

Pulse RADAR Level Transmitter

RLT6200



Measuring range upto 35m



Quick Response Time



Process Pressure: (-)1 ~ 40 bar



Sensor Housing: IP67 protection

**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.



CONTENTS

1. Introduction	3
2. Area of Application	3
3. Feature and Benefit	3
4. Function	3
5. Technical Specifications	3
6. Material	3
7. Housing Version	3
8. Electrical Connections	4
9. Operation	4
10. Dimensions	4
11. Model Selection Table	5

KEY APPLICATION INDUSTRIES

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

1. Introduction

4 ~ 20 mA/ HART – 2 wire/ 4 wire Radar sensor for continuous level measurement of non-aggressive liquids with low dielectric constant

2. Area of application

The RLT6200 is a radar sensor for continuous level measurement of non-aggressive liquids with low dielectric constant. It is suitable for level measurement in storage containers, reactors and process vessels. Its wide temperature and pressure range makes project planning simple.

3. Feature and Benefit

- Twin-chips: With two chips, RLT6200 achieves higher processing ability.
- Multi-Track: Due to new Multi-Track wave tracking algorithm, RLT6200 gets highest reliability.
- Waves Memo: With wave management function. To help understand abnormal output, RLT6200 stores wave automatically.

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

5. Technical Specifications

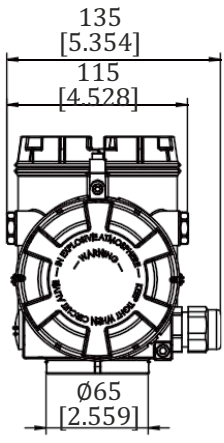
Measuring Range	0 ~ 35m
Sample Frequency	54Hz
Response Time	<2s
Resolution	1mm
Deviation	±3mm
Repeatability	±1.5mm
Frequency	26GHz
Ambient Temperature	(-)40°C ~ 70°C
Process Temperature	(-)40°C ~ 1000°C
Process Pressure	(-)1 ~ 40bar
Protect Level	IP67

6. Material

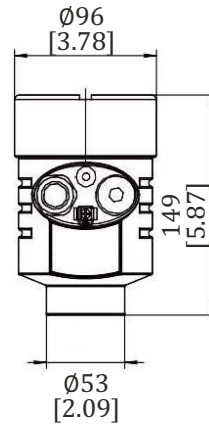
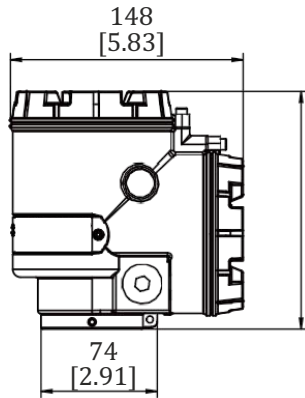
The antenna is made of 316 stainless steel and the process seal is made of FKM.

7. Housing Version

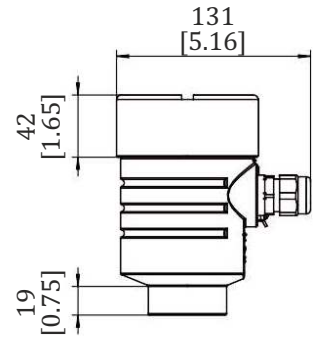
The housings are available as single chamber version and double chamber version in stainless steel or aluminium. They are available with protection ratings up to IP 67 (1 bar).



Double Chamber Housing

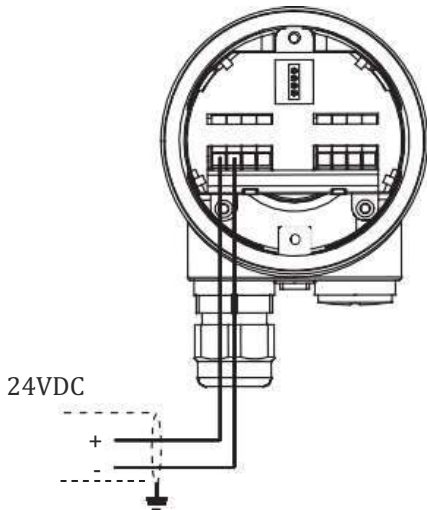


Single Chamber Housing

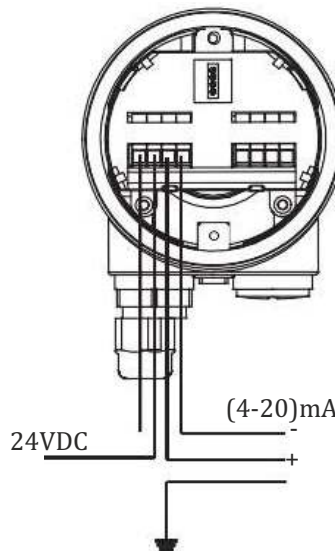


8. Electrical Connection

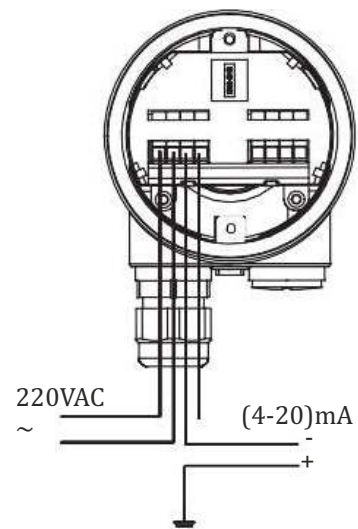
The instruments are available in different electronics versions. 4 ~ 20 mA/HART in two and four-wire version with 24 VDC and four-wire with 220VAC.



24V DC.Two-wire



24V DC.Four-wire

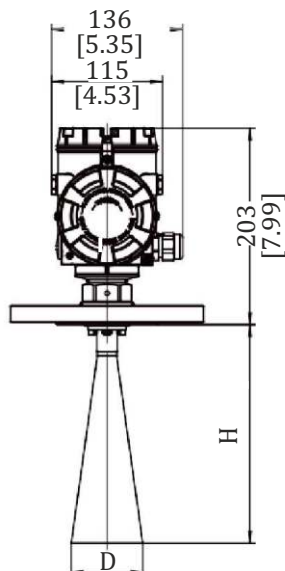
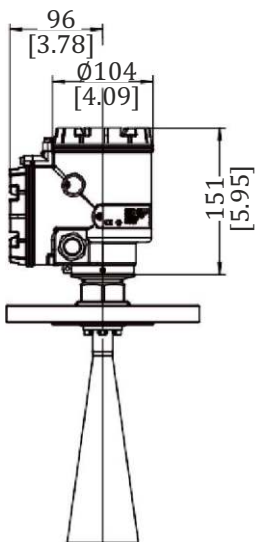


220V AC.Four-wire

9. Operation

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

10. Dimensions



Antenna type	D	H
DN50	48	126
DN80	78	228
DN100	98	288
DN100L	98	473
DN125	123	621

11. Model Selection Table

RLT6200		Pulse Radar Level Transmitter									
Code		1	2	3	4	5	6	7	8	9	
Language		English		A							
		Customized		T							
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		With horn antenna Ø48mm/ 316L		C							
		With horn antenna Ø78mm/ 316L		D							
		With horn antenna Ø98mm/ 316L		E							
		With horn antenna Ø98mm L/316L		N							
		With parabolic antenna Ø195mm/ 316L		L							
		With parabolic antenna Ø245mm/ 316L		K							
		Customized		T							
Process Fitting		Thread G1½A		GD							
		Thread 1½NPT		ND							
		Flange DN50 PN16		FC							
		Flange DN80 PN16		FD							
		Flange DN100 PN16		FE							
		Flange 3" 150lb RF		AE							
		Flange 3" 150lb RF		AI							
		Flange 4" 150lb RF		AK							
		Customized		TT							
LCD Display		X		Without display							
		A		With display							
Cable Entry / Cable Gland/ Connecting Cable		M		M20x1.5/ 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 Seal / Temperature/ Pressure		2		FKM (Viton)/ (-)40 ~ 150°C/ (-)1 ~ 40bar							
		3		Kalrez 6375/ (-)20 ~ 150°C/ (-)1 ~ 40bar							
		4		FKM (Viton) + radiator/ (-)40 ~ 250°C/ (-)1 ~ 3bar							
		5		Kalrez 6375 + radiator/ (-)20 ~ 250°C/ (-)1 ~ 3bar							
		T		Customized/ Max. 1000°C/ Max. 400Bar							

Example: RLT6100-AXXCGPWANA

A - Language: English

XX - Approval: Standard

C - Antenna Version/ Material: With horn antenna Ø48mm/ 316L

GD - Process Fitting: Thread G1½A

2 - Process Seal / Temperature/ Pressure: FKM (Viton)/ (-)40 ~ 150°C/ (-)1 ~ 40bar

W - Electronics: Wireless; GPRS; Wireless C Mesh

A - Housing/ Protection: Single Chamber/ Aluminum / IP67

N - Cable Entry / Cable Gland/
Connecting Cable : ½NPT/
Without/ Without

A - LCD Display: With Display

*For any customisation, contact our sales team