RKS
ROCKSENSOR®

Pulse RADAR Level Transmitter
RLT6200

Measuring range upto 70m

Response Time <2 sec

Process Pressure: (-)1 ~ 40 bar

Sensor Housing: IP67 protection

Product Datasheet

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 & temperature transmitters with a prime focus to help our clients efficiently, safely and economically run complex industrial processes.

Rocksensor headquartered in Germany (originated in Switzerland), has its footprint in various geographical regions such as the US, Russia, South Korea, Italy, Germany, Singapore, Malaysia, 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 global market landscape and establish our footprints across the globe.

CONTENTS

KEY APPLICATION INDUSTRIES

- Oil and Gas sector
- Cement
- Metal
- Pulp and Paper
- Agriculture
- Textiles

- Chemicals
- Power
- Water
- Pharmaceutical
- Fertilizer
- Plastics and HVAC

Sensing Beyond the Vision

1. Introduction

The RLT6200 Level transmitter is suitable for continuos level measurement of different media like solid, liquid etc. with low dielectric constant.

2. Area of Application

The RLT6200 is a radar sensor for continuous measurement of bulk solids. It is particularly suitable for level measurement in high silos and large bunkers. The RLT6200 is an economical solution thanksto the simple setup and the reliable, maintenance–free operation.

3. Feature and benefit

Twin-chips
With two chips, RLT6200 achieves higher processing ability.

Multi-Track
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 storageswave 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 allowsreliable and precise measurement of the extremely short signal running times.

5. 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 ~ 1000°C
Process pressure	(-)1 ~ 40 bar
Protect level	IP67

6. Material

The antenna is made of SS316 and the process seal is made of FKM.

RKS
ROCKSENSOR®

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

Sensing Beyond the Vision
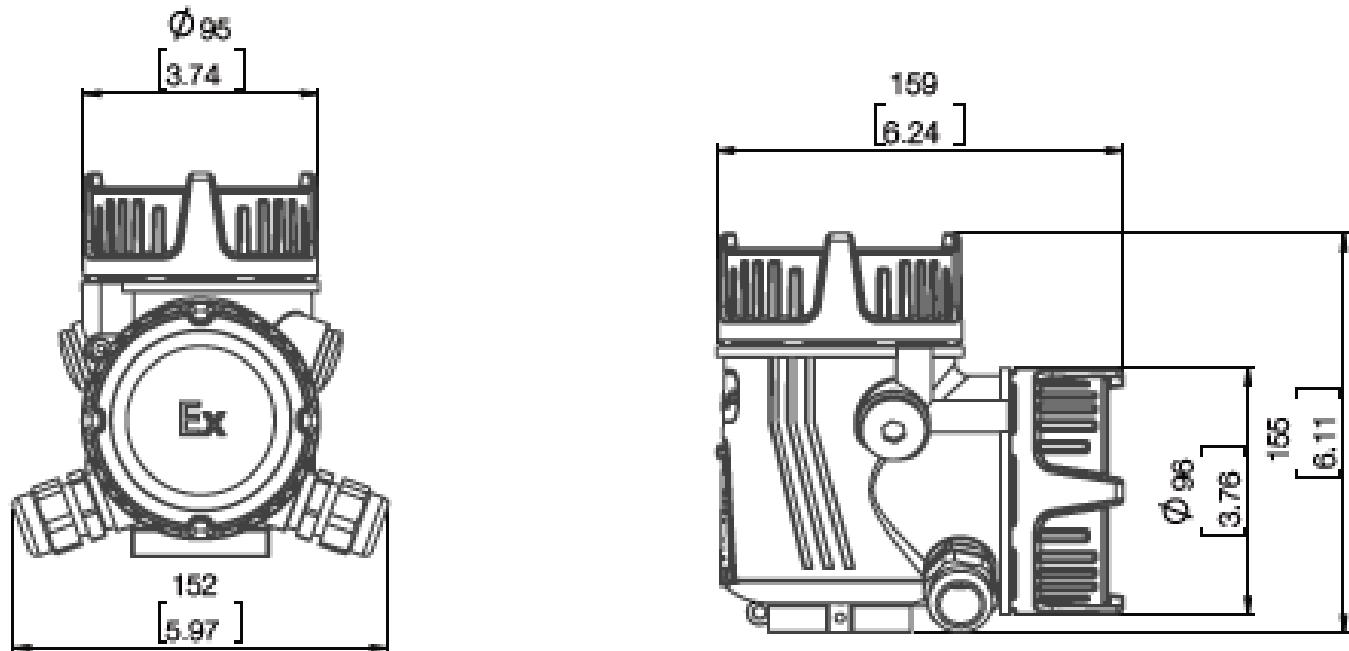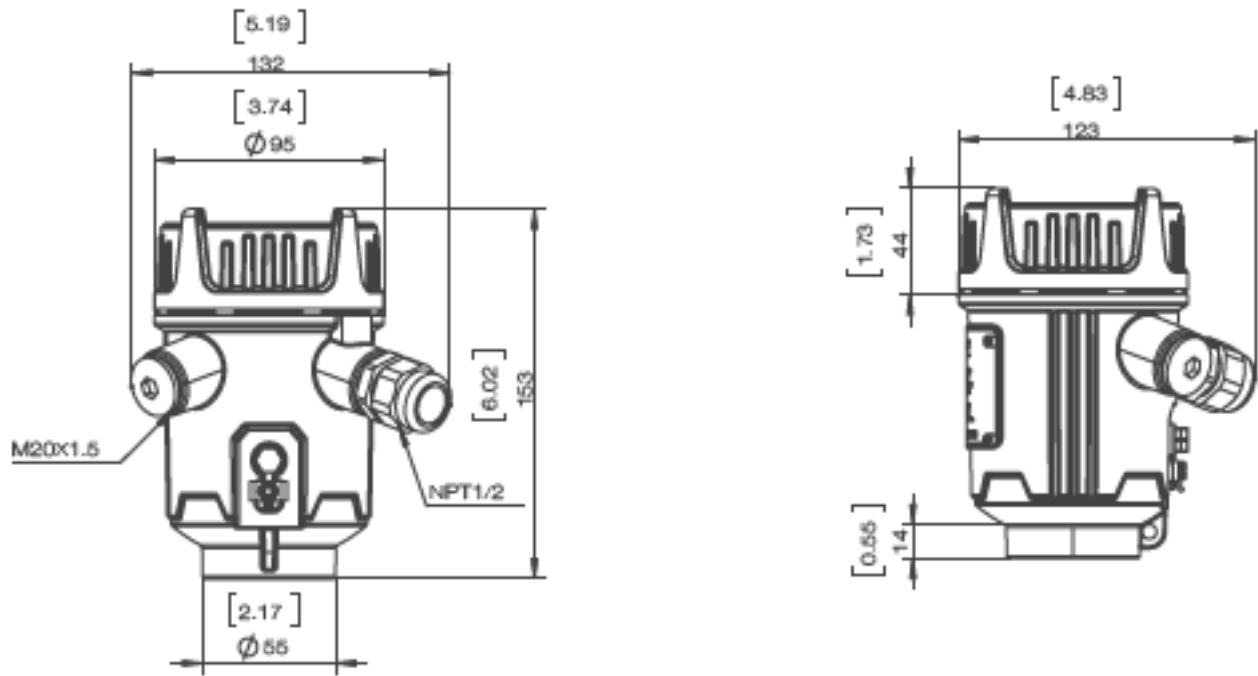
8. Electrical Connection

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.
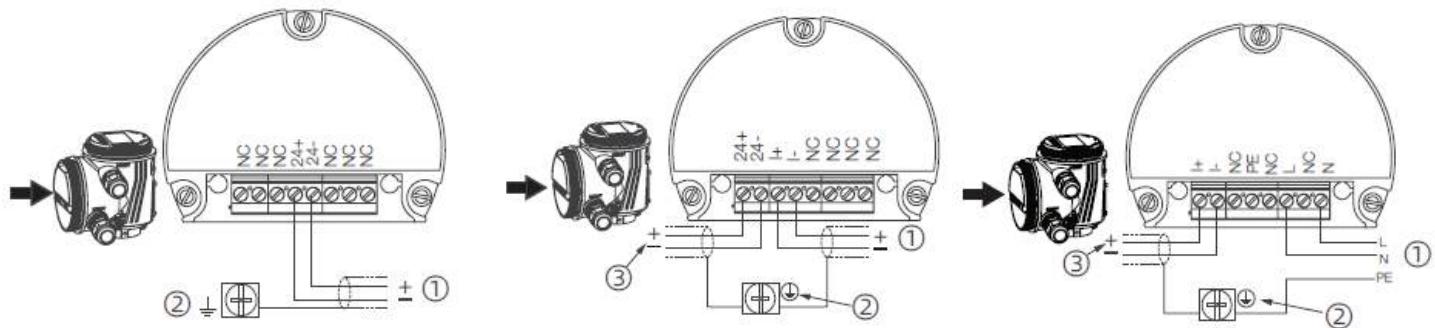
Wiring for two-wire, 24VDC
1. 24V power supply line
2. Grounding screw inside the case

Wiring for four-wire, 24VDC
1. Current signal line
2. Grounding screw inside the case
3. 24V power supply line

Wiring for four-wire, 220VAC
1. Current signal line
2. Grounding screw inside the case
3. 220V power supply line

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
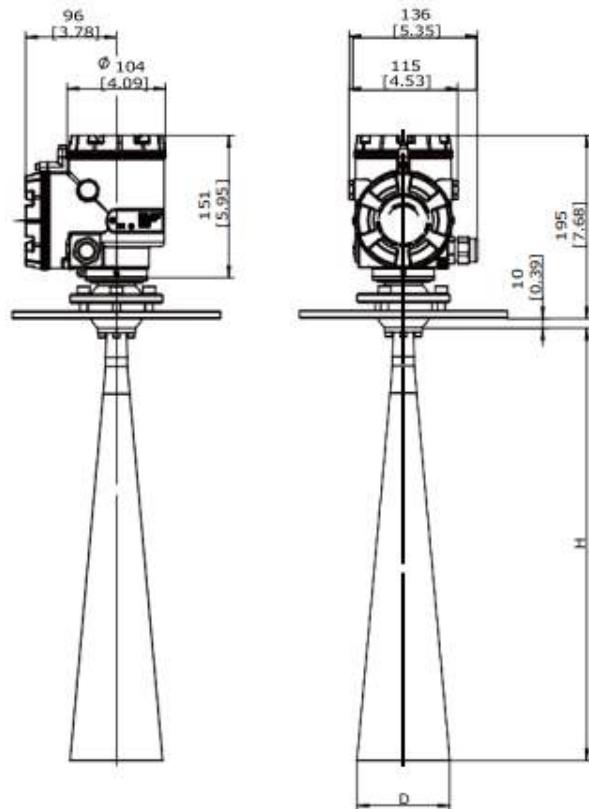
Antenna type	D	H
DN80	78	228
DN100	98	288
DN100(lengthen)	98	473
DN125	123	621

11. Model Selection Table

RLT6200	Pulse Radar Level Transmitter							
Code	1	2	3	4	5	6	7	8

Accuracy

±2mm	A

Approval

Standard	XX
Ex ia IIC T2/T6 Ga	CX
Ex db ia (ia Ga) IIC T6/T2 Gb	DX

Thread Antenna material/ Sensor material

Horn Antenna ø40mm / Stainless Steel SS316L	B
Horn Antenna ø48mm / Stainless Steel SS316L	C
With horn antenna ø78 mm / SS316L	D
With horn antenna Ø98mm / SS316L	E
Horn Antenna ø98mmExtended Version/ Stainless Steel SS316L	F
Horn Antenna ø98mmExtended Version/ Stainless Steel SS316L	G
Parabolic Antenna ø245mm / Stainless Steel SS316L	K
Parabolic Antenna ø245mm / Stainless Steel SS316L	L
Customized	T

Process Seal/ Temperature/ Pressure

FKM (Viton) / -40 ~ 130°C / -1 ~ 40bar	2
Kalrez 6375 / -20 ~ 130°C / -1 ~ 40bar	3
FKM (Viton)+Heat Sink/ -40 ~ 250°C / -1 ~ 3bar	4
Kalrez 6375+Heat Sink/ -20 ~ 250°C / -1 ~ 3bar	5
Customization	T

LCD Display

X	Without display
A	With display
B	Remote Display

Cable Entry/ Cable Gland/ Connection Cable

M	M20×1.5/ with/ without
N	½NPT/ without/ without

Housing Material / Protection Rating

A	Single chamber/ Aluminum/ IP67
B	Double chamber/ Aluminum/ IP67
W	Double chamber/ SS316L/ IP67

Electronics

H	Two-Wire 4...20mA/RS485; 24 VDC
U	Two-Wire 4...20mA/HART; 24 VDC
B	Four-Wire 4...20mA /RS485; 220 VAC
S	Four-Wire 4...20mA/HART; 220 VAC
I	Four-Wire 4...20mA/RS485; 24 VDC
P	Four-Line 4...20mA/HART; 24 VDC
T	Customization

Field Instrumentation Range

Pressure Measurement

- Smart Differential Pressure Transmitter
- Smart Gauge Pressure Transmitter
- Smart Absolute PressureTransmitter
- 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

Rocksensor India Pvt. Ltd.

: B -36, Sector 67, Noida, Uttar Pradesh - 201301

For more details, contact us on:

📞 **+91 928 948 8117 | +91 1204121469**   ✉ **: info@rocksensor.in**   🌐 **: www.rocksensor.in**

Global Offices

Head Office	North America:	APAC:
Rocksensor GmbH, Germany	Rocksensor Automation LLC, USA	Rocksensor Automation Co.Ltd., Shanghai

For more updates, follow us on:

in: Rocksensor India   ▶: Rocksensor   **f**: Rocksensor   📷: Rocksensor   🐦: Rocksensor India