Rf Admittance Sensor-BLS Level Sensor

Impedance Spectroscopy, Intelligent Microwavelevel Sensor And Sweep Frequency Sensor

Radio Frequency Admittance (Smart Impedance Spectroscopy) Sensor — The Innovator in Industrial Detection. Breaking through traditional limitations with intelligent algorithms at its core, it accurately identifies subtle differences in complex samples, enabling rapid and precise analysis of material properties. Whether delving into cellular characteristics in biopharmaceutical research and development, ensuring strict quality control in food inspection, or conducting precise performance evaluations in electronic materials, it delivers exceptional performance. Compact yet powerful, it offers easy installation and compatibility with diverse equipment. Choosing GREEGOO means embracing efficiency and precision—unlocking the future of detection and endless possibilities for industrial advancement.

Product Application

Chili Sauce Production Workshop

Flour Processing Workshop

Food Processing Workshop

Beer Brewing Workshop

Iron Powder Processing Workshop

Model Selection Table

G SP B - A03 S N M - □

Company Name
Greegoo

Product Name
RF Series

Type
B: Base type
S: Sand position type
H: High-temperature resistant type (heat dissipation type)
C: Corrosion-resistant type
P: One-key setting type
E: Explosion-proof type

Shell model
A03：G1/2A
G07：G1/2A
T10：G1/2A
A03/SR：G1/2A
A03/WS：G1/2A
N03：3/4-14NPT
M11：18*1
G51：G1/2A
N02：1/2-14 NPT
A03/82：G1/2A
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Current load
S： Small current
L： Large current

Output Mode
N： NPN Negative Logic Output
P： PNP Positive Logic Output

Wiring Configuration
T： M12
M： Cable Connection

Special Customization

SP Series

Product Features

• High Measurement Accuracy.

Sweep Frequency Sensors are unaffected by installation position inside the tank.

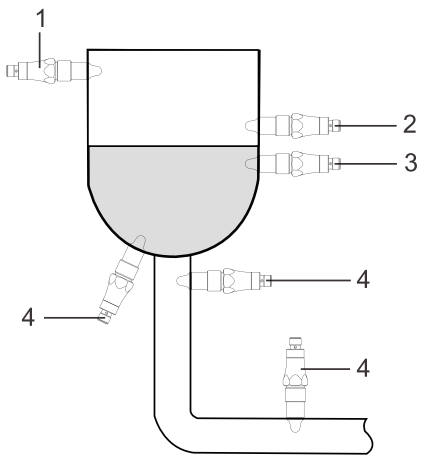
• Wide Application Range.

Capable of detecting various media, from liquids to powders and solids (including quartz sand, iron powder, etc.), regardless of their density.

• Excellent Stability.

This sensor employs non-mechanical measurement principles based on smart RF capacitance technology, effectively overcoming the sensitivity and accuracy instability issues caused by parasitic capacitance and stray capacitance in traditional capacitive sensors.

Installation Position



① Overflow Alarm

② High-level Alarm

③ Low-level Alarm

④ Dry-run Protection

The sensor can be installed at any position on the container.

Sensor ① installed above the container can prevent overflow.

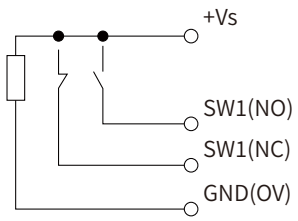
Sensors installed below can detect the maximum ② or minimum ③ material level.

Sensor ④ installed at the bottom of the container or on the discharge pipe can prevent the pump from idling.

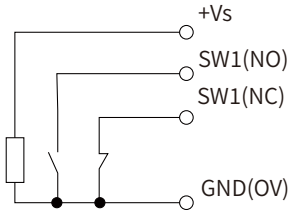
Technical Parameters

	Technical Parameters
Operating Voltage	12V...30VDC
Reverse Polarity Protection	Yes
Current Consumption	Typical value 25mA Maximum value 50mA
Start-up Time	<2 seconds
Output Mode	PNP or NPN
Current Load	Small current：≤20mA; Large current≤200mA
Short-circuit Protection	Yes
Voltage Drop	PNP：(+Vs-1.5V)±0.5V，Rload=10KΩ NPN：(+1.5V)±0.5V，Rload=10KΩ
Leakage Current	±100 μA MAX.
Switching Status	NO+NC，PWM customizable
Repeatability	±1mm
Hysteresis	±1mm
Reaction Time	0.1s
Damping	0.0...10.0s(Adjustable)
Ambient Temperature	-40°C...+85°C、-40°C...+150°C（High-temperature resistant series）
Air Humidity	<98%RH,Condensation
Storage Temperature	-40°C...+85°C
Protection Rating	IP67、IP69K(With suitable cable)
Vibration (Sinusoidal)	1.6mm P-P(2...25Hz)、4g(25...100Hz)、1 octave/minute

Wiring Diagram

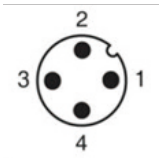


PNP



NPN

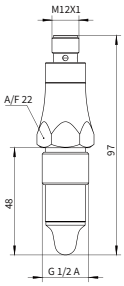
Connector



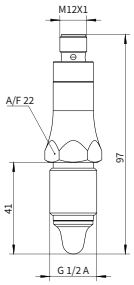
+VS	Brown
Switch interlock control, normally open(NO)	Black
Switch interlock control, normally closed(NC)	White
ground terminal (0V)	Blue

+VS	1
Switch interlock control, normally open(NO)	4
Switch interlock control, normally closed(NC)	2
ground terminal (0V)	3

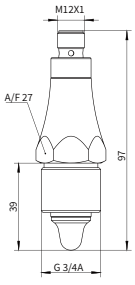
Dimension Diagram



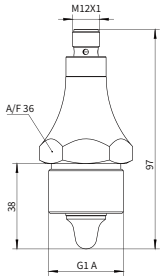
Shell Dimension： A03



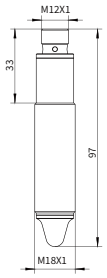
Shell Dimension： G07



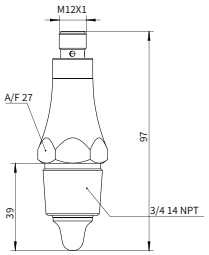
Shell Dimension： G10



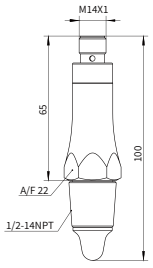
Shell Dimension： G11



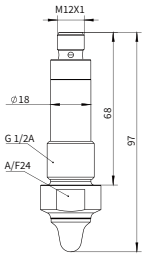
Shell Dimension： M11



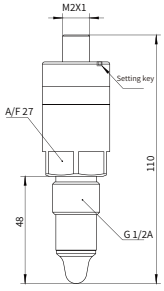
Shell Dimension： N03



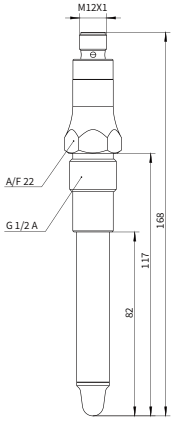
Shell Dimension： N02



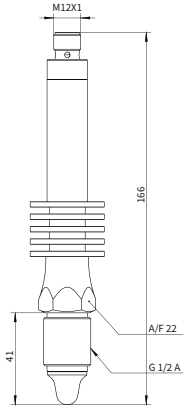
Shell Dimension： T10



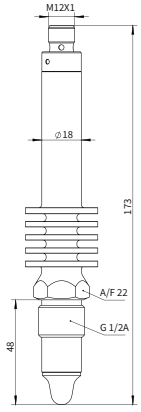
Shell Dimension： A03
（One-touch setting）



Shell Dimension： A03/82



Shell Dimension： G07SR



Shell Dimension： A03-SR