

# Know the air YOU'RE BREATHING



## Indoor Air Quality Monitoring

Critical Environment Technologies™

Unit 145, 7391 Vantage Way, Delta, BC V4G 1M3 Canada

Tel: +1.604.940.8741 Toll Free: +1.877.940.8741

[www.critical-environment.com](http://www.critical-environment.com)



## KEY FEATURES

- » 8 sensor capacity
- » More than 30 plug & play sensors available to choose from, including electrochemical, catalytic, infrared & PID
- » Externally mounted particulate sensor option
- » Multi-function, easy to use menu
- » Light weight, contoured & comfortable handheld device
- » Displays readings for all installed sensors simultaneously on backlit LCD display
- » Operates from nickel metal hydride (NiMH) rechargeable batteries (standard), or alkaline batteries, or continuously from the plug-in power adapter
- » Hangs on a wall (rear slot molded in), mounts on a camera tripod or sits on a desk
- » Samples air with internal sample draw pump or by diffusion
- » Accommodates electrochemical, catalytic, PID or infrared sensor types
- » High capacity data logging with built-in SD memory card
- » USB data downloading and auxiliary uploading capability from remote probes
- » Proprietary data logging software available
- » RoHS compliant circuit boards
- » CE certified

## APPLICATIONS

- » Residential Buildings
- » Commercial Buildings
- » Schools
- » Retirement Homes
- » Sports Facilities
- » Hospitals
- » Laboratories
- » Research Facilities
- » Parking Garages
- » ... and many more

YESAIR shown with externally mounted particulate sensor



The YESAIR is a battery powered, portable air quality detection and data logging instrument designed for intermittent or continuous indoor air quality monitoring.

Dust, spores, smoke, build-up of gas and/or gas emissions along with high humidity levels and inadequate ventilation can cause poor air quality inside buildings that can leave you vulnerable to severe respiratory health issues. You may already be suffering from asthma or allergies or recovering from a respiratory illness, all of which makes breathing difficult at the best of times. Monitoring the indoor air quality can:

- Identify the levels of indoor air contaminants
- Determine if fresh air intake to re-circulated air ratio is adequate
- Improve processes required to guarantee healthier indoor air
- Provide a log of readings for constant analysis so modifications can be made appropriately
- Increase comfort and productivity
- Reduce sickness
- Give you peace of mind

With the handheld, battery operated YESAIR Indoor Air Quality Monitor you can easily detect particles and gases inside buildings.

The YESAIR is available three models:

1. **YESAIR Pump** - draws in sample air through a nozzle with an internal pump on the top of the unit
2. **YESAIR Diffusion** - works by sample air passing through the sensor openings by natural circulation of air on top of the unit
3. **YESAIR Dual Probe Incubator Verification** - draws in sample air using the internal pump, through an attached temperature and relative humidity probe and high humidity gas probe. This model is specifically for CO<sub>2</sub> and O<sub>2</sub> sampling in high humidity environments such as incubator chambers and horticultural applications (greenhouses, mushroom farms, etc).



Multi-line, backlit, LCD display shows sensor readings, battery level and data logging status. The YESAIR can reliably record time-based information, which can be downloaded via a USB port and the YES Viewer Software allows users to analyze and graph the data.

Equipped with Plug & Play Smart Sensor Technology, many of the sensors modules can be changed in the field and are operable within minutes. Choose from a selection of up to 30 different sensors to best suit your application specifications. In addition to the temperature and RH sensors, the YESAIR can handle up to 5 additional internal plug & play sensors consisting of a maximum of 3 electrochemical toxic gas or oxygen sensors, and 2 high current draw sensors such as an infrared PID or catalytic sensor, plus 1 externally mounted particulate sensor.

An optional gas sampling probe is available with the Pump model. The probe has a 10 in / 25.4 cm wand and 30 in / 76 cm of tubing that fits onto the nozzle and allows you to reach into areas that are difficult to access.

## TECHNICAL SPECIFICATIONS

### MECHANICAL

Enclosure	Rugged ABS / Polycarbonate (UL94 rated)
Weight	567 g (20 oz) 655 g (23 oz) with particulate sensor installed
Size	19.7 x 7.8 x 8.9 cm / 7.8 x 3.06 x 3.5 in 25.4 x 12.7 x 8.9 cm / 10 x 5 x 3.5 in with particulate sensor installed
Covers	Sensor cover (removable; top of enclosure) Battery cover (removable; bottom of enclosure)
Security	Slot for cable lock (lower right side)
Case (included)	Hard plastic storage/carrying case with foam lining

### ELECTRICAL

Power	- Standard (included): Rechargeable 3.6 V NiMH battery pack (8 hours continuous operation time with plug-in battery charger/wall adapter (100 - 240 V, 50 - 60 Hz) - Continuous plug in, 6VDC, Class III, 2A DC max wall adapter - Optional (not included): Alkaline AA batteries x 3
Sampling	- Pump and Dual Probe Models: Internal sample pump auto matically draws in sample for "active" sampling of target environment - Diffusion Model: Sample air is diffused naturally over the sensors for a quick, direct reading
Memory	> 1 million data points data logging to SD memory card (Optional)
Calibration	Automated through keypad
Information Recording	12 bit, multi-channel, user configurable with removable 2 GB memory card. Optional YES Logger package option includes 2 GB SD memory card and reader, USB cable, YES Viewer software.
Audible	Internal 80 dB @ 4'. One set point adjustment. Audible can be switched off through menu.

### ENVIRONMENTAL (sensor dependant)

Operating Temperature	5°C to 50°C (41°F to 122°F)
Storage Temperature	-20°C to 60°C (-4°F to 140°F)
Humidity	0 - 99% RH non-condensing

### CERTIFICATION



Safety Standards: I.S. EN61010-1:2001 (Ed.2)  
Emissions Standards: EN 50270:2006  
Immunity Standards: EN 50270:2006

Convenient hard shell carrying and storage case included



## PLUG & PLAY SENSOR OPTIONS

SENSOR	TYPE	RANGE	PRODUCT CODE
Ammonia (NH <sub>3</sub> )	EC	0 - 50 ppm	PNP-H
Arsine (AsH <sub>3</sub> ) **	EC	0 - 2 ppm	PNP-R
Carbon dioxide (CO <sub>2</sub> )	IR	0 - 5,000 ppm	PNP-A+
		0 - 10,000 ppm	PNP-A1
		0 - 20% vol	PNP-A2
	EC	0 - 5% vol	PNP-B
Carbon monoxide (CO)	EC	0 - 100% vol	PNP-B1
Carbon monoxide (CO) *	EC	0 - 50 ppm	PNP-C1
<i>H<sub>2</sub> compensated for reduced response in H<sub>2</sub> rich environ- ments with reading possibly showing as high as 60 ppm with 500 ppm H<sub>2</sub> in monitoring environment</i>			
Chlorine (Cl <sub>2</sub> )	EC	0 - 5 ppm	PNP-I
Chlorine dioxide (ClO <sub>2</sub> ) **	EC	0 - 1 ppm	PNP-J
Combustibles	CAT	0 - 100% LEL	PNP-X
Ethylene (C <sub>2</sub> H <sub>4</sub> ) *	EC	0 - 200 ppm	PNP-E1
Ethylene oxide (C <sub>2</sub> H <sub>4</sub> O) *	EC	0 - 20 ppm	PNP-E2
Fluorine (F <sub>2</sub> ) **	EC	0 - 2 ppm	PNP-S
Formaldehyde (CH <sub>2</sub> O)	EC	0 - 5 ppm	PNP-Q
Hydrogen (H <sub>2</sub> ) **	EC	0 - 1,000 ppm	PNP-K
Hydrogen chloride (HCl) **	EC biased	0 - 30 ppm	PNP-M
Hydrogen cyanide (HCN) **	EC	0 - 100 ppm	PNP-N
Hydrogen fluoride (HF) **	EC	0 - 10 ppm	PNP-O
Hydrogen sulphide (H <sub>2</sub> S)	EC	0 - 50 ppm	PNP-L
Nitric oxide (NO)	EC biased	0 - 100 ppm	PNP-E
Nitrogen dioxide (NO <sub>2</sub> )	EC	0 - 5 ppm	PNP-D
Oxygen (O <sub>2</sub> )	EC	0 - 25% vol	PNP-F
Ozone (O <sub>3</sub> )	EC	0 - 1 ppm	PNP-G
Ozone (O <sub>3</sub> ) *	EC	0 - 5 ppm	PNP-G1
Phosphine (PH <sub>3</sub> ) **	EC	0 - 1 ppm	PNP-V
Silane (SiH <sub>4</sub> ) **	EC	0 - 50 ppm	PNP-W
Sulphur dioxide (SO <sub>2</sub> )	EC	0 - 20 ppm	PNP-P
TVOCs	PID	0 - 30 ppm	PNP-Z+
		0 - 300 ppm	PNP-Y+
Particulate Sensor (externally mounted)	PM2.5 PM10	2.5 µg/m <sup>3</sup>	CET-PM2.5
		10 µg/m <sup>3</sup>	CET-PM10

#### Legend:

EC	Electrochemical sensor	IR	Infrared sensor
EC Biased	Electrochemical Biased sensor	CAT	Catalytic sensor
PID	Photo Ionization Detector sensor		

\* Minimum 5 weeks delivery. Conditions may apply.

\*\* Minimum 10 weeks delivery. Conditions may apply.

## PRODUCT CODES

<b>YESAIR (Sample Draw)</b>	Capacity for 5 gas sensors, includes temperature & RH sensors, internal pump, rechargeable batteries (3 x AA NiMH) and charger, hard shell storage/carrying case
<b>YESAIR-D (Diffusion)</b>	Capacity for 5 gas sensors, includes temperature & RH sensors, diffuser cap, rechargeable batteries (3 x AA NiMH) and charger, hard shell storage/carrying case
<b>1540-0009 (Dual Probe)</b>	YESAIR CO <sub>2</sub> (0-20% vol), comes with remote sample probes for temperature, RH & CO <sub>2</sub> , calibration tubing, rechargeable batteries (3 x AA NiMH) and charger, hard shell storage/carrying case
<b>1540-2009 (Dual Probe)</b>	YESAIR CO <sub>2</sub> (0-20% vol) and O <sub>2</sub> (0-25% vol), comes with remote sample probes for temperature, RH CO <sub>2</sub> & O <sub>2</sub> , calibration tubing, rechargeable batteries (3 x AA NiMH) and charger, hard shell storage/carrying case

### ACCESSORIES (may be specific to certain models)

<b>CET-8000-CKFT</b>	Standard yellow gas flow tubing for calibration, 2 ft, 3/16" ID / 5/16" OD, priced per foot
<b>CET-8000-CTFT</b>	Teflon lined gas flow tubing for calibrating sticky gases, special non-absorbent, 2 ft, 3/16" ID / 5/16" OD, priced per foot
<b>REG-ADAPTER</b>	Brass fitting that threads onto regulator to accommodate 15 and 17 litre cylinders
<b>YESAIR-LGRPKG</b>	YES Logger Package includes 2 GB memory card and reader, USB cable, YES Viewer software
<b>YES-HHPROBE-10</b>	Handheld probe 10" with 30" of sample hose
<b>YES-SFTWRE</b>	YES Viewer data logging software
<b>1509-0021</b>	Replacement high humidity gas sample probe

Do you have a YESDUST? Upgrade your YESAIR to the PM2.5 particulate sensor that replaces the YESDUST. Units must be returned to the factory for retrofitting. **p/n: CET-DUST-RETRO**



For more information on our products or how to become a distributor, contact one of our Regional Sales Managers:

**Western North America**  
Mirza Baig  
mirza@cetci.com  
604.572.7007

**Eastern North America**  
Ron Sweet  
ron@cetci.com  
905.420.8334

**Central/Midwest USA**  
Juergen Rosssdeutscher  
juergen@cetci.com  
604.760.4261

**International**  
Ronald Dizon  
rdizon@cetci.com  
604.616.3576