HAZ-SCANNER EPAS

Environmental Perimeter Air Station

- **Direct reading**
- **Measures/documents trace-level (ppb) gas, particulates, and meteorological parameters in real time to U.S. and EU directives**
  - Configure with up to 14 interchangeable sensors and EPAS-specific meters
  - Can equip to monitor two PM sizes simultaneously
- **Two options to customize your multi-pollutant monitoring station**
  - **Basic Kit** measures 3 parameters; add up to 11 additional sensors/meters
  - **Build Your Own System Kit:** Add up to 14 sensors/meters
  - **Use the checklist on reverse side** to configure your EPAS before contacting SKC
- **Real-time display, wireless data transmission, and storage**
- **Wireless networking and datalogging capabilities**
  - Network up to 8 EPAS units to one central PC or Mac; wireless network software option available
- **Portable and easily deployed**
- **Operate from battery, AC, or optional solar panel**
- **Easy-to-use graph and reporting software compatible with PC and Mac**

The portable HAZ-SCANNER EPAS environmental perimeter air station is easily deployed as a multi-pollutant 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. ***Go to www.skcinc.com and search on "EPAS."***

HAZ-SCANNER Wireless EPAS Applications

- Ambient/urban air quality monitoring
- Hazardous incident response
- Special purpose monitor (SPM) and near roadway air studies — Complement to regulatory compliance
- Waste site remediation/land reclamation monitoring
- Military/homeland security
- Perimeter monitoring
- Near roadway monitoring

Go to www.skcinc.com/prod/Haz-Scanner for more information.

HAZ-SCANNER EPAS shown with optional solar panels

SKC

SKC Inc. 724-941-9701 **SKC-West** 714-992-2780 **SKC Gulf Coast** 281-859-8050 **SKC South** 434-352-7149

www.skcinc.com

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HAZ-SCANNER EPAS

Environmental **P**erimeter **A**ir **S**tation

Create a HAZ-SCANNER EPAS to fit your applications. Use the convenient checklist below as a guide to building your EPAS *before* contacting an SKC representative.

Start with:

❑ **EPAS Basic Kit**
- ✓ PM10 or TSP particulates
- ✓ Nitrogen dioxide
- ✓ Carbon monoxide

Cat. No.....770-500K1

Add up to 11 sensors/meters separately at additional cost.

or

❑ **EPAS Build Your Own System Foundation Kit**

Cat. No..... 770-500

Add up to 14 sensors/meters separately at additional cost.

Choose 1 additional particulate sensor for Basic Kit *(optional)*. Choose up to 2 for Build Your Own.

❑ PM1.0
❑ PM2.5
❑ PM10

Choose up to 6 interchangeable gas sensors for Basic Kit *(optional)*. Choose 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)
❑ Oxygen (EC)
❑ Ozone (metal oxide semiconductor)
❑ Phosphine (EC)
❑ Sulfur dioxide (EC)
❑ VOCs (PID)

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

❑ Temperature and Relative Humidity (NTC and CAP)
❑ 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)

* *Barometric pressure sensor applies to both the gas sensor count and the meter count.*

Contact your SKC representative today for a quote on your custom-configured station!

For EPAS device, sensor, and meter specifications, visit www.skcinc.com and search on "EPAS."

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HAZ-SCANNER EPAS

Environmental **P**erimeter **A**ir **S**tation

Performance Profile

The HAZ-SCANNER EPAS is optimized for ambient air applications; custom calibration for specific ranges or applications is available upon request.

Display	LCD real time
Operation	4-key splash-proof membrane switch
Power	12-V Absorption Glass Mat (AGM) rechargable battery, 100-240 V AC, or optional solar panel
Display Measurements	Max, Min, TWA, STEL
Recording Time	1 sec to 21 weeks
Sampling Rate	1 sec, 1 min, 10 min, 1 hr, adjustable
Data Storage	454,545 data points
Internal Sample Pump	1 to 3 L/min
Digital Output	RS-232 (PC), RS-423 (Mac)
Software	PC or Mac
Dimensions (weatherproof case)	6 x 14 x 10 in (15.2 x 35.6 x 25.4 cm)
Weight	12 lbs (5.4 kg)
Operating Temperature	23 to 122 F (-5 to 50 C)
Storage Temperature	-40 to 140 F (-40 to 60 C)

Humidity	95% non-condensing (use inlet heater)
Communication Options	***Wireless Radio Modem:*** 900 MHz (U.S.), 868 MHz (Euro) up to 5 miles - line of sight *(optional)* ***Wi-Fi Server Transmitter:*** 2.4/5 GHz, for up to 3 miles - line of sight *(optional)* ***Cellular Mobile Network:*** LTE/UMTS/HSPA & GSM/GPRS/EDGE and CDMA cellular router ***Ethernet/Web:*** A wired LAN/WAN connection to web server ***Wireless Network Software:*** Connect up to 8 EPAS to a central PC or Mac
Auxiliary Analog Input	0 to 2.5 VDC (1 channel for alternative meter)

HAZ-SCANNER EPAS Sensor/Meter Specifications

Parameter	Sensor*	Measurement/ Concentration Range	Accuracy	Minimum Resolution	Display Resolution	Additional Information
Particulates	90° infrared light scattering	0 to 5000 µg/m^3	Greater of < ± 10% of reading or 0.2% full scale	10 µg/m^3	1 µg/m^3	Measures particle sizes 10 µm or TSP (included in Basic Kit) or 1, 2.5, or 4 µm (optional) in the 0.1 to 100-µm size range
VOCs	PID (10.6 eV)	0 to 50,000 ppb (0 to 50 ppm)	Greater of < ± 10% of reading or 2% full scale	5 ppb	1 ppb	Minimum detection level is 0.01 ppm
Toxic Gas: NH_3 - Ammonia	Electrochemical	0 to 100 ppm	Greater of < ± 10% of reading or 2% full scale	< 0.2 ppm	0.1 ppm	
Toxic Gas: CO_2 - Carbon Dioxide	NDIR	0 to 5000 ppm	Greater of < ± 10% of reading or 2% full scale	50 ppm	1 ppm	
Toxic Gas: CO - Carbon Monoxide	Electrochemical	0 to 10,000 ppb (0 to 10 ppm)	Greater of < ± 10% of reading or 2% full scale	20 ppb	1 ppb	Included in Basic Kit
Toxic Gas: Cl_2 - Chlorine	Electrochemical	0 to 100 ppm	Greater of < ± 10% of reading or 2% full scale	< 0.2 ppm	0.1 ppm	
Toxic Gas: (C_2H_4O) - Ethylene Oxide	Electrochemical	0 to 1500 ppm	Greater of < ± 10% of reading or 2% full scale	8 ppm	1 ppm	EPAS is NOT approved for intrinsically safe applications
Toxic Gas: Methane, CH_4	NDIR	0 to 1% Vol, 0 to 10,000 ppm, 0 to 20% LEL	Greater of < ± 10% of reading or 2% full scale	± 50 ppm or 0.1% LEL	50 ppm/ 0.1% LEL	
Toxic Gas: (Non-methane) Hydrocarbons (HC)	NDIR	Calibrated for 0 to 20% LEL of selected gas	Greater of < ± 10% of reading or 2% full scale	± 50 ppm or 0.1% LEL	50 ppm/ 0.1% LEL	Specify gas type when ordering: ethane, propane, butane, pentane, hexane, ethanol, ethylene, or ethylene oxide
Toxic Gas: HCl - Hydrogen Chloride	Electrochemical	0 to 100 ppm	Greater of < ± 10% of reading or 2% full scale	< 0.2 ppm	0.1 ppm	
Toxic Gas: HCN - Hydrogen Cyanide	Electrochemical	0 to 100 ppm	Greater of < ± 10% of reading or 2% full scale	< 0.2 ppm	0.1 ppm	
Toxic Gas: H_2S - Hydrogen Sulfide	Electrochemical	0 to 25 ppm	Greater of < ± 10% of reading or 2% full scale	0.15 ppm	0.01 ppm	0 to 5000-ppb range available

* *Not approved for intrinsically safe applications; do not use in explosive gas environments*

Specifications continued on next page

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HAZ-SCANNER EPAS Sensor/Meter Specifications *(Cont)*

Parameter	Sensor*	Measurement/ Concentration Range	Accuracy	Minimum Resolution	Display Resolution	Additional Information
Toxic Gas: NO - Nitric Oxide	Electrochemical	0 to 5000 ppb	Greater of ± 10% of reading or 2% full scale	5 ppb	1 ppb	
Toxic Gas: NO_2 - Nitrogen Dioxide	Electrochemical	0 to 5000 ppb (0 to 5 ppm)	Greater of < ± 10% of reading or 2% full scale	5 ppb	1 ppb	Included in Basic Kit
Toxic Gas: NO_x - Nitric Oxide and Nitrogen Dioxide	Calculated values	0 to 10,000 ppb	30 ppb	30 ppb	1 ppb	Software modification required to display NO_x Requires both NO and NO_2 sensors
Toxic Gas: O_2 - Oxygen	Electrochemical	0 to 30% Vol	Greater of < ± 10% of reading or 2% full scale	0.6%	0.1%	
Toxic Gas: O_3 - Ozone	Metal oxide semi-conductor (MOS)	0 to 150 ppb (0 to 0.15 ppm), or 0 to 500 ppb (0 to 0.5 ppm)	Greater of < ± 10% of reading or 2% full scale	1 ppb	1 ppb	
Toxic Gas: PH_3 - Phosphine	Electrochemical	0 to 100 ppm	Greater of < ± 10% of reading or 2% full scale	< 0.2 ppm	0.1 ppm	
Toxic Gas: SO_2 - Sulfur Dioxide	Electrochemical	0 to 5000 ppb (10 to 500 ppb for ambient applications)	Greater of < ± 10% of reading or 2% full scale	5 ppb	1 ppb	
Rainfall/ Precipitation	Rain gauge	0 to 5 inches daily	± 1% at 2 in/hr	0.01 in	0.01 in/tip	
Temperature **Relative Humidity (RH)**	NTC CAP	-4 to 140 F (-20 to 60 C) 0 to 100% RH	± 3% of reading degree F or C ± 2% RH	1 degree F or C 1% RH	1 degree F or C 1% RH	Counts as a single sensor
Solar Radiance Intensity	Photodiode	0 to 1800 watts/ square meter (W/m^2)	+ 5% of full scale (reference Eppley PSP at 1000 W/m^2)	1 W/m^2	1 W/m^2	
Sound/Noise	Type 2 SLM	30 to 135 decibels (dB)	± 1.5 dB	0.1 dB	0.1 dB	
Atomic/Nuclear Radiation	Geiger counter	1 to 19,999 counts per minute (cpm) or 0.001 to 100 milliRad/hr	± 10% Typical, ± 15% Max	1 cpm or 0.001 mR/hr	1 cpm or 0.001 mR/hr	
Wind Speed and Direction	3-cup anemometer and continuous rotation potentiometric wind direction vane	Speed: 0 to 125 mph (0 to 55.9 m/s, 0 to 201 km/hr) Direction: 5 to 355 degrees	Speed: 1 mph (± 0.4 m/s, -1 km/hr) Direction: ± 3% / ± 3 degrees	Speed: 1 mph (± 0.4 m/s, 0.1 km/hr) Direction: 1 degree	Speed: 1 mph (± 0.4 m/s, 0.1 km/hr) Direction: 1 degree	
Barometric Pressure	Piezo resistive	28.25 to 30.75 in Hg	± 0.09 in Hg	0.01 in Hg	0.01 in Hg	Counts as a "Toxic Gas Sensor" due to location in case
Dew Point Temperature	Software calculation from RH and temperature	3.2 to 122 F (-16 to 50 C)	± 3 F	1 F	1 F	Results software calculated using Temperature and RH sensor (required, available separately). Dew Point Temperature does not count as a separate meter

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