



Digital AeroBar

MODEL 5585

Ion's AeroBar Model 5585 is designed to control static charge in tools, mini-environments, laminar flow-hoods, and workstations. The Model 5585 integrates Ion's successful digital communication technology, providing OEMs and end users with detailed, remote management of their systems and environment.






With an aerodynamic design and precise ion emission control, the AeroBar Model 5585 provides complete and efficient ionization in smaller, enclosed environments, without disrupting laminar air flow. In addition to use in tools and mini-environments, the Model 5585 can be used in conjunction with Ion's digital Model 5511 ceiling emitters for a fab-wide electrostatics management solution.

Features and Benefits

- Fully digital technology
- Interactive digital communication platform for precise management of operating parameters
- Bi-directional infrared remote control with alphanumeric LCD display for emitter adjustment
- Save time with effortless calibration of the individual emitter operating parameters: ion balance, timing, and ion output at point of use
- 24 VAC input power
- Safe, reliable operation of the AeroBar and distribution of power
- Available with single crystal silicon emitter points
- Industry standard, cleanest available emitter point material



Specifications

Digital AeroBar Model 5585	
Input voltage	24 VAC, 50/60 Hz, 1W typical, received from the 5520 or 5580 controller
Output voltage	0-20 kVDC, $\pm 10\%$ for each polarity; positive and negative output levels adjusted globally or individually at the controller or locally at each bar with the 5570 remote control
Control signal	Output levels and timing are adjusted with the 5570 remote control, with the 5520/5580 controller RS-485 connection
Output current	< 15 microamps, current and voltage limited
Connectors	Telephone type RJ-11 modular jack receptacle on each end of bar
Output control	Positive and negative output can be adjusted with the 5570 remote control at each bar or remotely with the 5520/5580 controller or 5571 handheld terminal
Regulation	Output and balance stability is achieved by independently regulating the ion emission current of each polarity at each ionizer
Timing	Precise timing (0-10 seconds at 0.1 seconds resolution) is generated by a local microcontroller; LEDs on each bar indicate the polarity of the ion emission
Operating modes	Pulsed DC, steady-state DC, or standby
Emitter points	Single crystal silicon, machined titanium, or tungsten alloy. All emitter points are replaceable
Alarm	Alarm operates when the bar is no longer able to maintain preset ion output level. <i>Visual alarm:</i> A red LED in the middle of the ionizer chassis flashes at a high rate to distinguish it from the output indicators <i>Optional audible alarm:</i> Sounds at the 5520/5580 controller when an alarm event occurs at any emitter; selectable with the 5571 handheld terminal
Chassis	ABS plastics, fire retardant
Ozone	<0.005 ppm. (24-hour accumulation)
EMI	Below background level
Operating temperature	65–80°F (18–27°C), nominal
Humidity	40-60% RH, non-condensing
Dimensions	2.1H x 1.2W x 22, 28, 44, 64, 84L inches (5.3H x 3.05W x 55.9, 71, 111.8, 162.6, 213.4L cm)
Weight	1.5 lb (1.02 kg) for a 22" (55.9 cm) bar. Approx. 6 oz per add'l foot (0.17 kg per add'l 30 cm)
Warranty	2-year warranty
Certifications	SEMI F47     

Intelligent Tool, Intelligent Options

Ion's digital communication technology allows the AeroBar to be remotely adjusted through the controller, creates less cleanroom and tool disruption. Digital communication technology enables the user to adjust all operating parameters of the ionization system, including addresses of the AeroBar, alarm sensitivity, ion output (down to .1%), ion pulse timing, sync, and polling. Users may also adjust the ion operating modes, from steady-state DC to pulsed DC, for total flexibility in your application.

The AeroBar is available with single crystal silicon emitter points¹; the industry standard for ultraclean ionization. The Model 5585 AeroBar exceeds requirements for operation in Class 1 environments.

Patented Control

Through patented technologies involving feedback systems and ionization regulation², Ion's Model 5585 provides an unparalleled level of control and protection ensuring the tightest feedback and ionization regulation available. The benefit: long-term stability and balanced ion output.

Model 5520/5580 Controller

Powered by a connection to the Model 5520 or 5580 controllers, you can control up to 20 or 80 AeroBars from a single point for consolidated management and reporting.

For specifications on the Model 5520/5580 controllers, see the Model 5520/5580 datasheet.

Ordering Information

91-5585	Digital AeroBar Ionizer
	- Choose 22, 28, 44, 64, or 84" length
	- Choose titanium, tungsten wire, or silicon points
91-5520	Digital Controller, supports up to 20 ionizers
91-5580	Digital Controller, supports up to 80 ionizers
91-5570	Infrared Remote Control
91-5571	Handheld Terminal for 5520/5580 Controller
28-6225	End clip
28-6230	Mid clip
28-6255	Flat clip
28-6257	Grid mounting clip

1. U.S. Patent Nos. 5,447,763 and 5,650,203
2. U.S. Patent Nos. 4,809,127; 4,951,172; 4,901,194; 4,542,434; 4,827,371; 5,055,963



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