



# Compact Ionizing Bar

## fusION AA

Simco-Ion's Compact Ionizing Bar fusION AA with Air Assist is an air ionizer capable of controlling electrostatic charge in the local area.

The fusION AA delivers powerful electrostatic charge control independent of ambient airflow conditions. Using CDA (clean dry air) at low flow rates the fusION AA will enjoy extended maintenance intervals. fusION AA incorporates miniature power and control circuitry in a compact package. No adjustments or calibration are necessary with Simco-Ion's patented auto balancing technology.

Simple to install, operate and maintain; mount the fusION AA in a convenient location adjacent to the static problem, connect the power supply and compressed gas tubing and fusION AA begins to eliminate static charge. This incredibly compact unit can be installed in places where typical ionizer designs do not fit. Multiple units can be linked together from one optional 24 VDC power source allowing 5 units to be daisy-chained. The air inlet can be positioned in any one of three positions located on consecutive 90 degree angles. The fusION AA is available with tungsten or with ISO Class 1 cleanroom grade Silicon Carbide (SiC) emitters and is ideal for system integration with the capability to remotely monitor status.

### Features



- Air assist connection
- Compact design
- Auto balancing technology
- Visual ionizer status indicator and digital level remote alarm output
- Single power source for multiple fusION bars

### Benefits

- Provides independent airflow, increasing performance and extending cleaning periods
- Fits into the tight confined spaces of any process tool
- No adjustments needed to maintain the required balance
- Standard features for convenient user operation
- Daisy-chain up to 5 fusION bars, ideal for providing ionization protection at multiple locations within a tool



## Specifications

fusION	
Input Voltage	24 VDC, 0.075A
Discharge	<5 sec @ 6" (15 cm) at 10 psi gas pressure <sup>1</sup>
Balance	<±50V
Coverage Area	12" x 12" @ 6" spacing
Working Distance	Minimum 3" (76 mm) from target surface, application dependent
Air Supply	Clean Dry Air (CDA) or Nitrogen
Airflow	5 scfm @ 5 psi to 4 scfm @ 50 psi
Air Connection	3.3 mm (0.13") ID tubing
Output Current	5 µA
Operation Mode	Steady-state DC
Emitters Points	Tungsten or Silicon Carbide
Connectors	DC power IN/OUT: 4 position modular, 4-pin "handset type"
LED Indicators	Green POWER ON; red FAULT (TTL level alarm output)
Operating Env.	Temperature 15-50°C (59-122°F); humidity 30-65% RH, non-condensing
Mounting	Integrated mounting flanges accept four (4), #4 or #6 screws
Enclosure	White Polycarbonate
Dimensions	1.3H x 1.3W x 4.5L in. (3.3 x 3.3 x 11.4 cm)
Weight	0.25 lb (113 g)
Warranty	Two year limited warranty
Certifications	RoHS Compliant  230V, 50 Hz  120V, 60 Hz
Power Supply	
Output Voltage	24 VDC
Input Voltage	100-240 VAC, 50/60 Hz
Dimensions	1.3H x 2.0W x 3.5L in. (3.3 x 5.1 x 8.9 cm)
Weight	11 oz (318g)

1. Tested in accordance with ANSI/ESD STM3.1-2006.

## Ordering Information

4010830	fusION AA Compact Air Ionizing Bar, Silicon Carbide (SiC) emitters
4010831	fusION AA Compact Air Ionizing Bar, Tungsten (W) emitters
4010448	fusION Power Supply Kit, 120V, 60 Hz, NA/Japan
4010449	fusION Power Supply Kit, 230V, 50 Hz, EU
4010450	fusION Power Supply Kit, 230V, 50 Hz, UK
5051309	fusION AA High Purity Gas Supply Kit x 120

## Applications

Typical applications for fusION AA are found inside process equipment and mini-environments in the semiconductor, flat panel display, pharmaceutical, and medical device industries. It is especially well suited for applications with space constraints or close proximity to products.

### Air Assist Benefits

Controlled airflow can improve performance of any ionizer. In applications that may benefit from improved airflow use of CDA will result in improved discharge time performance, offset voltage performance and typically extends the interval between emitter cleanings.

### Optional High Purity Gas Kit

High Purity Gas Kit for fusION AA includes 3 meters (10 feet) of plasticizer-free, smooth bore flexible clear Tygon tubing 3.3" (.13 mm) ID; 6.6" (.25 mm) OD.



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