CORE INSIGHT
코어인사이트(주)

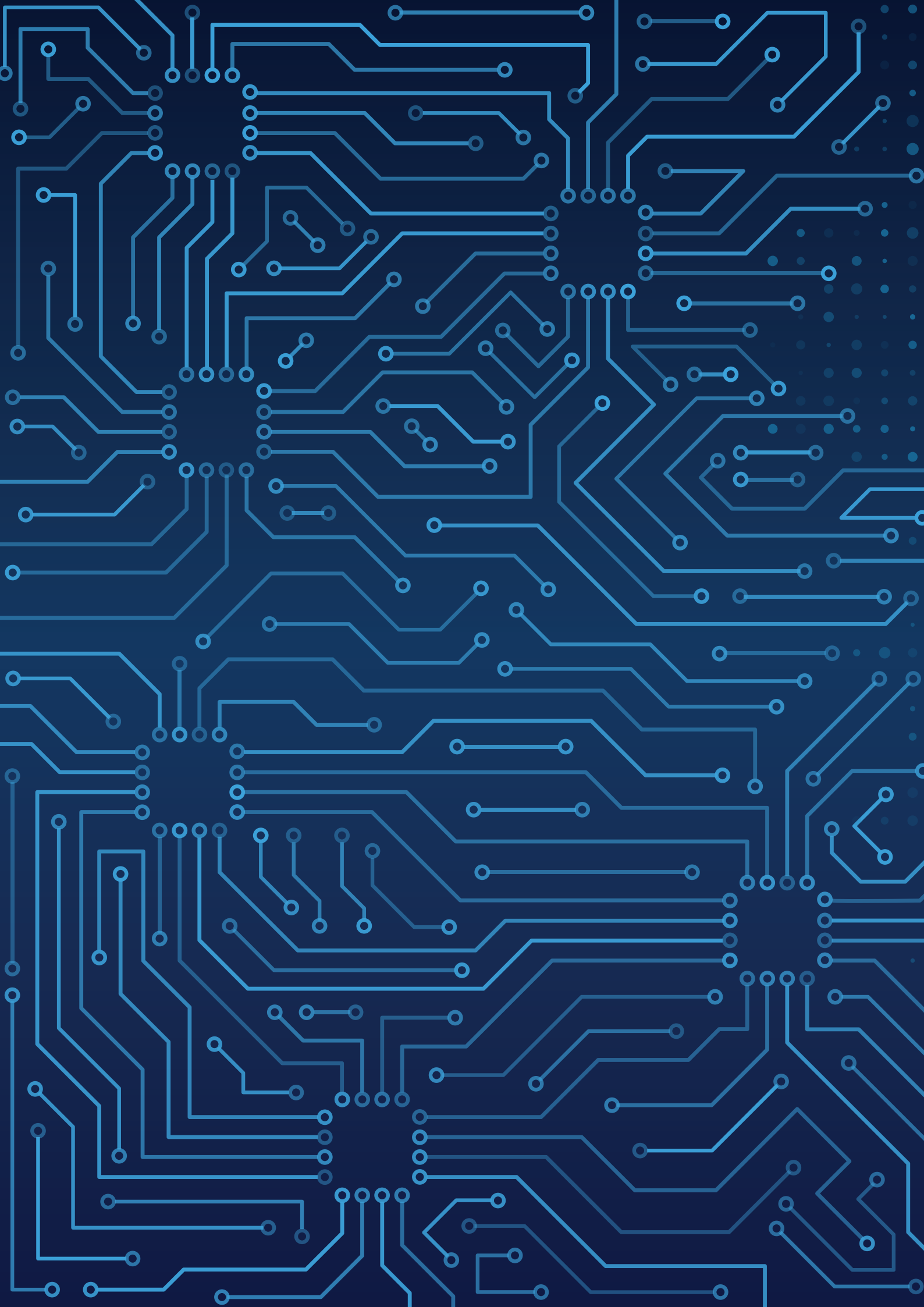
We Know ESD

We provide ESD control, not just solution!

CONTROL SOLUTIONS

http://www.coreinsight.co.kr

EOS/ESD Technical Assessment Service,
EOS/ESD/EMI Control Training, Qualification Testing Service
and ANSI/ESD S20.20 Control Program Consulting Service



CONTENTS

Global Ionization Leader!

We Know ESD

탁월함
Expertise
EOS/ESD 제어에
탁월함을
추구합니다

열정
Passion
끝까지
같은 열정으로
모든 일을 처리합니다

지식경영
Knowledge
정확한 지식을 가지고
고객의 문제를
해결합니다

도전정신
Challenge
어려운 과제에
포기하지 않고
끝까지 도전합니다

Business Partners and Clients

PROSTAT
AUTHORIZED RESELLER

OnFILTER

Advanced Energy

ets
electro-tech systems

intel

SAMSUNG 삼성전자

SK 하이닉스

QUALCOMM

MagnaChip

Amkor Technology

ASE KOREA

PSPC

Synaptics

LUSEM

EOTECHNICS

CORNING

LG Display

SAMSUNG 삼성디스플레이

HYUNDAI MOTOR GROUP

HYUNDAI MOBIS

BOSCH

Continental

MHE Mando-Hella Electronics Corp.

LG전자

SAMSUNG 삼성전기

LG이노텍

ALPS
ALPS ELECTRIC KOREA CO., LTD.

금호석유화학

LG화학

비아이이엠티주식회사

MSST

Certificates

Venture Company

SEMI Members

Laboratory

ISO-9001 QMS

EOS/ESD Association Membership

Professional Program Manager

iNarte ESD Engineer

CE Certificate

CE Certificate

Leadership Award

Leadership Award

Award from Taiwan
ESD Association

Award from Philippine
ESD Association

Patents

Registered Patent

Registered Patent

Utility Model Registration

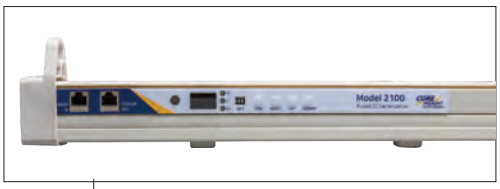
Trade Mark

Trade Mark

Design

Design

Ionization Solution for CDM ESD Damage and Contamination Control



Room Ionization System

Particle Contamination & ESD Controls in Cleanroom

Model 2400 Ceiling Emitter Ionizer is specially designed for open environments such as process bays, ballrooms or other large spaces. Users can accurately adjust output parameters such as voltage and on/off times through Model 5711R remote controller or Model 6300 series controller. Audio alarm with LED displays, users can recognize and indentify better for failure status or through FMS monitoring system.

INNOVATIVE

Model 2400

AirStat® Digital Ceiling Emitter Ionizer

Model 5711R
Remote Controller

Model 6380 Controller
Up to 120 units of Ceiling Emitters

FEATURES

- Innovative Digital Technology
- Pulsed DC Ion Emission
- 4 Digit LED Display
- Audio & Visual LED Alarms
- IR Remote Controller
- Voltage Feedback Monitoring

BENEFITS

- Fast Discharge Time
- ON & OFF Time Operation
- Highly Reliable Quality
- Output Parameter Display
- Large Capacity

Specifications

Ion Emission	Pulsed DC Technology
Output Voltage	±12kV, 100V Step
Operation Mode	Pulsed DC, Standby
On-Time	0.1 to 15.0 sec
Off-Time	0.1 to 10.0 sec
Connectivity	Up to 120 units
Compatibility	ISO 14644-1 Class 1

Rods Lengths (mm)

125	Model 2400-125-XX
300	Model 2400-300-XX
450	Model 2400-450-XX
600	Model 2400-600-XX
750	Model 2400-750-XX
900	Model 2400-900-XX

XX : user select emitter point materials

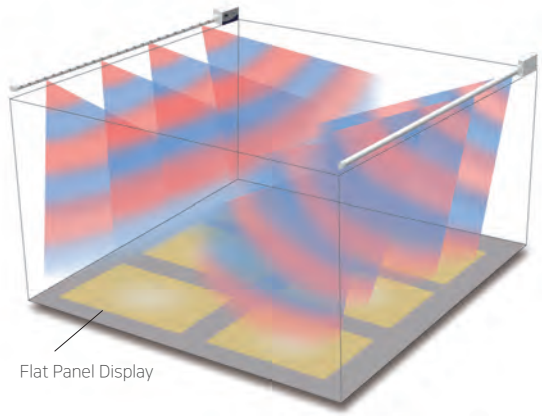
Related Products

Model 5232ET	Titanium emitter
Model 5233ES	Single Crystal Silicon emitter
Model 5239J	Junction Box
Model 5711R	Remote Controller

Alternative Room Ionization for FPD

Particle Contamination & ESD Controls in Cleanroom

Model 2K10 is dual bar symmetrical operating system provides very high dense of ions for contamination and ESD control in flat panel display environments. High ion output current results in fast discharge time and significant reduction of particle contamination in process. Digital control system enables accurate adjustment of output parameters and feedback monitoring capability.

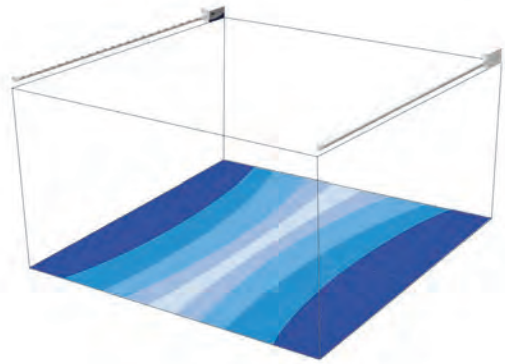


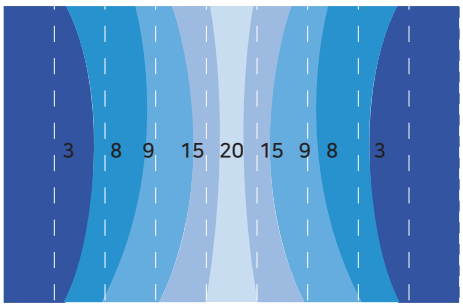
Flat Panel Display

ALTERNATIVE

Model 2K10

AirStat® FPD Room Ionization System





ANSI/ESD SP3.5 - Alternative Room Ionization Test Method
Measurement unit - second

FEATURES

- Innovative Digital Technology
- Pulsed DC Ion Emission
- 3 Digit LED Display
- Audio & Visual LED Alarms
- IR Remote Controller
- Voltage Feedback Monitoring

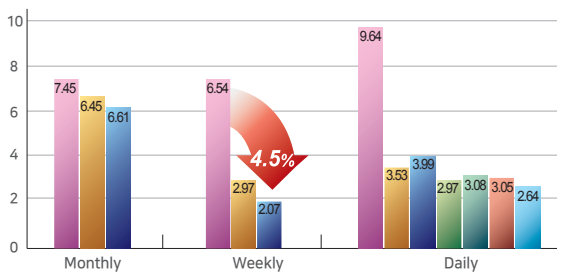
BENEFITS

- Fast Discharge Time
- ON & OFF Time Operation
- Highly Reliable Quality
- Output Parameter Display
- Large Capacity

Specifications

Ion Emission	Pulsed DC Technology
Output Voltage	±13kV, 100V Step
Operation Mode	Pulsed DC, Independent
On-Time	0.1 to 99.9 sec
Monitoring	Relay Output
Connectivity	RJ-45 Terminal

Yield Improvement



Ionization for Mini-Environment

Particle Contamination & ESD Controls in Cleanroom

Model 2100 Pulsed DC Bar Ionizer is specially designed for small and medium size of mini-environments such as EFEM, SMIF and wafer exposed processes. Users can accurately adjust output parameters such as voltage, and operating time through a remote controller or switches on the unit. With LED display and output audio alarms, users can identify failure status or cleaning cycle time.

INNOVATIVE

Model 2100

AirStat® Digital Pulsed DC Bar Ionizer

FEATURES

- Innovative Digital Technology
- Pulsed DC Ion Emission
- 3 Digit LED Display
- Audio & Visual LED Alarms
- IR Remote Controller
- Current Feedback Monitoring

BENEFITS

- Fast Discharge Time
- Highly Reliable Quality
- Output Parameter Display
- Daisy-Chained Operation

Model 5711R
Remote Controller

Singel Crystal
Silicon Emitter Point

Specifications

Ion Emission	Pulsed DC Technology
Output Voltage	±7kV, 100V Step
On-Time	0.1 to 99.99 sec
Daisy-Chain	Up to 2 units
Compatibility	ISO 14644-1 Class 1

CE RoHS

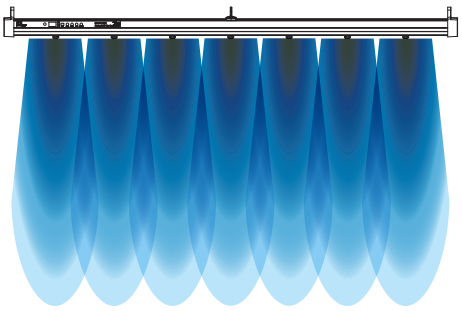
Related Products & Ordering Information

Model 5220ES	Single Crystal Silicon Emitter Point
Model 5220ET	Titanium Emitter Point
Model 5711R	Remote Controller
Model 5120D	RJ-45 Terminal DC Adapter, 100 - 240 VAC 50/60Hz
Model 2100-xxx-ES	xxx mm length with Silicon Emitter Points
Model 2100-xxx-ET	xxx mm length with Titanium Emitter Points

- Easy Emitter Point Replacement
- Single Crystal Silicon Emitter Point
- Titanium Emitter Point

Innovative Double Ion Dense Pulsed DC Bar Ionizer

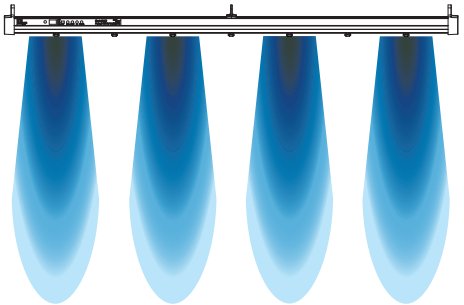
- Polarity Switching on Single Emitter Ion Emission Technology



- Uniform Coverage
- Double Dense of Ions
- Fast Discharge Time

Conventional Pulsed DC Bar Ionizer

- Designated Polarity Ion Emission Technology



- Non-uniform Coverage
- Half Dense of Ions
- Slow Discharge Time

Air Assist Bar Ionizers

INNOVATIVE

Model 7380d

AirStat® Steady-State DC Bar Ionizer

Model 7380d AirStat® Steady-State DC Bar Ionizer is specially designed to provide ionization with low peak offset voltage for ultra sensitive and high speed devices. QuadPoint® nozzle is a patented key designed that can maintain balance lower than any other technologies and completely compliance air assist bar ionizer less than ±35 volts to ANSI/ESD S20.20 program.

FEATURES

- Steady-State DC Ion Emission
- Output Voltage Adjustable
- Very Low Offset Voltage
- Audio & Visual LED Alarms
- Class 0 ESD Control Application
- FMS Monitoring Interface

BENEFITS

- Ion Balance Alarms
- HV Power Failure Alarms
- No Swing Voltage
- No Induction Field

Specifications

Ion Emission	Steady-State DC Technology
Ion Balance	Less than ±25V peak
Output Voltage	0 to ±4.0kV, 10V Resolution
Decay Time	Less than 2.0 sec at 300mm

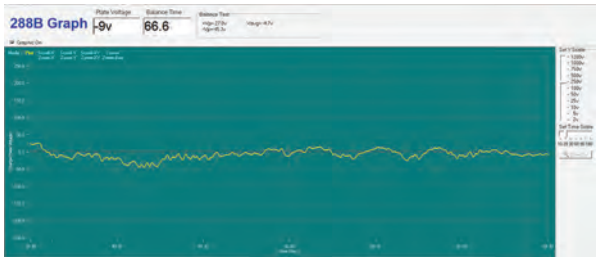
CE RoHS

Ion Balance Test Results

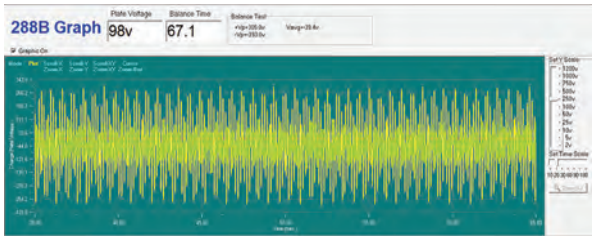
AC Switching Voltgae can cause of ESD Damage by Induction

- ANSI/ESD STM3.1 & S20.20 - Offset Voltage means for DC technology
- Offset Voltage measurement should take a Peak Voltage
- Test Equipment - Model 288B CPM by Monroe Electronics

- No Swing Voltage from Steady-State DC Ionizer



- Induction Field Swing Voltage from Pulsed AC Ionizer
  - Peak-to-Peak value: +305V to - 393V.



Model 7380i

CoreStat® Self-Balanced DC Bar Ionizer

Model 7380i CoreStat® Self-Balanced DC Bar Ionizer is designed to provide ionization for the ESD senstive device handling areas such as semiconductor back-end, surface mount process and telecommunication component handling applications without any calibration.

FEATURES

- Steady-State DC Ion Emission
- Instrinsic Self-Balance Technology
- Very Low Offset Voltage
- Audio & Visual LED Alarms
- Class 0 ESD Control Application
- FMS Monitoring Interface

BENEFITS

- Ion Balance Alarms
- HV Power Failure Alarms
- No Calibration
- No Swing Voltage
- No Induction Field

Air Assist Bar Ionizers

Model 7300

CoreStat® Self-Balanced DC Bar Ionizer

Model 7300 CoreStat® Self-Balanced DC Bar Ionizer is designed versatile ESD control applications, especially suited for space limited environment such as automated process equipment and manual assembly areas.

Intrinsic self-balanced power supply technology removed calibration procedure to maintain low offset voltage.

FEATURES

- Steady-State DC Ion Emission
- Instrinsic Self-Balance Technology
- Low Offset Balance
- Audio & Visual LED Alarms
- FMS Monitoring Interface

BENEFITS

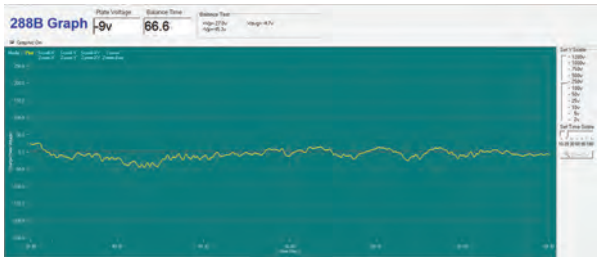
- No Calibration
- No Swing Voltage
- Less Maintenance

Ion Balance Test Results

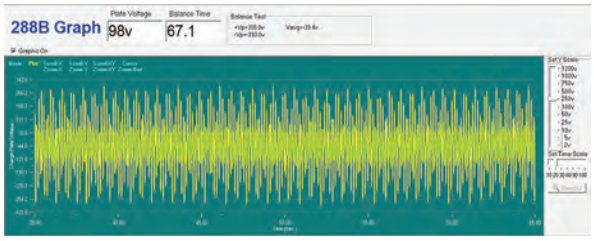
AC Switching Voltgae can cause of ESD Damage by Induction

- ANSI/ESD STM3.1 & S20.20 - Offset Voltage means for DC based ionizer
- Offset Voltage measurement should take a Peak Voltage
- Test Equipment - Model 288B CPM by Monroe Electronics

- No Swing Voltage from Steady-State DC Ionizer



- Induction Field Swing Voltage from Pulsed AC Ionizer
  - Peak-to-Peak value: +305V to - 393V.



Static Control Ionizers

Model 7110 Pulsed AC Bar Ionizer is designed to provide ionization through digital control platform that enables accurate adjustment of output voltage, frequency, duty cycle and feedback monitoring capability.

FEATURES

- Innovative Digital Technology
- Pulsed AC Ion Emission
- 3 Digit LED Display
- Audio & Visual LED Alarms
- IR Remote Controller
- Current Feedback Monitoring

BENEFITS

- Fast Discharge Time
- Highly Reliable Quality
- Output Parameter Display
- Daisy-Chained Operation
- FMS Interface

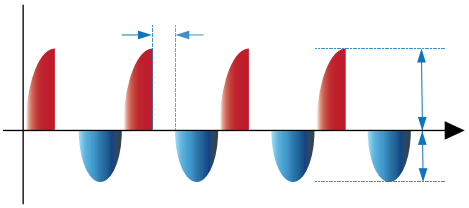
Specifications

Ion Emission	Pulsed AC Technology
Output Voltage	±7.0kV (±3.5kV for short bar)
Frequency	1 to 50 Hz
Daisy-Chain	Up to 2 units

Model 7110

AirStat® Digital Pulsed AC Bar Ionizer

- Frequency Change



- Duty Cycle Ratio Adjustment
- Independent Voltage Output

CDM & Class 0 ESD control Ionizers

Self-Balanced Air Ionizing Blowers & Auto-Cleaning Features

CoreStat® self-balanced technology, Model 3810E is designed as class 0 and versatile applications for semiconductor back-end, printed circuit board assembly and general electronics applications. Model 3810E ionizing blower does not requires regular based calibration and intrinsically maintains low peak offset voltage.

Model 3810E

CoreStat® Self-Balanced Air Ionizing Blower

FEATURES

- Steady-State DC Ion Emission
- Class 0 Sensitive Device Application
- Ion Balance & Failure Alarms
- Audio & LED Alarms
- Auto-Cleaning Brush
- Facility Monitoring System(FMS)

BENEFITS

- No Calibration Required
- Auto-Stop Safety Function
- Transient Noise Free
- Easy Replacement of Emitter Points

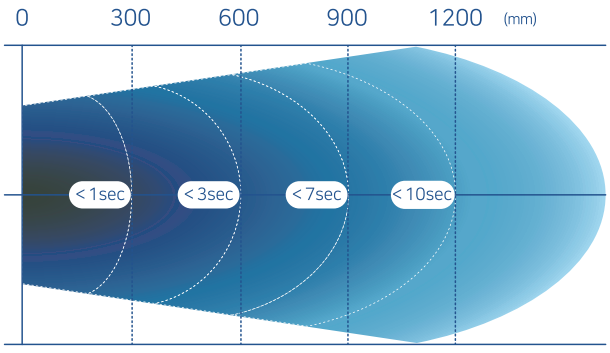
Specifications

Ion Emission	Steady-State DC
Ion Balance	± 5V peak
Decay Time	Less than 1.0 sec
Air Flow	140 CFM
Dimensions	148W x 185H x 77D mm
Compatibility	ISO 14644-1 Class 4

Auto-Cleaning Brush

Easy-Open Grill

Discharge Time



Discharge time and balance measured according to ANSI/ESD STM3.1 using a Charge Plate Monitor (CPM)

Selection

Model 3810E	Built-in Auto-Cleaning Brush
Model 3810	Without Auto-Cleaning Brush & Button

Model 5808, 5820 Ionizer Monitoring System

- Balance & HV Failure Alarm
- Port Detection
- 24 VDC Distribution Up to 20 units
- All 20 Ionizers Auto-Cleaning at Once

CDM & Class 0 ESD control Ionizers

Self-Balanced Air Ionizing Blowers & Auto-Cleaning Features

CoreStat® self-balanced technology, Model 310E is designed as class 0 and versatile applications for semiconductor back-end, printed circuit board assembly and general electronics applications. Model 310E ionizing blower does not requires regular based calibration and intrinsically maintains low peak offset voltage and one-touch cleaning button.

Enhanced

Model 310E/B

CoreStat® Self-Balanced Air Ionizing Blower

FEATURES

- Steady-State DC Ion Emission
- Class 0 Sensitive Device Application
- Ion Balance & Failure Alarms
- Audio & LED Alarms
- Auto-Cleaning Brush
- RJ-45 FMS Interface

BENEFITS

- No Calibration Required
- One-Touch Cleaning
- Transient Noise Free
- Plug-and-Play

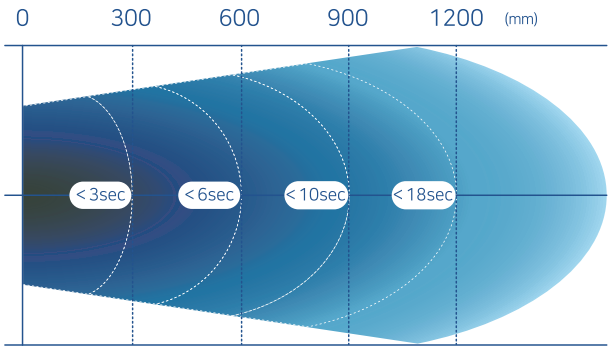
Specifications

Ion Emission	Steady-State DC
Ion Balance	± 10V peak
Decay Time	Less than 3.0 sec
Air Flow	60 CFM
Dimensions	125W x 135H x 70D mm
Compatibility	ISO 14644-1 Class 4

Auto-Cleaning Brush

One-Touch Cleaning Button

Discharge Time



Discharge time and balance measured according to ANSI/ESD STM3.1 using a Charge Plate Monitor (CPM)

Selection

Model 310E	One Touch Auto-Cleaning Button Built-in Auto-Cleaning Brush
Model 310B	Without Auto-Cleaning Brush & Button

- Easy Access for Manual Cleaning
- New RJ-45 Facility Monitoring System Interface

CDM & Class 0 ESD control Ionizers

Self-Balanced Air Ionizing Blowers & Auto-Cleaning Features

CoreStat® self-balanced technology, Model 360E is designed as class 0 and versatile applications for semiconductor back-end, printed circuit board assembly and general electronics applications. Model 360E ionizing blower does not requires regular based calibration and intrinsically maintains low peak offset voltage and one-touch cleaning button.

Enhanced

Model 360E

CoreStat® Self-Balanced Air Ionizing Blower

FEATURES

- Steady-State DC Ion Emission
- Class 0 Sensitive Device Application
- Ion Balance & Failure Alarms
- Audio & LED Alarms
- Auto-Cleaning Brush
- RJ-45 FMS Interface

BENEFITS

- No Calibration Required
- One-Touch Cleaning
- Transient Noise Free
- Plug-and-Play

Auto-Cleaning Brush

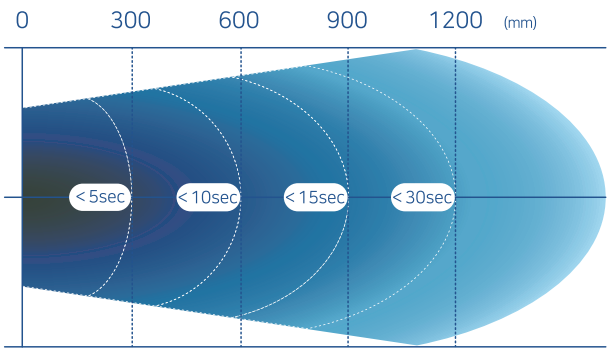
One-Touch Cleaning Button

Specifications

Ion Emission	Steady-State DC
Ion Balance	± 5V peak
Decay Time	Less than 5.0 sec
Air Flow	27 CFM
Dimensions	80W x 110H x 64D mm
Compatibility	ISO 14644-1 Class 4

CE RoHS UL LISTED

Discharge Time



Discharge time and balance measured according to ANSI/ESD STM3.1 using a Charge Plate Monitor (CPM)

Selection

Model 360E	One Touch Auto-Cleaning Button Built-in Auto-Cleaning Brush
Model 360A	Without Auto-Cleaning Brush & Button

- Easy Access for Manual Cleaning
- New RJ-45 Facility Monitoring System Interface

CoreStat® Self-Balanced Bench-Top Blower

Balance, Failure Alarms
Audio & Visual Alarms

CoreStat® self-balanced technology is designed versatile applications for semiconductor back-end, printed circuit board assembly and general electronics applications. CoreStat® ionizing blower does not requires regular based calibration and intrinsically maintains low peak offset voltage.

Model 3110

CoreStat® Self-Balanced Air Ionizing Blower

FEATURES

- Steady-State DC Ion Emission
- CDM ESD Control Application
- Ion Balance & Failure Alarms
- Facility Monitoring System(FMS)

BENEFITS

- No Calibration Required
- Auto-Stop Safety Function
- Transient Noise Free
- Easy Replacement of Emitter Points

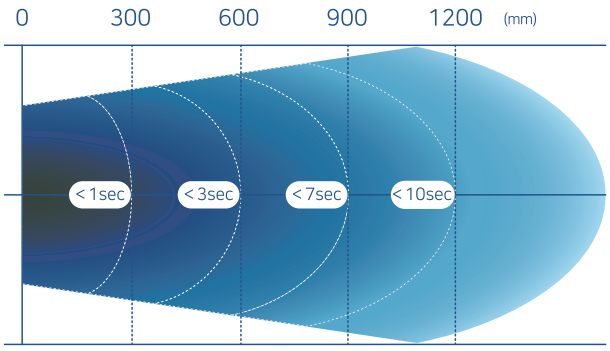
Specifications

Ion Emission	Steady-State DC
Ion Balance	± 20V peak
Decay Time	Less than 1.0 sec
Air Flow	140 CFM
Dimensions	148W x 185H x 77D mm
Compatibility	ISO 14644-1 Class 4

FMS Monitoring Interface

Easy-Open Grill

Discharge Time



Discharge time and balance measured according to ANSI/ESD STM3.1 using a Charge Plate Monitor (CPM)

Related Products

Model 5310EP	Tungsten (99.99%) Emitter
Model 5380GF	Rear Panel Filter Grille
Model 5820	Integrated Monitoring & Controlling System (Up to 20 units)

Model 5808, 5820 Ionizer Monitoring System

- Balance & HV Failure Alarm
- Port Detection
- 24 VDC Distribution Up to 20 units
- All 20 Ionizers Auto-Cleaning at Once

CoreStat® Self-Balanced Air Ionizing Blower

Balance, Failure Alarms
Audio & Visual Alarms

CoreStat® self-balanced technology, Model 310S and Model 310SE are designed versatile applications for semiconductor back-end, printed circuit board assembly and general electronics applications. CoreStat® ionizing blower does not requires regular based calibration and intrinsically maintains low peak offset voltage.

Model 310S/SE

CoreStat® Self-Balanced Air Ionizing Blower

FEATURES

- Steady-State DC Ion Emission
- CDM ESD Control Application
- Ion Balance & Failure Alarms
- RJ-45 FMS Interface
- Auto-Cleaning Brush
- One-Touch Auto-Cleaning

BENEFITS

- No Calibration Required
- Auto-Stop Safety Function
- Transient Noise Free
- Easy Replacement of Emitter Points

Specifications

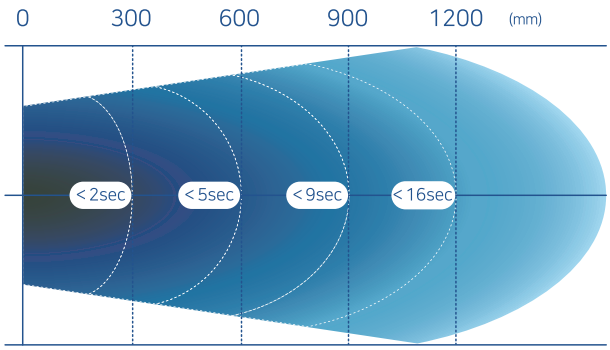
Ion Emission	Steady-State DC
Ion Balance	± 20V peak
Decay Time	Less than 2.0 sec
Air Flow	100 CFM
Dimensions	125W x 135H x 70D mm
Compatibility	ISO 14644-1 Class 4

CE RoHS

Auto-Cleaning Brush
(Model 310SE)

One-Touch
Cleaning Button
(Model 310SE)

Discharge Time



Discharge time and balance measured according
to ANSI/ESD STM3.1 using a Charge Plate Monitor (CPM)

Selection

Model 310SE	One Touch Auto-Cleaning Button Built-in Auto-Cleaning Brush
Model 310S	Without Auto-Cleaning Brush & Button

Related Products

Model 5310EP	Tungsten (99.99%) Emitter
Model 5310GF	Rear Panel Filter Grille
Model 5310AC	Auto-Cleaning Brush
Model 5820	Integrated Monitoring & Controlling System (Up to 20 units)

CoreStat® Self-Balanced In-Tool Ionizing Blower

Balance, Failure Alarms
Audio & Visual Alarms

CoreStat® self-balanced technology, Model 360A and Model 360S are designed versatile applications for semiconductor back-end, printed circuit board assembly and general electronics applications. CoreStat® ionizing blower does not requires regular based calibration and intrinsically maintains low peak offset voltage.

Model 360A/S

CoreStat® Self-Balanced Air Ionizing Blower

FEATURES

- Steady-State DC Ion Emission
- CDM ESD Control Application
- Ion Balance & Failure Alarms
- RJ-45 FMS Interface

BENEFITS

- No Calibration Required
- Auto-Stop Safety Function
- Transient Noise Free
- Easy Replacement of Emitter Points

Specifications

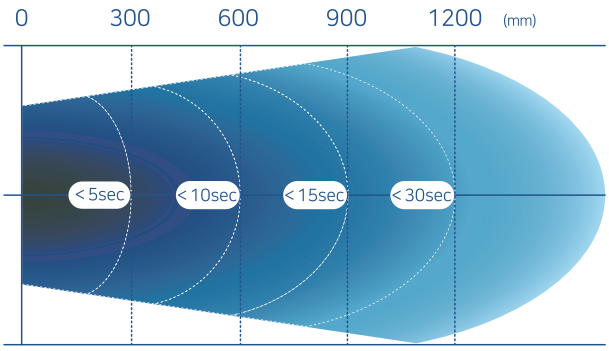
Ion Emission	Steady-State DC
Ion Balance	± 10V peak
Decay Time	Less than 5.0 sec (360A) Less than 3.0 sec (360S)
Air Flow	27 CFM / 34 CFM
Dimensions	80W x 110H x 64D mm
Compatibility	ISO 14644-1 Class 4

CE RoHS

Facility Monitoring System Ouput Signals

Condition	Pin 2 / 4	Pin 6 / 8	Pin 7
Normal	Open	Open	High
HV Power Alarm	Open	Closed	High
Balance Alarm	Closed	Open	High
Port Alarm (with Model 5820)	Open	Open	Low

Discharge Time



Discharge time and balance measured according to ANSI/ESD STM3.1 using a Charge Plate Monitor (CPM)

Selection

Model 360A	Moderate Fan Speed
Model 360S	Fast Fan Speed

Related Products

Model 5360EP	Tungsten (99.99%) Emitter
Model 5360GF	Rear Panel Filter Grille
Model 5360AC	Auto-Cleaning Brush
Model 5820	Integrated Monitoring & Controlling System (Up to 20 units)

Wide Coverage Ionizing Blower

Self-Balanced Air Ionizing Blowers & Auto-Cleaning Features

Model 3890E Ionizing Blower can discharge less than 10 seconds at 1.8m distance. Model 3890E Blower maintains intrinsic balance less than ±10V and built-in auto-cleaning brush operates when the back-side fan filter grill is open or power on/off cycle. Audio and visual alarms operates when ion balance exceeded limit and HV power failure. Light weight and slim design allow more convenient installation when space is limited.

Auto-Cleaning Brush

Model 5331R
Remote Controlier

Model 3890E

CoreStat® Self-Balanced Air Ionizing Blower

5 Step Fan Speed

Independent Operation
& Auto-Stop Safety Feature

Selection

Model 3890E	Built-in Auto-Cleaning Brush
Model 3890	Without Auto-Cleaning Brush & Button

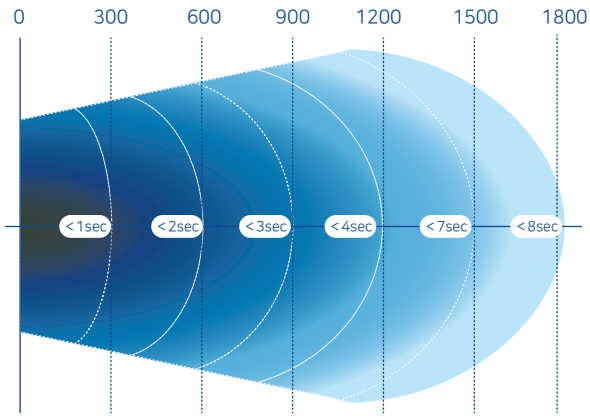
FEATURES

- Steady-State DC Ion Emission
- Low Offset Voltage
- Auto-Stop & Auto-Cleaning
- Five Step Fan Speed Adjustment
- 24 hours Auto-Cleaning Cycle

BENEFITS

- No Calibration Required
- Auto-Stop Safety Function
- Transient Noise Free
- Easy Replacement of Emitter Points

Discharge Time



Discharge time and balance measured according to ANSI/ESD STM3.1 using a Charge Plate Monitor (CPM)

Specifications

Ion Emission	Steady-State DC
Ion Balance	± 10V peak
Decay Time	Less than 10 sec at 1800mm
Air Flow	165 CFM
Dimensions	422W x 190H x 107D mm
Compatibility	ISO 14644-1 Class 4

Overhead Ionizing Blower

Class 0 & CDM Control Application

Model 3830E

CoreStat® Self-Balanced Air Ionizing Blower

Model 3830E Overhead Ionizing Blower can discharge less than 1 second at 450mm distance. Model 3830E ionizer maintains intrinsic balance less than ±5V and built-in auto-cleaning brush operates when the fan filter grille is open or power on/off cycle. Audio and visual alarms operate when ion balance exceeded limit and power supply failure. Light weight and slim design allow more convenient installation when space is limited.

Specifications

Ion Emission	Steady-State DC
Ion Balance	± 5V peak
Decay Time	Less than 1.0 sec
Air Flow	150 CFM
Dimensions	1000W x 118H x 180D mm
Compatibility	ISO 14644-1 Class 4

FEATURES

- Steady-State DC Ion Emission
- Low Offset Voltage
- Auto-Stop & Auto-Cleaning
- Three Steps Fan Speed Adjustment
- IR Remote Controller
- Daisy-Chained AC Power Distribution

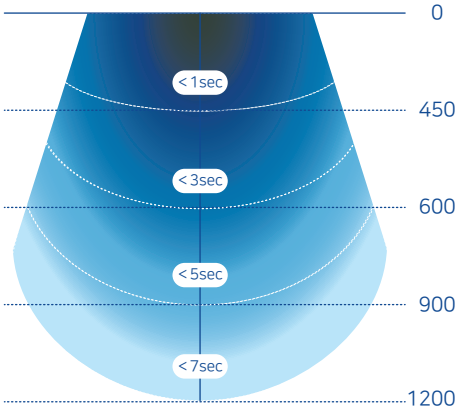
BENEFITS

- No Calibration Required
- Auto-Stop Safety Function
- Slim Design
- Easy Replacement of Emitter Points

Selection

Model 3830	No Cleaning Brush
Model 3830E	Built-in Auto-Cleaning Brush
Model 3830L	No Cleaning Brush, LED Lights
Model 3830EL	Built-in Auto-Cleaning Brush and LED Lights

Discharge Time



Discharge time and balance measured according to ANSI/ESD STM3.1 using a Charge Plate Monitor (CPM)

Auto-Cleaning Brush

IR Remote Controller

LED Lights Option

Overhead Ionizing Blower

Class 0 & CDM Control Application

Model 3820E

CoreStat® Self-Balanced Air Ionizing Blower

Model 3820E Overhead Ionizing Blower can discharge less than 3 seconds at 450mm distance. Model 3830E ionizer maintains intrinsic balance less than ±10V and built-in auto-cleaning brush operates when the fan filter grille is open or power on/off cycle. Audio and visual alarms operate when ion balance exceeded limit and power supply failure. Light weight and slim design allow more convenient installation when space is limited.

FEATURES

- Steady-State DC Ion Emission
- Low Offset Voltage
- Auto-Stop & Auto-Cleaning
- Three Steps Fan Speed Adjustment
- IR Remote Controller
- Daisy-Chained AC Power Distribution

BENEFITS

- No Calibration Required
- Auto-Stop Safety Function
- Slim Design
- Easy Replacement of Emitter Points

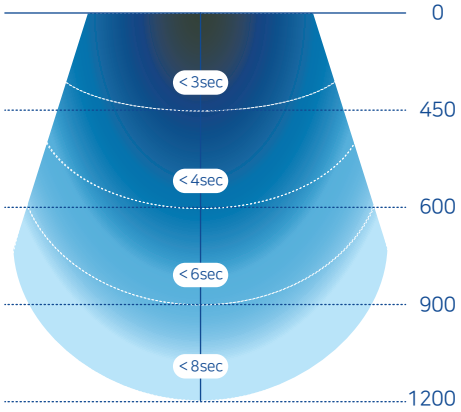
Specifications

Ion Emission	Steady-State DC
Ion Balance	± 10V peak
Decay Time	Less than 3.0 sec
Air Flow	150 CFM
Dimensions	680W x 118H x 180D mm
Compatibility	ISO 14644-1 Class 4

Selection

Model 3820	No Cleaning Brush
Model 3820E	Built-in Auto-Cleaning Brush
Model 3820L	No Cleaning Brush, LED Lights
Model 3820EL	Built-in Auto-Cleaning Brush and LED Lights

Discharge Time



Discharge time and balance measured according to ANSI/ESD STM3.1 using a Charge Plate Monitor (CPM)

Auto-Cleaning Brush

Daisy-Chained AC Connection

Easy Open Grill

NEW

Overhead Ionizing Blower

Fast Discharge Time Performance

Model 3930E

CoreStat® Self-Balanced Air Ionizing Blower

Model 3930E Overhead Ionizing Blower can discharge less than 5 seconds at 1200mm distance. Model 3930E ionizer maintains intrinsic balance less than ±5V and built-in auto-cleaning brush operates when the fan filter grille is open or power on/off cycle. Audio and visual alarms operate when ion balance exceeded limit and power supply failure. Light weight and slim design allow more convenient installation when space is limited.

Specifications

Ion Emission	Steady-State DC
Ion Balance	± 5V peak
Decay Time	Less than 5.0 sec at 1200 mm
Air Flow	165 CFM
Dimensions	1000W x 118H x 180D mm
Compatibility	ISO 14644-1 Class 4

FEATURES

- Steady-State DC Ion Emission
- Low Offset Voltage
- Auto-Stop & Auto-Cleaning
- Three Steps Fan Speed Adjustment
- IR Remote Controller
- Daisy-Chained AC Power Distribution

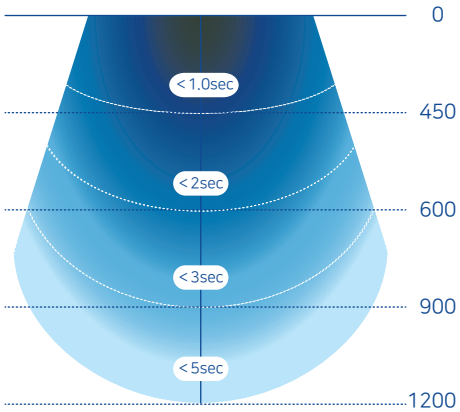
BENEFITS

- No Calibration Required
- Auto-Stop Safety Function
- Slim Design
- Easy Replacement of Emitter Points

Selection

Model 3930	No Cleaning Brush
Model 3930E	Built-in Auto-Cleaning Brush
Model 3930L	No Cleaning Brush, LED Lights
Model 3930EL	Built-in Auto-Cleaning Brush and LED Lights

Discharge Time



Discharge time and balance measured according to ANSI/ESD STM3.1 using a Charge Plate Monitor (CPM)

Auto-Cleaning Brush

IR Remote Controller

LED Lights Option

NEW

Overhead Ionizing Blower

Fast Discharge Time Performance

Model 3920E

CoreStat® Self-Balanced Air Ionizing Blower

Model 3920E Overhead Ionizing Blower can discharge less than 6 seconds at 1200mm distance. Model 3920E ionizer maintains intrinsic balance less than ±10V and built-in auto-cleaning brush operates when the fan filter grille is open or power on/off cycle. Audio and visual alarms operate when ion balance exceeded limit and power supply failure. Light weight and slim design allow more convenient installation when space is limited.

FEATURES

- Steady-State DC Ion Emission
- Low Offset Voltage
- Auto-Stop & Auto-Cleaning
- Three Steps Fan Speed Adjustment
- IR Remote Controller
- Daisy-Chained AC Power Distribution

BENEFITS

- No Calibration Required
- Auto-Stop Safety Function
- Slim Design
- Easy Replacement of Emitter Points

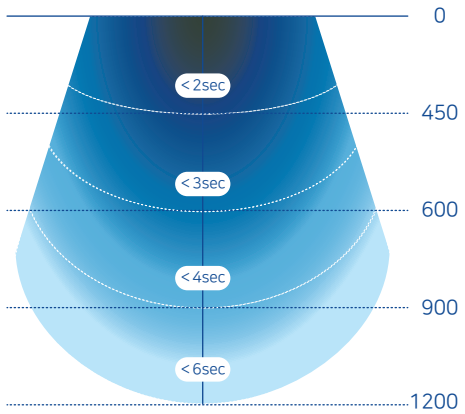
Specifications

Ion Emission	Steady-State DC
Ion Balance	± 10V peak
Decay Time	Less than 6.0 sec at 1200 mm
Air Flow	165 CFM
Dimensions	680W x 118H x 180D mm
Compatibility	ISO 14644-1 Class 4

Selection

Model 3920	No Cleaning Brush
Model 3920E	Built-in Auto-Cleaning Brush
Model 3920L	No Cleaning Brush, LED Lights
Model 3920EL	Built-in Auto-Cleaning Brush and LED Lights

Discharge Time



Discharge time and balance measured according to ANSI/ESD STM3.1 using a Charge Plate Monitor (CPM)

Auto-Cleaning Brush

Daisy-Chained AC Connection

Easy Open Grill

NEW

Overhead Ionizing Blower

Fast Discharge Time Performance

Model 3940E

CoreStat® Self-Balanced Air Ionizing Blower

Model 3940E Overhead Ionizing Blower can discharge less than 5 seconds at 1200mm distance. Model 3940E ionizer maintains intrinsic balance less than ±5V for ESDS items. Built-in auto-cleaning brush operates when the fan filter grille is open or power on/off. Audio and visual alarms operate when ion balance exceeded limit and power supply failure. Light weight and slim design allow more convenient installation when space is limited.

FEATURES

- Steady-State DC Ion Emission
- Low Offset Voltage
- Auto-Stop & Auto-Cleaning
- Three Steps Fan Speed Adjustment
- IR Remote Controller
- Daisy-Chained AC Power Distribution

BENEFITS

- No Calibration Required
- Auto-Stop Safety Function
- Slim Design
- Easy Replacement of Emitter Points

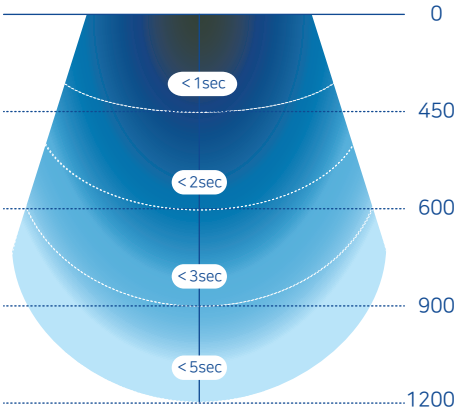
Specifications

Ion Emission	Steady-State DC
Ion Balance	± 5V peak
Decay Time	Less than 5.0 sec at 1200 mm
Air Flow	165 CFM
Dimensions	1200W x 118H x 180D mm
Compatibility	ISO 14644-1 Class 4

Selection

Model 3940	No Cleaning Brush
Model 3940E	Built-in Auto-Cleaning Brush
Model 3940L	No Cleaning Brush, LED Lights
Model 3940EL	Built-in Auto-Cleaning Brush and LED Lights

Discharge Time



Discharge time and balance measured according to ANSI/ESD STM3.1 using a Charge Plate Monitor (CPM)

Auto-Cleaning Brush

IR Remote Controller

LED Lights Option

Self-Balanced Gun Ionizer

Particle Contamination & ESD Controls in Cleanroom

Model 472A gun ionizer is specially designed for cleanroom applications for semiconductor, flat panel display, hard disk and other high-tech industry. Strong ionized air force effectively removes attracted particles on the objects. Model 472A gun ionizer does not requires regular based calibration due to intrinsically maintain low peak offset voltage.

INNOVATIVE

Model 472A

CoreStat® Self-Balanced Air Ionizing Blower

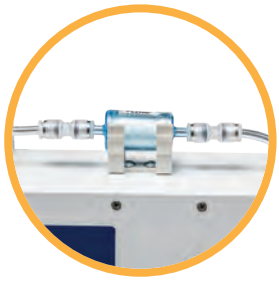
FEATURES

- Steady-State DC Ion Emission
- Low Offset Voltage
- HEPA Filter Assembled Controller
- Air Speed Controller
- Audio & LED Alarms

BENEFITS

- No Calibration Required
- Ergonomic Design
- Replaceable HEPA Filter

LED & Audio Alarm



HEPA Filter Catridge

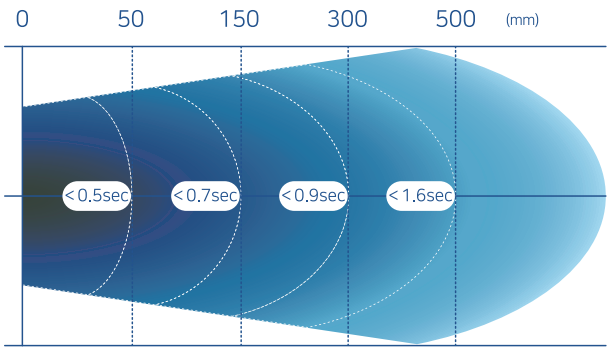
Specifications

Ion Emission	Steady-State DC
Ion Balance	± 15V
Decay Time	Less than 1.0 sec
Air Pressure	0.1 to 0.5 MPa

Related Products

Model 5233ES	Single Crystal Silicon Emitter
Model 5360EP	Tungsten (99.99%) Emitter
Model 472C	Compressed Air Controller Model 472 Cleanroom Compatible Gun Only
Model 5470F	HEPA Filter for Model 472C

Discharge Time



Discharge time and balance measured according to ANSI/ESD STM3.1 using a Charge Plate Monitor (CPM)

Self-Balanced Gun Ionizer

Particle Removal & ESD Controls in general use

Model 470 gun ionizer is designed for versatile applications for general electronics application and other contamination sensitive industries. Strong ionized air force effectively removes attracted particles on the objects.
Model 470 gun ionizer does not requires regular based calibration due to intrinsically maintain low peak offset voltage.

Ergonomic Design

Model 470

CoreStat® Self-Balanced Air Ionizing Blower

FEATURES

- Steady-State DC Ion Emission
- Low Offset Voltage
- Audio & LED Alarms

BENEFITS

- No Calibration Required
- Ergonomic Design

Specifications

Ion Emission	Steady-State DC
Ion Balance	± 15V
Decay Time	Less than 1.0 sec
Air Pressure	0.1 to 0.5 MPa

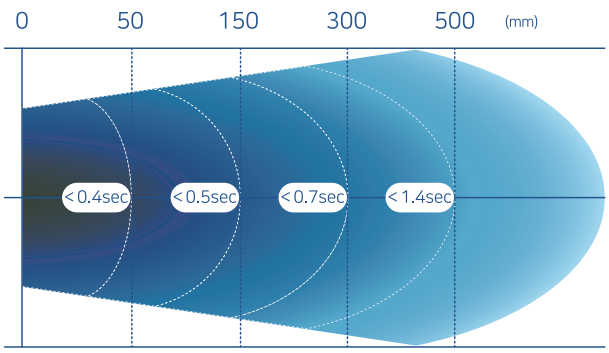
Easy Nozzle Opening

Related Products

Model 5360EP	Tungsten (99.99%) Emitter
Model 5147D	DC Adapter

DC Power & Air Connection

Discharge Time



Discharge time and balance measured according to ANSI/ESD STM3.1 using a Charge Plate Monitor (CPM)

High Frequency AC Nozzle Ionizer

Particle Contamination & ESD Controls with Compressed Air

Model 4110 nozzle ionizer is designed in small package for space limited particle removal applications for automated handling equipment and other cleaning applications. Strong ionized air force effectively removes attracted particles on the objects. Model 4110 nozzle ionizer does not requires calibration, and simply cleaning emitter points in regular base. Audio and visual alarms operate when power supply failure status.

Model 4110

High Frquency AC Nozzle Ionizer

FEATURES

- High Frequency AC Technology
- Versatile Application
- Low Offset Balance
- Alarm for HV Power Fail

BENEFITS

- No Calibration Required
- Audio & Visual LED Alarms
- Particle Contamination Cleaning

Specifications

Ion Emission	High Frequency AC
Ion Balance	Less than ± 30V
Decay Time	Less than 1.0 sec
Air Pressure	0.1 to 0.5 MPa

· Rigid Stainless Steel Airtube - Maximum 300mm Length

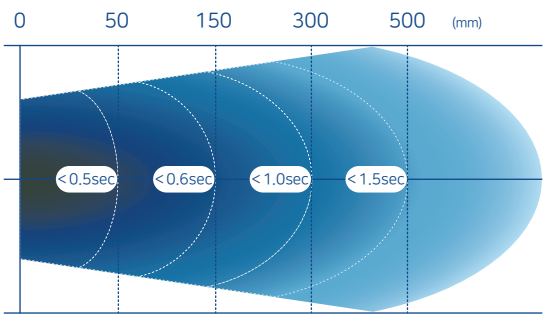
· ELBOW Coupler with
Stainless Steel Airtube Optional

Related Products

Model 4120	Compressed air or CDA On/Off operate by IR sensor
Model 4110	Continous compressed air or CDA operation
Model 4111	IR Sensor Option for Model 4110
Model 4110U	Uretane Airtube Nozzle Assembly

· Extended Polyurethane Airtube - Maximum 600mm Length

Discharge Time



Discharge time and balance measured according to ANSI/ESD STM3.1 using a Charge Plate Monitor (CPM)

High Frequency AC Nozzle Ionizer

Particle Contamination & ESD Controls with Compressed Air

Model 4120 nozzle ionizer is designed in small package for space limited particle removal applications for automated handling equipment and other cleaning applications integrated with Model 4111 IR sensor. Temporarily operating ionized air force effectively removes attracted particles on the objects with Model 4111Model 4120 nozzle ionizer does not requires calibration, and simply cleaning emitter points in regular base. Audio and visual alarms operate when power supply failure status.

Model 4120

High Frquency AC Nozzle Ionizer

FEATURES

- High Frequency AC Technology
- Versatile Application
- Low Offset Balance
- Alarm for HV Power Fail
- IR Sensor Assembled

BENEFITS

- No Calibration Required
- Audio & Visual LED Alarms
- Particle Contamination Cleaning

Specifications

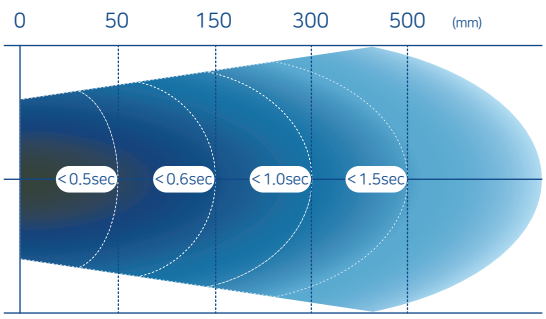
Ion Emission	High Frequency AC
Ion Balance	Less than ± 30V
Decay Time	Less than 1.0 sec
Air Pressure	0.1 to 0.5 MPa

Related Products

Model 4120	Compressed air or CDA On/Off operate by IR sensor
Model 4110	Continous compressed air or CDA operation
Model 4111	IR Sensor Option for Model 4110
Model 4110U	Uretane Airtube Nozzle Assembly

IR Detection Sensor Assembled
Target / Distance Adjustable

Discharge Time



Discharge time and balance measured according to ANSI/ESD STM3.1 using a Charge Plate Monitor (CPM)

Ionization for Industrial Applications

Particle Contamination & ESD Controls in Cleanroom

Model 6100 Shockless Static Ion Bar is designed to neutralization solution for industrial applications such as web and roll-to-roll process to minimize static issue and particle contamination control during process. Capacitance coupled shockless design results electrical current limiting for personal safety.

Shockless
Model 6100
Static Ion Bar

FEATURES

- Shockless Design
- Conventional & Pulsed AC Optional
- Small Profile for Limited Space
- Neutralization for Industrial Applications
- Industrial Static Control

BENEFITS

- Fast Discharge Time
- Highly Reliable Quality
- Low Cost
- Roll to Roll Process

Specifications

Ion Emission	AC or Pulsed AC
Output Voltage	±7 kV
Enclosure	Stainless Steel
Emitter Point	Tungsten 99.99%

- Various Length
- Air Tube Assembly Option

Model 610 Power Supply

Input Voltage	100 ~ 240 VAC, 50/60Hz
Output Voltage	0 to ±5kV (Fixed)
Ion Emission	Conventional AC Technology
Enclosure	Powder Coated Aluminum
Dimensions (mm)	Stainless Steel 304

Model 620 Power Supply

Output Voltage	0 to ±7kV (Adjustable)
Ion Emission	Pulsed AC Technology
Power Consumption	500 ~ 2.7 Amps per Bar Length
Enclosure	Powder Coated Aluminum
Timing	1 ~ 50 Hz Frequency
Alarm*	Visual & Audio alarm operates for power failures and cleaning cycle schedule
Display	3 Digit LED

Model 610 AC Power Supply

Model 620 Pulsed AC Power Supply

Ionization for Industrial Applications

Particle Contamination & ESD Controls in Cleanroom

Model 6200 Shockless Static Ion Bar is designed to neutralization solution for industrial applications such as web and roll-to-roll process to minimize static issue and particle contamination control during process. Capacitance coupled shockless design results electrical current limiting for personal safety. Model 6200 AirKnife Static Ion Bar Ionizer is specially suited for macro and micro particle removal purpose in place.

AirKnife
Model 6200
AirKnife Static Ion Bar

FEATURES

- Shockless Design
- Conventional & Pulsed AC Optional
- Small Profile for Limited Space
- Neutralization for Industrial Applications
- Industrial Static Control

BENEFITS

- Fast Discharge Time
- Highly Reliable Quality
- Low Cost
- Roll to Roll Process
- Cooling

- Various Length
- Cleanroom Compatible Options

Specifications

Ion Emission	AC or Pulsed AC
Output Voltage	±7 kV
Enclosure	Stainless Steel
Emitter Point	Tungsten 99.99%

Model 610 Power Supply

Input Voltage	100 ~ 240 VAC, 50/60Hz
Output Voltage	0 to ±5kV (Fixed)
Ion Emission	Conventional AC Technology
Enclosure	Powder Coated Aluminum
Dimensions (mm)	Stainless Steel 304

Model 620 Power Supply

Output Voltage	0 to ±7kV (Adjustable)
Ion Emission	Pulsed AC Technology
Power Consumption	500 ~ 2.7 Amps per Bar Length
Enclosure	Powder Coated Aluminum
Timing	1 ~ 50 Hz Frequency
Alarm*	Visual & Audio alarm operates for power failures and cleaning cycle schedule
Display	3 Digit LED

Model 610 AC Power Supply

Model 620 Pulsed AC Power Supply

Professional ESD Auditing Measurements

PROSTAT

AUTHORIZED RESELLER

PROSTAT

AUTHORIZED CALIBRATION LAB

Professional ESD Auditing Measurements

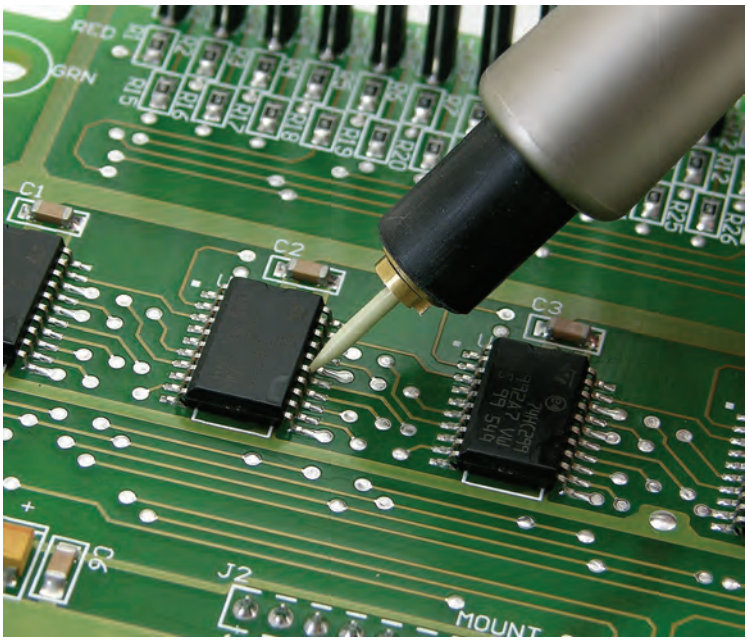
CVM-780 CONTACT VOLTMETER

A VALUABLE ESD ANALYSIS TOOL

Being a true electrostatic voltmeter, not a field meter means that it reads real voltage, without confusing it with electrostatic field strength, which can be distinctly different.

The CVM-780 Contact Voltmeter™ uses a unique active probe design which is fully guarded and shielded for minimal interference with the surrounding E-field.

The Contact Voltmeter™ is powered by rechargeable Nickel Metal Hydride batteries and is a valuable ESD Analysis Tool.



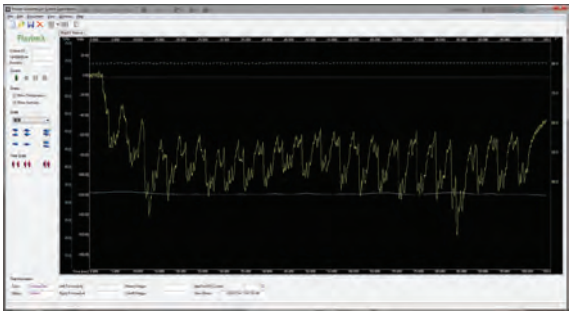
ESD ANALYSIS APPLICATIONS

Analyze process, devices and assemblies for causes of Charged Device Model(CDM) and Isolated Conductor losses.
Measure voltages on:

- Device Lead Frame Contacts
- Circuit Board Traces
- Automatic Test Contacts
- Conductors in process critical path
- Machine parts
- Placement heads
- Handlers
- Production Aids
- Chairs
- Carts
- Personnel
- Trays
- Shelving
- Conductive Containers

Compatible with the PGA-710 Autoanalysis System

The CVM-780 is compatible with the PGA-710 Autoanalysis System® to record measurements for probability analysis and report generation.



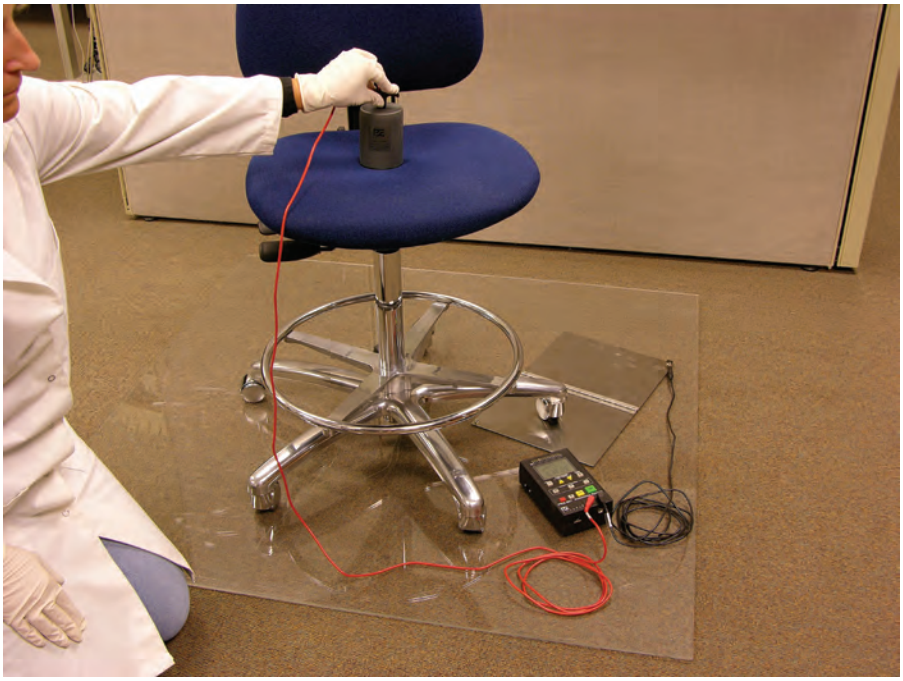
IF YOU CAN TOUCH IT...
YOU CAN MEASURE IT!

Professional ESD Auditing Measurements

PRS-801 RESISTANCE SYSTEM SET

The most important ESD Audit & Evaluation instrument is this wide range, constant voltage resistance meter. Use with many accessories & fixtures. Unique wide range portable, constant voltage ohmmeter with data logging, calculating and computer communication capabilities

- Resistance Range: 0.1 Ω to $2.0x10^{14}$ Ω
- Test Voltages
  - ≫ 0.001 to 10 Volts Auto Variable
  - ≫ 10 & 100 Volts Constant ± <5 mV
- Digital LCD Display & LED Indication
- 80 Data Point Memory
- Software for Data Download to PC
- Includes Lead Sets, Steel & Insulative Test Beds, and Calibration Shunt



RESISTANCE FIXTURES & ELECTRODES

Use five-pound electrodes for measuring resistance of floors, worksurfaces, floor mats, etc.

Measure:

- Resistance Point to Point (RTT)
- Resistance to Ground (RTG)

Evaluate:

- Floors
- Worksurfaces
- Equipment
- Garments
- Production Aids

WIDE RANGE. ACCURATE. PORTABLE.

Professional ESD Auditing Measurements

Portable, precision resistance measurement from <0.1 to 1.0 x 10^{12} ohms. Designed for the Professional Corporate ESD Auditor.

- Measures resistance from < 0.1 to 1.0x10^{12} ohms with overall measurement accuracy of ±5%.
- Records and stores up to 80 measurements.
- Constant voltage
- Fully automatic, controls test voltage, resistance ranging and electrification period.
- Displays measurements in ohms, kilohms, megohms, gigohms and teraohms, and in exponential format.
- Battery operated (2 x 9 Volts)

ANSI/ESD S20.20
TEST
IN ACCORDANCE WITH THESE REQUIREMENTS
IEC-61340-5-1

PRS-812 RESISTANCE METER SET

The PRS-812 is a constant voltage, wide range ohmmeter with data logging and calculating capabilities. Fully portable and battery operated, the PRS-812 measures resistance from <0.1 to 1.0x10^{12} ohms with measurement accuracy of ±5%. It can be operated in fully Automatic, Automatic-Manual and Manual modes.

This sophisticated instrument digitally displays measurements in ohms, kilohms, megohms, gigohms and teraohms, and in exponential format, e.g., 1.5E8.

It simultaneously displays data with a fully synchronous analog scale using x1, x10 and x100 multipliers, and a bank of color coded LED's (<10^{3} to >10^{12} Ohms). Multiple test voltages include 0.01-10V, constant 10V and 100V ranges, which may be selected automatically by the instrument to comply with industry measurement practices, or manually by the operator.

The PRS-812 records and stores up to 80 measurements and calculates minimum, maximum and average of all stored data.

Fully automatic, the PRS-812 controls test voltage, resistance ranging and electrification period to make the most accurate and repeatable measurements available to ESD Auditors and technicians.

Professional ESD Auditing Measurements

COMPACT AUDIT KIT for ANSI/ESD S20.20 Program and TR53 Compliance Verification Activity

PAS-853B WIDE RANGE OHMMETER

The PAS-853B is a wide range ohmmeter designed specifically for ESD Plant Auditors who must make many measurements quickly while supporting ANSI/ESD S20.20 Program Standard and periodic verification requirements. The PAS-853B performs in accordance with standard resistance measurement practices outlined in ANSI/ESD S541 Packaging and meets all audit requirements of ESD TR53.

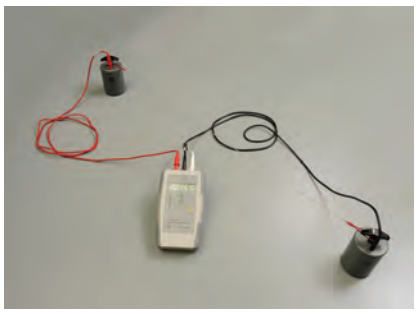
- **<10 Volts Variable from 0.01 to 9.9x10^3 ohms**
- **10 Volts (±<5% Constant Voltage) from 1.0x10^4 to 9.99x10^5 ohms**
- **100 Volts (±<2% Constant Voltage) from 1.0x10^6 to 9.99x10^{12} ohms**

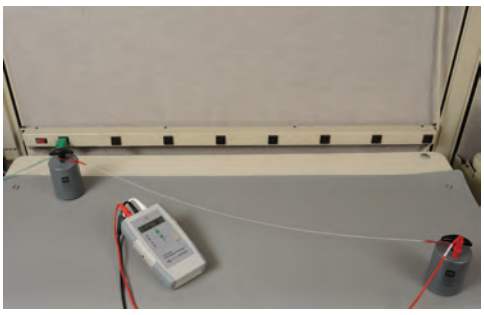
The PAS-853B is a constant voltage wide range ohmmeter designed specifically for ESD Plant Auditors who must make many measurements quickly while supporting ANSI/ESD S20.20 Program Standard and periodic verification requirements.

The PAS-853BRM Digital Surface Resistance Test Kit is the ideal kit for the ESD Plant Auditor. It includes the PAS-853B Wide Range Ohmmeter with 2 each 5 pound Conductive Rubber Electrodes. The PAS-853B instrument is a wide range ohmmeter that measures accurately from 0.01 to 9.99x10^{12} ohms. The kit is designed to measure resistance point-to-point (RTT) or surface to ground (RTG), and meets audit requirements of ESD TR53.

Wide Range Surface Resistance Ohmmeter Kit

- Surface Resistance Kit from 0.01 ohm to 9.99x10^{12} ohms
- Nominal Full Range Tolerance Averages <±5%
- Fully Automatic Resistance Range, Test Voltage and Electrification Period control
- Determines if a surface is Dissipative, Conductive, or Insulative
- Measures resistance point-to-point(RTT) and point-to-ground (RTG)
- Measures resistance of Static Control Floors, ESD Work Surfaces and Packaging Material
- Conforms to all ESD Association Standards for Resistive Characterization
- Includes 2 each Conductive Rubber Electrodes
- Packaged in a hard shell Carrying Case
- Certificate of Calibration Traceable to NIST included





Professional ESD Auditing Measurements

PRF-911 CONCENTRIC RING SET

The PRF-911 Concentric Ring is a low-profile test fixture conceived specifically for use with the Prostat PRS-801 Resistance System and PRS-812 Resistance Meter. It will measure surface resistance per ANSI/ESD STM11.11, and volume resistance per ANSI/ESD S11.12, and ANSI/ESD STM15.1.

Its compact size allows the fixture to be inserted into small flexible containers, such as an ESD protective bag, without having to cut the package.

FEATURES
Measures surface resistance per ANSI/ESD STM11.11
Measures volume resistance per ANSI/ESD STM11.12
Measures surface & volume resistivity per ASTM D-257
Incorporates a spring loaded, self-aligning center electrode feature
The included Dual Test Bed consists of an insulated test surface for ANSI/ESD STM11.11 surface measurements laminated to a steel test plate for volume measurements.

PRS-801-W CONDUCTIVE RUBBER ELECTRODES

The PRS-801-W is a precision milled resistance probe with conductive rubber pad for use with any resistance meter. Used in point to point and point to ground resistance testing of floors, worksurfaces, floor mats or any flat object, the PRS-801-W produces repeatable measurements in accordance with ESD Association standards.

The PRS-801-W will work with any other resistance measuring meter for specification measurements.

ANSI/ESD S20.20
TEST
IN ACCORDANCE WITH THESE REQUIREMENTS
IEC-61340-5-1

PRS-801-WV
Premium Conductive Rubber Electrode

Professional ESD Auditing Measurements

SURFACE RESISTANCE **AT ITS BEST**

PRF-912B Miniature Concentric Ring

- Measures surface resistance of small areas up to $1.0x10^{12}$ ohms.
- Measurement Area: 0.35" (8.89mm).
- Spring loaded contact pins.
- Includes two (2) each spare outer contact pins and one (1) each spare inner center electrode contact pin.

PRF-922B Miniature Two-Point Probe

- Measures point-to-point surface resistance of small areas up to $0.9x10^{12}$ ohms.
- Measurement Area: 0.25" (6.35mm).
- Spring loaded contact pins.
- Includes one (1) each spare contact pins and conductive rubber boots for measuring surfaces in accordance with ANSI/ESD STM11.13.

PRF-922A-B Miniature Two-Point Probe Adapter

- Measures point-to-point surface resistance of small areas up to $0.9x10^{12}$ ohms.
- Measures 7.70 inches long and weighs only 58 grams.
- Includes one (1) each Spare Contact Pins and rubber boots for measuring in accordance with ANSI/ESD STM11.13.

PRV-913B Dual Verification Fixture

- VERIFY THE PROPER FUNCTIONING OF PRF-912B AND PRF-922B PROBE SETS
- Provides a $1.0x10^{6}$ (<±2%) ohms reference for PRF-912B and a 1-megohm ($1.0x10^{6}$ ±1% ohms) reference for PRF-922B.

Professional ESD Auditing Measurements

PGT-61-164 UNIVERSAL SURETEST® CIRCUIT ANALYZER

The PGT-61-164 SureTest® Universal Circuit Analyzer test circuits according to ANSI/ESD S6.1-Grounding. Verify the following wiring conditions:

- Neutral and equipment grounding conductor wires are present and not connected to each other
- Hot and neutral wires are not reversed
- Hot and equipment grounding conductors are not reversed
- Impedance of the equipment grounding conductor is not greater than 1 ohm

In addition, you can effectively test and troubleshoot a branch circuit.

ESD GROUNDING PLUG

The ESD Ground Plug offers convenient connection to equipment ground conductor of Schuko plug for 220VAC for temporary use or permanent installation of ESD reference ground with banana jack receptacles. Built-in EMI noise filter could reduce ground noise and help to meet ANSI/ESD S20.20 ground requirement less than 1.0 ohm between equipment ground conductor and common point ground point.

Grounding Plug to ground workstations, mats, wrist strap testers, instruments, and other ESD products to an approved pre-tested facility electrical ground.

GROUNDINGPLUG®

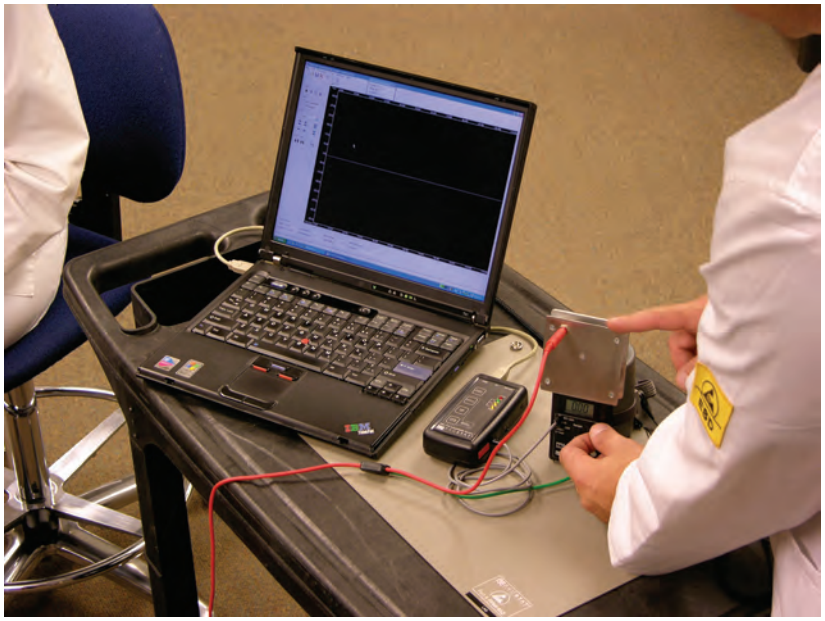
Professional ESD Auditing Measurements

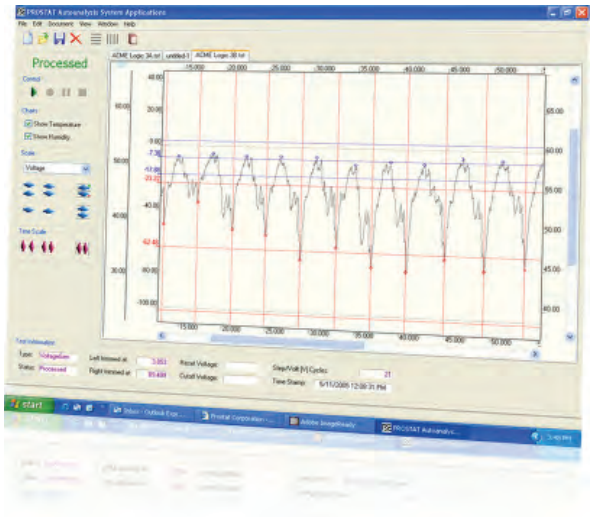
PGA-710 AUTOANALYSIS SYSTEM SET

The PGA-710 Autoanalysis System® allows experienced ESD Auditors to analyze any Facility or Manufacturing Process in conjunction with their Prostat PFK-100 Field Meter Set and computer.

It records and analyzes measurements and automatically generates reports for Voltage Generation, Fields and Electrostatic Decay. Or the PGA-710 may simply function as an advanced recorder for general measurement and experimental applications. Use it to measure and analyze People, Floors, Footwear, Ionizers, Chairs, Carts, Equipment, Packaging Materials and other ESD control elements.

You may also record measurements remotely with the PGA-710 for later downloading and computer analysis using supplied software.





Measure, Record, Analyze & Report Electrostatic Voltage Generation and Decay Performance:

- Footwear and flooring combinations
- Carts & Chairs
- Packaging Materials & Systems
- Production Aids
- Worksurface Voltage Suppression
- Ionization Offset Voltage & Decay Performance
- Production Aids & Materials
- Record process equipment field voltages

ESD ANALYSIS AT ITS FINEST!

Note: The PGA-710B is now compatible with 32-bit and 64-bit version of Windows from XP all the way to Windows 10.

Professional ESD Auditing Measurements

PED-718 ESD Event Detector

The PED-718 is a portable indicator that will help you quickly detect ESD events in your process. If you're handling ESD sensitive devices, use the PED-718 to detect and count discharges as well as showing you the relative strength of each ESD event.

Settings give the user the ability to adjust the alarm threshold to detect and count only those discharges that exceed the threshold. The LED's will turn red if the discharge exceeds the threshold. There is a sound switch that can also be used to detect ESD events that exceed the threshold.

To confirm that your ESD protection is effective is to know whether you have ESD events in your environment, how strong they are and how many of them occur. The PED-718 is the right tool to show you the effectiveness of your ED program.

- Display: Maximum 1,999 counts
- Frequency
  - ≫ ESD Channel: 100 MHz
  - ≫ CDM Channel: 3kHz
- Power: 9 VDC Alkaline Battery
- Thresholds Adjustable
- Sound On/Off Switch
- 10 LED Bar Graph Display

Detect, Locate and Identify ESD events in your process

Applications

- Electronics Assembly
- Semiconductor Device Manufacturing
- Disk Drive Manufacturing
- Medical Environments
- Military Aerospace
- Wherever sensitive components are being handled

Professional ESD Auditing Measurements

PFM-711B Static Field Meter

The PFM-711B Field Meter is an accurate electrostatic field measuring device. The PFM-711B circuitry is a digital, electronic chopper design, which allows the instrument to make electrostatic field measurements in areas where ionized air is present. For accurate, repeatable performance, the PFM-711B must be grounded during normal operations. Used by itself, the PFM-711B will measure electrostatic fields emanating from virtually any flat surface or object.

In the kV/Inch range, the PFM-711B will indicate electrostatic field voltage from 0 to ±20,000 volts in 10 volt increments at 25mm distance from the charged surface. In the V/Inch range, the Field Meter measures field density from 0 to ± 1,999 volts in 1 volt increments at 25mm distance from the charged surface. The instrument is easy to use and its controls are designed for one hand operation.

- Measurement Range: 0 V to ±1999 V (Low) or 0 V to ±19.99 kV (High)
- Accuracy: Better than ±5% of reading
- Display: 3.5 digits LCD
- Thresholds Adjustable
- Resolution: 1 Volt (Low), 10 Volts (High)
- Power: 9 VDC Alkaline Battery
- Output: ±20.0 kV meter reading equals ±2.0 Volt output
  ±2,000 volts is equal to ±0.2 volts output
- Distance: 25mm ± 0.5mm LED distance indicator

Measure Accurate Charge Level of your device and insulators in your process

Product Highlights

- Lightweight, Portable
- Dual Range up to 2kV or 20kV
- LED ranging lights help position
- Zero Button
- Hold Button for record
- Output Signal for data analysis

Professional ESD Auditing Measurements

PFK-100B FIELD METER SET

The PFK-100 set includes Prostat's unique PFM-711A dual range field meter, CPM-720 charged plate monitor assembly and PCS-730 ±1 kV charging source.

With this instrument set you can measure electrostatic fields, analyze ionizer performance and assess the voltage generation of materials, equipment and personnel.

PDT-740B STATIC DECAY TIMER

The PDT-740B Static Decay Timer is designed to measure the time required for a 1,000 volt charge to dissipate to less than 100, 50 or 10 volts in tenths of a second.

This extremely useful accessory is used with the Prostat PFM-711A Field Meter and CPM-720A Charge Plate Monitor to evaluate Ionizer Decay Time in accordance with ESD Association Ionization Standard SP3.3 and TR53.

The PDT-740B may be used to evaluate the static decay capabilities of materials, personnel, equipment and other products.

Professional ESD Auditing Measurements

WRIST STRAP/FOOTWEAR CHECKER & FOOTWEAR AUDITOR

The PMT-872A is a unique, highly portable, battery operated multi-function PASS/FAIL performance verifier. It confirms the operational resistance range of wrist straps, heel straps and ESD controlled footwear.

The PMT-872A features a large test button, audible PASS BEEP with Green PASS light, Red LOW and HIGH Fail lights, and yellow battery low indicator.

The PFA-860 Footwear auditor is designed for resistance measurements of footwear while being worn by personnel.

PWA-805 WRIST STRAP AUDITOR

Add the capability of electrically testing your wrist straps according to ESD S1.1 Evaluation Testing Paragraph 5.1.

- Measure the Interior of the Wrist Strap Cuff
- Measure the Exterior of the Wrist Strap Cuff
- Measure the Resistance of the Ground Cord Alone
- Measure the Resistance of the Whole Wrist Strap Assembly

PHT-771 DIGITAL PSYCHROMETER

- Simultaneous display of %RH, Temperature and Dew point or Wet Bulb or Probe Temperature
- Wet bulb measurements without slinging
- Calculates T1-T2 differential (Air Temperature-External Probe Temperature) using optional probe
- Unique sensor cap design twists to closed position for protection during storage
- Switchable °F/°C temperature units with 0.1° resolution
- Data Hold freezes current reading on display
- Max/Min readings

Professional ESD Auditing Measurements

PAR-809C VARIABLE RESISTANCE REFERENCE

ISO-9001 requires that measurement equipment be calibrated or verified at specified levels prior to use.

With the proper use of the PAR-809C, calibration of resistance indicating equipment is easily verified assuring accurate, functional performance of critical ESD control tools.

The PAR-809C provides low cost in-plant verification.

No need to pay for outside services, if calibration is not necessary.

Easy to use Each of the 12 verification points are indicated with bright yellow LED's.

Using 1 percent tolerance resistors, the PAR-809C offers twelve values from 1.2×10^4 to 1.0×10^9.

USE THE PAR-809C TO CHECK:

- Wrist Strap Testers
- Footwear Testers
- Resistance Indicating Devices

Use the Prostat PAR-809C to "verify your test equipment is operating properly"[1] as recommended in ESD TR53.

[1] ESD TR53 Compliance Verification of ESD Protective Equipment and Materials

Professional ESD Auditing Measurements

PRF-930 POWDER FIXTURE

Now you can measure the resistance of powders, accurately & easily, on site.

For measurement of powders and granulated materials.

For use in the following Industries:

- Chemical
- Pharmaceutical
- Food
- Beverage
- Cosmetics
- Plastics
- Cement
- Paints and Pigments
- Grain
- Mining
- Pulp and Paper
- Stone
- Clay and Glass
- Rubber
- Petroleum
- Household Products
- And many others

Professional ESD Auditing Measurements

PPA-400 COMPLETE AUDIT KIT

The PPA-400 ESD Process Analysis Kit is for advanced professionals who need materials testing, facility evaluation and process analysis capabilities all in one kit. This integrated kit has everything in one case for full evaluation of a companies' ESD program and process. The PPA-400 includes all of the equipment in the PSK-310 Kit and adds the Prostat PGA-710 Autoanalysis System and the innovative CVM-780 Contact Voltmeter, miniature precision resistance fixtures and international adapters.

The PGA-710B is a unique electrostatic data analysis device for use with Prostat's PFK-100 Fieldmeter/Charge Plate Monitor Set. It records, plots, analyzes and automatically constructs reports of body voltage generation, electrostatic decay, voltage retention, ionizer performance and other static measuring functions. Its analytical features document and automatically calculate projected levels of typical Human Body (HBM) voltages. It helps determine the risk of equaling or exceeding damaging or hazardous HBM discharge voltages in static sensitive facilities.

The New CVM-780 Contact VoltmeterTM combines the ease of use of a digital voltmeter with the high input impedance and low input capacitance of a true electrostatic voltmeter in a small, portable, battery operated package. Also included is the PRF-912B Miniature E12 Micro Probe Set accurately measures surface resistance of small areas up to $1.0x10^{12}$ ohms. It consists of a PRF-912B Concentric Resistance Fixture, shielded cable equipped with BNC connectors, and a BNC to male banana instrument adapter.

The PPA-400 Process Analysis Kit is shipped in our new Program Manager Case which is a Hybrid, ultra light Polycarbonate and aluminum construction.

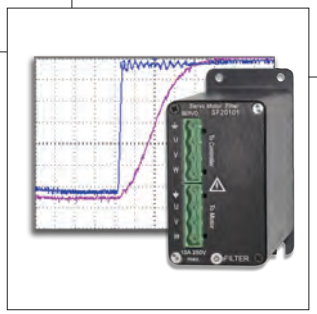
Professional ESD Auditing Measurements

	**PFK-101 Basic Field Kit** An Introduction to the Portability and Functionality of the Prostat Line.
	**PIK-110 Ionization Kit** Measure ionizer performance with the upgradable PIK-110.
	**PRK-130 Advanced Powder Resistance Kit** For measurement of powders and granulated materials.
	**PET-160 Packaging Engineers Test Kit** Perfect for developing new materials or verifying existing products.
	**PGA-710 Autoanalysis System Kit** Measure, Record, Analyze & Report Electrostatic Voltage Generation and Decay Performance.
	**PMK-151 Resistance System Kit** Resistance Measurements With Computer Download Capabilities.
	**PMK-152 Floor Resistance Test Kit** General Floor Auditing and Resistance Measurements.

Professional ESD Auditing Measurements

	**PAK-210 ESD Auditor's Kit** Expand Your Measurement Capabilities by Downloading Data to Your Computer. Designed for ANSI/ESD S20.20 Program Applications.
	**PAK-212 Basic System Kit** Measure Resistance, Electrostatic Fields, and More. Designed for ANSI/ESD S20.20 Program Applications.
	**PFC-252 Professional Floor Certification Kit** Everything you need to certify a floor, or floor and footwear combinations.
	**PAS-TR53 Complete Audit Kit** The ultimate PAS kit covers all requirements of resistance, and ionization auditing. Meets audit requirements of ESD TR53.
	**PSK-310 ESD System Analysis Kit** The choice of advanced professionals includes computer download capabilities. Designed for ANSI/ESD S20.20 Program Applications.
	**PSK-312 ESD Basic System Analysis Kit** Includes PRS-812 Resistance Meter Set. Designed for ANSI/ESD S20.20 Program Applications.
	**PPA-400 Process Analysis Kit** The PPA-400 ESD Process Analysis Kit is for advanced professionals who need materials testing, facility evaluation and process analysis capabilities all in one kit.

EMI Filters for EOS Mitigation Solution



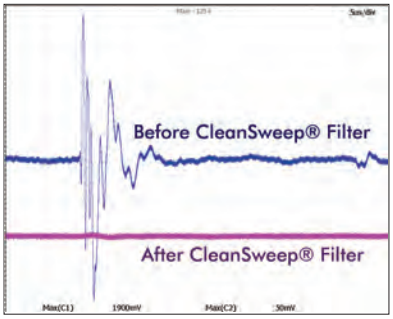
CleanSweep® AC Power Line EMI Filters

EMI Noise can cause of EOS Failures

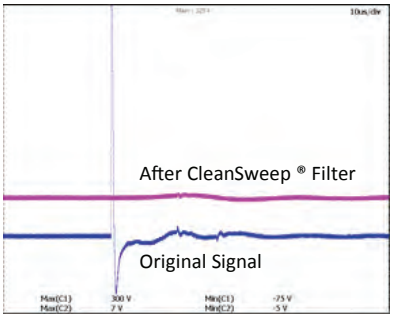
CleanSweep® AC EMI filters provide effective noise reduction where it matters in your environment. Many generic EMI suppression filters work well only in EMC test labs but do little or even can boost EMI in real-life installations.
CleanSweep® patented power line noise filters block EMI on real life power lines (both common mode and differential mode) and, uniquely, in ground, from reaching your sensitive equipment. They also reduce EMI "backflow" from a "noisy" source that otherwise would end up on your AC power network.

In addition to be highly effective in reducing EMI, CleanSweep® AC filters also offer advanced transient surge protection unachievable by regular MOV-based surge protectors.

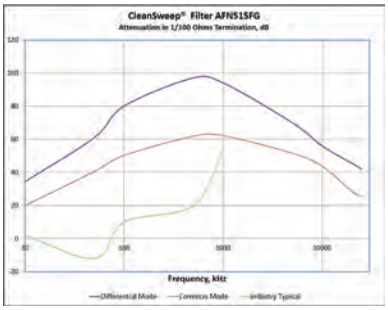
CleanSweep® filters are plug-and-play and can be installed in minutes without the need for an electrician.



Typical Transient Attenuation



Typical Surge Attenuation



Typical Frequency Response
0.1/100 Ohms Setup

FEATURES

- High Frequency Noise Suppression
- Both Power Line and Ground
- Bidirectional Coverage
- Wide Coverage Frequency

BENEFITS

- Plug-and-Play
- No Service Required
- Easy Installation

Specifications

Input Voltage	110 to 250V
Rated Current	3A, 10A, 20A and 30A
Attenuation	Differential Mode - 24dB Common Mode - 20dB

Related Products

CleanSweep® AP Series	3A AC EMI Filters
CleanSweep® AL Series	10A AC EMI Filters
CleanSweep® AF Series	13... 20A AC EMI Filters
CleanSweep® AF Series	30A AC EMI Filters
CleanSweep® AP Series	3A AC EMI Filters for Soldering

Ground EMI Filters

EMI Noise can cause of EOS Failures

High-frequency signals on ground is never good news - it interferes with normal operation of equipment and causes electrical overstress (EOS). However it is easy to block propagation of EMI on ground by installing highly-effective ground EMI filters in ground lines. On-Filter's unique patented ground EMI filters provide very low impedance for DC and mains' power while effectively blocking propagation of high-frequency currents throughout facility or equipment ground. Ground filters meet safety standards, as well as SEMI E176, ANSI/ESD S6.1 and ANSI/ESD S20.20.

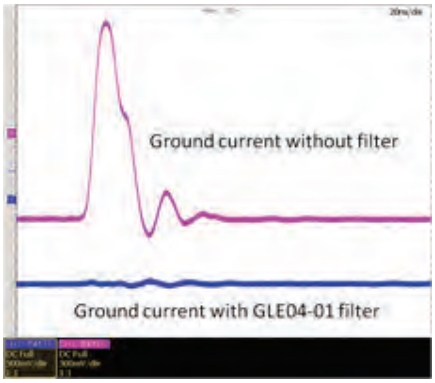
OnFILTER offers ground EMI filters for the facility and for grounding inside the equipment, providing universal protection against propagation of EMI. Select ground EMI filters for each applications.

FEATURES

- High Frequency Noise Suppression
- Optimized for Ground Lines
- Bidirectional Coverage

BENEFITS

- Increase Up-Time
- Wide Range of Applications
- Easy Installation

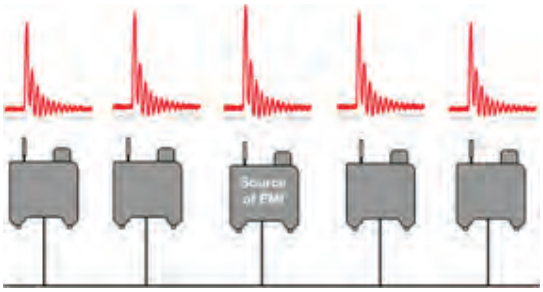


Specifications

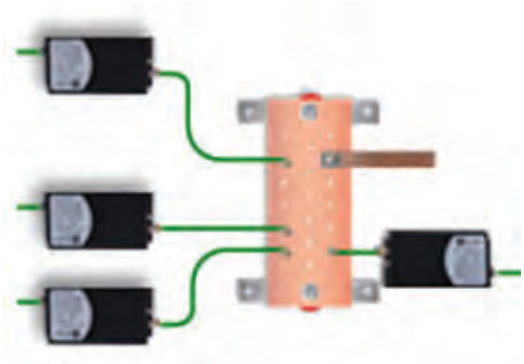
Max Current	30A (GLE30-1)
Frequency	50/60 Hz

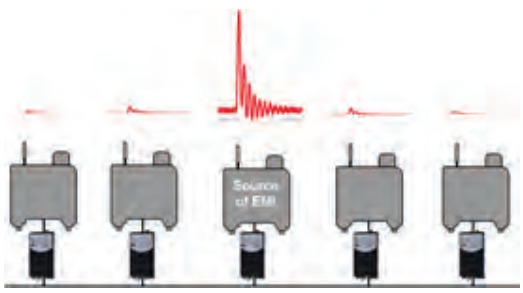
Related Products

GLE30-1	30A EMI Filter to Facility Ground
GLE04-01	EMI Filters to Equipment Ground



EMI and Conventional Facility Grounding





Ground Filter GLE30-1 block propatation of EMI

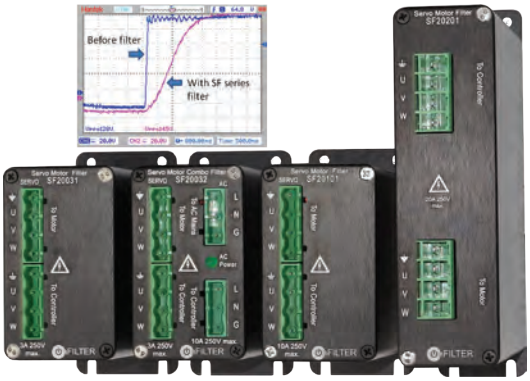
Servo Motor / VFD EMI Filters

EMI Noise can cause of EOS Failures

Operation of PWM-driven motors - servo motors and variable frequency drives (VFD) - causes a number of problems in equipment, including damage to the motor's bearings due to leakage current causing electrical discharge machining (EDM) and damage to motor's insulation. PWM motors also are a major source of EMI in equipment.

OnFILTER's patented SF-series filters substantially reduce high-frequency leakage currents in motors and in wiring, assisting in compliance with the requirements of IEC60034-17/-25. They also reduce interfering high-frequency noise within the tool resulting from operation of PWM-driven motors.

SF series filters greatly reduce high-frequency currents on equipment ground, as well as overall EMI in the tool, lowering risk of EOS and reducing errors in automated equipment and testers.

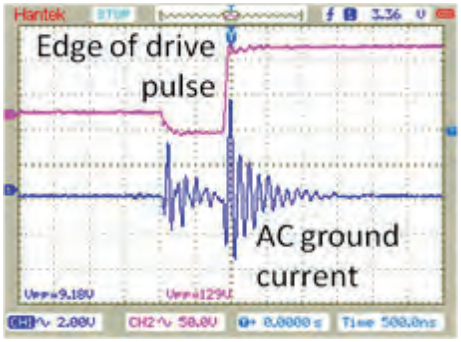


FEATURES

- High Frequency Current Reduction
- Prevention of EDM
- Optimized PWM motors
- Proprietary Reduction of Ground Current

BENEFITS

- Plug-and-Play
- No Service Required
- Easy Installation



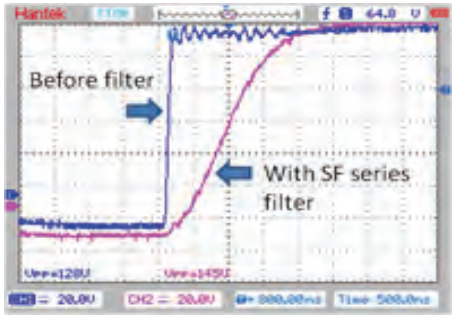
AC Ground Current caused by Operation of a Servo Motor

Specifications

Drive Voltage	250V
Max Current	3A, 10A and 20A
Rise / Fall Times	1.5 micro second

Related Products

SF20031	3A Servo Motor EMI Filter
SF20032	3A Servo Motor / AC Combo EMI Filters
SF20101	10A Servo Motor EMI Filter
SF20201	20A Servo Motor EMI Filter



Typical Edge Modification of Servo Drive Signal by a SF Series Filter

Power Line EMI/PLC Adapters

EMI Noise can cause of EOS Failures

OnFILTER' hand-held MSN12 is equipped with the test leads that allow for measurements in electrical receptacles of different types and in connections in the electrical distribution boxes.

MSN12 completely blocks 50/60Hz AC mains voltage and provides only high-frequency signals from power line via its 50 Ohms output. You can observe waveforms of noise on the screen of your oscillo-scope or analyze noise spectrum with your spectrum analyzer.

MSN12 utilized true balanced input and offers complete galvanic isolation from high-voltage power line.

FEATURES

- EMI Power Line Probe
- Power Line Isolation
- Noise Measurement at Anypoint
- Overvoltage Protection

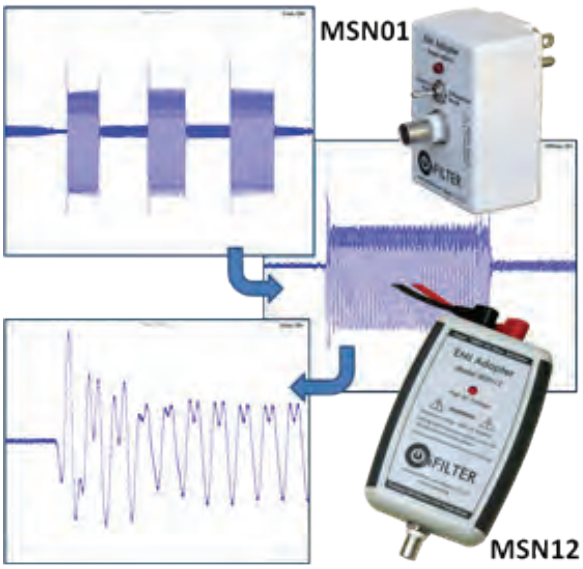
BENEFITS

- Plug-and-Play
- No Service Required
- Easy Operation

Specifications

Input Voltage	Up to 380V

Power Line EMI Adapter MSN-12



Observing PLC waveforms with help of On Filter's Power Line EMI Adapters

Global Sales and Service Network

Distribution and Representative Business Partners

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CORE INSIGHT
코어인사이트(주)