

*Innovative*

# Model 7380d *Patent Design*

AirStat® Steady-State DC Bar Ionizer



## FEATURES

- Steady-State DC Ion Emission
- Accurate Output Voltage Adjustment
- LED Display for Adjustment
- Very Low Peak Offset Voltage
- Audio & Visual LED Alarms
- Class 0 ESD Control Application
- RJ-45 FMS Monitoring Interface

## BENEFITS

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

## APPLICATIONS

Model 7380d AirStat® Steady-State DC Bar Ionizer is a specially designed for ultra sensitive and high speed device applications. QuadPoint® nozzle is a key patented design technology that can maintain true low offset voltage than any other technologies throughout the industry. Steady-State DC Ionization technology does not generate an induction field by AC switching high voltage which could lead an ESD damage in some critical processes for advanced package device such as 2.5D and 3D IC process.

Model 7380d AirStat® Steady-State DC Bar Ionizer is suited for space limited environment such as inside of automated handling equipment (AHE) and critical process areas. AirStat® Steady-State DC technology offers accurate output voltage adjustment and achieved at the very low peak offset voltage for ultra sensitive device handling application.

Model 7380d bar ionizer is only allowable air assist bar ionizer to completely compliance to ANSI/ESD S20.20 program that can meet ionizer balance less than  $\pm 35$  volts and beyond to a single digit.

# Innovative Model 7380d AirStat® Steady-State DC Bar Ionizer

## Specifications

Input Voltage	24 VDC, 3 Watt Max
Output Voltage	0 to ±4.0 kV, 10 V resolution increment
Ion Emission	Steady-State DC Technology
Ion Balance	Less than ±5 V per ANSI/ESD SP3.5
Decay Time	Less than 2 second at 300mm
Output Control	IR Remote Controller
Emitter Point	Single Crystal Silicon and Tungsten 99.99%
Alarm	Visual & Audio alarm operates for balance alarm, HV power failures.
Display	4 Digit LED
Operating Environment	Temperature: 15 - 35°C Humidity: 35 - 75% RH
Material	Enclosure: ABS plastic Bracket: Stainless Steel
Dimensions (mm)	62.5H x 30D x 350L mm
Warranty	1 year limited warranty
Certification	



*\*Patent Design*

- 1/4 Turn Easy Emitter Point Replacement
- Single Crystal Silicon Emitter Point
- Tungsten 99.99% Emitter Point

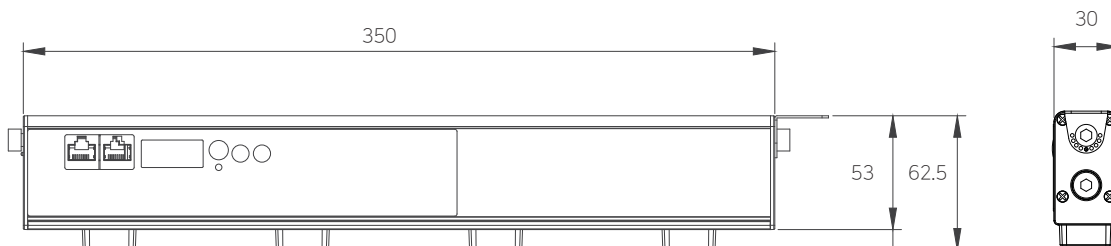
## FMS Output Signal

PIN No	Description
Pin 1	24 VDC Input
Pin 2	N/A
Pin 3	DC Return
Pin 4	N/A
Pin 5	GND
Pin 6	HVP Alarm
Pin 7	Port Detect Alarm
Pin 8	HVP Alarm COM

## Related Products & Ordering Information

Model 5780EP	Single Crystal Silicon Emitter Point
Model 5711R	Remote Controller
Model 5170D	RJ-45 Terminal DC Adapter, 100 - 240 VAC 50/60Hz
Model 7380-xxxx	Various Length from 350, 590, 770 and 1040 mm

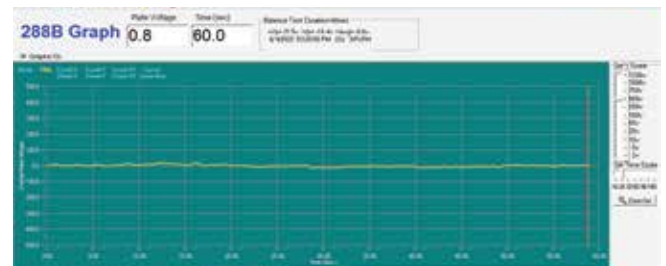
## Size & Dimensions (mm)



## Ion Balance Test Results

### AC Switching Voltage can cause of ESD Damage by Induction

- ANSI/ESD STM3.1 & S20.20 - Offset Voltage means for DC based value
- Offset Voltage should be measurement in Peak Voltage
- Test Equipment - Model 288B CPM by Monroe Electronics
- No Switching Voltage from Steady-State DC Technology Ionizer



- Switching Induction Voltage from AC Technology Ionizer
- Peak-to-Peak value: +305V to - 393V.

