

## Specification sheet

# ROHEVEL-PRT3205

4 ... 20 mA/HART - 2wire

Radar sensor for continuous level measurement of liquids



## Application area

The ROHEVEL-PRT3205 is a radar sensor for continuous level measurement of liquids. The small process fittings offer particular advantages in small tanks or tight mounting spaces. The very good signal focusing ensures the use in vessels with many installations such as stirrers and heating spirals.

## Feature and benefit

### ■ Maintenance-free

Maintenance-free operation thanks to non-contact measuring principle

### ■ Availability

High plant availability, because wear and maintenance free

### ■ Reliability

Reliable measurement independent of process conditions

## 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.

## Technical data

Measuring range	0 ~ 20m
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	-1.0 kgf/cm <sup>2</sup> ~ 3 kgf/cm <sup>2</sup>
Protect level	IP67

## Material

The material of wetted parts has PTFE version and PVDF version. The process seal is made of FKM.

## Housing versions

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

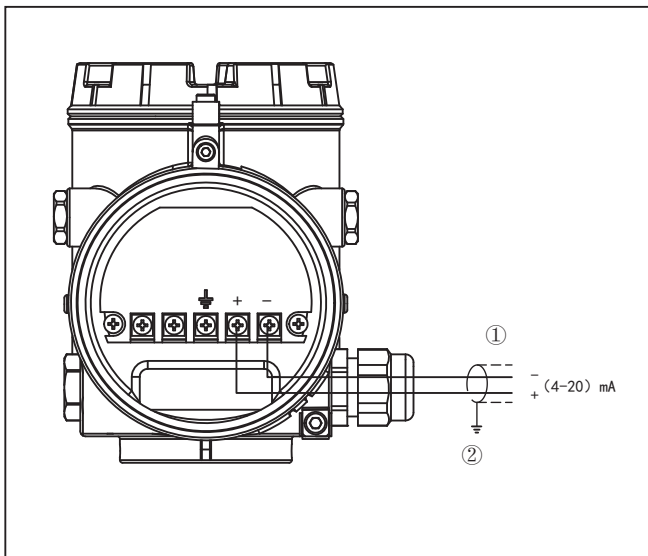
## Electronic versions

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

## Operation

The adjustment of the instrument is carried out via the Lcd display, Tank side display and Tank side hub.

## Electrical connection

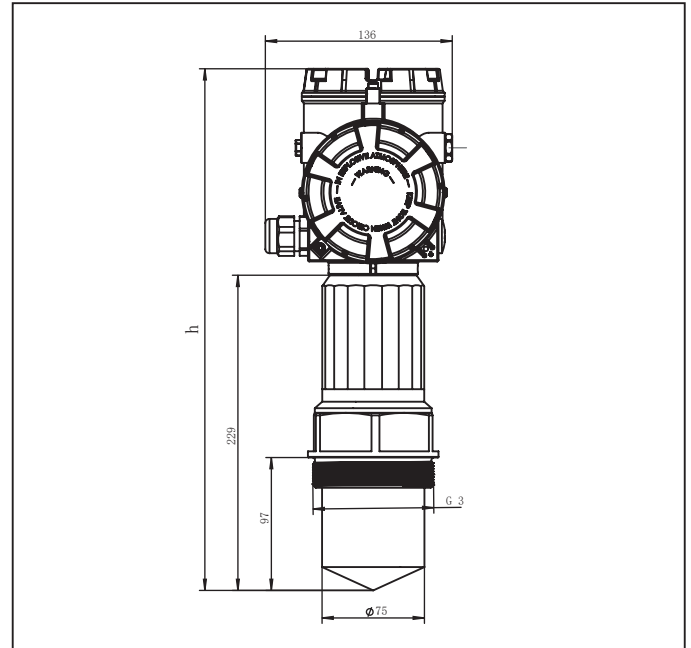


Electronics and terminal compartment, double chamber housing

1 Voltage supply/Signal output

2 Ground terminal for connection of the cable screen

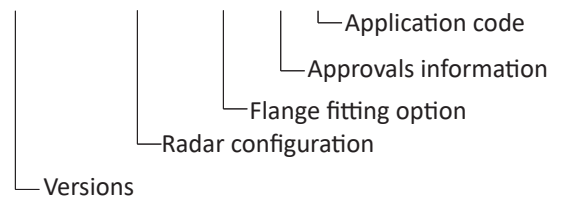
## Dimensions



Dimensions ROHEVEL-PRT3205  
Version with integrated antenna

## How to order

ROHEVEL-PRT3205-A2A2AMF-3FB3AX-A-01B



## Approval

- A None
- B Ex ia IIC T6 Ga
- C Ex d ia [ia Ga] IIC T6 Gb
- D ATEX II 1/2G Ex ia IIC T6
- E ATEX II 1/2G Ex d (ia) IIC T6

## Radar configuration

A 2 A 1 A M F

### Process fitting

- A Thread G1½(only for type 2 and type 3 Ø45mm antenna)
- B Thread G3A(only for type 4 Ø75mm full coating horn antenna)
- C Special thread order
- F Flange(more information turn to)

### Process pressure(kgf/cm²)

- L -1
- M 1
- A 2.5
- Z Special order

### Process temperature

- A -40 ~ 80 °C
- B -20 ~ 150 °C
- Z Special order

### Antenna type

- 2 Ø45mm PTFE coated horn antenna
- 3 Ø45mm PTFE coated extend horn antenna
- 4 Ø75mm PTFE coated horn antenna
- 5 Ø75mm plastic horn
- 0 Special order

### Tank side display

- A None
- B Tank side display (I²C/50m)
- C Tank side hub (HART/1500m)
- Z Special order

### Supply/Communication

- 2 24VDC-2wires/4-20mA HART
- 3 24VDC-4wires/4-20mA HART
- 4 220VAC-4wires/4-20mA HART
- 0 Special order

### Housing material

- A Cast aluminium
- B Stainless steel
- Z Special order

## Flange fitting option

3 F B 3 A X

### Counter flange

- X None
- A 304
- B 316L
- C Q235
- Z Special order

### Flange material

- A 304
- B 316L
- C Q235
- D PP
- E PTFE
- Z Special order

### Flange surface type

- 2 Solid flange
- 3 RF raised face flange
- 4 FM male and female face flanges
- 5 M male face flanges
- 6 TG tongue and groove face flanges
- 7 FF flat face flange
- 8 RJ ring joint face flanges
- 0 Special order

### Flange pressure level

- X Solid flange
- A PN2.5
- B PN10
- C PN16
- D PN25
- E PN40
- F Class150
- G Class300
- H Class600
- I Class900
- Z Special order

### Flange sizes

- A 2"(DN50)
- B 3"(DN80)
- C 4"(DN100)
- D 5"(DN125)
- E 6"(DN150)
- F 8"(DN200)
- G 10"(DN250)
- Z Special order

### Flange standard

- 2 ANSI B16.5
- 3 EN1092-1
- 4 Solid special flange(8mm)
- 0 Special order