# Critical Environment Technologies

# INDOOR AIR QUALITY MONITORS DATASHEET YESAIR 8-Channel IAQ Monitor



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

It is available in two models (Pump or Diffusion). Each can be configured as a multi-channel operation, with a selection of more than 30 different plug and play gas sensors, including a particulate sensor and an optional huge capacity data logging SD memory card. Both models come with one temperature sensor, one relative humbidity (RH) sensor, the capacity for 5 internal gas sensors consisting of a maximum of three electrochemical toxic gas or oxygen sensors plus two high current draw sensors such as an infrared, PID, catalytic or particulate sensor.

Sensor readings, battery level and data logging status can be viewed live on the multi-line, backlit, LCD display. The optional YES Viewer Logger package consists of a 2 GB SD memory card with card reader, a USB cable and YES Viewer software. The card reader can be used to store or transfer data. Alternatively, data can be downloaded to a computer using the mini USB connection. The YES Viewer PC software allows users to analyze and graph data.

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

### **KEY FEATURES**

- » Capacity for 1 temperature, 1 RH sensor and 5 internal gas sensors, plus 1 particulate sensor
- » More than 30 plug & play sensors available to choose from, including electrochemical, catalytic, infrared, PID, particulate
- » Multi-function, easy to use menu
- » Light weight, contoured & comfortable to hold
- » LCD displays readings for all sensors, battery level and logging status
- » Sampling with an internal sample draw pump or by diffusion
- » High capacity data logging with 2GB SD memory card
- » Data logging software for collecting, analyzing and graphing data
- » RoHS compliant circuit boards
- » CF certified

### **APPLICATIONS**

- » Residential Buildings
- » Commercial Buildings
- » Hospitals
- » Schools
- » Airports
- » Research Facilities
- » ... and many more where indoor air quality is a concern

### **TECHNICAL DRAWING**



shown without the particulate sensor or antenna

TECHNICAL SPECIFICATIONS

MECHANICAL	
Enclosure	Rugged ABS / Polycarbonate (UL94 rated)
Weight	567 g (20 oz) without particulate sensor
	655 g (23 oz) with particulate sensor
Size	
not including antenna or particulate sensor	19 x 7.8 x 9.9 cm / 7.8 x 3.1 x 3.9 in
including antenna and particulate housing	25.4 x 12.7 x 8.9 cm / 10 x 5 x 3.5 in
Case (included)	Hard plastic storage/carrying case with foam lining

ELECTRICAL	
Power	Standard (included): 3x rechargable 3.6V NiMH batteries (8 hours continuous operation time) with plug-in battery charger / wall adapter (100 - 240 V, 50 - 60 Hz) Optional: Alkaline AA batteries x 3 Optional: External Battery Pack
Sampling of Gas	Pump Model: Internal sample pump automatically draws in sample of target gas environment Diffusion Model: Sample air is diffused naturally over the gas sensors



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TECHNICAL SPECIFICATIONS continued	
Memory	> 1 million data points data logging to SD flash card <i>(optional)</i>
Calibration	Automated through keypad
Information Recording	12 bit, multi-channel, user configurable with 2GB SD memory card slot YES Logger package with 2GB SD memory card, card reader, USB cable and YES Viewer Software (optional)
Communication	Miniature USB port for changing settings and configuring logging functions Auxiliary port for particulate sensor
Audible	Internal 80 dB @ 4′. One set point adjustment. Audible can be switched off through menu.

ENVIKUNMENTAL (sensor o	lependant)
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Operating Temperature	5°C to 50°C (41°F to 122°F)
Humidity	0 - 99% RH non-condensing

### CERTIFICATION

	CE standards for safety:
CE Certified	I .S. EN61010-1:2001 (Ed.2)
CE Certified	CE standards for emissions: EN 50270:2006
	CE standards for immunity: EN 50270:2006

## **PRODUCT CODES**

YES-AIR	Pump Model: Temperature & RH sensor, internal sample draw pump, rechargeable batteries (3 x AA NiMH) and battery charger, capacity for 5 internal gas sensors plus 1 particulate sensor
YES-AIR-D	Diffusion Model: Temperature & RH sensor, diffuser cap, rechargeable batteries (3 x AA NiMH) and battery charger, capacity for 5 internal gas sensors plus 1 particulate sensor

#### SENSOR OPTIONS

PNP-H	Ammonia (NH <sub>3</sub> ) electrochemical, 0 - 50 ppm
PNP-R	Arsine (AsH <sub>3</sub> ) electrochemical, 0 - 2 ppm
PNP-A+	Carbon dioxide (CO <sub>2</sub> ) infrared, 0 - 5,000 ppm
PNP-A1	Carbon dioxide (CO <sub>2</sub> ) infrared, 0 - 10,000 ppm
PNP-A2	Carbon dioxide (CO <sub>2</sub> ) infrared, 0 - 20% volume
PNP-B	Carbon dioxide (CO <sub>2</sub> ) infrared, 0 - 5% volume
PNP-B1	Carbon dioxide (CO <sub>2</sub> ) infrared, 0 - 100% volume
PNP-C	Carbon monoxide (CO) electrochemical, 0 - 50 ppm
PNP-C1	Carbon monoxide (CO) electrochemical, $0 - 50$ ppm ( $H_2$ compensated for use in $H_2$ background)
PNP-I	Chlorine (Cl <sub>2</sub> ) electrochemical, 0 - 5 ppm
PNP-J	Chlorine dioxide (ClO <sub>2</sub> ), electrochemical, 0 - 1 ppm
PNP-X	Combustibles (catalytic), 0 - 100% LEL
PNP-E1	Ethylene (C,H,), 0 - 200 ppm

PRODUCT	CODES continued
PNP-E2	Ethylene oxide (C <sub>3</sub> H <sub>4</sub> O), 0 - 20 ppm
PNP-S	Fluorine (F <sub>2</sub> ) electrochemical, 0 - 2 ppm
PNP-Q	Formaldehyde (CH <sub>2</sub> O) electrochemical, 0 - 5 ppm
PNP-K	Hydrogen (H <sub>2</sub> ) electrochemical, 0 - 1,000 ppm
PNP-M	Hydrogen chloride (HCl) electrochemical, 0 - 30 ppm
PNP-N	Hydrogen cyanide (HCN) electrochemical, 0 - 100 ppm
PNP-0	Hydrogen fluoride (HF) electrochemical, 0 - 10 ppm
PNP-L	Hydrogen sulphide (H <sub>2</sub> S) electrochemical, 0 - 50 ppm
PNP-B+	Methane (CH₄) infrared, 0 - 5% volume
PNP-E	Nitric oxide (NO) electrochemical, 0 - 100 ppm
PNP-D	Nitrogen dioxide (NO <sub>2</sub> ) electrochemical, 0 - 5 ppm
PNP-F	Oxygen (0 <sub>2</sub> ) electrochemical, 0 - 25% volume
PNP-G	Ozone (0 <sub>3</sub> ) electrochemical, 0 - 1 ppm
PNP-V	Phosphine (PH <sub>3</sub> ) electrochemical, 0 - 1 ppm
PNP-W	Silane (SiH <sub>4</sub> ) electrochemical, 0 - 50 ppm
PNP-P	Sulphur dioxide (SO <sub>2</sub> ) electrochemical, 0 - 20 ppm
PNP-Y+	TVOCs (PID), 0 - 300 ppm
PNP-Z+	TVOCs (PID), 0 - 30 ppm
CET-PM2.5	Externally mounted particulate sensor (PM2.5)
CET-PM10	Externally mounted particulate sensor (PM10)

#### ACCESSORIES

ACCESSURIES	
CET-8000-CKFT	Standard yellow gas flow tubing for calibration, 2 ft, 3/16″ ID / 5/16″ OD, priced per foot
CET-8000-CTFT	Teflon lined gas flow tubing for calibrating sticky gases, special non-absorbent, 2 ft, 3/16" ID / 5/16" OD, priced per foot
REG-ADAPTER	Brass fitting that threads onto regulator to accommodate 15 and 17 litre cylinders
REG-07DF-CR2	Demand flow regulator for calibrating YESAIR pump model and YES Plus LGA
YESAIR BATT	External mounted nickel metal hydride
OPTION	battery pack
YES-AIR BATT	External lead acid battery in carrying case with
EXT	charger
YES-AIR LGR	YES Logger package with 2 GB memory card, card
PKG	reader, USB cable, YES Viewer Software
YES-HH- PROBE-10	Handheld 10" probe with 30" of sample hose
YES-SFTWR	YES Viewer data logging software (USB drive)

Upgrade your YESAIR to the particulate sensor that replaces the YESDUST. Units must be returned to the factory for retrofitting. p/n: CET-DUST-RETRO

