



Standalone Digital AeroBar[®]

MODEL 5225S

Simco-Ion's Standalone Digital AeroBar Model 5225S ionizing bar is specifically designed to provide high performance with simple integration and operation. Adjustable and precise, easy-to-use digital settings allow the AeroBar to be used in a multitude of applications, ranging from inside tools to work stations and cleanroom areas. A choice of ionization modes, output voltage, and timing provide versatility to meet static charge neutralization requirements.

An aerodynamic design and cleanroom-compatible materials allow the Model 5225S to deliver complete and efficient ionization in mini-environments and cleanrooms without disrupting laminar airflow.

Designed to operate as a standalone system, the Model 5225S AeroBar internally maintains critical settings, thereby ensuring continued optimal performance each time the system is powered up. AeroBar setup and adjustment is easy using the infrared Handheld Remote. An FMS output allows easy hardwired integration to a facility alarm system.

Features

- All parameters are held within the AeroBar. No controller required.
- Fully adjustable parameters for each AeroBar utilizing pulsed DC or steady-state DC modes
- Several AeroBar lengths including three lengths specifically designed for EFEMs
- Ion current monitoring
- FMS alarm output
- Single-crystal silicon emitter points

Benefits

- Continued optimal performance each time the system is powered up
- Ionization can be fine-tuned for individual static charge requirements.
- Flexible lengths means versatility for a variety of applications
- More consistent ion output and stable performance
- Alarm capability for ensured performance
- Ultra-clean emitter point material, with no risk of wafer contamination from dopants or metals



Specifications

Input Voltage	24 VAC, 50/60 Hz, 1W (typ)
Output Voltage	0-20 kVDC, $\pm 10\%$ for each polarity on an individual AeroBar; positive or negative output levels can be adjusted separately with IR Handheld Remote
Output Current	<15 μ A, current and voltage limited
Connectors	RJ-11 modular jack receptacles
Regulation	Output and balance stability is achieved by independently regulating the ion emission current of each polarity at each ionizer
Timing	Both on/off timing for each polarity are settable from 0-10 sec @ 0.1 sec.increments; LEDs on the bar indicate the polarity of the ion emission
Operating Mode	Pulsed DC, steady-state DC, or standby
Alarm	Alarm activates when the bar is no longer able to maintain the preset ion output level; alarm is displayed visually by a red LED in the middle of the ionizer chassis; settable threshold alarm limits for predictive maintenance
Emitter Points	Single crystal silicon, replaceable
Preventative Maintenance	Annual, semi-annual, or quarterly emitter point cleaning depending on process sensitivity and presences of AMCs in environment
Ozone	<0.005 ppm
EMI	Below background level
Cleanliness	ISO 14644-1 Class 1
Indicators	Individual red LEDs flash on for each polarity; middle red LED flashes rapidly when in alarm, all 3 LEDs blink at once when communication occurs
Dimensions	2.1H x 1.2W x 22.4, 28.4, 35.7, 44.4, 55.6, 64.4, 75.5, or 84.4L inches (5.3H x 3.1W x 56.9, 72.1, 90.7, 112.8, 141.2, 163.6, 191.8, or 214.4 L cm)
Weight	1.5 lb (1.02 kg) for a 22 in. (56.9 cm) bar (approx. 6 oz per additional ft/0.17 kg per additional 30 cm)
Material	ABS plastics, fire retardant
Warranty	Two year limited warranty
Certifications	SEMI F47 RoHS Compliant



Ordering Information

91-5225SU-xxR	AeroBar with silicon emitter points in -22, -28, -44, -64, and -84 inch nominal bar lengths and the following EFEM configuration lengths 36 (2 loadport), 56 (3 loadport), 76 (4 loadport) inches
91-5570	IR Handheld Remote
14-21730	DIN-rail mount transformer (230/24 VAC)
14-1538	120 VAC (60 Hz) to 24 VAC Transformer, 10' cable, 6' US plug power cord
14-1539	230 VAC (50 Hz) to 24 VAC Transformer, 10' cable, IEC socket, requires power cord below
25-20710	IEC Power Cord (UK Plug), 8.2' (2.5m) (use with 14-1537 230V transformer)
25-20735	IEC Power Cord (German Schuko Plug), 8.2' (2.5m) (use with 14-1539 230V transformer)
25-20750	IEC Power Cord (China Plug), 8.2' (2.5m) (for use with 14-1539 230V transformer)

Simple Integration

The AeroBar Model 5225S is powered by a 24 VAC source, eliminating the need for an external controller. Transformers (24 VAC output) are available for easy installation, enabling either direct wire or RJ-11 connector integration. An FMS output signal from the bar provides immediate warning in the event of an alarm.

Several lengths of the AeroBar are available, including three specially designed for two, three, and four EFEM loadport applications. Multiple AeroBars can be installed in either a daisy-chain or drop-tee configuration, creating a system that is versatile and easy to install in any customized equipment or application.

Intelligent Operation



DIN rail mount transformer.

As part of our line of digital ionizers, the Model 5225S provides excellent reliability and performance. Exacting parameters and easy setup using the infrared Handheld Remote means that the Model 5225S is ideal for retrofits, low volume tools, systems with programmable logic controllers (PLC), or cleanroom work areas where the performance, stability, and reliability of digital ionization is desired..



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