

Specification sheet

ROHEVEL-PRT3202

4 ... 20 mA/HART - 2wire

Radar sensor for continuous level measurement of liquids



Application area

The ROHEVEL-PRT3202 is a sensor for continuous level measurement of liquids under difficult process conditions. It is suitable for storage tanks, process vessels or standpipes. It can be used universally by changing different versions of antenna.

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 ~ 70m
Sample frequency	54Hz
Response time	<2s
Resolution	1mm
Deviation	±10mm
Repeatability	±5mm
Frequency	6.3GHz
Ambient temperature	-40 °C ~ 70 °C
Process temperature	-40 °C ~ 350 °C
Process pressure	-1.0 kgf/cm ² ~ 40 kgf/cm ²
Protect level	IP67

Material

The wetted parts of the instrument are made of 316L. 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).

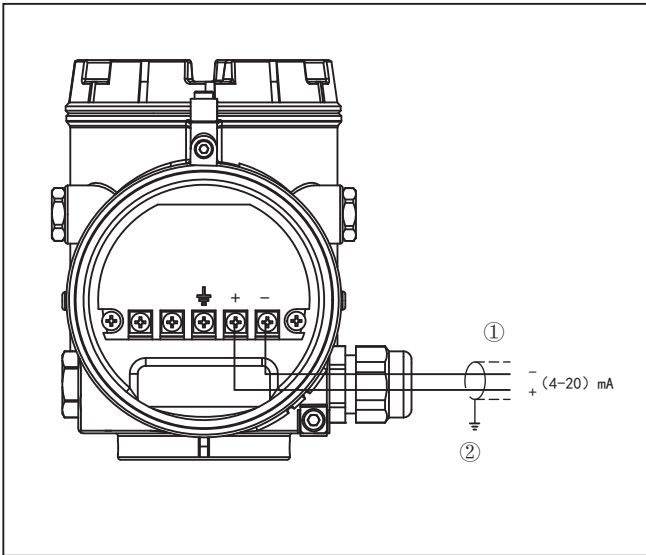
Electronic versions

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

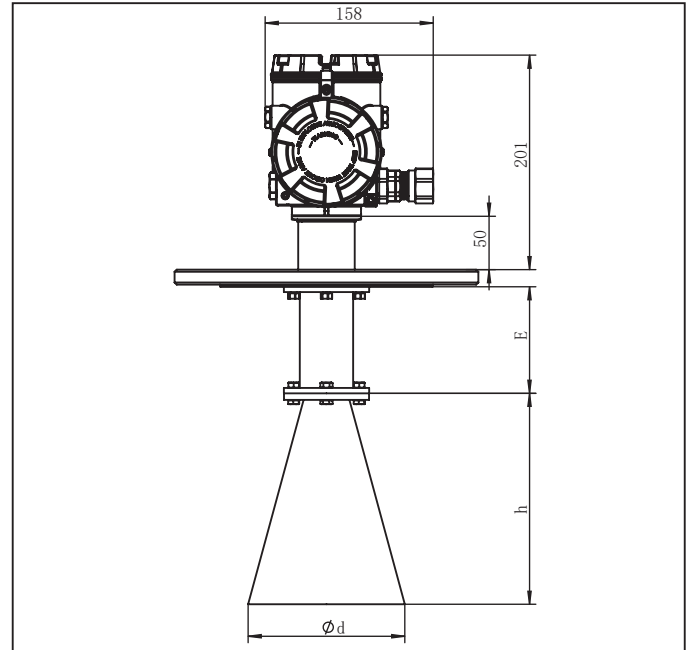


Electronics and terminal compartment, double chamber housing

1 Voltage supply/Signal output

2 Ground terminal for connection of the cable screen

Dimensions

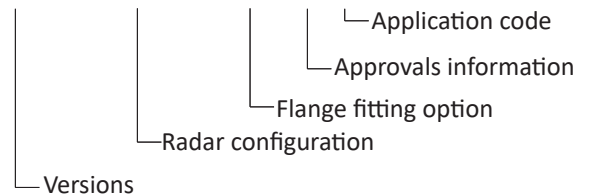


Dimensions ROHEVEL-PRT3202

Version with horn antenna

How to order

ROHEVEL-PRT3202-A2A2XXAMF-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 XX A M F

Process fitting

- F Flange(Recommend PP flange according to application approval)
- Z Special order

Process pressure(kgf/cm²)

- L -1
- M 1
- A 2.5
- B 6
- C 16
- D 25
- E 40
- Z Special order

Process temperature

- A Viton/-40 ~ 80 °C
- B Kalrez 6375/-20 ~ 150 °C
- C Viton/-40 ~ 250 °C
- D Kalrez/-20 ~ 250 °C
- E Graphite/-40 ~ 350 °C
- Z Special order

Extensions length

- XX Length in centimeters (10 centimeters as 10)

Antenna type

- 2 Advise D150(316L,Ø145mm, height 200mm,liquids)
- 3 Advise D200(316L,Ø195mm, height 280mm,liquids)
- 4 D250(316L,Ø245mm, height 490mm,liquids)
- 0 Special order

Tank side display

- A None
- B Tank side display (I²C/50m)
- C Tank side hub (HART/1500m)
- Z Sepcial 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 alminium
- 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 Speical 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