

HAZ-SCANNER[®]

EPAS

Environmental Perimeter Air System



Made for



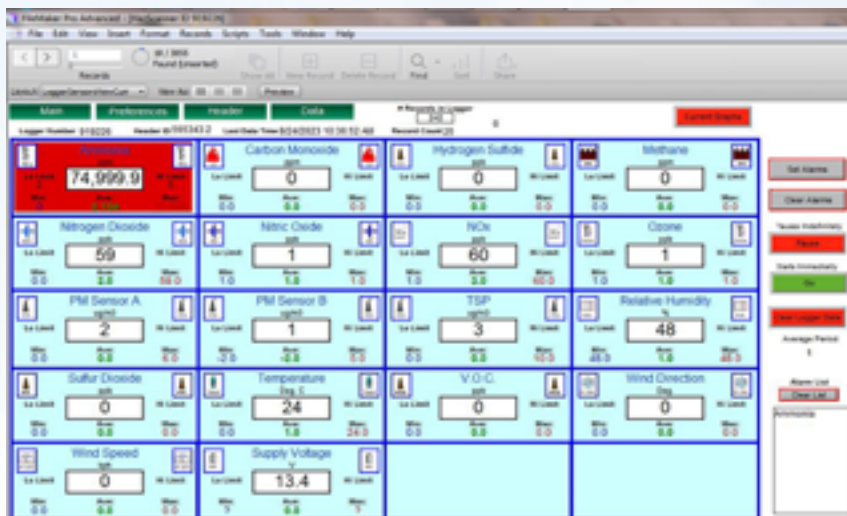
by



ENVIRONMENTAL
DEVICES CORPORATION
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SCIENCE. SERVING PEOPLE.



Features and Benefits

- Direct readings of up to 14 simultaneous air measurements including US EPA criteria air pollutants
- Two options to customize your EPAS
 - *Basic Kit measures CO, NO₂, and PM10; add up to 11 additional sensors/meters - see page 6*
 - *Build Your Own System Kit: Add up to 14 sensors/meters - see page 6*
- Can be configured to monitor PM10 and PM2.5 simultaneously
- Sensors available for ambient air quality (ppb and µg/m³ trace levels), calibrated for US EPA and EU directives
- Real-time readings, datalogging capabilities
 - *Optional wireless data transmission up to 5 miles*
 - *Optional Ethernet Internet connection for 24/7 data reporting*
- Choose from 3 particulate sensors, 19 toxic gas sensors, and 8 EPAS-specific meters or meteorological sensors for the system you need—see more on page 6
- Easily portable and deployable
- Battery operated; AC and solar options available
- Network up to 8 EPAS to one central PC or Mac
 - *Wireless network software option available*
- Easy-to-use graph and reporting software compatible with PC and Mac

The portable wireless HAZ-SCANNER EPAS environmental perimeter air system is easily deployed as an ambient air quality monitor to scan, measure, and document critical EPA criteria pollutants including nitrogen dioxide, carbon monoxide, sulfur dioxide, ozone, carbon dioxide, particulates, VOCs, and more. The EPAS provides direct readings in real time with datalogging capabilities. The graph and reporting software is compatible with PC and Mac.



Meteorological parameters are available including wind speed and direction, rainfall, barometric pressure, temperature, and relative humidity.

Multiple-station networking wireless communication including: Wi-Fi, cellular, and radio frequency; with and without Cloud-based subscription options

Enhance ambient PM monitoring with the in-line 47-mm FRM-style cassette option for concurrent gravimetric sampling utilizing the system's internal constant flow pump. Options are available for using two PM sensors and two built-in pumps. Contact your SKC representative for details.

A variety of alarms are available: text, audible-visual, and discreet software alerts.

Portability

Standard with Nema 4x enclosure. Temperature-controlled enclosure available.

Add external SKC sample pumps for additional sampling with bags or sorbent tubes.

Battery powered with AC and solar panel options as well as optional tripod mounting.

“EDC modified the HAZ-COMM Pro Software to remotely trigger two external SKC Sample Pumps. Upon reaching a user-defined alarm threshold, samples would be automatically collected onto absorbent media and in an air sample bag. Using this method eliminates much bias cross-sensitivity inherent in ED and NDIR sensors. It also enhances the specificity of the Haz-Scanner.”

Michael Schmoldt
CIH, PE WRPS

Choose from SKC Sample Bags or Sorbent Tubes. When the HAZ-SCANNER EPAS alarms reach a user-defined threshold, a sample is taken and can be sent to a lab for analysis to eliminate cross-sensitivities.



SKC Inc. 1-724-941-9701
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Configure the HAZ-SCANNER EPAS for Unique Applications

APPLICATION: URBAN AIR QUALITY STUDY



Scope of Work: Study air pollution in a major US city relocating traffic, sidewalks, and walkways to reduce air pollutants that are harmful to pedestrians and cyclists and helping to create a “healthy city.”

Solution: Monitoring for the 6 US EPA criteria air pollutants. A network of 8 HAZ-SCANNER EPAS Systems with sensors selected for NO₂, SO₂, CO, O₃, PM2.5, and sound. Data was transmitted to a central off-site computer via cellular modem.

APPLICATION: HAZARDOUS WASTE SITE REMOVAL



Scope of Work: Reserves of chemical and nuclear munitions buried in underground tanks. The deteriorating tanks need to be remediated. Site is in a remote location with minimal power.

Solution: A network of 4 HAZ-SCANNER EPAS Systems with short range 900 MHz radio modems were chosen. Sensor configuration was wind speed and direction, atomic and nuclear radiation, temperature and relative humidity, rainfall, particulates, and VOCs with optional automatic gas sampling bags. EPAS Systems were powered by solar panels.

APPLICATION: FACTORY FENCELINE MONITORING



Scope of Work: After an explosion and toxic gas release occurred at a refinery, real-time air monitoring was required around the premises by a neighborhood community group.

Solution: Network 6 HAZ-SCANNER EPAS Systems with sensors selected for VOCs, H₂S, SO_x, NO_x, SO₂, CH₄, and particulate matter with visual strobing alarms and email alerts. Sensors were calibrated for low ppb ambient conditions. Data was transmitted to an office inside the refinery via Wi-Fi and to the community group via cloud.

APPLICATION: EMERGENCY RESPONSE



Scope of Work: Quick deployment of air monitoring equipment after an unexpected rail tanker accident and unexpected spill.

Solution: Two HAZ-SCANNER EPAS Systems approach was utilized for first responders. Sensor configuration was HCN, H₂S, VOCs, HCl, radiation, NH₃, and wind speed and direction. Sensors were calibrated for high-level ppm conditions. Data was reviewed and received in real-time from inside an Emergency Response Haz-Mat Team van.

CONCLUSION: HAZ-SCANNER EPAS Monitoring Systems offer a portable, flexible, affordable, and reliable solution for any site-specific requirements that need to meet US EPA and EU directives. Choose from 19 different gas sensors, and additional meters including sound, atomic radiation, and more.



Portable. Affordable. Reliable.

Environmental Perimeter Air System

The **Haz-Scanner EPAS** measures and documents trace level (ppb) gas, particulates, and meteorological parameters in real-time to US EPA and EU directives. Configure up to 14 sensors with **true simultaneous PM2.5 and PM10 readings**.

Custom Sensor Calibrations to Meet Your Needs

Build your own system to your specific application(s).

Wireless Networking

Interface multiple systems 24/7 with cell phone alerts & remote global access to data without Cloud-based subscriptions.

Sample Pump Option

Remotely trigger two external SKC Sample Pumps with a user-defined alarm threshold.

Battery, AC, or Solar Option

Contact **SKC** for more information.



The combination of tracking baseline chemical vapor conditions, local meteorological information, and the ability to collect samples immediately for analysis using our most sensitive laboratory methods provides enhanced capabilities to detect chemical vapors closer to workers, with faster response and with greater accuracy”

Michael Schmoldt, CIH, PE WRPS



Recognized in the October 30th, 2013 Savannah River National Lab Report, Hanford Tank Vapor Assessment Report

Create a HAZ-SCANNER EPAS to fit your applications. Use the convenient pre-checklist below, then contact SKC!

Start with:

☐ EPAS Basic Kit

- *PM10 or TSP particulates*
- *Nitrogen dioxide*
- *Carbon monoxide*

Add up to 11 sensors/meters

Cat. No. 770-500K1

OR:

☐ EPAS Build Your Own System Foundation Kit

Add up to 14 sensors/meters

Cat. No. 770-500

Choose 1 additional particulate (infrared light scattering) sensor for Basic Kit (up to 2 for Build Your Own).[†]

☐ PM1.0 ☐ PM2.5 ☐ PM10

[†] Ask your SKC representative about the optional 47-mm FRM-style filter cassette

Choose up to 6 interchangeable gas sensors (8 for Build Your Own)*

- ☐ Ammonia (EC)
- ☐ Carbon dioxide (NDIR)
- ☐ Carbon monoxide (EC)
- ☐ Chlorine (EC)
- ☐ Ethylene oxide (EC)
- ☐ Hydrocarbon: methane-specific (NDIR)

- ☐ Hydrocarbons: non-methane (NDIR)
- ☐ Hydrogen chloride (EC)
- ☐ Hydrogen cyanide (EC)
- ☐ Hydrogen sulfide (EC)
- ☐ Nitric oxide (EC)
- ☐ Nitrogen dioxide (EC)
- ☐ NO_x (EC)*
- ☐ Oxygen (EC)
- ☐ Ozone (EC)
- ☐ Phosphine (EC)
- ☐ SO_x (EC)*
- ☐ Sulfur dioxide (EC)
- ☐ VOCs (PID)

Choose up to 4 EPAS-specific optional meters or meteorological sensors*

- ☐ Rain gauge (tipping bucket)
- ☐ Solar radiance (photodiode)
- ☐ Barometric pressure (piezo resistive)*
- ☐ Wind speed/direction (3-cup anemometer/vane)
- ☐ Dew point temperature (software calculation)
- ☐ Sound/Noise (Type 2 SLM)
- ☐ Atomic/Nuclear radiation (Geiger counter)
- ☐ Temperature and Relative Humidity (NTC and CAP)

* Barometric pressure sensor applies toward both the gas sensor count and the meter count. NO_x requires both NO and NO₂ sensors. SO_x requires PM2.5 and SO₂ sensors.

Contact your SKC representative today!



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