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# ADA FLOW



## ARL680

Universal flange 26G high frequency  
radar level gauge/radar level  
controller with purge

[www.adaflow.com.tr](http://www.adaflow.com.tr)



Flowometer

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# ARL680 Microwave Radar Level Meter



## Model Number:

ARL680

## Product name:

microwave radar level meter

## Function:

Test Density

## Usage:

Solid material, strong dust

## Application:

Density Measurement

## Density Range:

70m

## Type:

high frequency radar level sensor

## Color:

yellow

## Display:

LCD

## Working Pressure:

-0.1 ~ 4MPa

## Process connection:

Flange Thread

## Packaging & Delivery

### Selling Units:

Single item

### Single package size:

80X30X30 cm

### Single gross weight:

4.500 kg

### Package Type:

Foam carton independent packaging

### Lead Time:

Quantity (Pieces)	1-1	>1
Est. Time (days)	5	To be negotiated



## Specification



The time interval between the transmitted pulse and the received pulse is proportional to the distance from the antenna to the surface of the measured medium. Due to the extremely high propagation speed of electromagnetic waves, the time interval between the transmitted pulse and the received pulse is very small (nanosecond order) and it is difficult to confirm. The 26G high frequency radar level meter adopts a special related solution technology, which can accurately identify the time interval between the transmitted pulse and the received pulse, thereby further calculating the distance from the antenna to the surface of the measured medium.

1. The antenna is small in size and easy to install; Non-contact radar, no wear, no pollution.
2. Almost not affected by corrosion and foam; It is almost unaffected by changes in water vapor, temperature and pressure in the atmosphere.
3. Serious dust environment has little influence on the work of high frequency level meter.
4. Shorter wavelength and better reflection on inclined solid surface.
5. The beam angle is small and the energy is concentrated, which enhances the echo capability and is beneficial to avoiding interfering objects.
6. The blind area of measurement is smaller, and good results can be obtained for small tank measurement.
7. High signal-to-noise ratio enables better performance even under fluctuating conditions.
8. High frequency is the best choice for measuring solid and low dielectric constant media.

# ARL680 Microwave Radar Level Meter

Product name	Microwave Radar Level Meter
Display	LCD
Function	Test Density
Procedure Linkage	Universal Flange

## Feature

1. The beam angle is small, the energy is concentrated, and it has stronger anti-interference ability, which greatly improves the measurement accuracy and reliability;
2. The antenna size is small, easy to install and install dust cover and other antenna protection devices;
3. The measurement blind area is smaller, and good results can be obtained for small tank measurement;
4. The wavelength is shorter, which is more suitable for the particle position measurement of dust and small particles.
5. Adopting advanced microprocessor and unique EchoDiscovery echo processing technology, the high-frequency radar level gauge can be applied to various complicated working conditions. Using pulse working mode, the high-frequency radar level meter has extremely low transmitting power and can be installed in various metal and non-metal containers without harm to the human body or the environment.

## Specification

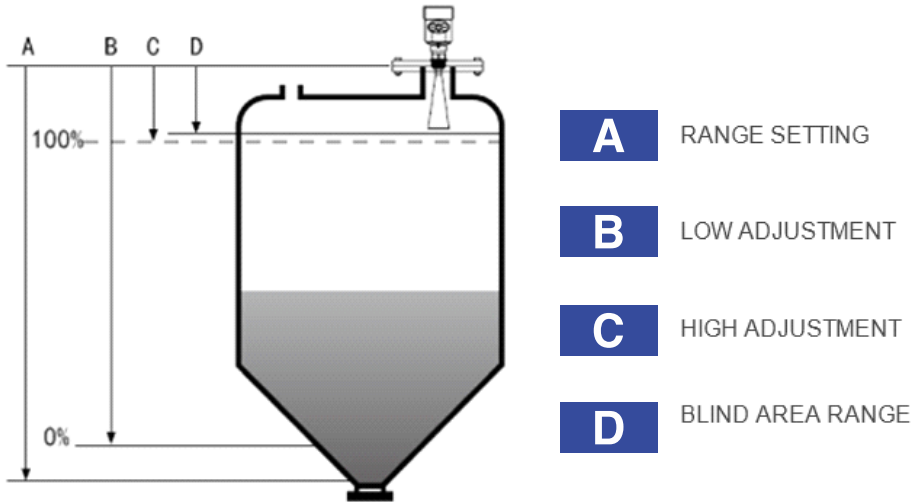
**Application:** temperature-resistant, pressure-resistant, slightly corrosive liquid  
**Measuring range:** 30 meters  
**Process connection:** thread, flange  
**Medium temperature:** -40 ~ 150°C  
**Process pressure:** -0.1 ~ 4.0MPa  
**Display:** LCD  
**Precision:** ±3mm  
**Protection level:** IP67  
**Frequency range:** 26GHz  
**Explosion-proof grade:** Exia IIC T6 Ga  
**Signal output:** 4 ~ 20mA/HART (two wires/four wires) RS485/Mod bus  
26G radar liquid level transmitter/bell mouth/circuit board/sensor/live aging

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# ARL680 Microwave Radar Level Meter

## Theory

The radar antenna transmits narrow microwave pulses, which are transmitted downward by the antenna. The microwave touches the surface of the measured medium and is reflected back to be picked up by the antenna system again, transmitting the signal to the electronic part of the circuit and automatically converting it into a level signal (since the microwave travels so fast, the time it takes for the electromagnetic wave to reach the target and return to the receiver by reflection is almost instantaneous).

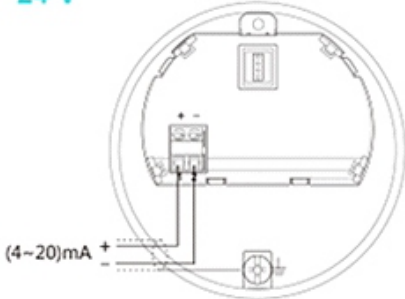


The datum level to be measured is the underside of the thread or the sealing surface of the flange.

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## Electrical Connection

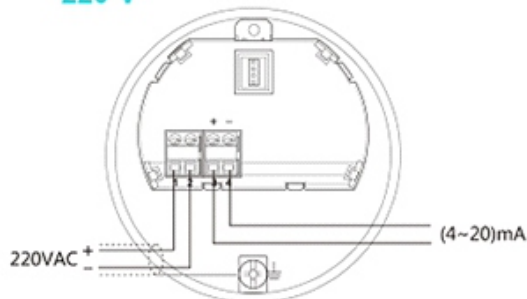
24 V



### 2 WIRE SYSTEM CONNECTION MODE

The power supply and the output current signal share a two - core shielded cable.(Refer to technical data for the specific supply voltage range.)For this type, a safety grid shall be installed between the power supply and the instrument.

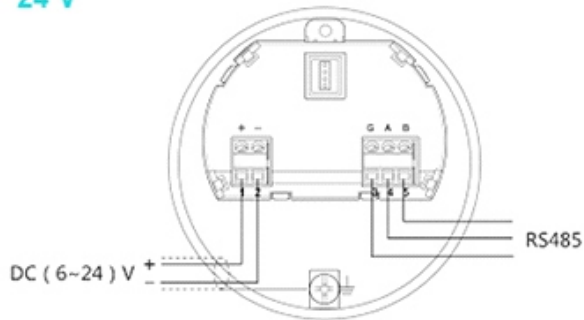
220 V



### 4 WIRE SYSTEM CONNECTION MODE

The power supply and the current signal are separated, and one cable is used for each.(Refer to technical data for the specific supply voltage range.)

24 V



### RS485/MODBUS CONNECTION MODE

The power supply and Modbus signal lines are separated by one shielded cable respectively. (Please refer to the technical data for the specific power supply voltage range.)

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