



Jackson Control
FACILITIES · MANAGEMENT TECHNOLOGIES

INDOOR AIR QUALITY CATALOG

Return to Work Safely
Create a Workplace They'll Love

On average, Americans spend approximately 90% of their time indoors, where the concentrations of pollutants are 2 to 5 times higher than typical outdoor concentrations.

IMPORTANCE OF INDOOR AIR QUALITY

Poor indoor air quality has been a problem for years. COVID-19 is not a black swan event for buildings, it is only accelerating the inevitable: The need to improve indoor air quality. Indoor concentrations of pollutants have increased in recent decades due to factors such as energy-efficient building construction (specifically when ventilation is restricted due solely on occupancy levels with no accounting for the quality of the air) and increased use of synthetic building materials, furnishings, personal care products, pesticides, and household cleaners. The pandemic has shed light on just how poor indoor air quality has historically been in buildings. Occupiers are demanding that owners take steps and show a healthier building environment.

Indoor air quality reinforces building health and has a major impact on human health and well-being. Comfort levels inside your building impact occupant health, satisfaction, and productivity. Indoor air quality is influenced by factors such as temperature, humidity, CO2 levels, VOCs, odors, allergens, and viruses. Jackson Control has created a catalog for our best-in-class products and solutions to improve indoor air quality and create a healthy, efficient, and secure building.

“We shape our buildings, and afterwards our buildings shape us”

Winston Churchill

INDOOR AIR QUALITY CATEGORIES

- 01 _____ Air Purifiers - Ionization
- 02 _____ Sensors
- 03 _____ UV Lights
- 04 _____ Services
- 05 _____ Tools

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The catalog shows only the highest demand products. Each brand shown in this catalog has more products available, please contact us for more information.

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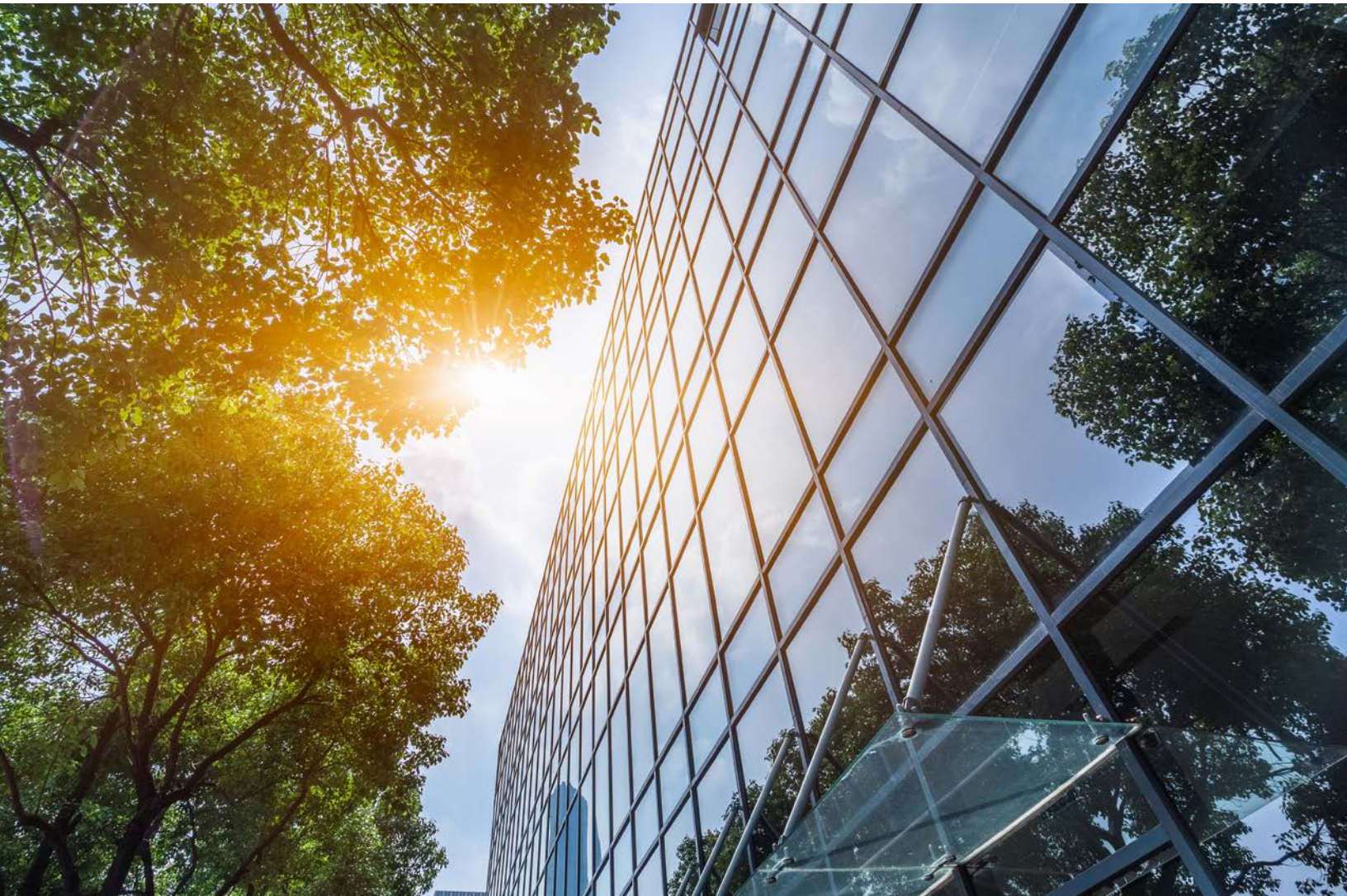
www.jacksoncontrol.com

AIR PURIFICATION

01

Due to COVID-19, 51% of workers say fear of getting sick at work is a barrier to returning. The solution, ionization for air purification. Ionization improves the overall health &

wellness of a building and its occupants, by reducing pathogens, allergens, and odors from the air. The air is wiped cleaned, returning your environment to a natural state.



How Ionization Cleans the Air

Ion Blocks are mounted and tailored to the existing ventilation system where ionizers emit negatively charged ions that attach to positively charged particles, such as dust, viruses, and other allergens. These particles bind together to either become too heavy to stay airborne and drop to the floor or carry the new negative charge and cling to nearby surfaces, thereby decreasing the chances of being inhaled. In addition, when the ions encounter viruses, they remove the hydrogen molecules, without hydrogen the contaminants have no source of energy and will die. The air is wiped clean of all contaminants.

Air ionization is safe, low maintenance, easy-to-install, energy efficient, and highly effective on pollutants such as particulate matter, bacteria, viruses, mold spores, odors, and VOCs.

All Ionization products offered by Jackson Control meet UL2998 designation for ozone.

Clean the air you breathe through air ionization.



01

Jackson Control - ION-BLOCK - 24V



[Data Sheet](#)

Description

The Jackson Control bipolar ion generator actively cleans the air for any building type. The generator can be installed in any commercial air handling unit (AHU) and can clean up to 2,000 CFM of air in standard air conditions. The Jackson Control ion generator is low maintenance, easy-to-install, and highly effective for removing dust, viruses, bacteria, allergens and odors from the air. Highest quality at an honest price.

02

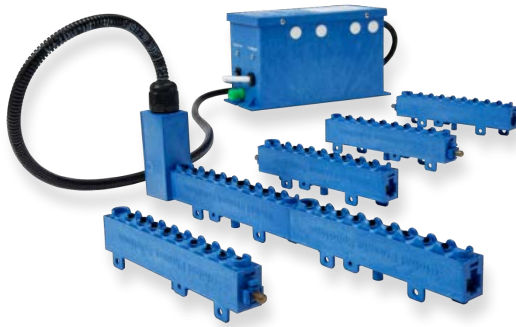
Nu-Calgon - iWave -C



[Data Sheet](#)

Description

The iWave-C is a self-cleaning, bipolar ion generator for actively treating a building's air quality. The iWave-C is specially designed for light commercial systems up to 4800 CFM with no maintenance or replacement parts needed. The iWave-C can be easily duct-mounted indoors or outdoors, depending on the application.



[Data Sheet](#)

Description

The GPS-iMOD is a modular bipolar ionization system that is field assembled to any length up to 240 inches in 6-inch increments. The composite and carbon fiber GPS-iMOD can be mounted in corrosive environments and handles 50–250 CFM per inch of bar. This GPS-iMOD is a great solution for exceptionally large spaces.



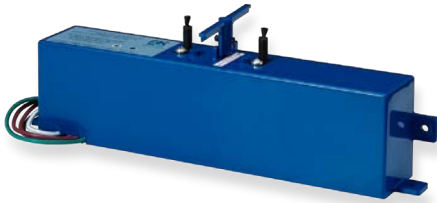
[Data Sheet](#)

Description

The PlasmaPURE Auto Clean 1500 is a self-cleaning needlepoint ionizer that produces positive and negative ions that neutralize harmful pollutants and odors in building. This compact unit automatically removes dust and dirt build-up on the needles eliminating the need for maintenance. It can be easily mounted at the fan inlet of almost any air handling system.

05

GPS- FC48-AC



[Data Sheet](#)

Description

The GPS-FC48-AC is an auto-cleaning, needlepoint bipolar ionization system designed to handle up to 4,800 CFM. The unit is designed for multiple mounting options including fan inlet, interior duct wall or interior duct floor. Universal voltage input, in-line On/Off switch, programmable auto cleaning cycle, operation status LED, integral Building Automation System (BAS) alarm contacts, magnets for ease of installation and replaceable carbon fiber brush emitters.

06

GPS iMEASURE



[Data Sheet](#)

Description

The GPS iMEASURE is the first commercially available ion detector that can be permanently mounted in the space to measure ion levels in real time and report back to a BMS. Auto calibration, auto zero, 0-10VDC output for BAS monitoring, watchdog timer, bi-color operation status LED and 0 - 1,000,000 ions/cc Range.

07

Crystal Clean Air Bar



[Data Sheet](#)

Description

The Crystal Clean Air™ Bar is the Gold Standard in Air Purification Technology. The Crystal Clean Air™ Bar has a UL-508A industrial electrical certification and is UL-2998 certified for zero ozone emissions. The Crystal Clean Air™ Bar is manufactured to save time and money featuring a quick and easy integration into Air Handling Units (AHU), Rooftop units (RTU), mixing boxes and economizers. The Crystal Clean Air™ Bar is ASHRAE 62.1 compliant in reducing outside air requirements at the AHU and RTU's.

08

Crystal Clean Air Mini



[Data Sheet](#)

Description

The Crystal Clean Air™ Mini is a “Plug and Play” unit. The units are portable, wall mounted, or ceiling mounted depending on the customer's preference. Our aero-acoustical designed discharge ports continuously flood the entire room's breathing zones, pro-actively discharging hundreds of thousands of nature's clean air ions into the space.

09

Crystal Clean Air Max



[Data Sheet](#)

Description

The Crystal Clean Air™ Max is a “Plug and Play” unit. The units are portable, or wall mounted depending on the preference. The aero-acoustical designed discharge ports continuously flood the entire room’s breathing zones, pro-actively discharging hundreds of thousands of nature’s clean air ions into the space. Crystal Clean Air™ units are maintenance free, portable, universal mounting, and industrial high-grade construction.

10

Big Ass Fans Powerfoil D



[Data Sheet](#)

Description

The Powerfoil D is the only direct-drive overhead fan purpose-built for harsh industrial conditions, Powerfoil D now comes with ion technology to attack airborne pathogens and work even harder. Ion technology delivers cleaner air directly to your people. Diameter options from 8 to 24 feet. Whisper-quiet operation. Ion technology is retrofittable. Ideal for Gyms, Manufacturing, Stadiums.

Healthy buildings help keep facilities safer for occupants by cleaning the air automatically. To do this, your building first needs accurate data about the air quality – and that starts with IAQ Sensors. HVAC systems' operation is a critical requirement for reopening and

maintaining adequate safe indoor air quality (IAQ).

Better controlled indoor air quality starts with precise detection and monitoring.



Particulate Matter Control

Particulate Matter is defined by small particles that are suspended in the air. Particulate Matter, also known as pollution, is increasingly becoming a health concern. Some examples of outdoor sources are generated from vehicles, industry, power stations, fire, and construction. Some examples of indoor sources include cooking, construction, fireplaces, machinery, and infiltration/ventilation. Particles vary widely in size, shape, and chemical composition, and may contain inorganic ions, metallic compounds, elemental carbon, organic compounds, and compounds from the earth's crust.

Particles are defined by their diameter for air quality regulatory purposes. Those with a diameter of 10 microns or less (PM₁₀) are inhaled into the lungs and can induce adverse health effects. Fine particulate matter is defined as particles that are 2.5 microns or less in diameter (PM_{2.5}). Therefore, PM_{2.5} comprises a portion of PM₁₀.

PM₁₀

Inhaled particles, with diameters that are generally 10 micrometers and smaller.

PM_{2.5}

Fine inhaled particles, with diameters that are generally 2.5 micrometers and smaller. How small is 2.5 micrometers? Think about a single hair from your head. The average human hair is about 70 micrometers in diameter – making it 30 times larger than the largest fine particle.



Irritating fine particulate matter is associated with health risks such as decreased lung function, increased respiratory symptoms, non-fatal heart attacks, irregular heartbeat, and premature death. It's important to detect and monitor particulate matter levels with sensors. We've selected our favorite particulate matter (PM) sensors.

PARTICULATE MATTER SENSORS

01

Honeywell C7363A



[Data Sheet](#)

Description

The Honeywell C7363A Particulate Matter Sensor uses an optical sensor based on laser scattering principles and features innovative contamination resistance technology to perform highly accurate and reliable PM measurements. The sensor measures particles of PM2.5 and PM10, with a continuous operation lifetime of more than 8 years. The sensor will provide long-term reliability and high-resolution particle size grouping for the detection of environmental dust and other particles. Selectable PM1.0, PM2.5, PM4.0 or PM10

02

Greystone PMRMC



[Data Sheet](#)

Description

The Greystone PMRMC Particulate Matter Sensor uses an optical sensor based on laser scattering principles and features innovative contamination resistance technology to perform highly accurate and reliable PM measurements. The replaceable sensor measures particles of PM1.0, PM2.5, PM4.0, and PM10, with a continuous operation lifetime of more than 8 years. The sensor will provide long-term reliability and high-resolution particle size binning for the detection of environmental dust and other particles. LCD Concealed, Viewable Tri-color LED, Relay Output.



QSA2700D

[Data Sheet](#)

Description

The Siemens QSA Series fine dust sensors are designed to measure and transmit indoor concentrations of particulate matter within the PM2.5 and PM10 classifications. A separate 0 to 10V output shall be provided for each range, or sensor shall be capable of transmitting data to a network using a Modbus RTU. The measuring range shall be 0 to 500 micrograms per cubic meter. Color LCD display.

VOC Control: Volatile Organic Compounds

VOC's are man-made chemicals that are used in nearly every manufacturing process. VOCs are commonly found in indoor air and are the main contributor to "stale air" and poor indoor air quality. VOCs can be a source of irritating odors and create unpleasant environments even when CO2 levels are acceptable. It is important to control VOC levels. We've selected our favorite VOC sensors.



01

Honeywell C7364A



Description

The Honeywell C7364A TVOC Sensor detects poor air quality due to a range of VOCs – such as odors, bio effluents and outdoor pollutants. VOC concentration can be 10x higher indoors. There is a duct and wall –mounted sensor option. No display screen.

[Data Sheet](#)

02

BAPI- STAT “Quantum Prime” VOC Sensor



Description

The BAPI sensor is able to measure these VOCs and indicate when a space is occupied just as well as a CO₂ sensor. The BAPI-Stat “Quantum Prime” unit comes with a large display and VOC, temperature and humidity sensing plus temperature setpoint and occupancy override. The display alternates between the measured values and the VOC level is indicated as “Good, Fair or Poor” by three discrete green, yellow and red LEDs on the front of the unit.

[Data Sheet](#)

CO2 Control: Carbon Dioxide

Extended exposure to CO2 levels about 1000 ppm can lead to decreased energy and performance. The most common way to address CO2 in a building is through Demand Control Ventilation (DCV). DCV strategies typically measure CO2 to determine space ventilation requirement and then bring in sufficient outdoor air to dilute high concentration of indoor CO2.

CO2 sensing is a proven way to gauge occupant density and automated DCV, optimizing both air quality and energy use.



CO2 SENSORS

01

Honeywell C7232A



[Data Sheet](#)

Description

The Honeywell CO2 sensor is an exceptional long-term monitoring and control of space ventilation. Standalone Carbon Dioxide (CO2) Sensors and Controllers used for determining ventilation necessity with HVAC controllers. Manage the amount of fresh outdoor air supplied to maintain acceptable levels of CO2 in the space. Ultra-compact size with selectable ranges. Models available with an LCD screen that provides sensor readings and status information. Available with SPST relay output. Gold-plated sensor provides long-term calibration stability. Advanced RTU retrofit solution integration.

Humidity and Temperature Control

A relative humidity of 40–60% can decrease exposure to infectious particles, reduce mold growth, and reduce virus transmission. Better temperature control – the right temperature improves health as well as productivity. Sensors that are faulty or out of calibration affect the ability to control temperature, humidity, air quality and building pressure. Sensors must verify for operation and accuracy to improve system performance and ensure occupant safety, comfort, and productivity.



COMBINATION SENSORS

Combination or multi-sensing devices report a full range of air quality factors to your building management system (BMS). These sensors can measure temperature, relative humidity, CO₂, PM, and VOCs to provide real-time air quality monitoring. This is suitable for benchmarking and developing ventilation, filtration, and other healthy building strategies



O1

Honeywell C7355A



[Data Sheet](#)

Description

The Honeywell C7355A1050 multi-sensing device that contains integrated sensors for temperature, relative humidity, CO₂, PM, and VOC, while reporting values to the BMS system to provide real-time air quality monitoring. This is suitable for benchmarking and developing ventilation, filtration, and other healthy building strategies. The output is a MODBUS RTU. There is a duct and wall mounted option.

Measures CO₂/VOC/PM/Temperature/Humidity

O2

Delta UNO-6SR (508350)



[Data Sheet](#)

Description

The Delta UNOnext Indoor Air Quality Monitor can continuously monitor real-time data for up to seven types of harmful indoor air factors. The detection range, depending on the model, can include Carbon Monoxide (CO), Carbon Dioxide (CO₂), Fine Suspended Particulates (PM_{2.5}), and Suspended Particulates (PM₁₀), Formaldehyde (HCHO), Ozone (O₃), Total Volatile Organic Compounds (TVOC) and Temperature, Humidity, Illuminance, etc.

Measures CO₂/VOC/PM/Temperature/Humidity

03

Belimo 22DCK



[Data Sheet](#)

Description

The Belimo 22DCK Duct Sensor CO₂ / VOC / CO₂+VOC mix / Temperature Active sensor (0...10 V) for measuring CO₂ and VOC or with integrated temperature sensor. See options below for integrated sensors. Dual channel CO₂ technology. NEMA 4X / IP65 rated enclosure.

Measures CO₂ / VOC/ Temperature.

04

Delta O₃ Hub Sensor



[Data Sheet](#)

Description

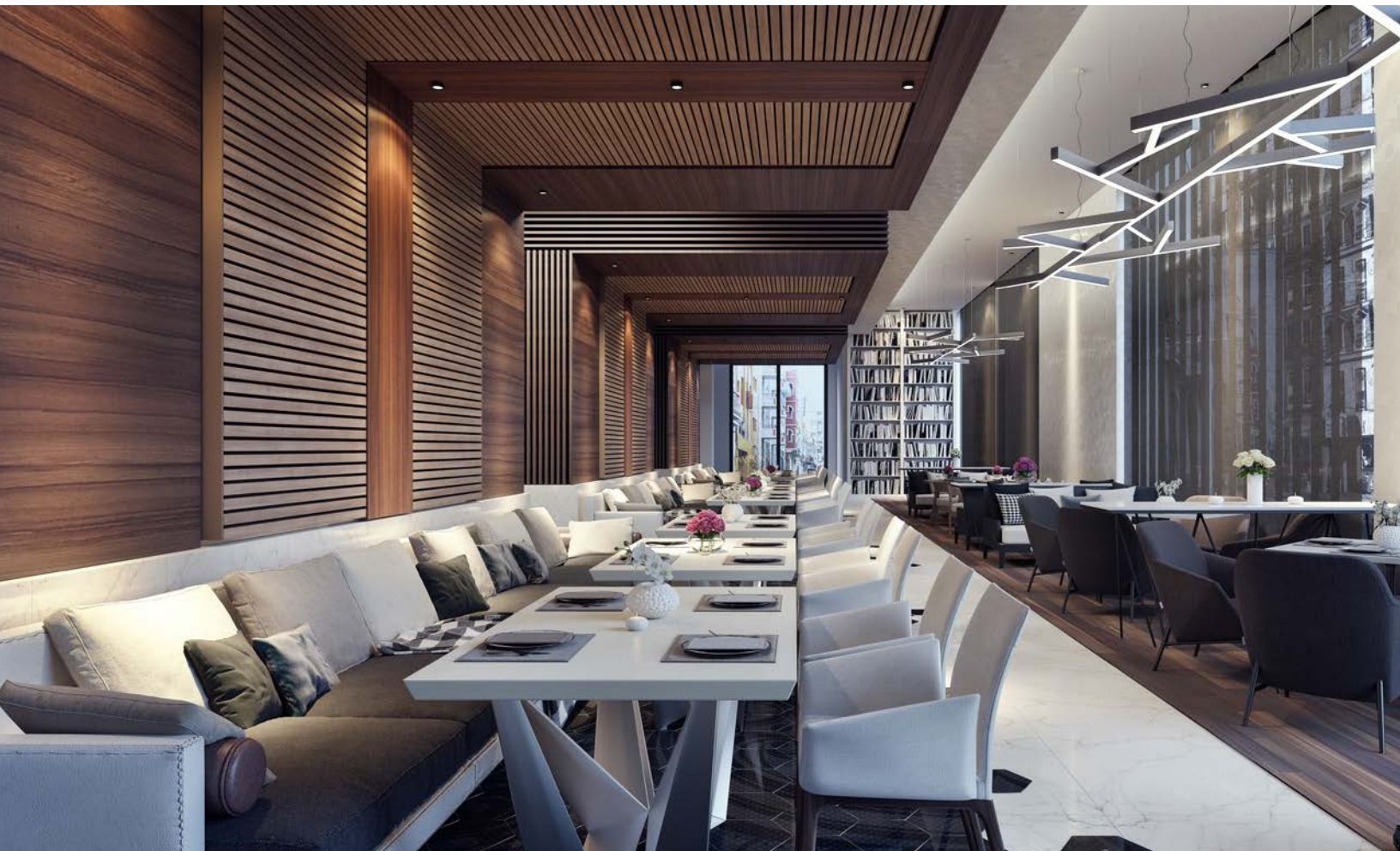
The O₃ Sensor Hub detects motion, sound, light, and temperature with new levels of accuracy. With a complete sensor package, O₃ provides your BAS with the data it needs to make economical and occupant-friendly decisions.

Measures Temperature/ Humidity/ Light / Motion

Ultraviolet energy inactivates viral, bacterial, and fungal organisms so they are unable to replicate and potentially cause disease. The entire UV spectrum is capable of inactivating microorganisms, but UV-C energy (wavelengths of 100 – 280 nm) provides the most germicidal effect, with 265 nm being the optimum wavelength. The best UV Lighting products use a full-spectrum UV, producing

UV-C and UV-B, which are germicidal, and UV-A, which is bactericidal. UV disinfection will help kill germs and viruses on surfaces within a building.

**“Happiness can be found, even in the darkest of times, if only one remembers to turn on the light.”
- Albus Dumbledore**



01

Honeywell UV Air Purifier

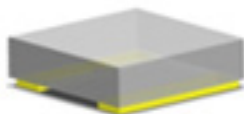


Description

Honeywell's UV Air Purifier with AirBRIGHT Odor Absorption is installed in the ductwork of your central air system and is designed to help reduce airborne odors, toxic chemical vapors, germs, and mold in your home. Using Advanced Photocatalytic Oxidation (PCO) technology, Honeywell's UV Air Purifier combines germicidal UV light and activated carbon cells to reduce volatile organic compounds (VOC's) in the air.

02

Genuine UV Technology UV-C Sensor



Description

The Genuine UV Technology UV-C Sensor uses UV-C germicidal spectrum to kill viruses and bacteria on surfaces. Sensor component to detect UV region (~280nm). Pure UV-C monitoring. Sterilization lamp monitoring.

[Data Sheet](#)



[Data Sheet](#)

Description

The Puro Helo 1 is the first known high intensity, full spectrum UV disinfection fixture to be installed in the ceiling. With proper layout, Helo fixtures, powered by Violet Defense® technology, give you whole room protection no matter the size of the space, and the ability to disinfect on demand in one cycle. PURO Lighting's high-intensity, full-spectrum UV disinfection fixtures kills up to 99.9% of SARS-CoV-2, C. auris, Norovirus, C. diff, and "Superbugs" including MRSA and E. coli. It can also significantly reduce the growth of fungi such as yeasts and molds. All in remarkably small, yet powerful units designed for any sized space.

DCV for IAQ

Demand Control Ventilation has been widely used to meet ventilation requirements by looking at demand via CO₂ sensors and supplying outside air as needed. As people arrive to a building, sensors pick up increased CO₂ levels and increase the number of air changes in occupied spaces based on the rate of increase and the total measurement of CO₂. The inverse is true as occupancy drops; the system will detect a decrease in CO₂ and will begin to close off outside air. This is how Demand Control Ventilation has traditionally saved energy for building owners and tenants.

But what happens to the few occupants left if something is wrong with the air? Jackson Control can help adapt your existing Demand Control Ventilation sequences or develop new ones to protect occupiers. With the IAQ sensors in this catalog connected to your BAS, we can 'interrupt' the standard CO₂ sequence if potentially hazardous levels are reached and ensure adequate ventilation is maintained. Inversely, you can continue to maximize savings when levels are acceptable.



Ventilation Scheduling

In instances where a BAS capable of Demand Control Ventilation is not available or feasible to implement, Jackson Control can assist with Ventilation Scheduling. Ventilation Scheduling involves analysis of typical building occupancy levels throughout the day, air handling equipment type, and comparison to required ventilation requirements.

A ventilation schedule can be implemented based on these factors without adding sensors, but instead based on common use. In this case, the number of 'air changes' required will be calculated for the space and will then be implemented manually to keep air fresh and clean.

Measurement, Verification, and Calibration

Maintaining the quality of the air inside a building requires sensors, control sequences, filtration, and testing. Sensors need to be periodically checked for accuracy, dampers checked for operation, Ion Generators verified to be generating ions, and UV lights effectiveness measured.

Jackson Control offers the tools required to measure and verify these systems' operation and the training on how to calibrate or maintain all your IAQ devices.

Programming

Taking consideration of the sequence of operation changes, Jackson Control can also assist with or provide the system programming needed to implement the modified operation of your system.

Jackson Control can provide the diagrams, product selection, programming, and graphics for a successful transition to a healthy, ventilated, and safer building.



01

Ion Meters



Description

Jackson Control utilizes highly accurate Ion Counters to measure and document the effects of the active ion blocks before and after installation. The verification process proves that the desired Ion level of 1,000 particles per cubic centimeter is met or exceeded, documents the length of time it takes to adequately fill a space and proves the Ion generation has not degraded over time.

02

RLE Commissioning



Description

RLE Technologies offers a suite of products designed to connect, protect and assist in validating mission critical and building environments. Through the use of the WiNG-MGR and its wireless sensors, users are able to deploy immediately and obtain information through its 900/868 MHz and WIFI devices that trend and alarm when a condition is met. Wirelessly enabling the integration of new sensory points in to any existing environment helps you protect all your critical assets.

[Data Sheet](#)

03

Sizing & Efficiency Calculators



Description

- IAQ Compliance Calculator
- Ventilation Increase or Reduction Calculator
- ION Installation Sizing Calculator
- Savings/Expense Calculator
- Demand Control Ventilation Calculator

04

Honeywell Air Detective



Description

The Honeywell Air Detective system allows HVAC and environmental test professionals to take a snapshot of indoor air and connects them to an extensive allergen database to yield near real-time air quality analysis. The results help professionals to better inform their customers “on-the-spot” of present airborne particles and the products and services that may be useful in their homes.

[Data Sheet](#)

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