

# orION™

Ionizing Air Nozzle Controller

The orION provides high performance and reliability in a compact, compressed air nozzle. It has been designed for use in fixed applications on manufacturing lines, equipment, and tool applications in the telecommunications, consumer electronics, semiconductor and medical device manufacturing industries.

The orION features high blow-off force capability combined with fast removal of electrostatic surface charge. Reliable balance stability is maintained at better than  $\pm 15$  Volts. An easily replaceable 0.01 micron particle filter is positioned at the nozzle air exit to provide the highest confidence that clean air is delivered to sensitive product.

Options include the Sidekick, flexible neck stand and a foot switch to activate the orION nozzle. The switch connects to the power supply and when depressed, activates both airflow and power to the ion emitter assembly. A red LED on the nozzle indicates power.

- ▶ Compact design
- ▶ Easy installation
- ▶ Fast charge neutralization
- ▶ Remote operation of power unit and nozzle
- ▶ Simple, reliable, low maintenance operations

orION Ionizing Air Nozzle



orION with Sidekick



US and International Patents and Patents Pending

## Specifications:

| System Part Number:           | 4009045<br>(N.A.M./Japan)   | 4009046<br>(Cont. Euro., CE)   | 4009220<br>(UK, CE) |
|-------------------------------|---|--|---------------------|
| Cable Length:                 | 7' (2.13 m)   | 7' (2.13 m)  | 7' (2.13 m)         |
| Line Voltage:                 | 120 VAC   | 230 VAC  | 240 VAC             |
| Frequency:                    | 50/60 Hz  | 50/60 Hz   | 50/60 Hz            |
| Current draw (idle):          | 0.01 Amps   | 0.005 Amps   | 0.005 Amps          |
| Current draw (operation):     | 0.10 Amps   | 0.05 Amps  | 0.05 Amps           |
| Sidekick (hands-free stand)   | 4006992   | 4007005  | 4009449             |
| Power Inlet:                  | IEC320, class I   |  |                     |
| Remote control connector:     | 4 position, keyed circular  |  |                     |
| Gas Inlet:                    | 1/8 NPT (female)  |  |                     |
| Input Pressure:               | 100 PSI (7 bar) maximum, clean dry air, nitrogen, or CO <sup>2</sup>  |  |                     |
| Gas Consumption:              | 2.4 SCFM at 30 PSI<br>4.6 SCFM at 60 PSI<br>7.4 SCFM at 100 PSI   | (68 l/min. at 2 bar)<br>(130 l/min. at 4 bar)<br>(210 l/min. at 7 bar) |                     |
| Output Pressure:              | Pressure relief in nozzle complies with OSHA requirements.  |  |                     |
| Replaceable Filter:           | 0.01 micron rating  |  |                     |
| Noise Level:                  | 76 dB at 30 PSI (2 bar)<br>89 dB at 60 PSI (4 bar)<br>97 dB at 100 PSI (7 bar)<br>Measured 24" (600 mm) from nozzle.  |  |                     |
| Ozone Production:             | 0.001 PPM Measured 18' (450 mm) from nozzle operating at 15 PSI (1 bar). Test conducted in accordance with EPA EQOA-0577-019 using Dasibi Ozone Monitor model 1003AH. |  |                     |
| Operating Temperature:        | 32°F (0°C) to 104°F (40°C)  |  |                     |
| Weight:                       | Nozzle: 6.5 ounces (185 g)<br>Cable: 1.25 ounces / foot (115 g / m)<br>Power Unit: 6.0 pounds (2.7 kg)  |  |                     |
| Power Unit Size:              | 6.45" H x 5.20" W x 3.35" D (not including flanges) (164 mm H x 132 mm W x 85 mm D)   |  |                     |
| Ion Balance (offset voltage): | 0V +/-15V   |  |                     |
| Ion Output (discharge time):  | Less than 2 seconds at 6 inches distance.<br>Less than 1 second at 2 inches distance.   |  |                     |
| Product Safety Approvals:     | UL/CUL LISTED, CE compliant.  |  |                     |

Offset voltage and discharge time determined as per ESD Association STM S3.1 using a charged plate monitor (6"x 6", 20 pF plate).  
Discharge times in seconds; 1000 to 100 volts.

