

Specification sheet

ROHEVEL-PRT3208

4 ... 20 mA/HART - 2wire

Radar sensor for continuous level measurement of bulk solids



Application area

The ROHEVEL-PRT3208 is a radar sensor for continuous measurement of bulk solids. It is particularly suitable for level measurement in high silos and large bunkers. The ROHEVEL-PRT3208 is an economical solution thanks to the simple setup and the reliable, maintenance-free operation.

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 ~ 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 ~ 400 °C
Process pressure	-1.0 kgf/cm ² ~ 40 kgf/cm ²
Protect level	IP67

Material

The material of wetted parts 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).

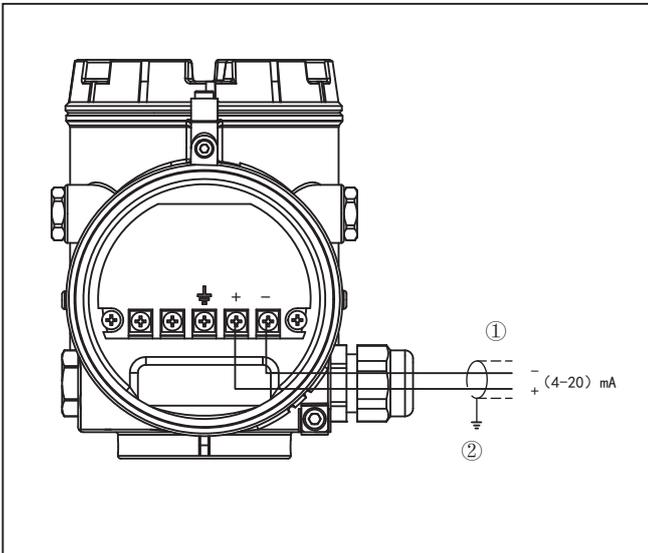
Electronic versions

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

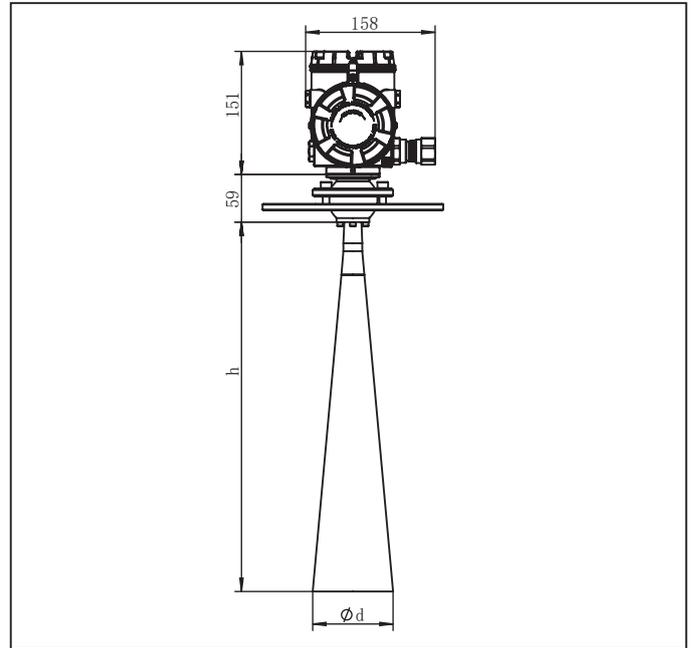


Electronics and terminal compartment, double chamber housing

1 Voltage supply/Signal output

2 Ground terminal for connection of the cable screen

Dimensions

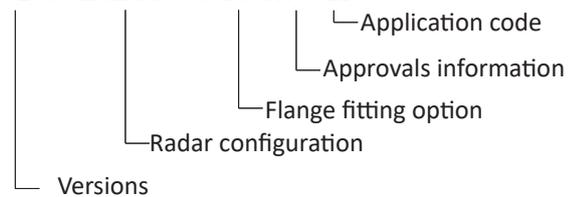


Dimensions ROHEVEL-PRT3208

Version with horn antenna

How to order

ROHEVEL-PRT3208-A2A2XAMF-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 X A M F

	Process fitting
F	Flange(Recommend PP flange according to application approval)
	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
	Antenna protection
X	None
A	Dust cover(only for horn antenna)
B	Purge
	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 (I ² C/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	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