

ROHEVEL-RFS21

Radio frequency conductance level sensor for non-corrosive liquid and solid



Application

The RF capacitive level sensor is used for level detection in silos, tanks and bunkers, both limit detection and continuous measurement. These instruments are typically used in all industry and are capable of measuring liquids as well as solid.

Features and benefit

- Highly suitable for liquid and bulk solid
- Without moving parts
- Good capacity of anti-interference
- Real time display of capacitance value
- Field-selectable failsafe

Function

RF Capacitance level sensor operate on the basic principle of the variation of the electrical capacity or capacitance of a capacitor formed by the sensor, vessel wall and dielectric material. A capacitor is made up of two conductive plates which are separated from each other by a dielectric. The storage capability of a capacitor defined constant of the material between the plates: $C = \epsilon A / d$.

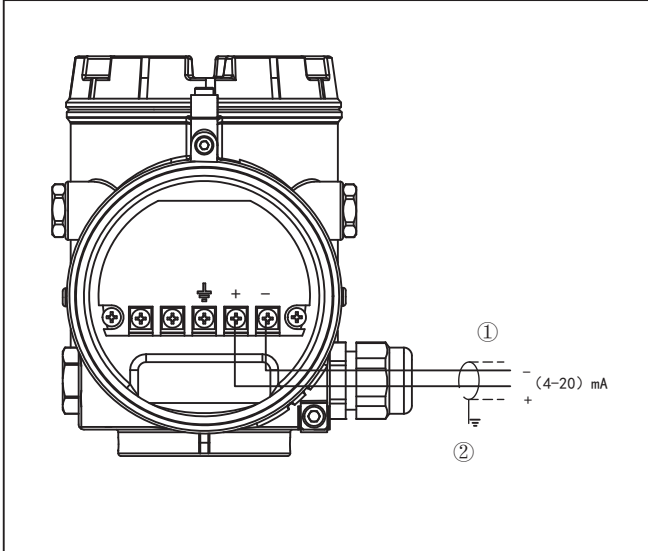
Technical data

Application	Liquid, solid
Power supply	24VDC/220VAC
Output	DPTD 220VAC 3A
Power	<1W
Delay	1~3s
Resolution	0.1PF
Ambient temperature	-40 °C ~ 70 °C
Process temperature	-40 °C ~ 80 °C
Process pressure	-1.0 kgf/cm ² ~ 20 kgf/cm ²
Process fitting	Thread or flange
Antenna material	SS316L with PFA coating
Protect level	IP67
Electric entry	2XM20*1.5 (cable diameter 9~13mm)
Explosion proof rate	Exd IIC T6 Gb

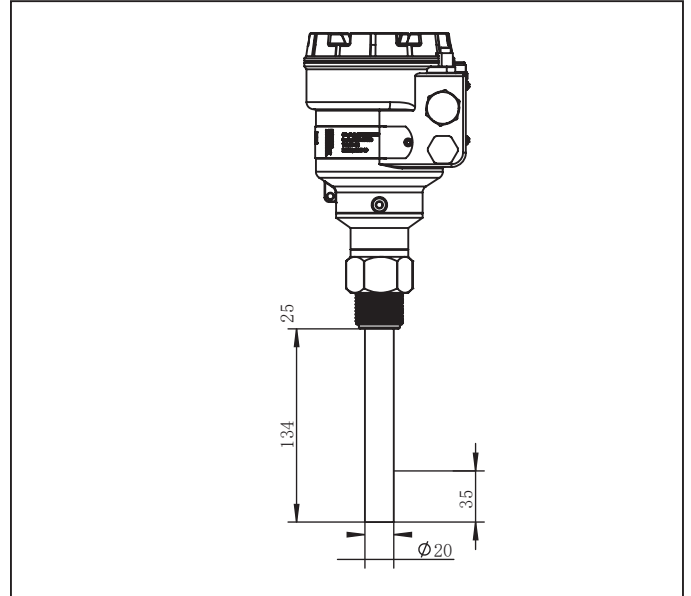
Electronic versions

The instruments are available in different electronics versions: two-wire with 24VDC and four-wire with 220VAC.

Electrical connection

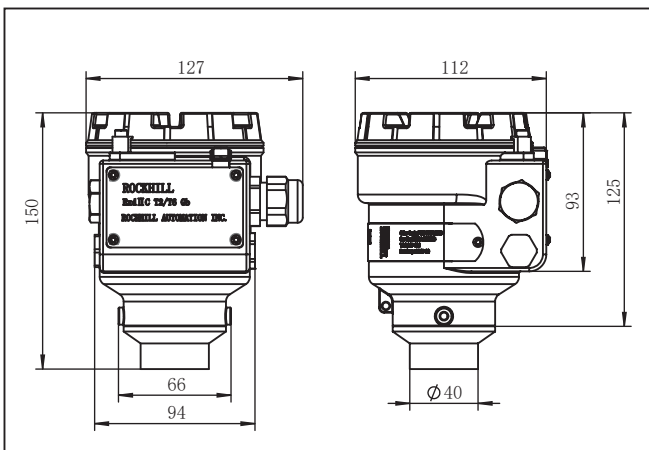


Electronics and terminal compartment, double chamber housing
 1 Voltage supply/Signal output
 2 Ground terminal for connection of the cable screen



Dimensions ROHEVEL-RFS21 with standard probe

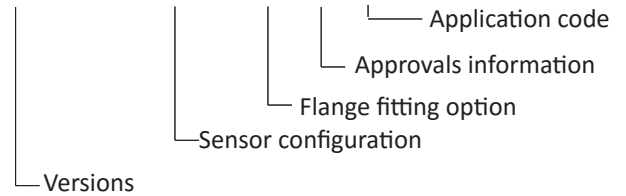
Dimensions



Dimensions ROHEVEL-RFS21 housing

How to order

**ROHEVEL-
RFS21 -A2LA1B50X1AA-3FB3AX-A-01B**



Approval

- A None
- C Ex ia IIC T6 Ga

Sensor configuration

A	2	L	A	2	B	XXXX	X	1	M	F
<p>Process fitting A Thread G1½" Z Special thread order F Flange</p> <p>Process pressure(kgf/cm²) L M A B C D Z -1 1 2.5 6 16 20 Special order</p> <p>Process temperature 1 -40 ~ 80°C Z Special order</p> <p>Probe protection X None Z Insulated</p> <p>Probe length XXXX in millimeter</p> <p>Shielded pole length A 150mm B 250mm Z Special order</p> <p>Probe type 1 Flat 2 Rope 3 Double electrode(for non-metallic vessel or media with low dielectric constant) 4 Rod</p> <p>Probe material A SS304 B SS316L Z Sepcial order</p> <p>Measuring media L Liquid S Solid</p> <p>Power supply/Output 2 24VDC DPDT output 3 220VAC DPDT output</p> <p>Housing material A Cast alminium Z Special order</p>										

Flange fitting option

3	F	B	3	A	X
<p>Counter flange X None A 304 B 316L C Q235 Z Special order</p> <p>Flange material A 304 B 316L C Q235 D PP E PTFE Z Speical order</p> <p>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</p> <p>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</p> <p>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</p> <p>Flange standard 2 ANSI B16.5 3 EN1092-1 4 Solid special flange(8mm) 0 Special order</p>					