SCM-10 Series

The SCM-10 Series is a compact, high-performance CPM (Charged Plate Monitor) designed for evaluating and monitoring the performance of ionizers. With real-time monitoring, precise control, and user-friendly data management features, it supports the optimization of static electricity control and process management in various environments.
Its compact design allows easy installation even in limited spaces, and integration with other equipment is simple. In addition, flexible data management through PC software enables efficient monitoring and analysis, making it an essential device for maintaining a safe, static-free working environment.

SCM-10A

◇ Compact model that can be easily installed on production lines
◇ LAN / Wi-Fi support for remote monitoring

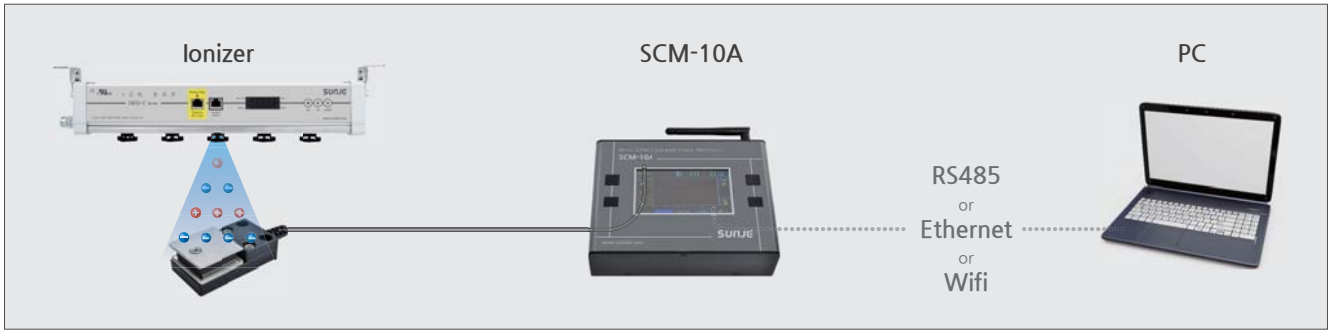
SCM-10B

◇ Portable battery-powered model
◇ Designed for on-site testing and troubleshooting of ionizers

SCM-10N

◇ Multi-channel system enabling simultaneous monitoring
◇ Provides real-time measurement and data logging

▶ Conceptual Diagram



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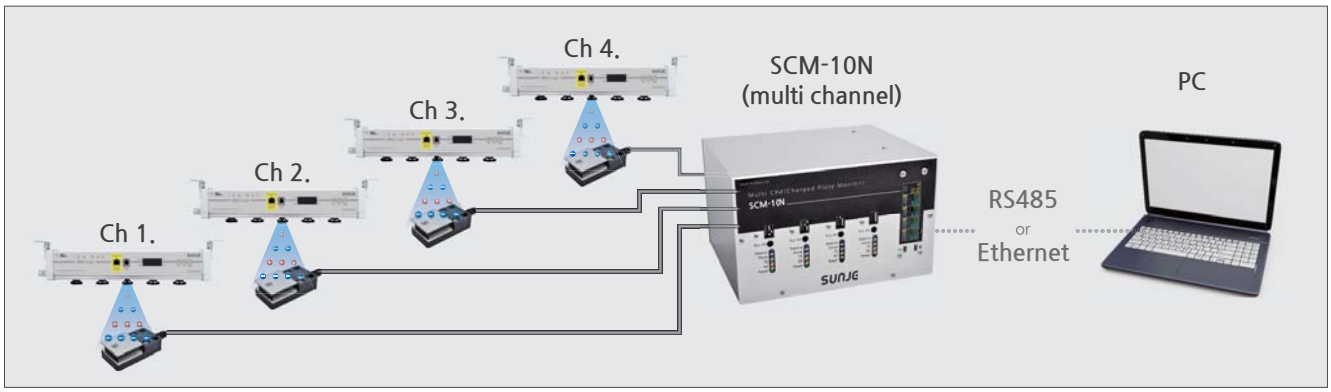
Mini CPM(Charged Plate Monitor) Electrostatic Total Solution



Key Features

◎ Ionizer Performance Monitoring
Real-time monitoring of ionizer performance for static elimination in various environments.

◎ Compact Design
Easy installation even in limited spaces, with seamless integration with other equipment.

◎ Data Management via PC Software
Efficient data management through PC programs, enabling simple and effective data storage and analysis.

◎ 3.97-inch LCD Display
Clear screen for easy data viewing, with future upgrade planned to a larger display.

◎ Data Transmission
Supports RS485 and Ethernet communication for long-distance data transfer.

◎ Configurable Measurement Cycle
Measurement intervals can be customized to suit different operating environments.

◎ Expandable Monitoring System
Capable of monitoring up to 8 Mini CPM units simultaneously, ideal for large-scale facilities.

◎ Dual Operating Modes (Standalone / Software)
Provides both standalone and software modes, allowing independent operation or PC-based data management and analysis.

Applications

◎ Ionizer Performance Evaluation and Real-Time Monitoring
Supports static elimination and process control through evaluation and monitoring of various ionizers.

◎ Static Control System Maintenance
Data-driven monitoring enables efficient management of ionizer performance.

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Specifications

Parameter		Description / Value	
Performance	Monitoring Voltage Range	0 to ±1100 VDC or peak AC	
	Decay Mode Threshold	Start Voltage	Can be set in 10V increments within the range of 100 to ±1000 V
		Start Accuracy	Within ±1V of the set starting voltage
		End Voltage	Can be set in 1V increments within the range of 10 to ±100 V
		End Accuracy	Within ±1V of the set ending voltage
		Discharge Time Resolution	0.1 sec
Mechanical Specifications	Dimensions (W × H × D)	SCM-10A : 165 × 129 × 43.5 mm	
		SCM-10B : 167 × 143 × 64 mm	
		SCM-10N : 210 × 130 × 130 mm	
	Voltage Monitor	BNC Connector	
	Ground Terminal	Binding Ground Post	
	Cable between equipment and floating plate	Coaxial Cable Type 150 × 150 plate, diameter 5.6 mm, length 3 m 25 × 25 plate, diameter 2.8 mm, length 5 m	
Electrical Specifications	Input Power	External Adapter (24 VDC, 2.0 A)	
Features	LCD Display	3.97-inch LCD showing graphs, numeric data, information data, programming parameters, and stored data	
	Analysis Resolution	12-bit resolution	
	Mode Selection / Programming	It provides multiple operation and programming options, allows predefined tests to be automated and executed, enables previous test parameters to be saved or recalled, and supports storing and retrieving test locations and results.	
	Ion Collection Plate	Meets ANSI/ESD-STM3.1 standard	
	Remote Control / Monitoring	Up to 8 devices can be connected via Modbus protocol in a daisy-chain configuration	
	Decay Mode	The Decay Mode function is designed to quantitatively evaluate the neutralization efficiency of ionizers. In this mode, the time required for the voltage of a charged plate to decay under ion bombardment is measured. This measurement accurately and reliably reflects the ionizer's ability to neutralize static electricity in a controlled environment. 1. Charging Phase The ion collection plate is charged to a preset starting voltage above the reference level. 2. Decay Process After charging, the plate naturally discharges as ions strike its surface. The plate voltage gradually approaches zero or decreases until it reaches the preset ending voltage. 3. Time Measurement The time taken for the voltage to drop from the starting voltage to the ending voltage is precisely measured and displayed on the device screen. 4. Polarity Evaluation Decay times are evaluated for both positive and negative polarities. - Positive Decay: The time required for a positively charged plate to discharge to 0V. - Negative Decay: The time required for a negatively charged plate to discharge to 0V.	

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	Balance Mode	The Balance Mode function is used to check the offset voltage generated by an ionizer without external charging. This mode directly indicates the ionizer's balance condition, i.e., its offset voltage. This measurement is a critical indicator for evaluating whether the ionizer can maintain a neutral environment without unnecessary positive (+) or negative (−) bias. 1. Initialization The plate monitor voltage is initialized to 0V ± 0.5V so that measurement begins from a neutral state. 2. Floating Process After initialization, the plate is influenced only by ion bombardment from the ionizer and freely floats to a specific voltage level. 3. Measurement Once the plate stabilizes, the voltage it reaches is measured and displayed, representing the ionizer's inherent balance condition.

PC Software

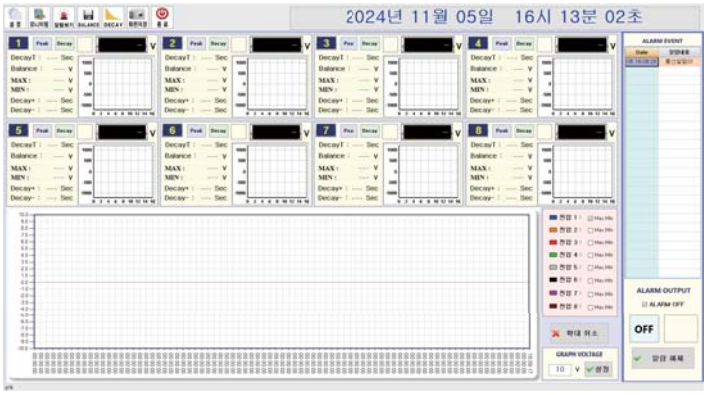
◎ **Simultaneous monitoring of up to 8 Mini CPM units (Modbus supported)**
Centralized device management enabled via Modbus protocol.

◎ **Consistent graphic display**
Provides synchronized graphical interface across all connected devices.

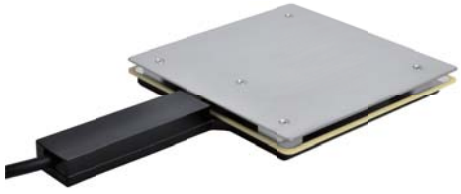
◎ **Data logging function**
Records measurement data for performance analysis and tracking.

◎ **Threshold exceedance alerts**
Automatic notifications generated when measured values exceed preset thresholds.

◎ **Channel-specific graphic balance display**
Displays balance values of each channel in an intuitive graphical format, making monitoring and adjustment easier.



Plate

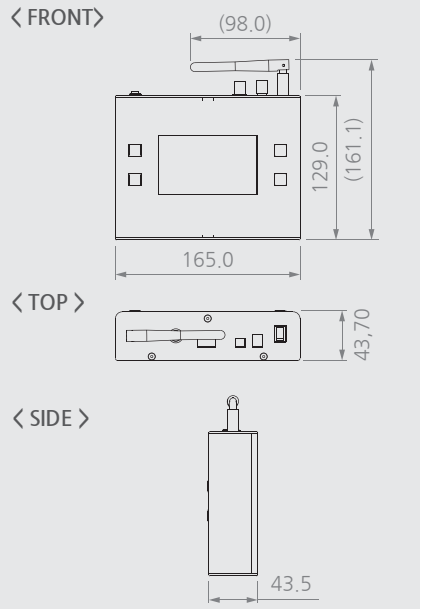
25 X 25mm	150 X 150mm
Standard 	Option 

Mini CPM(Charged Plate Monitor)

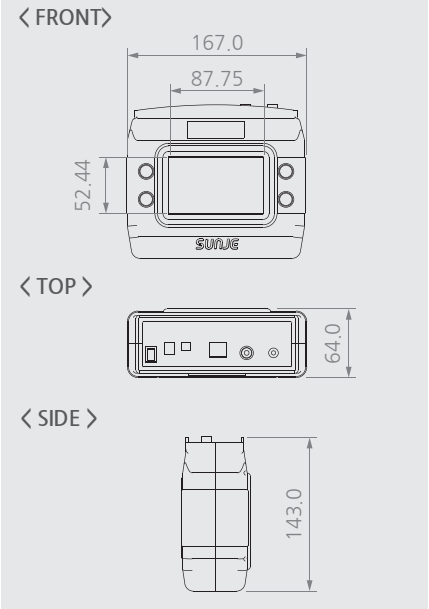
Electrostatic Total Solution

Dimensions

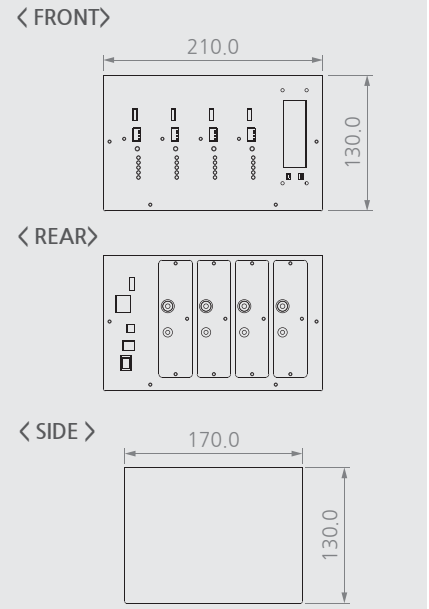
▶ SCM-10A



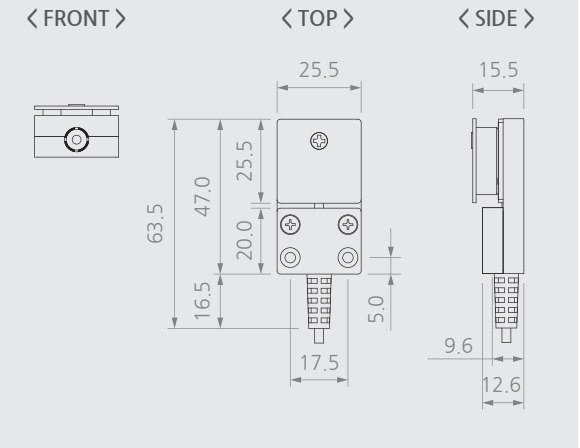
▶ SCM-10B



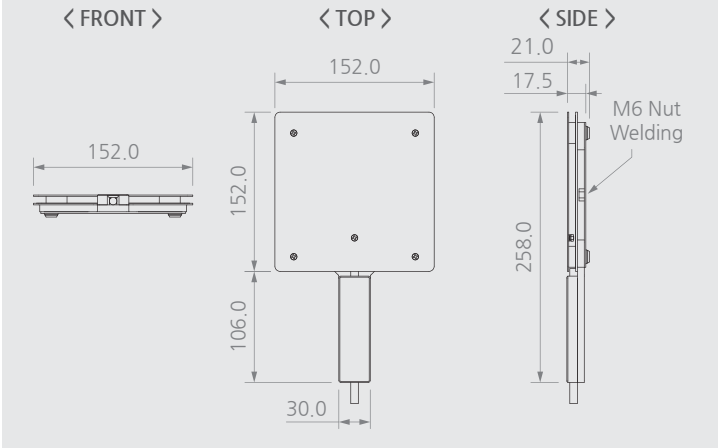
▶ SCM-10N



▶ Plate(25*25mm)

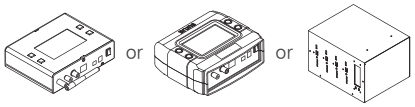
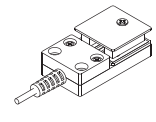
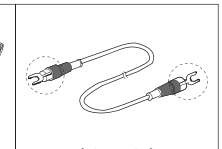
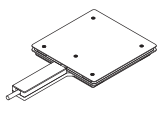


▶ Plate(150*150mm) _Option



Product Configuration

Options

Image					
			(25 X 25mm)	(24VDC, 2.0A)	(Ø4 - Ø6)	(150 X 150mm)
Category	CPM		Plate	Adapter	Ground Cable	Plate
Item Name	SCM-10A	SCM-10B / SCM-10N	SCP-MT-1-001	SAD-CM-1-001	SGC-MT-4-001	SCP-MT-1-002