

# 26GHz Radar Level Transmitter

## RLT6300



**Frequency: 26GHz**



**Response time: <2s**



**Ambient Temperature: (-)40°C ~ 70°C**



**Protection level: IP67**

**Product  
Datasheet**

# ROCKSENSOR AT A GLANCE (ABOUT US)

Rocksensor is one of the global leaders specializing in Process Instrumentation, Research and Development and Designing of Industrial Automation Equipment. We provide highly precise pressure sensors and transmitters, flow metres, level transmitters and temperature transmitters with a prime focus to help our clients efficiently, safely and economically run complex industrial processes.

Rocksensor, headquartered in Switzerland, has its footprint in various geographical regions such as the US, Russia, South Korea, Italy, Germany, Singapore, Malaysia, Morocco, China, Taiwan, Australia, UAE, Brazil and India. Our clients come from some of the major industries such as Oil and Gas, Petrochemicals, Pharmaceuticals, FMCG, Automobiles, Water, Cement, Metal & Mining, and mainly from the Power Industry like Nuclear, Thermal, Hydro, and Solar.

Rocksensor deals in a wide range of highly accurate industrial automation instruments ensuring that even the complex industrial processes happen efficiently.

To fulfill the needs of our clients we make sure that our instruments work in even the harsh environmental conditions offering accurate recordings and communication.

We, at Rocksensor, believe in creating bonds that last a lifetime and create a success story for each and every client. Rocksensor aims to achieve a perfect fit in the global market landscape and establish our footprints across the globe.



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## KEY APPLICATION INDUSTRIES

- Oil and Gas sector
- Cement
- Metal
- Pulp and Paper
- Agriculture
- Textiles
- Chemicals
- Power
- Water
- Pharmaceutical
- Fertilizer
- Plastics and HVAC

## 1. Area of application

The CPR6300 is radar sensor for continuous level measurement of aggressive liquids under high pressure. It is suitable for applications in storage tanks, vessels, dosing vessels and reactors, especially suitable for difficult processing conditions.

## 2. Feature and benefit

### Twin-chips

With two chips, CPR6300 achieves higher processing ability.

### Multi-Track

Due to new multi-Track wave tracking algorithm, CPR6300 gets highest reliability.

### Waves Memo

With wave management function. To help understand abnormal output, CPR6300 stores waves automatically.

## 3. Function

Measuring system operates based on the time-of-flight method (ToF). It measures the distance from the reference point (process connection) to the product surface. Radar impulses are emitted by an antenna, reflected off the product surface and received again by the radar system.

The time from emission to reception of the signal is proportional to the level in the vessels. A special time stretching procedure allows and reliable and precise measurement of the extremely short signal running times.

## 4. Technical data

Parameters	Details
Measuring range	0 ~ 70 m
Sample frequency	54Hz
Response time	<2s
Resolution	1mm
Deviation	±3mm
Repeatability	±1.5mm
Frequency	26GHz
Ambient temperature	(-)40°C ~ 70°C
Process temperature	(-)40°C ~ 150°C
Process pressure	-1 ~ 16 bar
Protect level	IP67

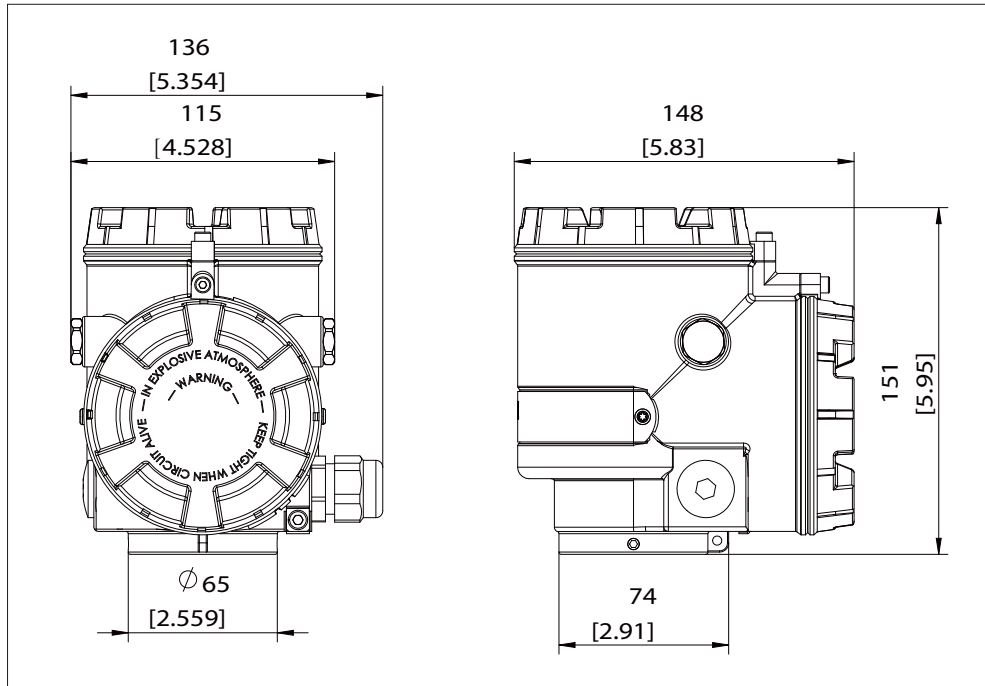
## 5. Material

The antenna is made of PTFE and the process seal is made of FKM.

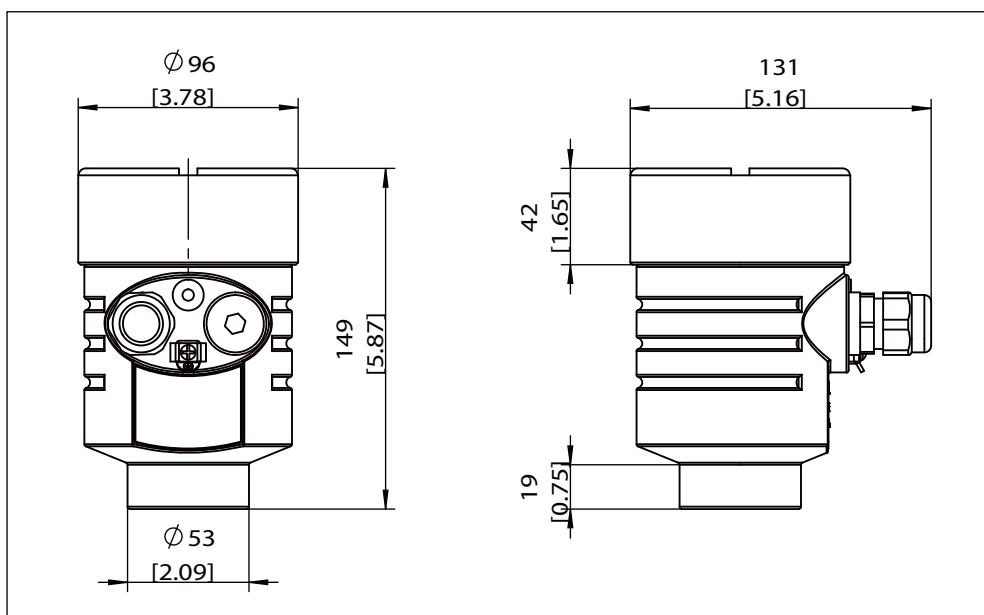
## 6. Housing version

The housings are available as single chamber version and double chamber version in stainless steel or aluminium. They are available with protection ratings up to IP67 (1bar).

### Double Chamber Housing



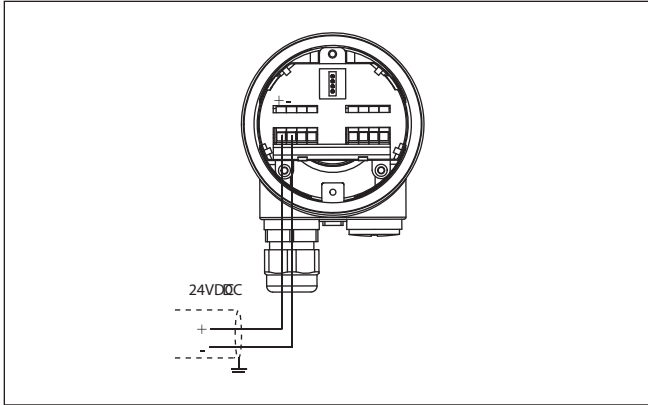
### Single Chamber Housing



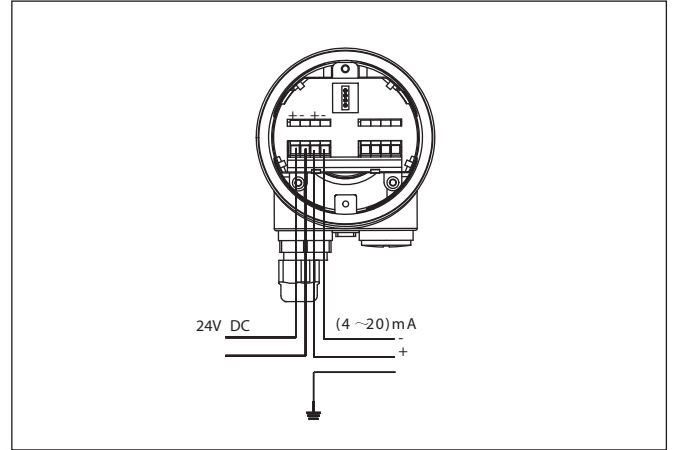
## 7. Electrical Connection

The instruments are available in different electronics versions. 4 ... 20 mA/HART in two and four-wire version with 24 VDC and four-wire with 220VAC.

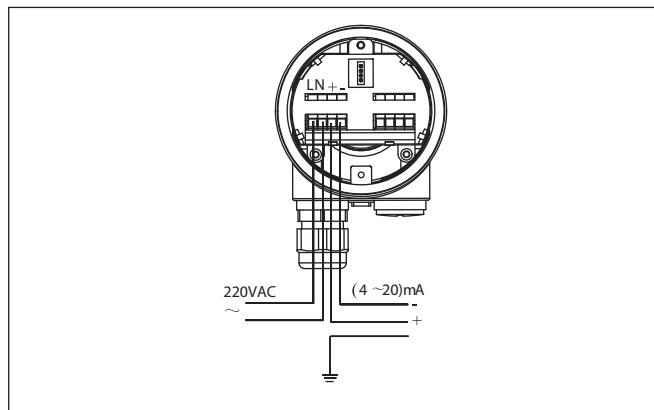
**24V DC.Two-wire**



**24V DC.Four-wire**

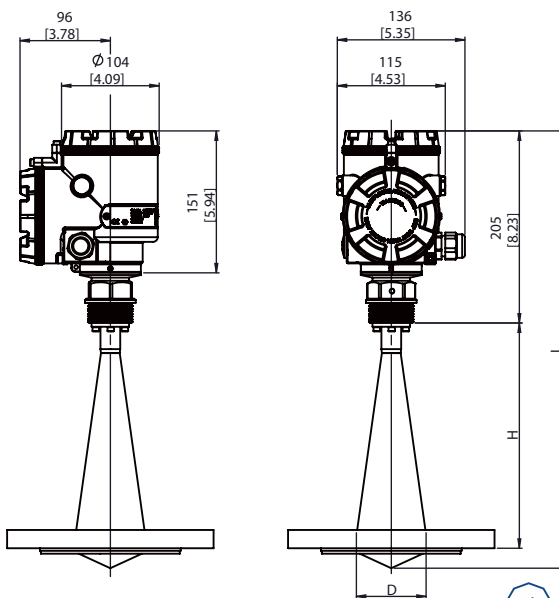


**220V AC.Four-wire**



## 8. Operation

The adjustment of the instrument is carried out via the LCD display, tank side display, tank side hub and HART communicator



Antenna type	D	H
DN80	75	230
DN100	98	310

### 9. Model Selection Table

RLT6300	26GHz Radar Level Transmitter							
Code	1	2	3	4	5	6	7	8

Language	
English	A

Approval	
Standard	XX
Ex ia IIC T6 Ga	CX
Ex d ia (iaGa)IIC T6/T2 Gb	DX
Ex iaD tD A21 IP67T80°C/T290°C	EX

Antenna version/ Material/ Process/ Temperature/ pressure	
With encapsulated horn antenna/ TFM-PTFE/(-)40~+150°C/(-)1~20 bar	N
Hygienic encapsulated horn ant./ TFM-PTFE+Viton/ (-)40~+150°C/ (-)1~16 bar	V
Hygienic encapsulated horn ant./ TFM-PTFE+EPDM/ (-)40~+150°C/ (-)1~16 bar	E
Customized	T

LCD Display	
X	Without display
A	With display

Cable Entry/ Cable Gland/ Connection Cable	
M	M20×1.5/ with/ without
N	½NPT/ without/ without

Housing/ Protection	
A	Single chamber/ Aluminum/ IP67
B	Double chamber/ Aluminum/ IP67
W	Double chamber/ 316L SS/ IP67

Electronics	
H	Two-wire 4...20mA/HART; 24 VDC
B	Four wire 4...20mA/HART; 220 VAC
I	Four wire 4...20mA/HART; 24 VDC
W	Wireless; GPRS; Wireless C Mesh
T	Customized

Process Fitting	
CA	Tri-Clamp 2"
CB	Tri-Clamp 3"
CC	Tri-Clamp 4"
LB	Hygienic fitting with fastening flange DN32 PN16
LA	Hygienic fitting with compression nut F40 PN16
FC	Flange DN50
FD	Flange DN80
FE	Flange DN100
FK	Flange DN150
AE	Flange 2" 150lb RF
AI	Falnge 3" 150lb RF
AK	Flange 4" 150lb RF
AM	Flange 6" 150lb RF
TT	Customized

## Field Instrumentation Range



### Pressure Measurement

- Smart Differential Pressure Transmitter
- Smart Gauge Pressure Transmitter
- Smart Absolute Pressure Transmitter
- Miniature Pressure Transducer without display
- Sanitary Gauge/ Absolute Pressure Transmitter

- Submersible Pressure Transmitter
- Remote Seal Differential P.T. with capillary
- Remote Seal Differential P.T. Direct Mount
- Remote Seal Gauge/Absolute P.T. with capillary
- Remote Seal Gauge/Absolute P.T. Direct Mount



### Flow Measurement

- Coriolis Mass Flowmeter
- Thermal Gas Mass Flowmeter
- Positive Displacement Flowmeter
- Electromagnetic Flowmeter
- Vortex Flowmeter

- Turbine Flowmeter
- Variable Area Flowmeter
- Clamp On Ultrasonic Flowmeter
- Inline Ultrasonic Flowmeter
- Portable Ultrasonic Flowmeter



### Level Measurement

- RADAR Level Transmitter Horn Antenna
- Compact RADAR Level Transmitter
- RADAR Level Transmitter Sanitary
- RADAR Level Transmitter
- Guided Wave RADAR Level Transmitter
- Guided Wave RADAR Level Transmitter
- RADAR Level Transmitter Lens Antenna

- RADAR Level Transmitter Rod Antenna
- Ultrasonic Level Transmitter
- Microwave Barrier Level Switch
- Admittance Level Switch Series
- Vibrating Rod Level Switch Series
- Tuning Fork Level Switch Series



### Temperature Measurement

- Head Mount Temperature Transmitter
- Temperature Transmitter for Sanitary Applications

- DIN Rail Temperature Transmitter
- Field Mount Temperature Transmitter

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