

fusion™ Ionizing Bar

*The Air Assist
fusION is a bi-polar
corona air ionizer capable of
controlling electrostatic charge in the
local area. Applications for fusION are those
found inside process equipment and mini-envi-
ronments in the semiconductor, flat panel display,
pharmaceutical, and medical device industries. It
is especially well suited for applications with space
constraints, low ambient airflow and low clearance.*

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

Simple to install, operate and maintain. Mount the fusION in a convenient location adjacent to the static problem, connect the power supply and compressed gas tubing and fusION 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 24V DC power source allowing 5 units to be daisy-chained. The air inlet can be positioned in any one of three positions

- ▶ **Compact Design**
- ▶ **Auto Balancing (DOCC) Technology**
(US Patent #5,008,594, Int'l Patent Pending)
- ▶ **Easy to Install**
- ▶ **Class 1 Cleanroom Grade SiC Emitters**
(US & Int'l Patents Pending)

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located on consecutive 90° angles. The fusION is available with tungsten or Class 1 cleanroom grade SiC (patent pending) emitters and is ideal for system integration with the capability to remotely monitor status.

Controlled airflow can improve performance of an 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.



An Illinois Tool Works Company
Ionization for Electronics Manufacture

Specifications:

System Performance

Discharge Time: $\pm 1,000 - \pm 100V < 5$ seconds at 76mm (12")

Offset Voltage: $< \pm 25V$

Input Gas Pressure: 1.4 bar (20psi)

Tests performed in accordance with ESD STM-3.1-2000

Operational Specifications

Gas Supply: Clean dry air (CDA) or nitrogen

Airflow: 14.2 l/min @ 0.34 bar to 113.3 l/min @ 3.4 bar (0.5scfm @ 5 psi to 4scfm @ 50 psi)

Air Connection: 3.3mm (0.13 inch) ID tubing

Power Input: 24VDC @ 75 mA

Connectors: 2 x 4 position modular; DC power IN/OUT

HV Output Power: 50mW

Output Current: 5 μ A

Operating Mode: Steady-state DC

Indicators: Green-Power On; Red-fault indicator

Status Output: TTL level alarm output

Ambient Temperature: 0° to 122° C (32° to 50° F), non-condensing

Mechanical Specifications

Emitters: 4-SiC or Tungsten

Enclosure: Polycarbonate, 94V-0 flame rating

Color: White

Mounting: four #6 screws

Dimensions: 33.3mm x 32.5mm x 114.3mm (1.31" H x 1.28" W x 4.5" L)

Weight: 0.113 kg (0.25 lb.)

fusION Power Supply Specifications

Power output: 24VDC

Input: 100-240VAC, 50/60 Hz

AC Power Inlet: IEC 320

Dimensions: 33 x 51 x 89 mm (1.3" H x 2.0" W x 3.5" L)

Weight: 318gms (11ozs)

Part Numbers

fusION AA SiC.....4010830

fusION AA TG4010831

High Purity Gas Kit x 120.....5051309

Power Supplies

North America/Japan4010448

Continental Europe.....4010449

United Kingdom.....4010450

Approvals:

High Purity Gas Kit includes 3 meters (10 feet) of plasticizer free, smooth bore, flexible, clear, Tygon tubing. ID 6.6 x 3.3 mm (0.250" OD x 0.125")

Distributed by:

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