



# ADVANCED ESD PROTECTION



| Micro Series    | 5941  | 6422e   | 5822i  | 4612 Mini  | fusION & fusION AA  | Micro S & SA  |
|-----------------|---|---|--|--|---|---|
| Feature         | <ul style="list-style-type: none"> <li>• <math>\pm 3V</math> or better balance</li> <li>• Warning/alarm 2 level notification</li> <li>• Compact Size</li> <li>• Auto-clean System</li> <li>• Collimator option</li> </ul> | <ul style="list-style-type: none"> <li>• 24 VDC or 24 VAC</li> <li>• Small form factor</li> <li>• Fault alarm LED, FMS connection</li> <li>• Auto Emitter Point Cleaner option</li> <li>• U-bracket mounting</li> </ul> | <ul style="list-style-type: none"> <li>• Small footprint</li> <li>• FMS connection, audible alarm</li> <li>• <math>\pm 3V</math> or better balance, <math>\pm 1V</math> w/Novx System</li> <li>• Separate Control Box</li> </ul> | <ul style="list-style-type: none"> <li>• Designed to provide closed-loop feedback control static neutralization in environments with low to elevated temperatures from <math>-58^{\circ}F</math> to <math>302^{\circ}F</math> (<math>-50^{\circ}C</math> to <math>+150^{\circ}C</math>); enclosed in hi-temp PEEK chassis</li> </ul> | <ul style="list-style-type: none"> <li>• Auto-balancing</li> <li>• fusION: Optional fan assembly to increase performance</li> <li>• fusION AA: Air-assist connection allows use of CDA or <math>N_2</math> to improve performance</li> <li>• Visual status indicator &amp; digital level remote alarm output</li> </ul> | <ul style="list-style-type: none"> <li>• Auto-balancing</li> <li>• Compact design</li> <li>• Micro S: No airflow operation</li> <li>• Micro SA: CDA airflow for better performance</li> </ul> |
| Discharge       | $<4$ sec @ 12" (30.5 cm) w/o collimator<br>$<3$ sec @ 12" (30.5 cm) w/collimator  | 24 VAC: $<4$ sec @ 12" (30.5 cm)<br>24 VDC: $<5$ sec @ 12" (30.5 cm)  | $<2.5$ sec @ 12" (30.5 cm)   | Laminar Flow<br>10 sec @ 12" (30.5 cm) (100 fpm)   | fusION w/o fan: $<15$ sec @ 6" (15.2 cm)<br>w/fan: $<10$ sec @ 12" (30.5 cm)<br>fusION AA: $<5$ sec @ 6" 10 psi gas pressure  | Micro S: $<10$ sec @ 3"<br>Micro SA: $<8$ sec @ 6" (0.71 cfm min airflow)   |
| Balance         | $\pm 3V$ or better  | $\pm 10V$ @ 12" (30.5 cm) away  | $\pm 3V$ or better, $\pm 1V$ with Novx   | $\pm 10V$ or better  | $\pm 50V$   | Micro S: $<\pm 30V$<br>Micro SA: $<\pm 20V$   |
| Ion Emissions   | Steady-state DC Technology  | IsoStat Technology  | Steady-state DC Technology   | Steady-state DC Technology   | Steady-state DC Technology  | Piezoelectric Technology  |
| Cleanroom Class | ISO 14644-1 Class 3   | ISO 14644-1 Class 5   | ISO 14644-1 Class 4  | ISO 14644-1 Class 4  | ISO 14644-1 Class 4   | ISO 14644-1 Class 5   |
| Airflow         | 17 cfm max  | Fixed Fan Speed<br>23 cfm   | 20.5 cfm   | 100 fpm CDA or $N_2$ (99.99% purity) passing through   | CDA or $N_2$ (0.5-4 scfm @ 5-50 psi)  | Ambient Airflow (200 fpm)<br>Micro SA: CDA (0.35-1.06 cfm)  |
| Dimension       | 4.33"H x 3.15"W x 1.60"D (11.0 x 8.00 x 4.06 cm) w/o bracket, w/o collimator<br>4.33"H x 3.15"W x 2.93"D (11.0 x 8.00 x 7.45 cm) w/o bracket, w/collimator  | 4.95"H x 4.10"W x 2.48"D (12.6 x 10.4 x 6.30 cm) w/bracket<br>4.36"H x 3.26"W x 2.48"D (11.1 x 8.3 x 6.3 cm) w/o bracket  | Blower: 4.57"H x 3.27"W x 3.47"D (11.6 x 8.31 x 8.81 cm)<br>Control Box: 1.0"H x 5.2"W x 2.35"D (2.54 x 13.2 x 5.97 cm)  | Ionizer: 4.50"L x 1.53"H x 1.08"W (11.4 x 38.9 x 2.74 cm)<br>Sensor: 1.75 dia x 0.86"H (4.45 x 2.18 cm)  | 1.20"H x 1.28"W x 4.50"L (3.01 x 3.25 x 11.4 cm)  | 2.5"L x 1.6"W x 0.65"H (6.35 x 4.06 x 1.65 cm)<br>Micro SA adds 0.40" (1.02 cm) to length of chassis  |
| Weight          | 0.70 lb (0.32 kg) w/o collimator<br>0.72 lb (0.33 kg) w/collimator  | 0.79 lb (0.36 kg) w/bracket<br>0.7 lb (0.32 kg) w/o bracket   | Blower: 1.14 lb (0.52 kg)<br>Control Box: 0.56 lb (0.25 kg)  | Ionizer: 0.75 lb (0.34 kg)<br>Sensor: 0.30 lb (0.136 kg) including cable   | fusION w/o fan: 0.25 lb (0.113 kg)<br>fusION w/fan: 0.30 lb (0.136 kg)  | Micro S: 0.035 lb (0.016 kg)<br>Micro SA: 0.042 lb (0.019 kg)   |