

HAZ-SCANNER

Wireless Environmental Perimeter Air Station **EPAS**

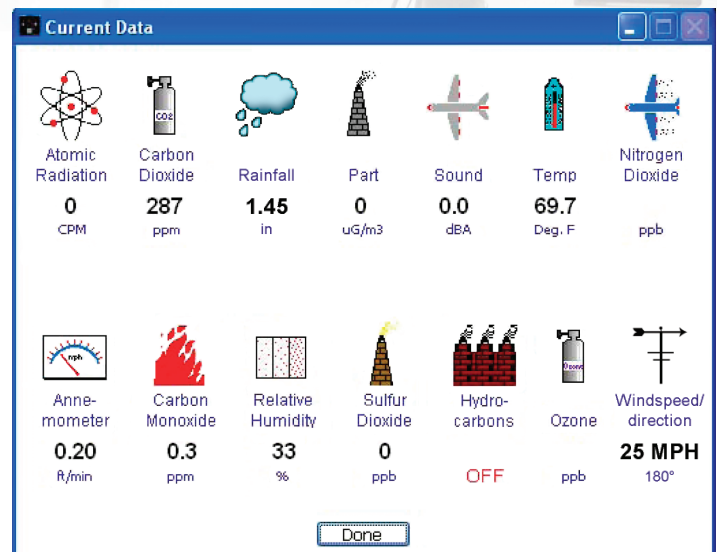
- ◆ **Direct reading**
- ◆ **Build your own station with up to 14 simultaneous air measurements including U.S. EPA criteria air pollutants**
 - Standard configuration measures 5 parameters including PM10 or TSP particulates, NO₂, CO, temperature, and relative humidity
 - Add one or all optional interchangeable sensors with upgradable software and/or EPAS-specific meters (up to 9 sensors/meters total) as listed on the reverse side. Choose from additional sensors for toxic gas (including methane), hydrocarbons, VOCs, and biological/chemical agents and EPAS-specific meters for solar radiance/UV or IR, barometric pressure, sound/noise, atomic radiation, ELF radiation, rain, and wind speed/direction
 - Available analog input port for alternative meter
 - Interchangeable size-selective impactors are available for PM1.0, PM2.5, or PM4.0 (close approximation of respirable)
 - Can monitor up to 2 PM sizes simultaneously
- ◆ **Real-time readings, datalogging capabilities**
 - Optional wireless data transmission up to 5 miles
 - Optional Ethernet internet connection for 24/7 data reporting
- ◆ **Easily portable and deployable**
- ◆ **Battery operated, AC or solar option**
- ◆ **Network up to 8 EPAS to one central PC or Mac**
- ◆ **Easy-to-use graph and reporting software compatible with PC and Mac**

The portable HAZ-SCANNER™ EPAS wireless environmental perimeter air station 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 is the only instrument on the market with sensors offering simultaneous monitoring of two different sizes of PM. The EPAS provides direct readings in real time with datalogging capabilities. The graph and reporting software is compatible with PC and Mac. Contact an SKC product specialist to build your EPAS including up to 14 simultaneous critical air measurements in one battery-operated instrument.

HAZ-SCANNER Wireless EPAS Applications

- Ambient air quality monitoring
- Hazardous incident response
- Waste site remediation monitoring
- Military/homeland security
- Perimeter monitoring
- Near roadway monitoring

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



Measure up to 14 critical air parameters simultaneously with HAZ-SCANNER EPAS.



HAZ-SCANNER EPAS

Wireless Environmental Perimeter Air Station



HAZ-SCANNER EPAS shown with optional solar panels

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) rechargeable 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 |
| Sampling Pump | 1.0 to 3.0 L/min |
| Digital Output | RS-232 (PC), RS-423 (Mac) |
| Software | PC or Mac |
| Dimensions (weather-proof 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) |
| Wireless Radio Modem | 900 MHz (U.S.), 868 MHz (Euro) up to 5 miles - line of sight (optional) |
| Auxiliary Analog Input | 0 to 2.5 VDC (1 channel for alternative meter) |

Configure an EPAS for Up to 14 Simultaneous Measurements

The standard HAZ-SCANNER EPAS configuration includes the monitor (calibrated for ambient air applications) with sensors/meters for PM10 or TSP, NO₂, CO, temperature and humidity, precipitation/solar cap, impactor sleeve in a NEMA 4 enclosure, acid gas scrubber, internal battery, universal 110-240 V AC battery charger, software, cables, and CD with software instructions.

Configure the monitor with additional sensors/meters. See page 3 for specifications. *Specify sensors and meters when ordering.*

- PM1.0, 2.5, or 4.0
- Ammonia (EC)
- Carbon Dioxide (NDIR)
- Carbon Monoxide (EC)
- Chlorine (EC)
- Ethylene Oxide (EL)
- Hydrocarbon (methane-specific, EC)
- Hydrocarbons (EC)
- Hydrogen Chloride (EL)
- Hydrogen Cyanide (EC)
- Hydrogen Sulfide (EC)
- Nitric Oxide (EC)
- Nitrogen Dioxide
- Oxygen
- Ozone
- Phosphine (EL)
- Sulfur Dioxide
- Rain
- Solar Radiance
- Sound and Noise
- Atomic Radiation
- ELF Radiation
- Barometric Pressure
- Dew Point Temperature
- Wet Bulb Temperature

Contact SKC to build an EPAS with available sensors/meters/calibration for your application!

SKC Limited Warranty and Return Policy

SKC products are subject to the SKC Limited Warranty and Return Policy, which provides SKC's sole liability and the buyer's exclusive remedy. To view the complete SKC Limited Warranty and Return Policy, go to <http://www.skcinc.com/warranty.asp>.



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 (standard) 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. Standard sensor |
| Toxic Gas: NH ₃ - Ammonia | Gas-sensing semi-conductor (GSS) technology | 0 to 100 ppm | Greater of < ± 10% of reading or 2% full scale | < 0.2 ppm | 0.1 ppm | Optional sensor |
| Toxic Gas: CO ₂ - Carbon Dioxide | NDIR | 0 to 5000 ppm | Greater of < ± 10% of reading or 2% full scale | 50 ppm | 1 ppm | Optional sensor |
| 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 | Standard sensor |
| 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 | Optional sensor |
| Toxic Gas: (C ₂ H ₄ O) - Ethylene Oxide | Electrochemical | 0 to 1500 ppm | Greater of < ± 10% of reading or 2% full scale | 8 ppm | 1 ppm | Optional sensor |
| Toxic Gas: Hydrocarbon, CH ₄ - Methane-specific | 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 | Optional sensor |
| 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/ 0.1% LEL | 50 ppm/ 0.1% LEL | Optional sensor - 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 | Optional sensor |
| 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 | Optional sensor |
| Toxic Gas: H ₂ S - Hydrogen Sulfide | Electrochemical | 0 to 25 ppm | Greater of < ± 10% of reading or 2% full scale | 0.15 ppm | .01 ppm | Optional sensor 0-5000 ppb range available |
| Toxic Gas: NO - Nitric Oxide | Electrochemical | 0 to 100 ppm | Greater of < ± 10% of reading or 2% full scale | < 0.2 ppm | 0.1 ppm | Optional sensor |
| 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 | Standard sensor |
| Toxic Gas: O ₂ - Oxygen | Electrochemical | 0 to 30% Vol. | Greater of < ± 10% of reading or 2% full scale | 0.6% | 0.1% | Optional sensor |
| 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 | Optional sensor |
| 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 | Optional sensor |
| Toxic Gas: SO ₂ - Sulfur Dioxide | Electrochemical | 0 to 5000 ppb (0 to 5 ppb) for ambient applica- tions | Greater of < ± 10% of reading or 2% full scale | 5 ppb | 1 ppb | Optional sensor |

* 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 (con't)

| Parameter | Sensor* | Measurement/ Concentration Range | Accuracy | Minimum Resolution | Display Resolution | Additional Information |
|-----------------------------|---|---|--|------------------------|------------------------|---|
| Rain Fall/ Precipitation | Rain gauge | 0 to 5 inches daily | ± 1% at 2 in/hr | 0.01 in | 0.01 in/tip | Optional meter |
| Temperature | NTC thermister | -4 to 140 F (-20 to 60 C) | Greater of ± 3% degree F or C of reading | 1 degree F or C | 1 degree F or C | Standard sensor |
| Relative Humidity (RH) | Thin-film capacitive | 0 to 100% RH | ± 2% RH | 1% RH | 1% RH | Standard sensor |
| Solar Radiance Intensity | Photodiode | 0-110 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 | Optional meter |
| Sound and Noise | Type 2 SLM | 30 to 135 deci- bels (dB) | ± 1.5 dB | 0.1 dB | 1 dB | Optional meter |
| Atomic 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 .001 mR/hr | 1 cpm or .001 mR/hr | Optional meter |
| Wind Speed/ Direction | 3-cut anemometer/ continuous rotation potentiometric wind direction vane | 0 to 125 mph/ 5 to 355° | ± 1 mph or ± 3%/± 3° | 1 mph/1° | 1 mph/1° | Optional sensor |
| Barometric Pressure | Piezo resistive | 28.25 to 30.75 in Hg | ± 0.09 in Hg | 0.01 in Hg | 0.01 in Hg | Optional sensor |
| Dew Point Temperature | Software calcula- tion from RH and temperature | 3.2 to 122 F (-16 to 50 C) | ± 3 F | 1 F | 1 F | Optional meter - software calculated |

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