



μWire AeroBar[®]

MODEL 5710

Simco-Ion's μWire ("Microwire") AeroBar Model 5710 is a cost-effective, high-performance ionizer specifically designed to eliminate static charge on large surface areas. The μWire AeroBar is particularly suited for sensitive flat panels where fast discharge times and low swing voltages are desired. The μWire AeroBar utilizes MicroPulse technology applied to a corona wire system for optimal performance. MicroPulse technology reduces ion recombination at the corona wire; thus, increasing product efficiency and performance.

The μWire Bar is optimized for lower gas consumption through its unique corona wire design. Corona wire produces more ions than emitter points, thus less gas is needed to effectively ionize the target area. The corona wire design also permits the bar to be placed closer to substrates without causing the "striping effect" that emitter point bars can generate.

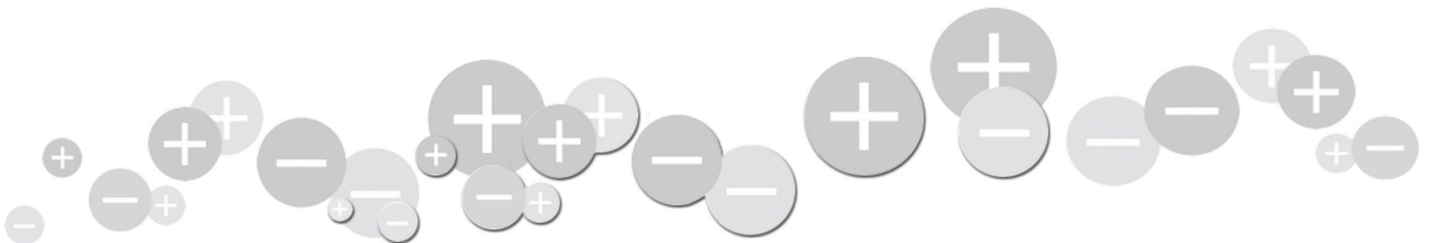
This latest version of the μWire AeroBar includes numerous changes to make the bar easier to clean and to provide higher performance. Most notably, the addition of a 2nd air input connector improves performance on bars 2500 mm and longer. Shields have been added to protect the corona wire contacts during the cleaning process, making it truly a "one swipe to clean" bar. These new features, along with the available air delivery design options, ensure that the μWire AeroBar offers maximum ionization performance.





Features

- Unique corona wire design (no emitter points)
- MicroPulse high voltage technology
- Flexible and powerful setup

Benefits

- Fast cleaning with a single swipe of the wire, accomplished with the bar in place
- Allows mounting close to the product without danger of stripping
- Long-term balance stability and discharge time performance, surpassing emitter point technology product capabilities
- Uniform balance over the length of the bar
- Lower cost-of-ownership than emitter-point technology ionizers
- Standard "plug-and-play" use or user-optimized performance for specialized applications



Specifications	
Input Voltage	24 VDC $\pm 10\%$, 12W (max)
Output Voltage	Adjustable, 13 kV pk-pk (typ)
Discharge¹	<1.5 sec for $\pm 1000V$ to $\pm 100V$ discharge @ 30cm (12"), 50 mm air jet spacing with min CDA 2 lpm/airjet
Balance	Inherently self-balancing system $< \pm 25V$ over the length of the bar; maintain balance setting >6 months without cleaning in clean environments
Range	150-2000 mm, application and specification dependent
Frequency	Default setting at 1 Hz, adjustable from 0.1-35 Hz
Ion Emission	Micropulsed high voltage technology
Corona Wire	Tungsten, 80 micron dia.
Gas Supply	Clean dry air (CDA)
Airflow	345 kPa (50 psi) optimal; 620 kPa (90 psi) max; flow volume at 70 lpm (1500 mm bar)
Air Input	Bars 400-1500 mm with 50 mm air jet spacing: (1) 6 mm OD quick fitting connector Bars 1650-2400 mm with 50 mm air jet spacing or bars 400-1500 with 25 mm air jet spacing: (1) 8 mm OD quick fitting connector Bars 2500 mm and longer with 50 mm air jet spacing with 50 mm air jet spacing: (2) 8 mm OD quick fitting connectors
Cleanroom Class	ISO 14644-1 Class 2 (better than Fed. Std. 209E Class 1)
Operating Env.	Temperature 15-35°C (59-95°F); humidity 30-60% RH, non-condensing
Ozone	<0.05 ppm
EMI	Below background level
Bar Settings	All operating parameters set via a wired handheld terminal (HHT)
Indicators	Green POWER; Yellow COMMUNICATION; Red ALARM (LED combinations indicate specific status conditions)
Enclosure	ABS chassis; stainless steel reference plates
Dimensions	3.0"H x 1.3"W x 15.75/19.7/25.6/29.5/35.4/39.4/45.3/49.2/55.1/59.1/65/68.9/74.8/78.75/84.65/88.6/94.5/98.4/104.3/108.25/114.15/118.1"L (76 x 33 x 400/500/650/750/900/1000/1150/1250/1400/1500/1650/1750/1900/2000/2150/2250/2400/2500/2650/2750/2900/3000 mm)
Warranty	Two year warranty
Certifications	   

1. Tested in accordance with ANSI/ESD STM3.1-2015.

Ordering Information

91-5710-xxxx-25-03	μWire AeroBar Model 5710 with 25 mm straight air jet spacing: XXXX = 400/500/650/750/900/1000/1150/1250/1400/1500 mm bar lengths
91-5710A-xxxx-25-03	μWire AeroBar Model 5710 with 25 mm angled air jet spacing: XXXX = 400/500/650/750/900/1000/1150/1250/1400/1500 mm bar lengths
91-5710-xxxx-50-03	μWire AeroBar Model 5710 with 50 mm straight air jet spacing: XXXX = 400/500/650/750/900/1000/1150/1250/1400/1500/1650/1750/1900/2000/2150/2250/2400/2500/2650/2750/2900/3000 mm bar lengths
91-5710A-xxxx-50-03	μWire AeroBar Model 5710 with 50 mm angled air jet spacing: XXXX = 400/500/650/750/900/1000/1150/1250/1400/1500/1650/1750/1900/2000/2150/2250/2400/2500/2650/2750/2900/3000 mm bar lengths

See μWire AeroBar Accessory datasheet for information on μWire AeroBar Model 5710 mounting clips, handheld terminal, Power-Signal Distribution Box and other accessory products.

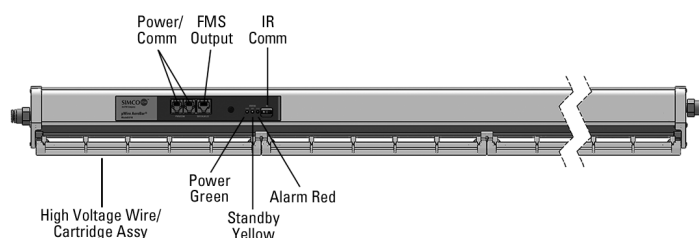
Application Flexibility

The μWire AeroBar can be operated with the factory default settings in "plug-and-play" mode, or optimized for a specific application using the Handheld Terminal. The bar's ability to perform well in either a vertical or horizontal position along with the μWire AeroBar low profile height design makes it easy to install in a variety of flat-panel tool locations, including mail-slot, conveyor and load/unload cassette areas. The Power-Signal Distribution Box accessory can be used to monitor the μWire AeroBar status in a convenient location.

A maximum of three μWire AeroBars may be electrically connected together in a serial fashion ("daisy-chained"). Chaining bars together can create a simpler electrical wiring scheme that provides power and communication to all of the connected bars.

Enhanced Features

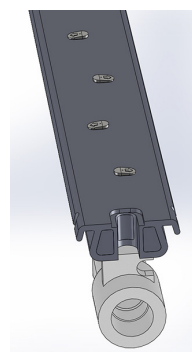
The μWire AeroBar provides for an Alarm output and a Standby input. The alarm output is a relay contact that is open when the AeroBar is either not powered or in an alarm state and is designed for easy integration with your process equipment. The standby input allows the user to temporarily stop the ion production without turning off the AeroBar.



Air Delivery Options

An air delivery system improves the performance of ion distribution to the target area. Air jet spacing at either 25 mm (recommended for target distances up to 600 mm) or 50 mm offers optimal performance for each application.

The μWire AeroBar can also be ordered with alternately left and right-angled (7.5°) air jets that position the air stream across a wider area for increased coverage.



Angled Air Jets

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DS-5710-03_V2 - 9/19
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Simco-Ion, Technology Group

1141 Harbor Bay Parkway, Suite 201
Alameda, CA 94502
Tel: +1 (800) 367-2452 (in USA)
Tel: +1 (510) 217-0460
ioninfo@simco-ion.com
www.simco-ion.com