



# RUKS ENGINEERING LTD

LEADER IN IAQ PRESENTS

**ADVANCED, STATE OF THE ART, REAL TIME,  
TOTAL AIR QUALITY MONITOR**

# CONTROZONE CZ8 LAN

**Energy Management & IAQ Device**



UL Listed & CE Certified



- Displays VOC, CO<sub>2</sub>, Temperature, RH
- Performs Continuous IAQ & Energy Audit
- Alerts if IAQ is not within set range
- Saves on Operating Cost, while ensuring IAQ at optimum level
- Remote access through IP
- BACnet, Modbus, EtherNet Protocol
- User selectable units, range, and alarm
- 0 - 10 VDC Analog Signal for BAS/BMS
- 5 Dry Contacts - User Assignable

- Graphs and Reports in PDF, MS Word, Excel
- Time History and Instantaneous Records of all IAQ Parameters
- Eliminates Standalone Monitor
- Comprehensive, One Piece IAQ Monitor
- Energy Reduction Device, Mini BMS/BAS
- Listed to UL 916 – Energy Management Device



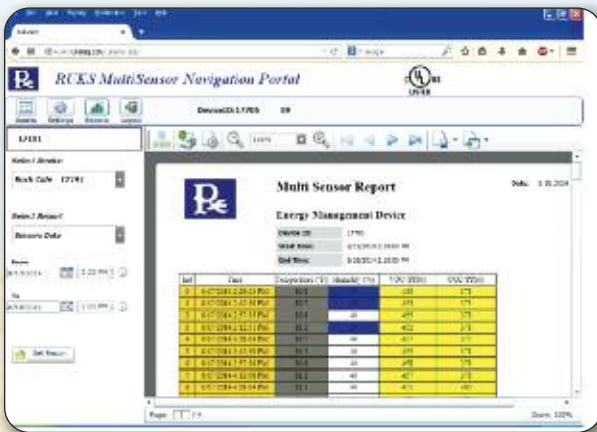


### MODE OF OPERATION

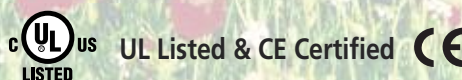
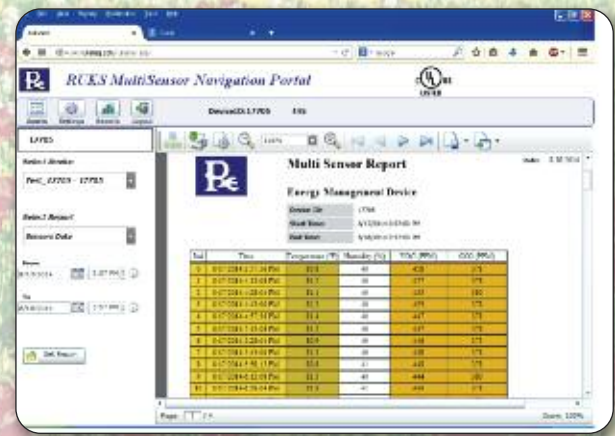
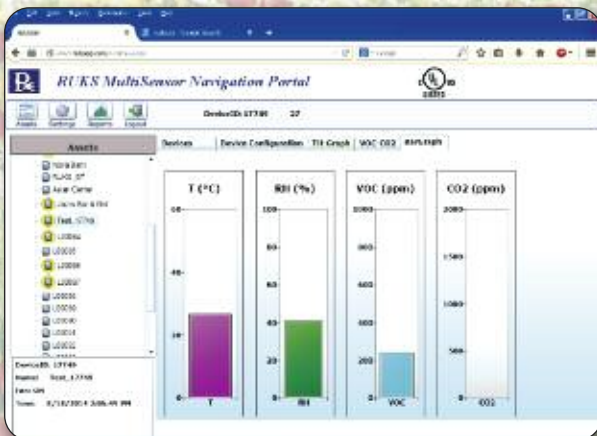
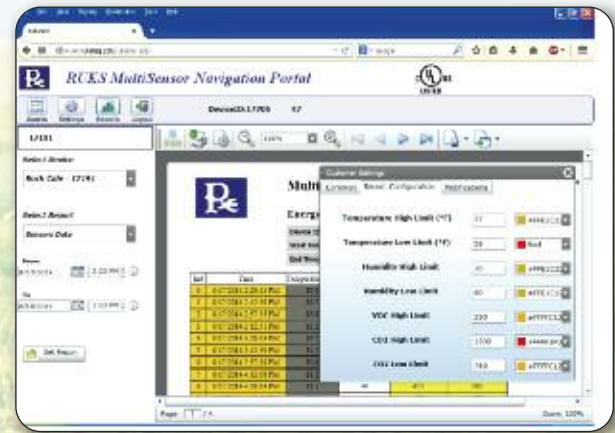
Four Individual sensors provide continuous and rapid response to changing environmental conditions of VOC/Odor, CO<sub>2</sub>, Temperature, and RH. Each Sensor provides 0-10 VDC Analog Output for interface to BMS/BAS. Has 5 NO Dry Contacts, user assignable to any IAQ parameter. Provides accurate, precise, and timely input to operate IAQ Improvement and Energy Reduction Devices. Results in near perfect Indoor Air Quality, with optimum savings in operating cost. Pays for itself in few years.



Cover with Pilot Lamp to indicate Power On. All readings, controls and functions accessed remotely through IP. Compatible for BAC net, Modbus, or EtherNet communication protocol. Fully programmable remotely on Computer through IP.



CZ8-LAN accessed on IP provides Reports based on user set time intervals, in MS word, Excel or PDF formats. Performs continuous audits on IAQ and Energy consumed by HVAC System. Provides instant alerts if IAQ is not within set values, or if energy consumed is not within optimum limits.







### PRODUCT TECHNICAL DETAILS

#### CZ8-LAN

**Size:** 9-1/2" (241mm) x 7-1/4" (184mm)  
x 4-3/8" (111mm)

**Weight:** 2.21 lbs (1 kg)

**Input Power:** 12 VDC

**Enclosure:** 18 G CRS Powder Coated

**Rating:** Continuous

**Operating Range:** -4°F to 140°F  
(-20°C to 60°C)  
0 to 100% Non Condensing

**Mounting:** Space, Duct

**Warm-up Time:** Approximately 3 minutes

**IAQ Parameters Tracked:** VOC, CO<sub>2</sub>, Temperature and RH

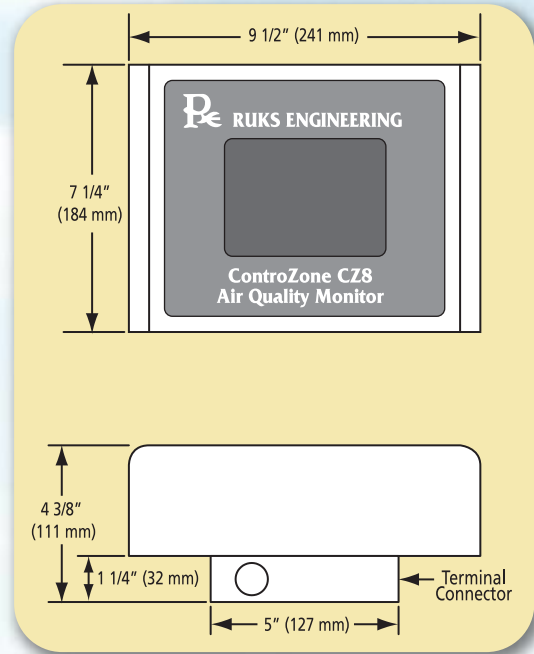
**Output:** 0 to 10 VDC Analog Output

**Relays:** 5 NO (Normally Open) user  
assignable to any parameter

**Display:** CZ8-LAN: Web Based through IP, or on LAN accessed through PC or laptop

**Communication Protocol:**

**CZ8-LAN:** BAC net, Modbus, EtherNet (specify only one)



CZ8 with dimensions



CZ8-LAN



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# TECHNICAL SPECIFICATIONS

## CZ8-LAN TOTAL IAQ MONITOR

1. Monitoring, Regulation, Reporting, Recording, and Auditing of Indoor Air Quality and Energy shall be performed automatically on continuous basis, by Total Air Quality Monitor.
2. The Monitor shall be suitable for tracking Total VOC, Carbon Dioxide, Temperature, and RH, by use of independent sensor to track each parameter. Each sensor shall be independently programmable.
3. Monitor shall be rated for continuous operation, in indoor ambient -4°F to 140°F (-20°C to 60°C) and RH 0 to 100% non Condensing.
4. It shall be provided with 256 MB RAM, Micro Processor, Flash Memory for Real Time records.
5. Each Sensor shall deliver 0 – 10 VDC analog output for interface to BAS/BMS.
6. The Circuit Board shall be listed to UL 94.
7. Shall have 5 numbers of Normally Open (NO) Dry Contacts, 3 Amps 24 VAC/DC, field assignable to any sensor.
8. Monitor shall have RS 232 and Ethernet communication ports.
9. Switch to change over from duct to space mount shall be installed on the monitor. Spigots for connecting pitot tubes, if duct option is used, shall be factory provided.
10. UL listed Power Supply Adaptor shall be factory provided.
11. For fail safe and long time operation, printed circuit boards shall be immersed in 24 carat gold 3 Micron thick. This is to reduce or prevent loss of accuracy due to oxidation of the conductor surface over time.
12. All electronic parts of the Monitor shall be lead free and ROHS compliant.
13. All parts and components of the Monitor shall be housed in one neat, compact, 18 G CRS powder coated satin finish enclosure.
14. Display of all IAQ parameters shall be accessed remotely through internet. It shall be possible to program all features, set activation / deactivation of relays, obtain reports between user selected time intervals, and perform continuous Energy and IAQ Audit, remotely through web based IP.
15. RJ 45 wall outlet, one for each monitor, shall be provided by client in close proximity to the monitor for connection to web.
16. The Monitor shall also serve as continuous IAQ and Energy Audit Device based on user set upper and lower limits of all IAQ parameters. User selected color coded alerts shall be issued instantaneously if IAQ or energy parameters are not within optimum threshold limits.
17. It shall be possible to download the IAQ reports on MS Word, Excel, or PDF formats, remotely through web based IP.
18. Communication protocol shall be BAC net, Modbus, or EtherNet (choose one).
19. **The IAQ Monitor shall be listed to UL 916 Standard for Safety for Energy Management Equipment, and CE Certified.**
20. The Equipment shall be of North American Manufacture, with parts and components from USA and Canada.



UL Listed & CE Certified



INTERNATIONAL SALES AND DISTRIBUTION:

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