



High Temperature Ionization System

MODEL 4610TF

MODEL 4052E

The High Temperature Ionizer Model 4610TF neutralizes static charge in environments with extreme conditions. Together with the High Temperature Controller Model 4052E, the High Temperature Ionizer Model 4610TF creates a uniquely capable ionization system that can withstand high heat and extreme cold, two challenging environments that cannot support other means of static elimination.

The compact size of the Model 4610TF and unique guides surrounding the emitter points make the ionizer perfectly suited for tight areas of extreme environments where adequate airflow can be an issue. The vanes can be adjusted by rotating to match airflow orientation, increasing the delivery of ions.




Features and Benefits

- Withstands temperatures up to 302°F (150°C) and down to -94°F (-70°C)
- Patented IsoStat® technology
- Small form factor with large ion output
- Available with tungsten alloy or single-crystal silicon emitter points
- Unique ion guides
- Eliminates static charge in extreme environments that cannot sustain any other static elimination method
- Self balanced; no calibration needed
- Ensures safe operation and static elimination in confined, high temperature areas
- Silicon emitter points are still the only proven to be better than ISO Class 2 emitter point materials
- Ions are directed using existing airflow toward any point inside the smallest areas while protecting emitter points from dirt and buildup






Specifications

High Temperature Ionizer Model 4610TF

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|--------------------------|--|
| Input power | Powered by Model 4052E Controller; connects to the controller via interchangeable HV cable connectors |
| Output voltage | 8 kVDC |
| Temperature range | -94°F to 302°F (-70°C to 150°C); maximum 85% relative humidity, non-condensing |
| Discharge time | <3 sec at 6"; <5 sec at 10", <10 sec at 18" distance between ionizer and CPM ($\pm 1000V$ to 100V) with 90 fpm hood airflow velocity (tested in accordance with ANSI/ESD STM3.1-2000) |
| Airflow | 60-100 fpm (18.3-30.5 mpm) recommended |
| Emitter points | Four tungsten alloy or single-crystal silicon points |
| Cabling | Rated at 30 kV, available in two lengths: 13.3 and 21.7 feet (4 and 6 meters) |
| Material | <i>Body:</i> Teflon® <i>Fins and rivet:</i> PEEK |
| Mounting | Two mounting slots provided; methods will vary depending on environment |
| Dimensions | 1.5H x 1.2W x 4.5L inches (3.8H x 3.5W x 11.4L cm) |
| Weight | 4 oz (117g) |
| Warranty | 2-year limited warranty |
| Certifications |    |

Controller Model 4052E

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|-----------------------|---|
| Line power | 110/200/220/240 VAC, 50/60 Hz, 3.6 Watts, 30 mA at 120 VAC, fuse protected |
| Output voltage | 9 kVDC |
| Load current | <20 μA |
| Temperature | -20 to 104°F (-29 to 40°C), maximum 85% relative humidity, non-condensing |
| Controls | On/off power switch |
| Indicators | Power: green LED Alarm: red LED (indicates power supply failure) |
| Fuse | 250 VAC, 250 mA, 5 x 20 Slow Blow |
| Material | Stainless steel |
| Dimensions | 2.3H x 3.8D x 8.3L inches (5.7H x 9.5W x 21L cm) |
| Weight | 3 lb (1.6 kg) |
| Warranty | 2 year limited warranty |
| Certifications |    |

Different Configurations

The High Temperature Ionizing System can be customized to fit your specific application:

- Emitter points are available in single-crystal silicon or in tungsten alloy. Silicon emitter points are suitable for ultra-clean environments.
- The High Voltage Connector Kit is available for applications that require a convenient way to disconnect the ionizer from the controller.



Patented IsoStat Technology

Ion's patented IsoStat technology is the first balancing technology for ionizers to guarantee intrinsically balanced ionization and elimination of complicated feedback circuits. IsoStat is based on a law of physics, Conservation of Charge, which states that charge cannot be created or destroyed in an isolated system. By isolating the ionizer's emitter points from ground, IsoStat ensures equal numbers of positive and negative ions. Characteristics of IsoStat ionizers include:

- Ionizers never need calibration and require very little maintenance
- Small size and operation without grounding wires

Ordering Information

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| 91-4610TF-T | Model 4610 High Temperature Ionizer with tungsten emitter points |
| 91-4610TF-U | Model 4610 High Temperature Ionizer with silicon emitter points |
| 91-4052E | Model 4052E Controller |
| 33-4610TF-001 | High Voltage Connector Kit |



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