

Electrostatic Sensor

Electrostatic Total Solution

SM-50



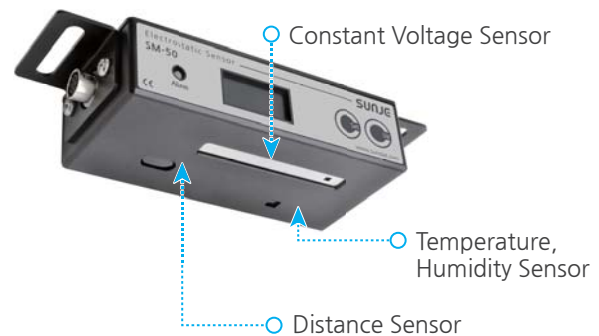
Controller-Integrated Constant Voltage Sensor.

This non-contact sensor measures constant voltage, target distance, temperature, and humidity, enabling high-precision close-range and long-range measurements (100-700mm, up to $\pm 20\text{kV}$) and effortless voltage monitoring via PC communication.



Key Features

- “Controller-Integrated” Constant Voltage Measurement Sensor
- Measures target distance, temperature, and humidity
- Compact, non-contact design
- Measures up to $\pm 20\text{kV}$ (installation distance: 100-700mm)
- Extended mode supports automatic or fixed distance calibration
- Onboard display provides real-time voltage monitoring (up to 16 sensors)
- Alarm triggers when voltage exceeds the preset threshold
- Optional dedicated monitoring software available



Specifications

Parameter	Description / Value			
Input Voltage	+24VDC($\pm 10\%$)			
Consumption Current	<100mA			
Measurement distance	PRE	10~100mm	EXP	100~700mm
Measurement range	PRE	$\pm 2\text{kV}$	EXP	$\pm 20\text{kV}$
Accuracy	PRE	$\pm 2\text{kV}(\pm 2.5\%) \pm 0.05\text{kV}$ Within	EXP	$\pm 20\text{kV}(\pm 5\%) \pm 1.00\text{kV}$ Within
Resolution	PRE	1V	EXP	10V
linearity	$\pm 2.5\%$ @ Full Scale			
Stability(0 electric potential)	PRE	$\pm 2.5\%$ @ Full Scale	EXP	$\pm 5\%$ @ Full Scale
Operating Temperature & Humidity	Temperature	0 ~ 50°C (32 ~ 122°F)	Humidity	35 ~ 85% RH
Response Speed	Min. 200ms (Based on 1:1 sensor and control unit)			
Save cycle	Min. 1s			
Communication	RS-485 2Wire (MODBUS RTU)			
Case material	AL-6061(Sanding, Anodizing)			
Extensions	Automatic distance correction or fixed distance correction function in extended mode, simple zero point correction function, temperature and humidity display function			
Weight	130g			
Warranty	1 year			

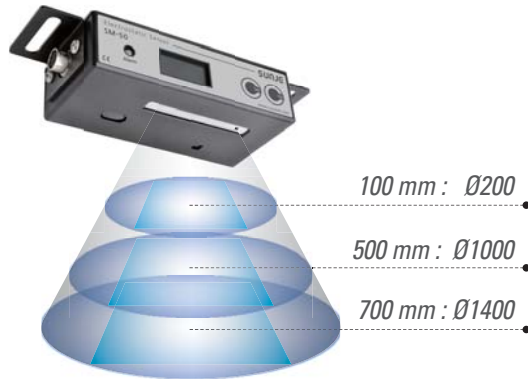
※ The appearance and specification of the product may be changed without prior notice for the improvement of the product.

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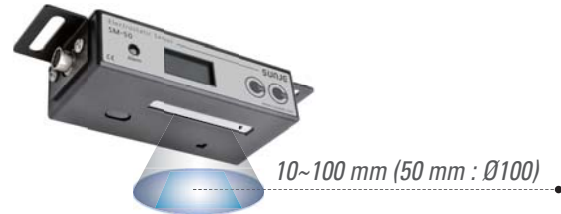
Measurement range based on installation distance

► In Extended Mode



Installation distance (mm)	100	200	300	400	500	600	700
Measurement range (ø)	200	400	600	800	1000	1200	1400

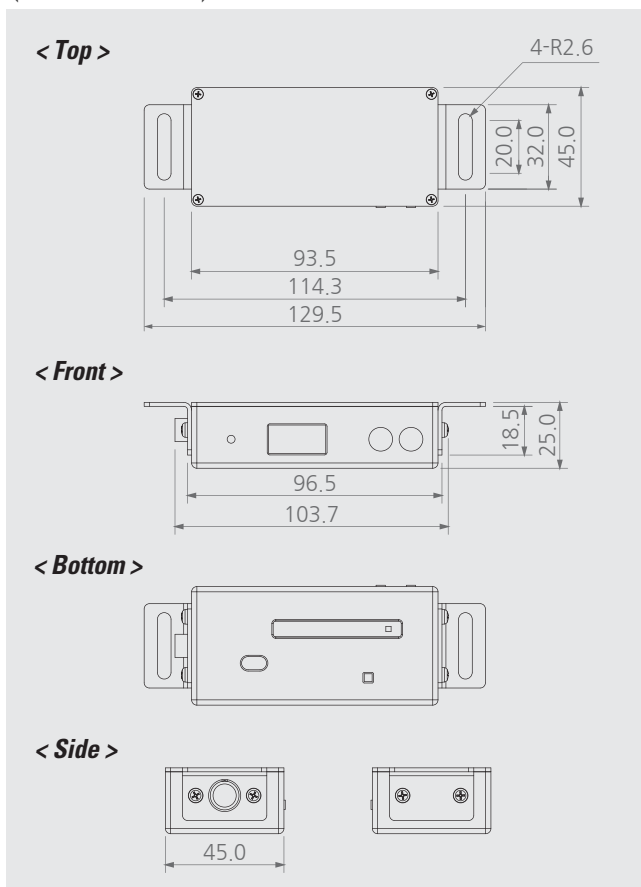
► In Precision Mode



Installation distance (mm)	10~100
Measurement range (ø)	20~200

Dimensions

<Standard Bracket>



<Option Bracket>

