if not plane, can not refer to the size table.

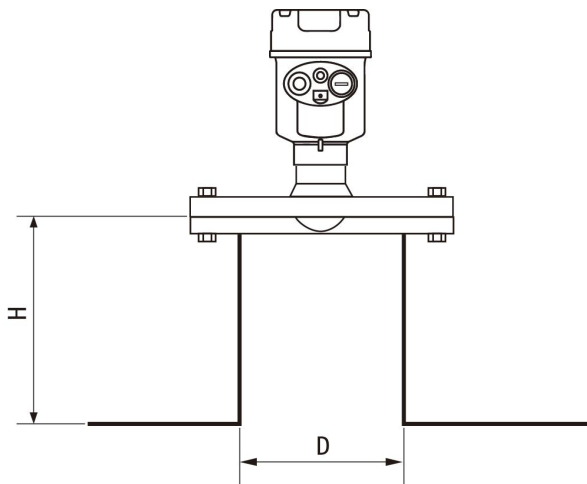
➤ 11



法兰	D	H max
DN40	40mm (1.5")	250mm
DN50	50mm (2")	300mm
DN65	65mm (2.5")	450mm
DN80	80mm (3")	550mm
DN100	100mm(4")	700mm
DN125	125mm(5")	900mm
DN150	150mm(6")	1100mm

* All of the above values for nozzle inner diameter and height are for calm liquid, if not plane, can not refer to the size table.

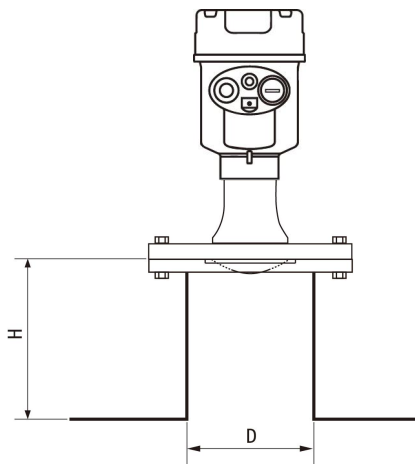
➤ 12



法兰	D	H max
DN40	40mm (1.5")	250mm
DN50	50mm (2")	300mm
DN65	65mm (2.5")	450mm
DN80	80mm (3")	550mm
DN100	100mm(4")	700mm
DN125	125mm(5")	900mm
DN150	150mm(6")	1100mm

* All of the above values for nozzle inner diameter and height are for calm liquid, if not plane, can not refer to the size table.

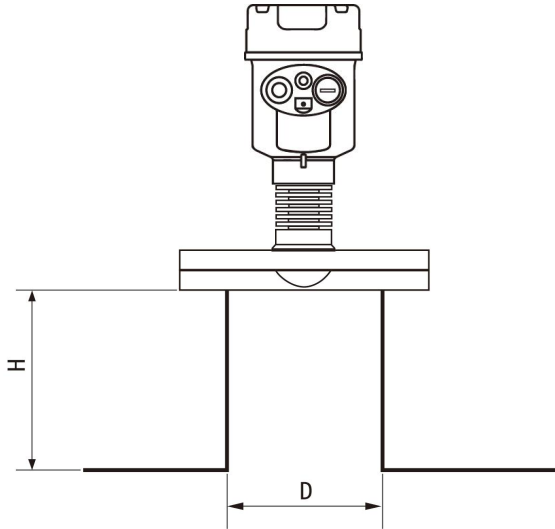
➤ 13/13S



法兰	D	H max
DN80	80mm (3")	1000mm
DN100	100mm (4")	1200mm
DN125	125mm (5")	1500mm
DN150	150mm (6")	2000mm

* All of the above values for nozzle inner diameter and height are for calm liquid, if not plane, can not refer to the size table.

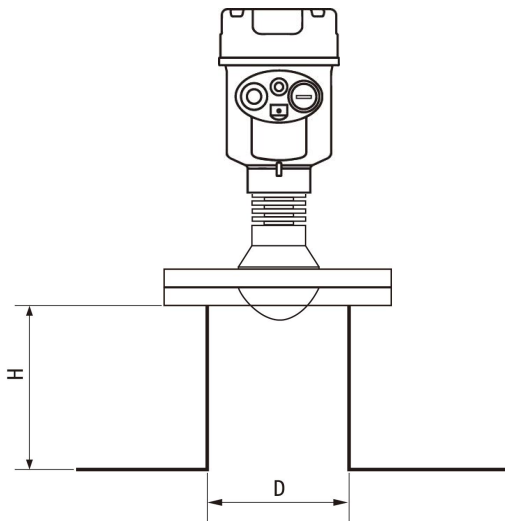
➤ 14



法兰	D	H max
DN50	50mm (2")	400mm
DN80	80mm (3")	650mm
DN100	100mm (4")	900mm
DN125	125mm (5")	1000mm
DN150	150mm (6")	1200mm

* All of the above values for nozzle inner diameter and height are for calm liquid, if not plane, can not refer to the size table.

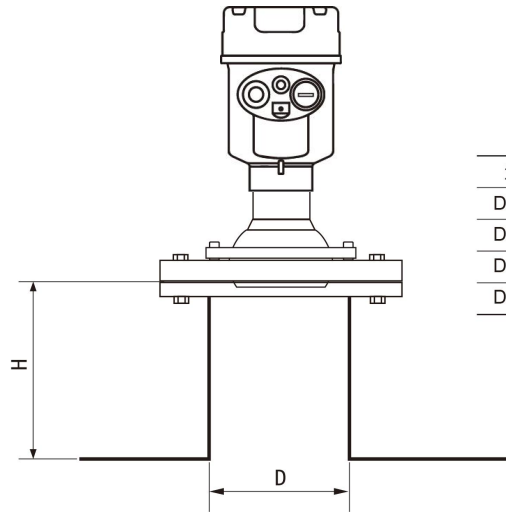
➤ 15



法兰	D	H max
DN80	80mm (3")	1000mm
DN100	100mm (4")	1200mm
DN125	125mm (5")	1500mm
DN150	150mm (6")	2000mm

* All of the above values for nozzle inner diameter and height are for calm liquid, if not plane, can not refer to the size table.

➤ 21/21S



法兰	D	H max
DN80	80mm (3")	500mm
DN100	100mm (4")	600mm
DN125	125mm (5")	750mm
DN150	150mm (6")	1000mm

* This product because of the universal flange, need to use the level of the meter head in a horizontal position can refer to the size table.

Electrical connection

Supply voltage

(4-20) Ma/Hart (two-wire system):

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

(4-20) Ma (4/6 wire system):

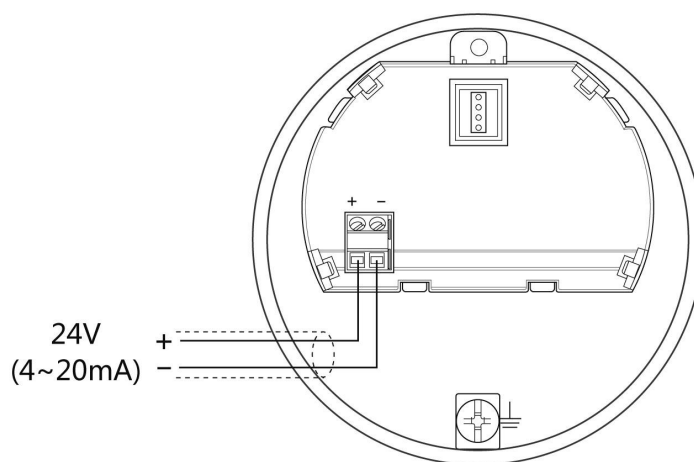
The power supply should be supplied separately, and a four-core shielded cable should be used for power supply and current signal (the current signal can be output simultaneously with RS485 interface, and a six-core shielded cable should be used for output) .

RS485/Modbus:

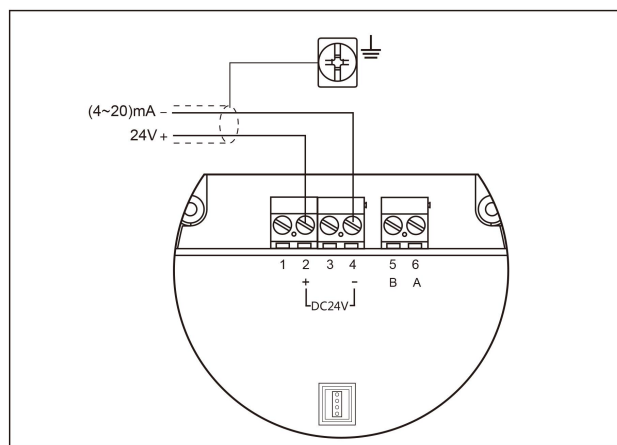
The power supply should be supplied separately, and a four-core shielded cable (current signal can be output with RS485 interface, and a six-core shielded cable is needed for output) is used for power supply and digital.

● Connection mode

➤ 24V two-wire wiring diagram as follows:

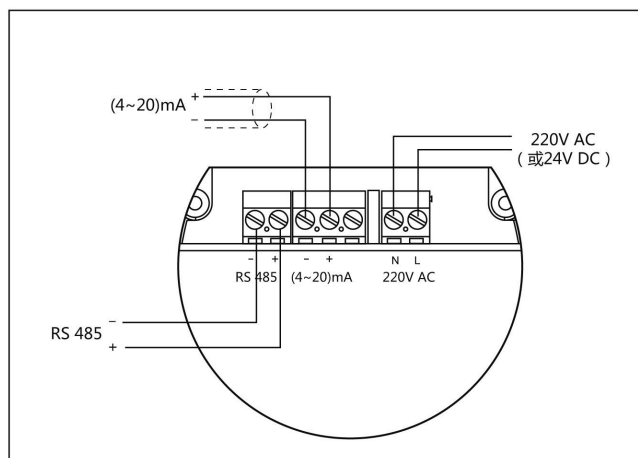


➤ Side shows two-wire system, two-room wiring diagram as follows:



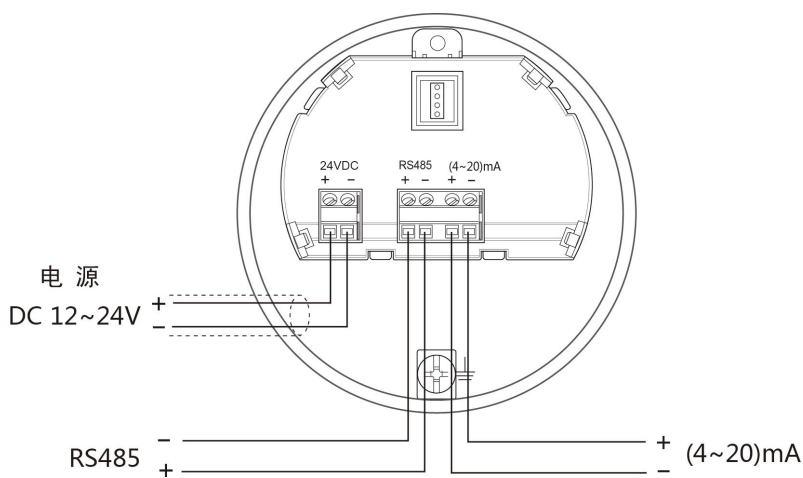
24V DC供电
4~20mA输出

➤ Four-wire system, two-room wiring diagram as follows:



220V AC/50Hz供电
(或24V DC供电)
(4~20)mA输出或RS485输出

➤ Four-wire six-wire wiring diagram as follows:



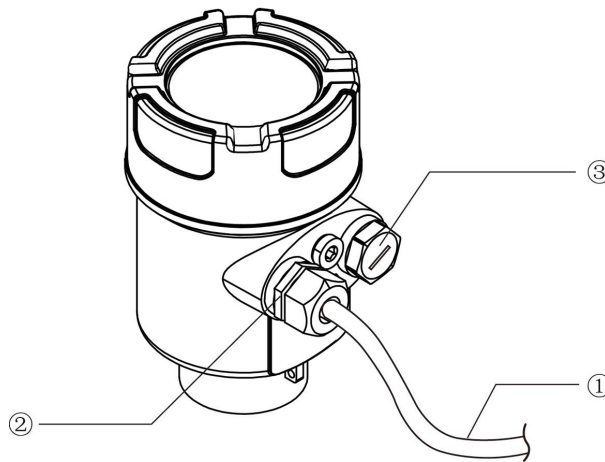
- **Safety instructions**

**Please comply with the requirements of local electrical installation procedures!
Please comply with local health and safety regulations. All electrical parts of the instrument must be operated by a trained professional.**

Please check the nameplate of the instrument to ensure that the product specifications meet your requirements. Please ensure that the supply voltage is in accordance with the requirements on the instrument nameplate.

- **Protection level**

his instrument fully meets the protection grade IP66/67 requirements, please ensure that the cable sealing head waterproof. Below:



How to ensure your installation meets IP67 requirements:

Please ensure that the sealing head is not damaged.

Please ensure that the cable is not damaged.

Please ensure that the cable used meets the requirements of the electrical connection specification.

Bend the cable downward before entering the electrical interface to ensure that water does not flow into the housing, see ①

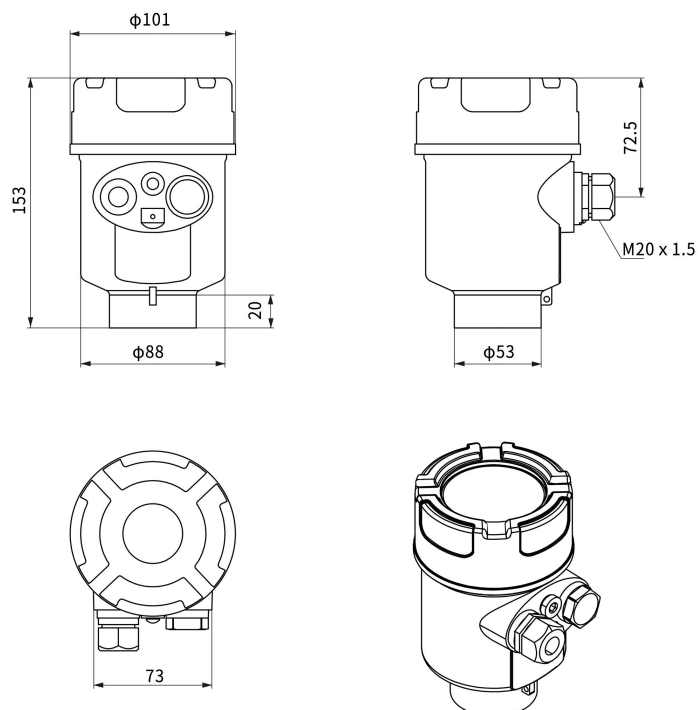
Please tighten the cable sealing head, see ②

Please blind plug the unused electrical connection, see ③

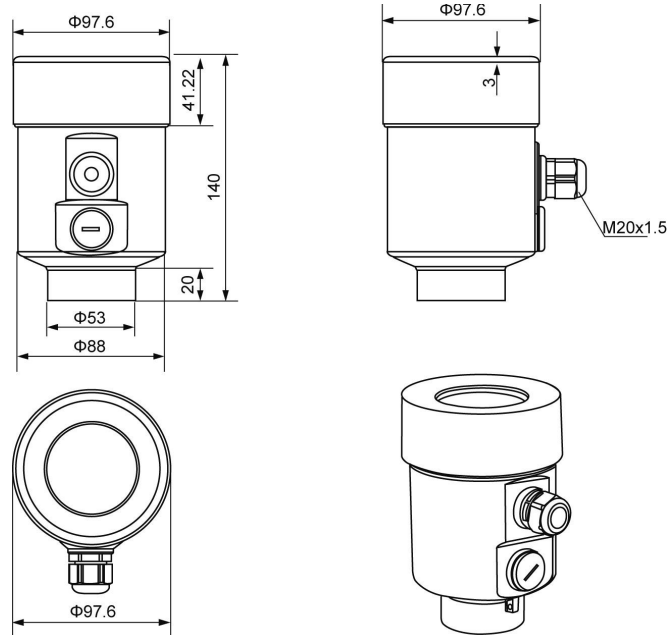
Structural dimensions

❖ Case Size (in mm)

➤ Cast aluminum case

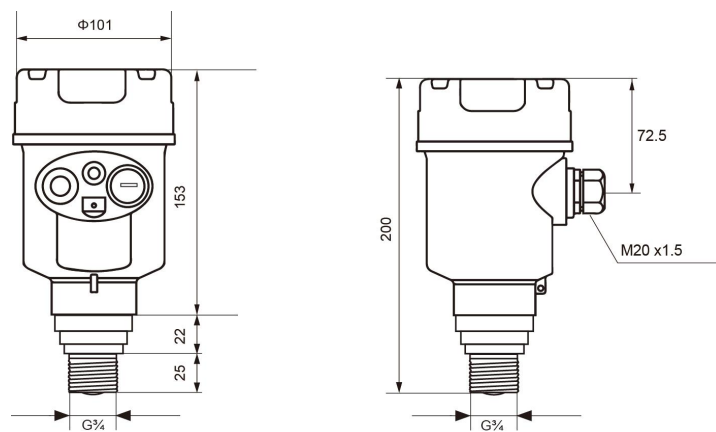


➤ Stainless steel case

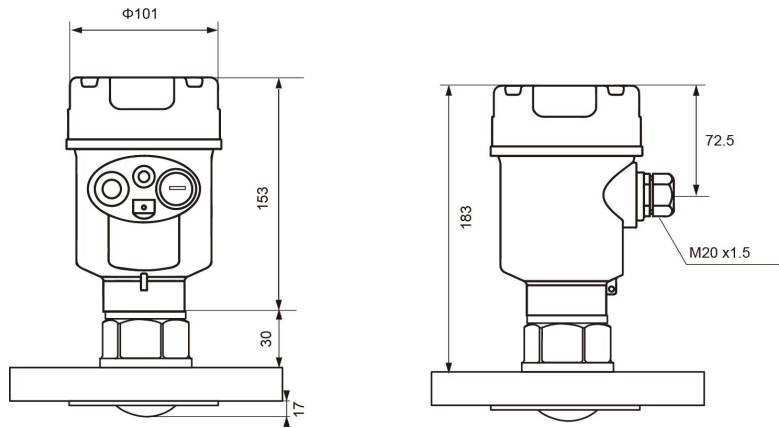
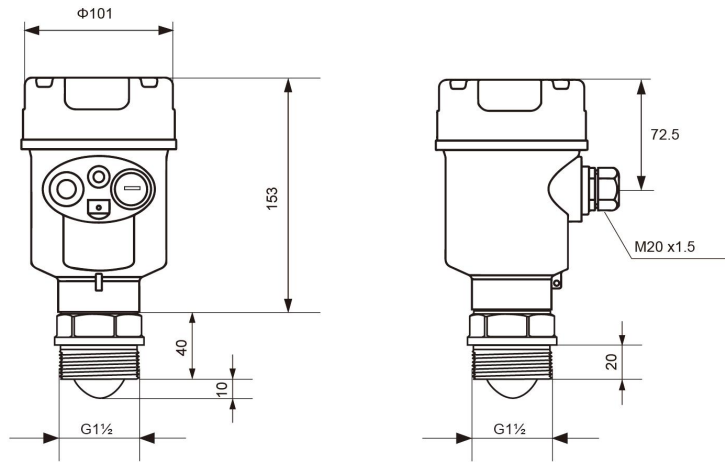


❖ Product size (in mm)

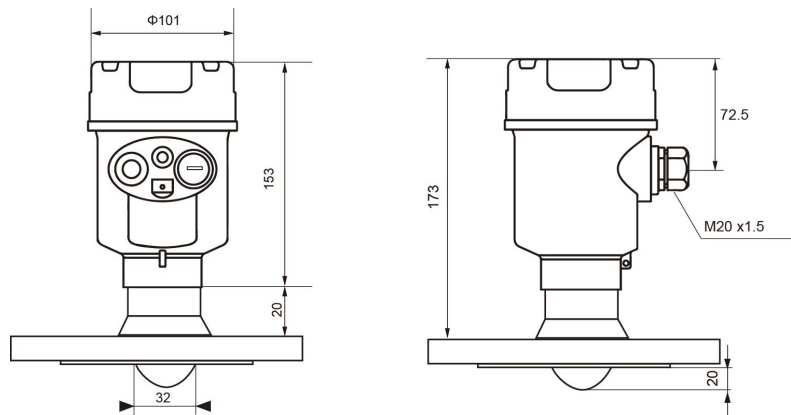
➤ 11s



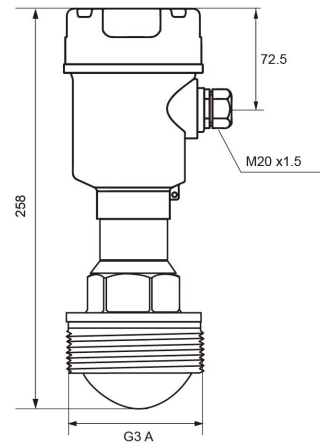
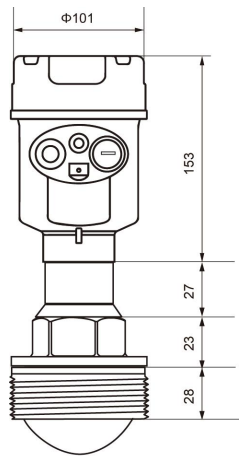
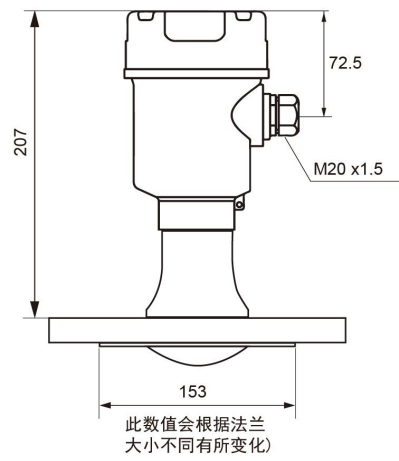
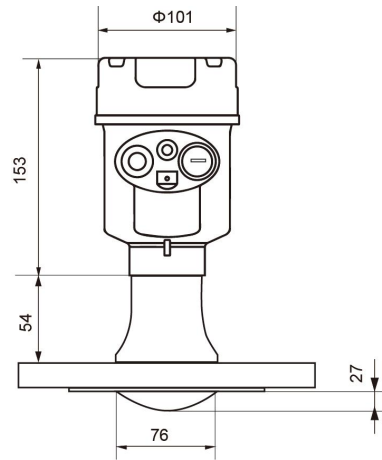
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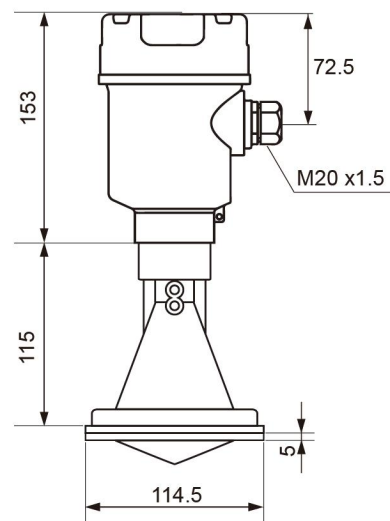
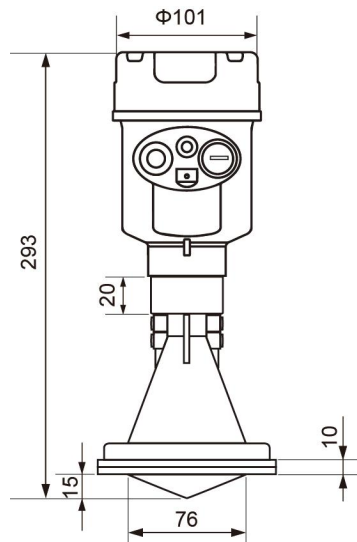
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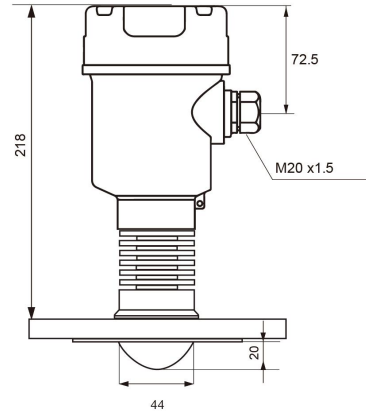
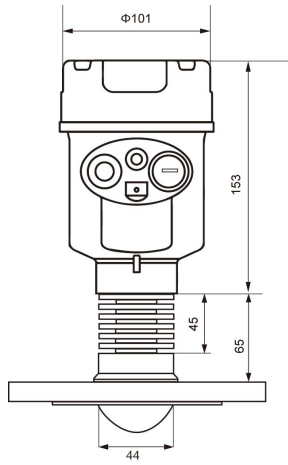
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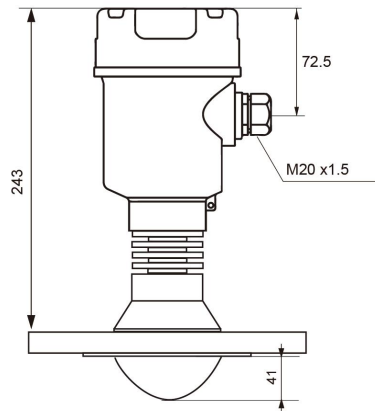
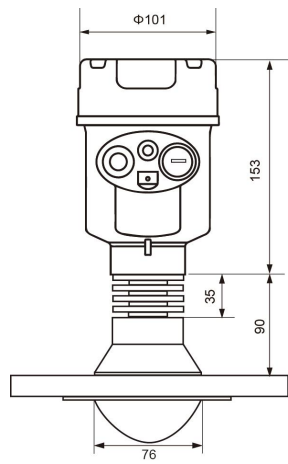
13S



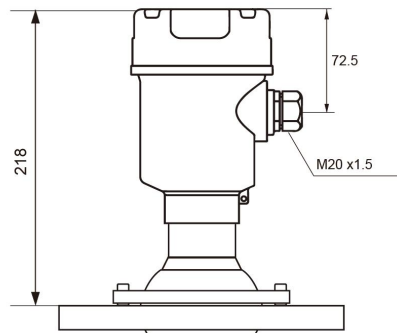
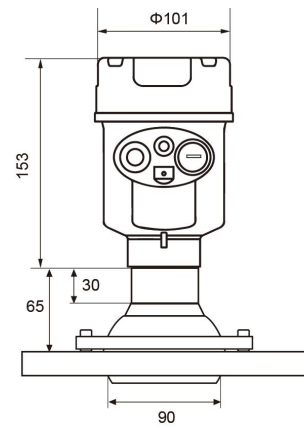
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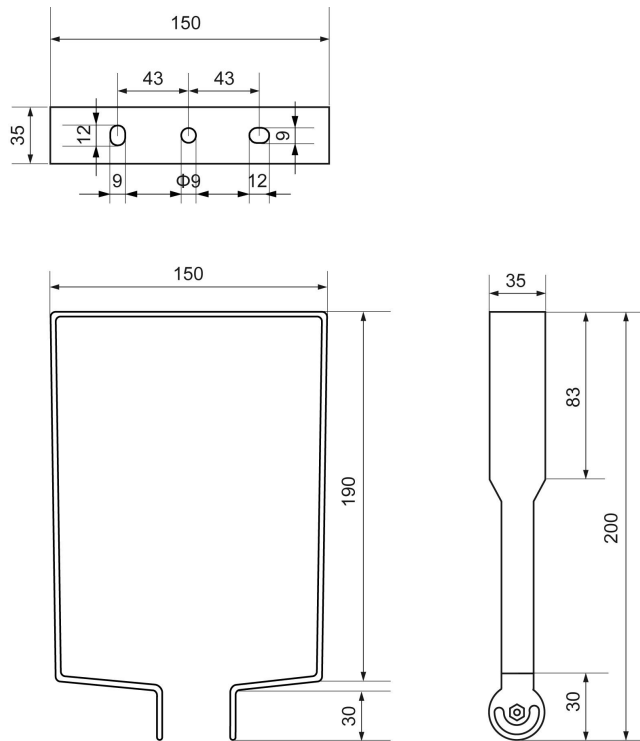
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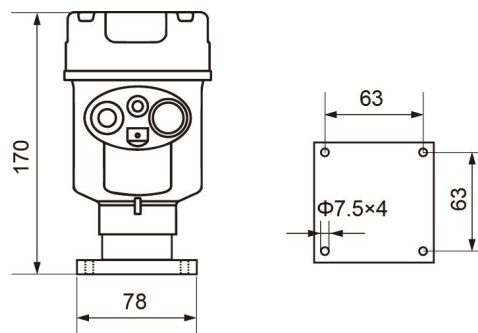
21/21s



- Size of gantry frame:



- .Size of hydraulic divider indicator with divider display:



Technical parameters

Process connection	Flange/Material PP, PTFE, stainless steel, stainless steel PTFE flanging
Antenna profile	PTFE
The shell	Cast aluminum/stainless steel/plastic ABS
Seal between housing and housing cover	Silicone rubber
Shell window	Polycarbonate
Ground terminal	Stainless steel

Supply voltage

Two-wire system

(single cavity/double cavity)

(15-28) V DC

Power consumption max 80mA DC24V/ 2W

Ripple allowed <100Hz $U_{ss} < IV$

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

Four-wire system (double cavity)

(198 ~ 242)V AC

110V AC

Cable parameters

Cable Inlet/plug

1 M 20XL. 5 cable entrance

A blind plug M20 × L. 5

Terminal

The cross section of the conductor is 2.5 mm²

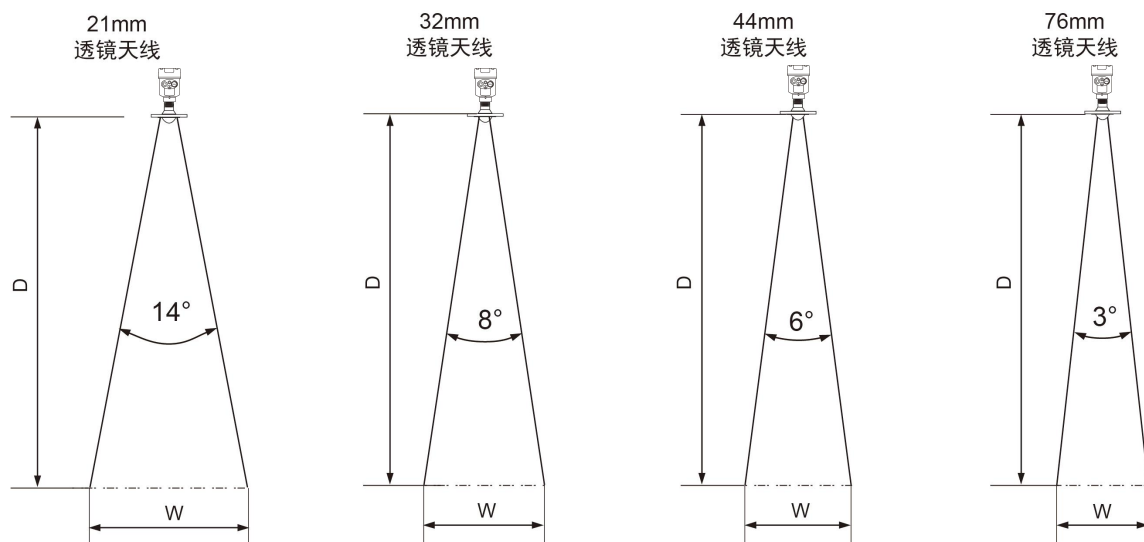
Output parameters

Output signal	(4-20) Ma/Hart Protocol
Resolution	1mm
Fault signal	Constant current output; 20. 5MA; 22ma; 3.9 Ma
Integral time	(0-20) s, adjustable
Blind spot	0.1m/0.2m/0.3m
Maximum measuring distance	150 meters
Measurement interval	About 1 second (depending on the parameter settings)
Adjust the time	About 1 second (depending on the parameter settings)
Operating storage and transportation temperature	(-40 ~ 80) °C
Relative humidity	< 95%
Stress	Max. 2.5MPa
Shock resistance	Mechanical vibration L0M/s 2, (10 ~ 150) Hz

Instrument linearity

Beam angle

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



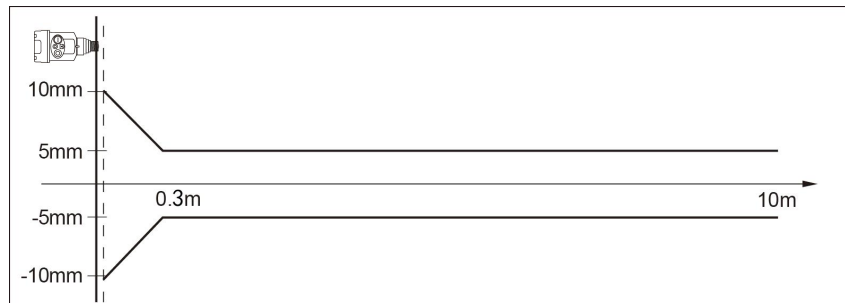
Diameter of lens antenna	Φ21MM lens antenna	Φ32MM lens antenna	Φ44MM lens antenna	Φ76MM lens antenna
Beam angle	14°	8°	6°	3°

The larger the antenna size is, the smaller the beam angle α is, and the less the interference echo is produced.

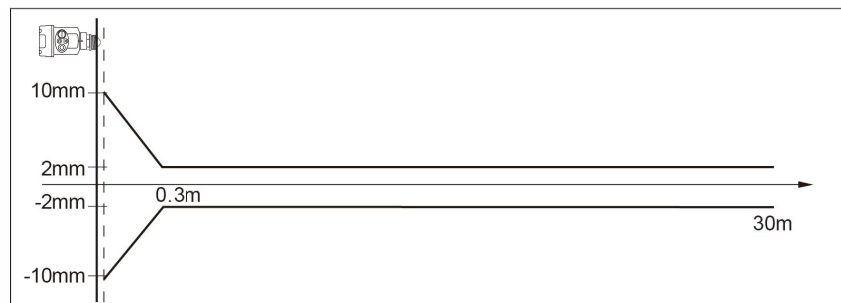
For more accurate measurements, avoid installing any internal devices (E. G. Limit Switch, temperature sensor, base, vacuum ring, heating coil, baffle, etc.) within the signal beam.

Instrument linearity

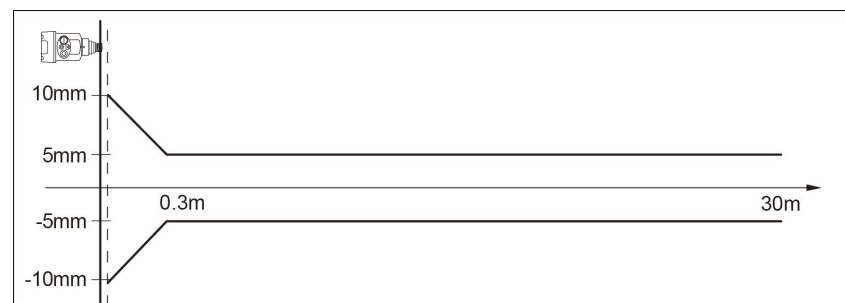
11S



11/12/13/13S/14/15



21/21S



80G FM radar level meter selection:

11S

Serial number:

Permit

- P Standard (non-blast-proof)
- I Exia IIC T 6GA
- D Intrinsically flameproof type (Exd ia IIC T6 Gb)

Process connection

1 G^{3/4}A Thread / ^{3/4}NPT

Flange selection/material

Specifications/codes/materials	PP	PTFE	Stainless steel304	Stainless steel316L
DN25	P0	F0	G0	S0
DN40	P1	F1	G1	S1
DN50	P2	F2	G2	S2
DN65	P3	F3	G3	S3

Antenna Type/material

L 21mm Lens antenna/PTFE

H 21mm lens antenna/PEK

SEAL/process temperature

A FKM/ (-40-100°C)

B PEK/ (-40-150°C)

Electronic unit

0 (4 ~ 20) Ma/Hart Protocol 24VDC Two-wire system

1 (4 ~ 20) Ma/Hart Protocol 220VAC Four-wire system

2 (4 to 20) mA RS485/Modbus protocol 12- 24VDC Six-wire system

Shell material/protection grade

- A Aluminum (single cavity) / IP67
- B Aluminum (double cavity) / IP67
- C Aluminum (double-lumen side) / IP67
- D Plastic (plastic)/IP65
- E Stainless steel (304)/IP67

Incoming cable

- M M20x1.5
- N 1/2NPT
- X Special Order

Display programming

- A Programming with display
- B With display programming/Bluetooth communication
- C No

11

Serial number:

Permit

- P Standard (non-blast-proof)
- I Safety type (Exia IIC T6 Ga)
- D Intrinsically flameproof type (Exd ia IIC T6 Gb)

Process connection

- 0 G1½A Thread PTFE
- 1 G1½A Thread 304

- 2 G1½AThread 316L
- 3 1½NPTAThread 304
- 4 1½NPTAThread 316L
- 5 Frank≥DN40 (Stainless steel+PTFE)
- X Special Order

Flange selection/material

Specifications/codes/materials	PP	PTFE	Stainless steel 304	tainless steel 316L	tainless steel 304+PTFE	tainless steel 316L+PTFE
DN40	-	-	-	-	GF0	SF0
DN50	P1	F1	G1	S1	GF1	SF1
DN65	P2	F2	G2	S2	GF2	SF2
DN80	P3	F3	G3	S3	GF3	SF3
DN100	P4	F4	G4	S4	GF4	SF4
DN125	P5	F5	G5	S5	-	-
DN150	P6	F6	G6	S6	-	-

Antenna Type/material

- A 32mm lens antenna/PTFE

SEAL/process temperature

- A FKM/ (-40-80°C)
- B FKM/ (-40-100°C)

Electronic unit

- 0 (4 ~ 20) Ma/Hart Protocol 24VDC Two-wire system
- 1 (4 ~ 20) Ma/Hart Protocol 220VAC Four-wire system
- 2 (4 to 20) mA RS485/Modbus protocol 12- 24VDC Six-wire system

Shell material/protection grade

- A Aluminum (single cavity) / IP67
- B Aluminum (double cavity) / IP67
- C Aluminum (double-lumen side) / IP67
- D Plastic (plastic)/IP65

E Stainless steel 304(single cavity)/IP67

F stainless steel 304(double cavity)/IP67

Incoming cable

M M20x1.5

N 1/2NPT

X Special Order

Display programming

A Programming with display

B With display programming/Bluetooth communication

C No

12

Serial number:

Permit

P Standard (non-blast-proof)

I Safety type (Exia IIC T6 Ga)

D Intrinsically flameproof type (Exd ia IIC T6 Gb)

Process Connection/material

0 G1½A Thread/304

1 G1½A Thread/316L

2 1½NPT Thread 304

3 1½NPT Thread 316L

4 Frank ≥ DN40 (Stainless steel + PTFE)

X Special Order

Flange selection/material

Specifications/code	Stainless steel	Stainless steel	Stainless steel	Stainless steel
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s/materials	304	316L	304+PTFE	316L+PTFE
DN40	-	-	GF0	SF0
DN50	G1	S1	GF1	SF1
DN65	G2	S2	GF2	SF2
DN80	G3	S3	GF3	SF3
DN100	G4	S4	GF4	SF4
DN125	G5	S5	-	-
DN150	G6	S6	-	-
DN200	G7	S7		

Antenna Type/material

H 32mm filled lens antenna/PTFE

SEAL/process temperature

A FKM/ (-40-100°C)

B FKM/ (-40-120°C)

Electronic unit

0 (4 ~ 20) Ma/Hart Protocol 24VDC Two-wire system

1 (4 ~ 20) Ma/Hart Protocol 220VAC Four-wire system

2 (4 to 20) mA RS485/Modbus protocol 12- 24VDC Six-wire system

Shell material/protection grade

A Aluminum (single cavity) / IP67

B Aluminum (double cavity) / IP67

C Aluminum (double-lumen side) / IP67

D Plastic (plastic)/IP65

E Stainless steel 304(single cavity)/IP67

F Stainless steel 304(double cavity)/IP67

Incoming cable

M M20x1.5

N 1/2NPT

X Special Order

Display programming

- A Programming with display
- B With display programming/Bluetooth communication
- C No

13

Serial number:

Permit

- P Standard (non-blast-proof)
- I Safety type (Exia IIC T6 Ga)
- D Intrinsically flameproof type (Exd ia IIC T6 Gb)

Process connection

- 0 G3A Thread /304
- 1 Frank \geq DN80 (Stainless steel+PTFE)
- X Special Order

Flange selection/material

Specifications/code s/materials	Stainless steel 304	Stainless steel 316L	Stainless steel 304+PTFE	Stainless steel 316L+PTFE
DN80	G1	S1	GF1	SF1
DN100	G2	S2	GF2	SF2
DN125	G3	S3	GF3	SF3
DN150	G4	S4	GF4	SF4
DN200	G5	S5	GF5	SF5

Antenna Type/material

- H 76mm lens antenna/PTFE

SEAL/process temperature

- A FKM/ (-40-130°C)
- B EPDM/ (-40-130°C)

Electronic unit

- 0 (4~20) mA/HARTAgreement 24VDC Two-wire system
- 1 (4~20) mA/HARTAgreement 220VAC Four-wire system
- 2 (4~20) mA+RS485/ModbusAgreement 12- 24VDC Six-wire system

Shell material/protection grade

- A Aluminum (single cavity) / IP67
- B Aluminum (double cavity) / IP67
- C Aluminum (double-lumen side) / IP67
- D Plastic (plastic)/IP65
- E Stainless steel 304(single cavity)/IP67
- F Stainless steel 304(double cavity)/IP67

Incoming cable

- M M20x1.5
- N 1/2NPT
- X Special Order

Display programming

- A Programming with display
- B With display programming/Bluetooth communication
- C No

13S

Serial number:

Permit

- P Standard (non-blast-proof)
- I Safety type (Exia IIC T6 Ga)
- D Intrinsically flameproof type (Exd ia IIC T6 Gb)

Specifications/code s/materials	PP	PTFE	Stainless steel304	Stainless steel316L
DN80	P4	F4	G4	S4
DN100	P5	F5	G5	S5
DN125	P6	F6	G6	S6
DN150	P7	F7	G7	S7
DN200	P8	F8	G8	S8

Process connection

- 1 Gantry frame connection
- 2 Frank≥DN80
- X Special Order

Flange selection/material

天线型式 / 材料

- A 76mm透镜天线/PTFE

密封/过程温度

- A FKM/ (-40-80°C)
- B EPDM/ (-40-80°C)

电子单元

- 0 (4~20) mA/HARTAgreement 24VDC Two-wire system
- 1 (4~20) mA/HARTAgreement 220VAC Four-wire system
- 2 (4~20) mA+RS485/ModbusAgreement 12- 24VDC Six-wire system

Shell material/protection grade

- A Aluminum (single cavity) / IP67
- B Aluminum (double cavity) / IP67
- C Aluminum (double-lumen side) / IP67

- D Plastic (plastic)/IP65
- E Stainless steel 304(single cavity)/IP67
- F Stainless steel 304(double cavity)/IP67

Incoming cable

- M M20x1.5
- N 1/2NPT
- X Special Order

Display programming

- A Programming with display
- B With display programming/Bluetooth communication
- C No

14

Serial number:

Permit

- P Standard (non-blast-proof)
- I Safety type (Exia IIC T6 Ga)
- D Intrinsically flameproof type (Exd ia IIC T6 Gb)

Process Connection/material

- 0 G2AThread/304
- 1 G2AThread/316L
- 2 Frank≥DN50 (Stainless steel+PTFE)
- X Special Order

Flange selection/material

Specifications/code s/materials	Stainless steel304	Stainless steel316L	Stainless steel304+PTFE	Stainless steel316L+PTFE
DN50	–	–	GF1	SF1
DN65	G2	S2	GF2	SF2
DN80	G3	S3	GF3	SF3

DN100	G4	S4	GF4	SF4
DN125	G5	S5	GF5	SF5
DN150	G6	S6	GF6	SF6
DN200	G7	S7	GF7	SF7

Antenna Type/material

H 44mm filled lens antenna/PTFE

SEAL/process temperature

A FKM/ (-40-200°C)

Y Special Order

Electronic unit

0 (4~20) mA/HARTAgreement 24VDC Two-wire system

1 (4~20) mA/HARTAgreement 220VAC Four-wire system

2 (4~20) mA+RS485/ModbusAgreement 12- 24VDC Six-wire system

Shell material/protection grade

A Aluminum (single cavity) / IP67

B Aluminum (double cavity) / IP67

C Aluminum (double-lumen side) / IP67

D Plastic (plastic)/IP65

E Stainless steel 304(single cavity)/IP67

F Stainless steel 304(double cavity)/IP67

Incoming cable

M M20x1.5

N 1/2NPT

X Special Order

Display programming

A Programming with display

B With display programming/Bluetooth communication

C No

Serial number:**Permit**

- P Standard (non-blast-proof)
- I Safety type (Exia IIC T6 Ga)
- D Intrinsically flameproof type (Exd ia IIC T6 Gb)

Process Connection/material

- 0 G2AThread/304
- 1 G2AThread/316L
- 2 Frank \geq DN50 (Stainless steel+PTFE)
- X Special Order

Flange selection/material

Specifications/code s/materials	Stainless steel304	Stainless steel316L	Stainless steel304+PTFE	Stainless steel316L+PTFE
DN80	G1	S1	GF1	SF1
DN100	G2	S2	GF2	SF2
DN125	G3	S3	GF3	SF3
DN150	G4	S4	GF4	SF4
DN200	G5	S5	GF5	SF5

Antenna Type/material

H 76 mm filled lens antenna/PTFE

SEAL/process temperature

- A FKM/ (-40-200°C)
- Y Special Order

Electronic unit

- 0 (4~20) mA/HARTAgreement 24VDC Two-wire system
- 1 (4~20) mA/HARTAgreement 220VAC Four-wire system
- 2 (4~20) mA+RS485/ModbusAgreement 12- 24VDC Six-wire system

Shell material/protection grade

A Aluminum (single cavity) / IP67

- B Aluminum (double cavity) / IP67
- C Aluminum (double-lumen side) / IP67
- D Plastic (plastic)/IP65
- E Stainless steel 304(single cavity)/IP67
- F Stainless steel 304(double cavity)/IP67

Incoming cable

- M M20x1.5
- N 1/2NPT
- X Special Order

Display programming

- A Programming with display
- B With display programming/Bluetooth communication
- C No

21/21S

Serial number:

Permit

- P Standard (non-blast-proof)
- I Safety type (Exia IIC T6 Ga)
- D Intrinsically flameproof type (Exd ia IIC T6 Gb)

Process Connection/material

- 0 Frank ≥ DN80
- X Special Order

Flange selection/material

Specifications/code s/materials	PP universal	PTFE universal	Stainless steel 304 million	Stainless steel 316L Universal
DN80	P1	F1	G1	S1
DN100	P2	F2	G2	S2

DN125	P3	F3	G3	S3
DN150	P4	F4	G4	S4
DN200	P5	F5	G5	S5

Antenna Type/material

- L 76mm PE lens antenna/purge
- H 76mm PTFE lens antenna/purge

SEAL/process temperature

- A FKM/ (-40-80°C)
- B FKM/ (-40-110°C)
- C FKM/(-40-200°C)
- Y Special Order

Electronic unit

- 0 (4~20) mA/HARTAgreement 24VDC Two-wire system
- 1 (4~20) mA/HARTAgreement 220VAC Four-wire system
- 2 (4~20) mA+RS485/ModbusAgreement 12- 24VDC Six-wire system

Shell material/protection grade

- A Aluminum (single cavity) / IP67
- B Aluminum (double cavity) / IP67
- C Aluminum (double-lumen side) / IP67
- D Plastic (plastic)/IP65
- E Stainless steel 304(single cavity)/IP67
- F Stainless steel 304(double cavity)/IP67

Incoming cable

- M M20x1.5
- N 1/2NPT
- X Special Order

Display programming

- A Programming with display
- B With display programming/Bluetooth communication

C No