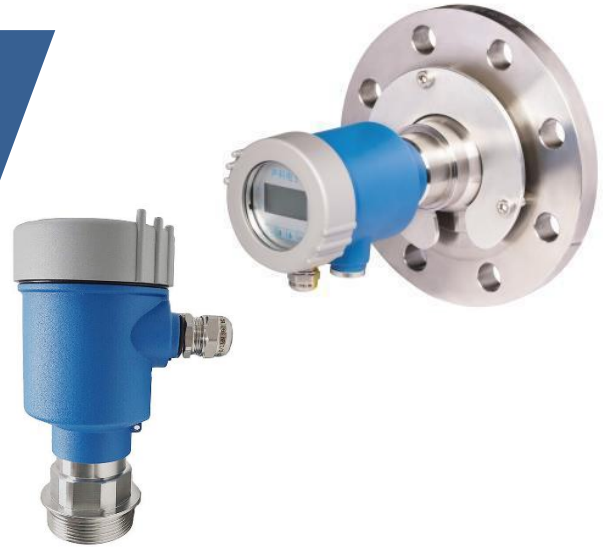


ARD 310

Capteur de niveau radar - 80 GHz - solide / Liquide

ARD 310 Series

“Liquid and Solid Level Measurement, 80 GHz High Frequency, 4-20mA+HART+RS485 Output, IP67 Protection”



- High frequency 80GHz, more focus
- Accuracy ± 2 mm(liquid), ± 5 mm(solid)
- Measuring range up to 30m
- Small emitting angle $\pm 3.5^\circ$
- G2 thread connection
- PTFE sealed antenna, not affected by temperature, condensate water
- IP67 protection

APPLICATIONS

The ARD310 is an 80 GHz FMCW radar sensor for continuous level measurement in liquid, simple solid and open water applications. It can measure up to 30m and is suitable for use in harsh environments with its IP67 protection class. When necessary, it can be used with flange connection in all liquid and process tanks that are not overpressured and not overly hot.

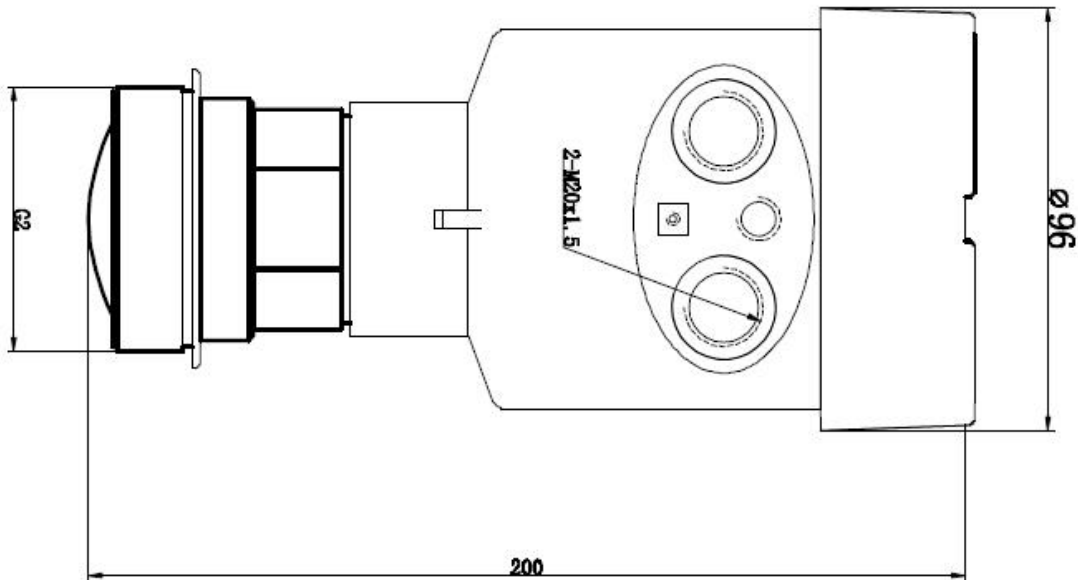
MEASURING PRINCIPLE

Powerful radar waves are sent to the product surface by the antenna system in short pulses. These waves hit the surface and are reflected back. These waves reflected from the surface are detected again by the antenna. The level is measured by determining the distance according to the time elapsed between the transmission and detection of each wave.

TECHNICAL FEATURES

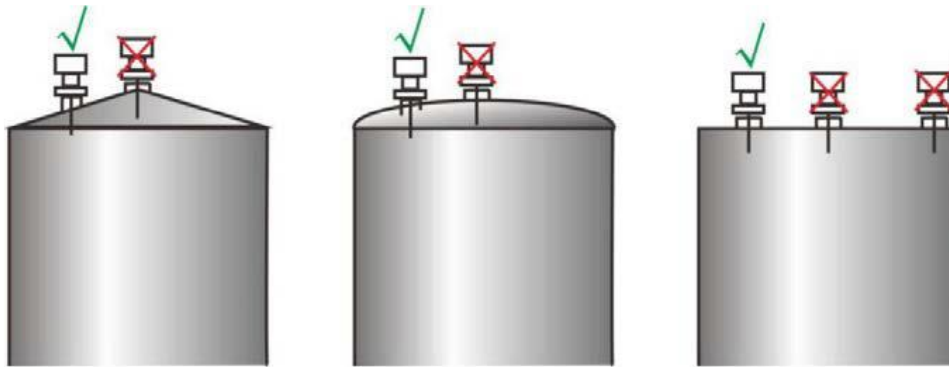
Product Type	FMCW Radar Level Transmitter
Application	Simple liquid Measurement (exp: water, up to 30m) Standard liquid measurement (exp: Corrosive chemical) Simple solid measurement
Frequency	77Ghz - 81Ghz
Measurement Range	Liquid: 10M, 20M, 30M Solid: 10M, 20M, 30M
Accuracy	±2mm (liquid), ±5mm (solid)
Beam Angle	±3.5°
Antenna Material	SS 304/Sealed PTFE
Process Connection	G2 thread
Process Temperature	-20...70°C
Process Pressure	Normal atmospheric pressure
Signal output	4-20mA+HART+RS485
Power	Two-wire DC 24V (22V~30V)
Protection	IP67
Explosion-proof Mark	Exd II CT6Gb
Dimensions & Weight	96mmx200mm, 2kg

MECHANICAL DIMENSIONS

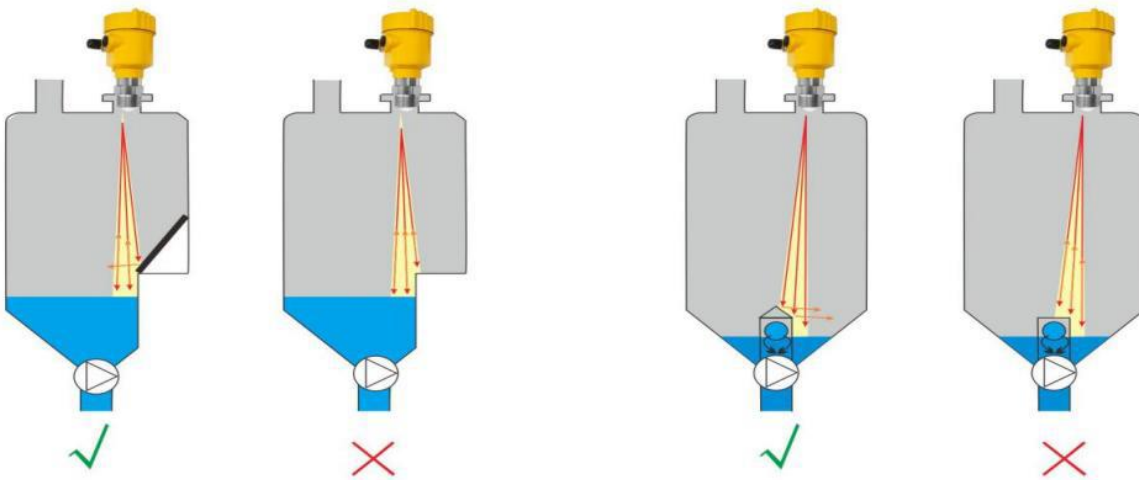


MOUNTING

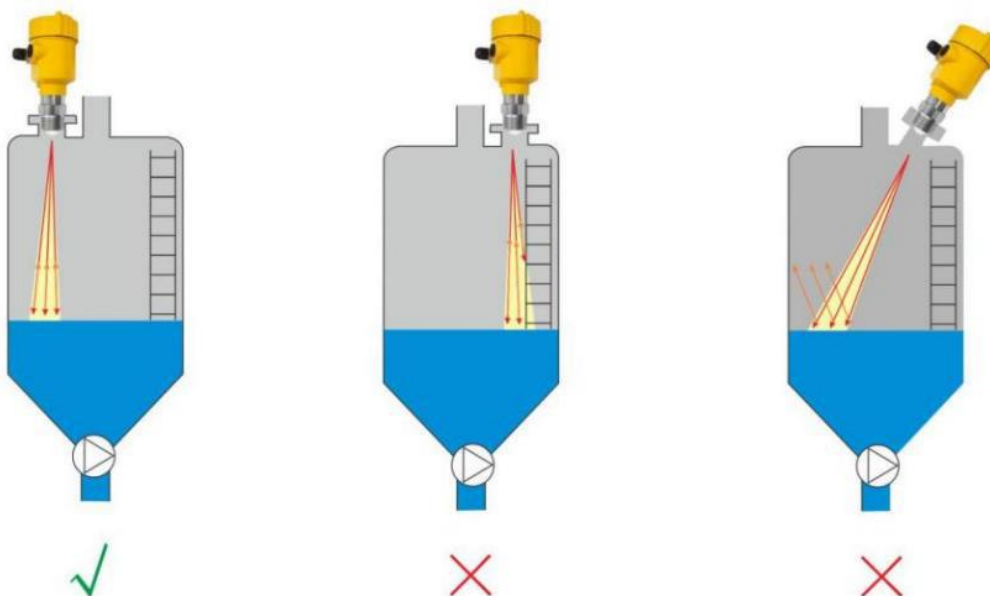
Avoid installing the instrument in the center or close to the edge of the container, otherwise it is likely to produce wrong readings.



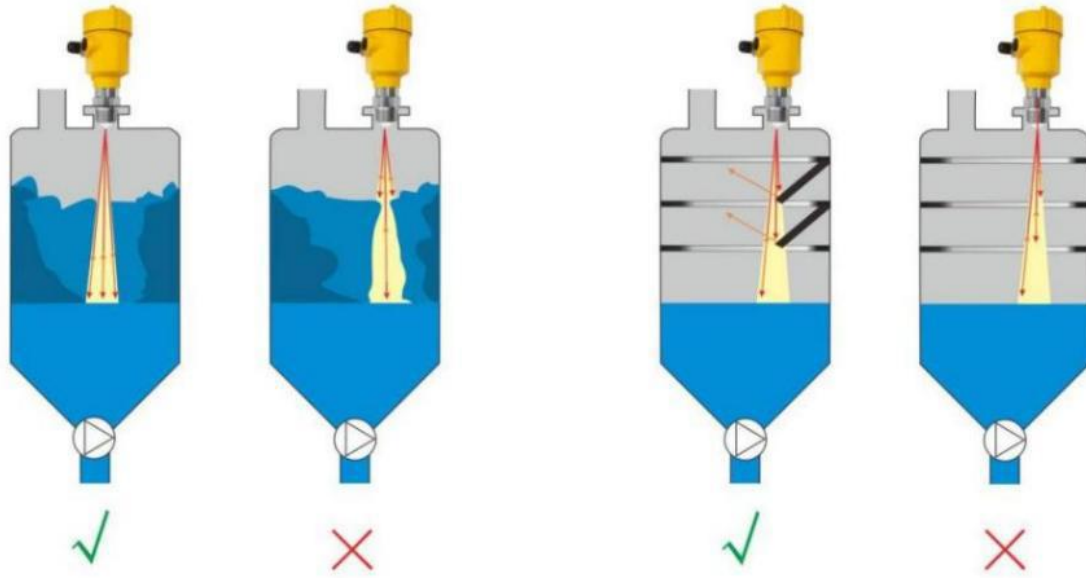
- Avoid false echo diagram



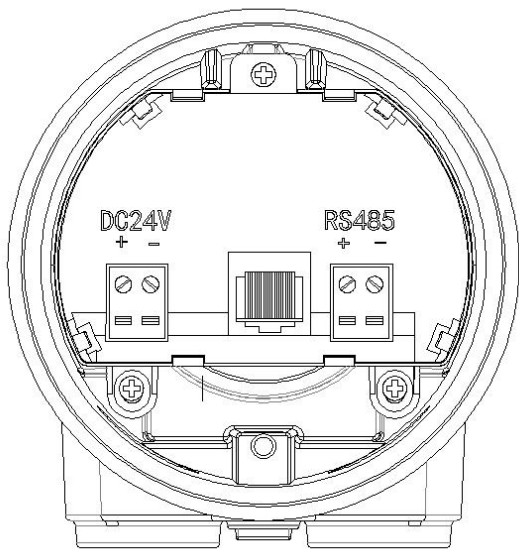
- Ladder and grid container treatment



- Wall hanging and grid container treatment



ELECTRICAL CONNECTIONS



Interface	Description
+24VDC	Power supply +
-24VDC	Power supply -
RS485 +	RS485 communication +
RS485 -	RS485 communication -

ORDER CODE

Model	Measuring Range	Serial Communication
ARD-L 310 : For liquid ARD-S 310 : For solid	10M : 10 meters 20M : 20 meters 30M : 30 meters	S2 : RS-485
ARD-X 310 -	XXX -	X - XX - XXX
Body Type	Output Signal	Process Connection
M : Metal	H : 4-20mA+HART	G2 : G2 connection