

Technical Specifications

- Supervisory Ozone Monitor comprising Sensor and Controller shall be provided to track continuously 24/7 concentration of ozone in air. The Monitor shall comprise sensor section and inbuilt controller section.
- Sensor Section shall comprise Metal Oxide Sensor Element rated for continuous duty, and 3 1/4" inch monochrome LED Display Screen. The Screen shall display ozone concentration down to 2 PPB in increment of 1 PPB. Full range of display shall be 120 PPB. The LED Screen shall also display activation of relay contact, alarm condition, over range (above 120 PPB), and Fault Codes with Identification Number for each fault.
- The system shall be equipped with Watch Dog Device to perform self diagnosis; upon start of Monitor, and continuously every 2 seconds. Self diagnosis shall be performed on every part and component of the system including sensor, calibration, ageing and drift of sensor, hardware and software, integrity of electronic circuitry, continuity and integrity of traces in the circuit boards, and perform functions of microprocessor. Self diagnosis shall also include verification of free and uninterrupted air flow through sample air circulating fan. Self diagnosis shall also include tests for software and flipping of binary digits generated by the microprocessor. Any fault detected shall be reported on the display panel with corresponding Fault Code Number. If any fault is detected in critical components, relay is activated to shut down the Ozone Generator and or activate fresh air fan or other air quality correctional device.
- The Monitor shall be factory set at 40 PPB to activate the relay and 50 PPB to activate audible alarm. Can be factory set to 80 PPB and 100 PPB respectively, if called for.
- Monitor shall be provided with audible alarm to beep if any defect is detected and provide continuous sound to 85 dB if alarm condition is reached.
- The Monitor shall be provided with unit mounted circulation fan to ensure continuous passage of sample room air. Watch Dog Device shall perform diagnosis every 2 seconds to ensure the fan is in operation and air passage is not restricted or blocked. If such condition is detected, it shall report with Fault Code Number on the LED Display.
- The Monitor shall provide 0-10 VDC and 4-20 mA Analog Signal corresponding to Ozone Concentration to BAS/BMS.
- Relay Contact shall be provided with 1 NO and 1 NC potential free dry contact, rated for 250 VAC, 10 Amps (based on resistive current).
- The Monitor shall be suitable for operation 24/7 in indoor or outdoor air.
- Operating temperature of the Monitor shall be -22°F (-30°C) to +194°F (+90°C), 0 to 100% RH (Non Condensing).
- For failsafe and long time operation, sensor and display circuit boards shall be gold plated to 24 Carat 3 Micron thickness. This is to reduce or prevent loss of accuracy due to oxidation of the conductor surface over time. The populated boards shall be conformal coated to prevent damage from duct, moisture, condensation, traces of acid, and ozone.
- All parts and components of the Monitor shall be lead free and comply to RoHS.
- UL Listed and or approved Power Adaptor 100 to 240 VAC / 12 V for power supply to Monitor shall be factory provided.
- All parts and components of the Monitor shall be housed in one neat, compact, 18 G CRS powder coated satin finish enclosure.
- All parts and components used in the Monitor shall be UL Listed or UL Recognized. This requirement cannot be waived.
- The Supervisory Ozone Monitor shall be Model CZ12, manufactured by Ruks Canada Ltd, Canada. Country of manufacture shall be Canada.

UL UL Listed or UL Recognized Parts and Components **RU**
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INTERNATIONAL SALES AND DISTRIBUTION:
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Leader in IAQ presents
Indoor/Ambient Air Ultra Low Concentration
Supervisory Ozone Monitor CZ12



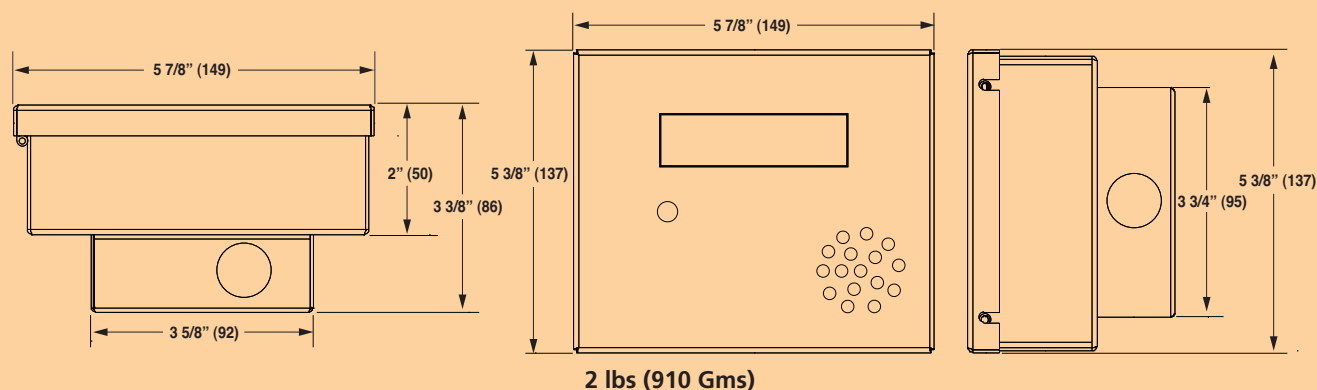
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Features

- ▶ Size: 5 7/8" (L) x 5 3/8" (H) x 3 3/8" (Depth), 149 mm (L) x 137 mm (H) x 86 mm (Depth)
- ▶ Weight: 2 Lbs (910 Gms)
- ▶ Detect and Display Ozone Concentration 2 PPB to 120 PPB, in increments of 1 PPB
- ▶ Suitable for Indoor and Outdoor (Ambient) Air Application
- ▶ Operating Temperature, -22°F to +194°F (-30°C to +90°C), 0 to 100 % RH (Non Condensing)
- ▶ Fully Factory Assembled, Ready to Start
- ▶ Continuous 24/7 display on 3 1/4" LED Screen
- ▶ Metal Oxide Sensor Element rated for continuous operation
- ▶ 0-10 VDC and 4-20mA Analog Signal for BMS/BAS interface
- ▶ Relay with Normally Open (NO) and Normally Closed (NC) Potential Free Dry Contacts, rated for 250V, 10 Amps
- ▶ User Set Alarm
- ▶ Fan to draw sample air
- ▶ Failsafe Design
- ▶ Self Diagnostic Capability
- ▶ Display on LED Screen;
 - Normal Condition
 - Over Range
 - Relay on
 - Alarm Condition
- ▶ Display Fault Codes for;
 - Out of Calibration
 - Self Test Failure
 - Fan Failure
 - Relay Failure
 - Service Due
- ▶ Activate Relay Contact for virtually any kind of fault
- ▶ Safe and fail proof to activate or deactivate IAQ correctional devices; Ozone Generator, Fresh Air or Exhaust Air Fan or Damper, Ionizer, Electro Static Precipitator, Heat Recovery Wheel, and Demand Load Ventilation based on outdoor air ozone. Photocopier & Printer Room. Ozone Generator Plant Rooms in Water Treatment Plants, Swimming Pools and Laundry.
- ▶ Audible Alarm to beep if Monitor malfunctions, and continuous audible sound to 85 dB if Alarm Condition is reached
- ▶ Factory provided UL Listed and or approved Universal Power Adaptor, 100-250 VAC/12 VDC
- ▶ Circuit Board Gold Plated to prevent loss of accuracy and performance. Renders long life
- ▶ Factory set Alarm at 50 PPB (can be changed to 100 PPB at time of order)
- ▶ Relay Activation: Factory set at 40 PPB (can be changed to 80 PPB at time of order)
- ▶ Warm up Time: +/- 3 Mins
- ▶ Watch Dog Circuit for self diagnosis every 2 seconds for system, components, hardware and software faults.
- ▶ 18 G Powder Coated CRS Enclosure with wall mounting plate
- ▶ All parts and components are UL Listed or UL Recognized

CZ12 Assembly Drawing

All dimensions are in inches (mm)



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Food Processing Plant



Laundry

- Suggested Applications**
- ▶ HVAC Systems with duct mount Ozone Generators, Ionizers, Electrostatic Precipitators, UV Systems
 - ▶ Laundry
 - ▶ Swimming Pool
 - ▶ Ozone Generator Plant Rooms
 - ▶ Bottling Plants
 - ▶ Food Processing Plants
 - ▶ Photocopier Rooms
 - ▶ Electro Static Precipitators
 - ▶ Outdoor Ozone Monitoring for Demand Load Ventilation



Swimming Pool



Bottling Plant

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