PearlSurface 24G9™

UV-C LED Surface Disinfection

UV-C Disinfection Chamber
With Configurable Mounting Insert e.g. N95 Masks

aquisense technologies

Boston Electronics

Authorized Distributors  boselec@boselec.com  |  617-566-3821  |  www.boselec.com
UV-C Disinfection Chamber
With Configurable Mounting Insert e.g. N95 Masks

• UV-C LEDs treat variety of surfaces
• Consistent UV Dose
• Small footprint

• Replaceable lamp modules
• Cooling integrated into each module
• 10,000 hour UV-C LED lifetime

• Integrated timer
• Hinged door with safety interlock
• No UV-C egress
## SPECIFICATIONS

<table>
<thead>
<tr>
<th>Product Name</th>
<th>PearlSurface</th>
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</thead>
<tbody>
<tr>
<td>Model Name</td>
<td>24G9</td>
</tr>
<tr>
<td>Minimum UV Dose (mJ/cm²) at 20 minutes</td>
<td>700*</td>
</tr>
<tr>
<td>Weight [kg (lbs)]</td>
<td>13.6 (30)</td>
</tr>
<tr>
<td>Lamp Replacement Interval [hours]</td>
<td>10,000</td>
</tr>
<tr>
<td>Max Ambient Temp [°C (°F)]</td>
<td>45 (113)</td>
</tr>
<tr>
<td>Input Voltage [V DC]</td>
<td>12 [110/240 AC power supply included]</td>
</tr>
<tr>
<td>Input Power [W]</td>
<td>190 (max)</td>
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</table>

Specifications provided as a guide, and subject to change.
*Based on information from the CDC: https://bit.ly/2VNXH6c

### DIMENSIONS

- Measurements in mm

### INTENSITY DISTRIBUTION

Using UV-C LEDs at nominal 280 nm.

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Full in-house optical, electrical, and mechanical design capabilities. ISO 9001:2015 certified manufacturing facility located in Kentucky, USA.
The PearlSurface 24G9 offers consistent UV-C LED performance for surface disinfection in a safe and convenient device.

- Easy to use - insert masks, latch door, set timer.
- 20 minutes treatment (factory setting)
- Compact - can be used in your local care/work area
- More efficient use of precious mask resources
- No sending masks to remote locations
- No consumables
- No caustic chemicals
- Proven UV disinfecting technology - the UVinaire™ UV source in production since 2016
- Can disinfect over 30,000 cycles.
Features

• Disinfect a variety of objects e.g. N95 mask in 20 minutes

• Replaceable lamp modules – 24G UVinaires
  • Cooling integrated into each module

• 30,000 disinfecting cycles

• Integrated timer

• Hinged door with safety interlock

• Small footprint - table top size (only 24w x 13h x 9d inches)

UV Dose

The PearlSurface 24G9 offers a consistent UV Dose throughout the reactor body providing reliable disinfection with adjustable timer.

Powerful Lamp Configuration

The PearlSurface provides powerful disinfection results with replaceable UV LED lamp modules. Each module has integrated thermal control and is rated up to 10,000 hour lifetime.

Integrated UV Protection

PearlSurface comes with an integrated timer and a hinged door with safety interlock preventing unwanted UV exposure outside the system.
N95 Mask Disinfecting Configuration

• Configurable interior can be adjusted to disinfect a variety of objects

• Example: N95 mask sanitizing:
  • Three N95 mask configuration
  • Recommended 20 minute disinfecting cycle
    Minimum UV Dose of 700mJ/cm² (20 minutes)
  • N95-type masks are intended as disposable PPE items and cannot be reused indefinitely. Always check mask integrity and perform a seal check after each cycle
  • CDC: https://bit.ly/2VNXH6c
The PearlSurface 24G9 offers consistent irradiance distributions over complex surfaces.

The PearlSurface 24G9 is supported by advanced optical designs using ray-tracing software. Our team used our experience in designing systems for high UV exposures up to 1,000 mJ cm\(^{-2}\) in under 20 minutes.

Irradiance distribution - outside N95 mask

Irradiance distribution - inside N95 mask
Compliance

Public Health Emergency

The Department of Health and Human Services has declared a Public Health Emergency relating to COVID-19.

AquiSense is following FDA and CDC guidelines in response to the emergent and immediate need for PPE.

Global Recovery Efforts

AquiSense Technologies is working towards an Emergent Use Authorization from the FDA on the PearlSurface 24G9 for mask disinfection.

Jointly, with authorization efforts we are taking steps with the UV Industry to evaluate system efficacy and SARS-CoV-2 UV Dose Response.

Resolution and Permanent Certifications

In a Post-COVID world, Aquisense will continue to pursue compliance and certification efforts for the general use of PearlSurface 24G9 unit in medical applications.

Proven, Established Expertise in UV Disinfecting Technologies and Solutions

Systems:
- Largest supplier of UV-C LEDs disinfecting systems - Aquisense
- Water purification systems
- Surface purification systems
- Air purification systems
- Dose laboratory research instrumentation
- Custom disinfecting solutions
- UVC LEDs - long lifetime, high power

Sensors:
- High performance, UV detectors and sensors
- Environmentally hardened UV probes
- UV radiometers and controllers
- Certified calibration/testing laboratory
For more information and ordering please contact:

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