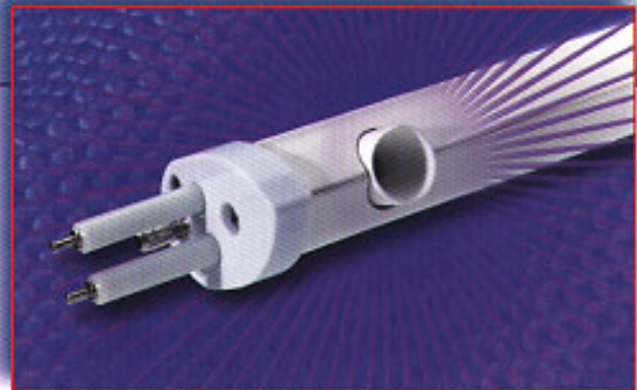


CleanTrac™ Ultra-Clean Ionization Bar



The CleanTrac™ Ultra-Clean Ionization Bar incorporates a patented gas flow technology which utilizes Clean Dry Air (CDA) or Dry Nitrogen to minimize buildup of contaminants on the emitters. It is specifically designed for use in Class 1 areas such as mini-environments and laminar flow benches where particle contamination and control of electrostatic charges are critical concerns.

Particle and Maintenance Free
Particle build-up on emitters can adversely affect production yields and present a maintenance problem. CleanTrac's patented gas flow technology inhibits the formation of particles on electrodes, dramatically reducing maintenance requirements. When operated with Germanium emitters, the CleanTrac bar provides the most particle-free ionization available in the industry because Germanium is the only known emitter material that does not generate particles.



CleanTrac Bar with Germanium emitters for particle-free ionization.

Sized for the Application

The CleanTrac bar comes in six lengths from 1' to 6' (nominal), and is compatible with both the IBC-20 and PFC-20 controllers (see reverse side). A detachable 7-ft. power cable, air flow gauge, air filter, air tubing and mounting hardware are included. When operated with the IBC-20, the CleanTrac bar has an ion sensor to enhance balance stability.

Features

- Patented gas flow technology
- Available with Germanium emitters
- Aerodynamic "Tear Drop" profile
- Ion sensor

Benefits

- Virtually eliminates maintenance
- Particle free ionization for areas Class 1 or lower
- Well suited for laminar flow environments
- Provides balance stability

Typical Applications

- Disk Drive Manufacturing
- Flat Panel Display Processes
- Semiconductor Manufacturing

CleanTrac™ Ultra-Clean Ionization Bar

Specifications

Weight

3 oz. per ft. (85 grams per 30 cm)

Input Voltage

± 7 kV nominal

± 9 kV nominal for Germanium

Operating Current

0.33 µA per electrode

Emitter Material

100% Tungsten or Germanium

Input Air Pressure

15 PSI maximum
(nominal operation < 5 PSI)

Air Flow

2 CFH per electrode nominal

Input Gas (< 500 ppm H₂O)

Clean Dry Air (CDA) or Dry Nitrogen

Operating Temperature

32° F to 122° F ambient
(0° C to 50° C ambient)

Dimensions

1" W x 1.85" H (25.4 mm W x 47 mm H)

Air Filter

.01 micron

Air Flow Gauge

2–20 CFH or 5–50 CFH depending
on number of electrodes

Body and Sensor Clip

White ABS plastic

Sensor

16 avg stainless steel with polyolefin
sleeve

IBC-20 Intelligent Balance Controller™

The compact and lightweight IBC-20 delivers superior ionization balance and neutralization efficiency for critical ESD applications in areas with limited space. This regulated steady state DC power supply incorporates feedback circuitry which enables the unit to maintain ion balance as low as ±10 V.

- Alarms indicate out-of-balance and low ionization conditions
- Controls easily accessible
- Convenient mounting bracket

Specifications

Input Voltage

115/220 VAC ± 15% at 50/60 Hz

Power Consumption

23 Watts nominal, 50 Watts maximum



Output Voltage

± 3.5 kV minimum
± 14 kV maximum (no load)

Output Current

10 µA nominal operating (3 µA to 40 µA)

Current Protection

Two 315 mA/250 V Fuses (Power Entry Module)
One 400 mA/250 V Fuse (PC Board)

Operating Temperature

32° F to 158° F ambient (0° C to 70° C)

Relative Humidity

up to 85% non-condensing

Weight

2 lbs., 1 oz. (0.94 kgs)

Dimensions

7" L x 3.8" W x 2.6" H
(17.8 cm L x 9.6 cm W x 6.6 cm H)

PFC-20 Controller

Available for standard CleanTrac only

The PFC-20 PulseFlow® Controller operates with the CleanTrac™ Bar and can power up to 20 tungsten electrode pairs. The PFC-20's design incorporates both Pulse and Steady State DC technologies for ion balance. It includes independent voltage level controls and four different pulse rates.



Specifications

Output Voltage 3.5 kV to 8 kV

Input Voltage 110 to 120 VAC/220 to 240 VAC 50/60 Hz, as required

Output Current Range 3–7 mA DC

Operating Temperature Range 24° F to 158° F (-10° C to 70° C)

Dimensions

5.75" L x 5" W x 1.65" H

(15 cm L x 13 cm W x 4 cm H)

Weight

20.6 oz. (0.6kg)

Fuse Dual 315 ma. (5 x 20 mm)

Line Cord 3 wire UL approved

Ozone < .01 ppm



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