



Modulated Pulse AeroBar[®]

MODEL 5630

The Model 5630 AeroBar MP ionizing bar is a cost-efficient, high-performance ionizer specifically designed for FPD and semiconductor back-end applications where fast discharge times, low swing voltages and precision balance are desired. The Model 5630 utilizes patented MP Technology, which combines a high-frequency sine wave and modulated pulses (MP) for optimal performance. MP Technology produces lower swing voltages than other technologies, allowing AeroBar mounting in close proximity to the target. Using this breakthrough technology, the Model 5630 ionizing bar maintains peak performance for longer periods between cleanings, resulting in extended cleaning cycles compared with conventional pulsed AC products. The 450 mm and 600 mm lengths of the 5630 come with 50 mm emitter point spacing, while 850 mm to 2350 mm lengths feature 75 mm emitter point spacing. The Model 5630 comes standard with QTC27 TurboJet nozzles using titanium emitter points to provide lengthened cleaning cycles and high performance.

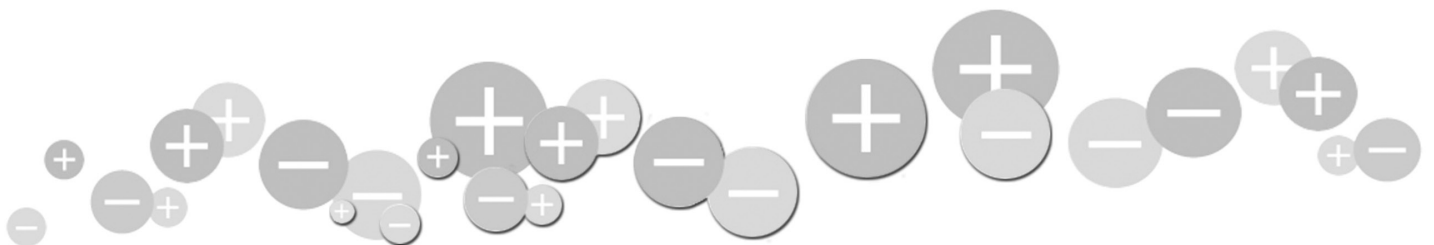
The Model 5630 is easy to adjust and features the ability to fine-tune voltage, frequency and balance for different environmental needs and product sensitivity requirements. Mounted in either horizontal or vertical orientations, the Model 5630 can be easily installed and optimized for a wide variety of applications, including in-tool mail-slot, conveyor and load/unload applications.






Features

- Modulated Pulse Technology
- Low swing voltages
- Fast discharge times
- Long-term performance stability
- Optional software; an easy-to-use interface with wide adjustability
- Alarm output signal

Benefits

- Precision performance with long-term stability
- Safe to use within 150 mm of product and work surfaces
- Effective static charge neutralization at fast conveyer and automation speeds
- Extended cleaning cycles reduce maintenance costs
- Fast setup and easy optimization in any environment
- Communicate to tool or facility monitoring system



| Model 5630 | |
|-----------------------------------|---|
| Voltage | Input: 24 VDC ±10% power input RJ-45; 0.7A (max) Output: 13.5 kV p-p (max), adjustable |
| Discharge | ±1000-100V in 3.5 sec or less @ 600 mm away (typ) when operating under a HEPA with 60 fpm of airflow and CDA flow of 3 lpm/nozzle |
| Balance | <±20V over time and across the bar length (measured in a controlled environment at 24" distance) |
| Range | 150-1000 mm distance to surface; application & customer specification dependent |
| Ion Emission | Modulated Pulse (MP) Technology |
| Emitter | Points: Titanium Pitch: 50 mm spacing between nozzles on the 450 mm & 600 mm lengths only; 75 mm spacing on the 850 mm or longer Frequency: Default setting at 5 Hz; adjustable from 1-33 Hz |
| Cleanroom Class | ISO 14644-1 Class 3 |
| Air Supply | Input: Clean Dry Air (CDA) or Nitrogen Pressure: 45 psi max Flow: 1-3.5 lpm/nozzle Connection: 8 mm OD one-touch fitting (optional) |
| Bar Setting | DIP switches for general power settings; trim pots for fine tuning balance, frequency & power output or use serial output to MP Bar Control software for fine adjustments |
| Ozone | <0.05 ppm (24-hour accumulation) |
| EMI | Below background level |
| Operating Env | 15-35°C (59-95°F); 30-60% RH, non-condensing |
| Enclosure | ABS chassis, stainless steel rails on the outside of the bar |
| Dimension | 3.1"H x 1.3"W x 17.7 / 23.6 / 33.5 / 39.3 / 45.3 / 51.2 / 57.1 / 63.0 / 69.0 / 74.8 / 80.7 / 86.6 / 92.5"L (7.8 x 3.4 x 45 / 60 / 85 / 100 / 115 / 130 / 145 / 160 / 175 / 190 / 205 / 220 / 235 cm) |
| Certification |    |
| Model 5601 Power Distribution Box | |
| Input Voltage | 24 VDC for each bank of 4 bars; 5.6A total (0.7A max/port) |
| Communication | Ethernet (RJ-45) to/from PC; individual bar standby inputs |
| Output | 8 RJ-45 ports (1 for each 5635 bar) |
| LED Indicator | Green PWR, Yellow COM, Red ALM, Blue USB |
| Alarm Output | Relay closure to ground |
| Dimension | 1.27"H x 6.95"L x 3.64"W (3.22 x 17.65 x 9.23 cm) with flange |
| Weight | 0.94 lb (0.43 kg) |
| Certifications |   |

Simple Installation

The Model 5630 ionizing bar can be quickly installed by simply plugging into a 24 VDC source and connecting an air line. Set the DIP switches for the distance from the bar to the product as defined in the user's manual to activate factory settings for a base discharge performance. Users can then fine-tune the control parameters from the bar or through the optional easy-to-use software package to optimize balance, swing voltage and discharge times for an application. An alarm connection in the Signal and Power Junction Box enables a status signal output to the tool controller or a central factory monitoring computer for FMS monitoring.

Power Distribution Box

The Model 5601 Power Distribution Box can be used to centralize power and software control for up to 8 MP AeroBars.



Ordering Information

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|--------------------------------|--|
| 91-5630-xxxx-yy-zzzz-01 | xxxx: 450/600/850/1000/1150/1300/1450/1600/1750/1900/2050/2200/2350 mm bar lengths yy: -50 for 50 mm nozzle spacing, -75 for 75 mm nozzle spacing zzzz: -QTC27 TurboJet nozzle with Titanium emitter |
| 33-5601-03 | Model 5601 Power Distribution Box, 24 VDC; powers up to 8 MP AeroBars |
| 14-21241 | 24 VDC Power Supply for Model 5601 Power Distribution Box (IEC power cord required, contact Sales Services for detail) |
| 33-21491 | Signal and Power Junction Box (for 1 AeroBar) |
| 33-25625 | 24 VDC Power Converter with Power/Signal Junction Box Kit (for powering 1 AeroBar) |
| 92-5635-001 | AeroBar MP Remote Serial Adapter Kit (includes RJ-45 splitter, serial to USB adapter, RJ-45 to DB9 adapter) |
| 25-0540-xx | CAT-5 with RJ-45 Ethernet Cable in 6, 10, 15 ft lengths, white |
| 28-6370² | Flat mounting clips |
| 33-5353² | Flat Mounting Clip with Active/Screw Fasteners (2) for AeroBar |
| 32-22210 | Horizontal rotatable mounting bracket. Recommended usage: 450-1150 mm, 2 clips; 1300-2050 mm, 3 clips; 2200 mm and above, 4 clips |
| 32-22220 | Vertical rotatable mounting bracket, requires 2 brackets for each ionizer bar to hold one at the top and one at the bottom |

1. The 450 mm and 600 mm are only available with 50 mm nozzle spacing.
2. Recommended usage: 450-1150 mm, 2 clips; 1300-2050 mm, 3 clips; 2200 mm and above, 4 clips).

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