

HAZ-SCANNER

Indoor Environmental Monitoring Station IEMS

- ◆ Direct reading
- ◆ Measures and displays data for up to 14 critical indoor air quality parameters
 - Standard IEMS configuration measures 5 parameters including PM10 or TSP particulates, CO₂, CO, temperature, and relative humidity
 - Add up to 9 optional interchangeable sensors and/or IEMS-specific meters
 - Choose from additional toxic gas sensors, PID for VOCs, or IEMS-specific meters for light intensity, sound/noise, atomic/nuclear radiation, ELF radiation, and air velocity
 - 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)
- ◆ In-line standard 37-mm or optional 25-mm gravimetric filter cassette provides concurrent filter sampling for chemical and biological analyses
- ◆ Internal sample pump provides flow rate of 2 L/min
- ◆ NiMH battery for 8-hour operation, continuous operation with AC power
- ◆ Displays TWA, STEL, Max, and Min
- ◆ Optional alarm indicator light and siren for user-defined threshold limits
- ◆ Removable handheld sensors for spot-checking remote areas
- ◆ Datalogging
 - Real-time wireless data transmission and wireless network software options available
- ◆ Easy-to-use graph and reporting software — compatible with PC and Mac

The portable HAZ-SCANNER™ IEMS indoor environmental monitoring station is designed to measure critical parameters for indoor environmental assessments, LEED green building certification, school zone measurements, job task analysis, and occupational health and safety compliance. The HAZ-SCANNER IEMS displays real-time reading with datalogging capabilities. Configure the IEMS for up to 14 simultaneous critical indoor measurements. Optional wireless data acquisition for continuous unattended sampling up to one mile is available. Easily download data to a PC or Mac and create compliance-ready graphical reports with the supplied software.



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SKC-West 714-992-2780

SKC Gulf Coast 281-859-8050

SKC South 434-352-7149

www.skcinc.com

HAZ-SCANNER IEMS

Indoor Environmental Monitoring Station

HAZ-SCANNER IEMS Applications

- Snapshot air profiles at schools
- Complement to regulatory compliance
- LEED Green Building certification
- Job task analysis
- IEQ assessment



Ordering Information

Description	Cat. No.
HAZ-SCANNER IEMS Standard Configuration includes particulate sensor for TSP, impactor for PM10 sampling, CO ₂ , CO, temperature, and relative humidity sensors, NiMH battery and charger, HazComm Pro Software, cables, CD with instructions, and carry case CB <i>HAZ-SCANNER IEMS is expandable to up to 14 parameters; see sensors and meters listed below.</i>	770-800
IEMS-specific Optional Meters (Choose up to 5) , each includes holder to mount meter on tripod accessory	
Air Velocity Meter , 80 to 5910 ft/min	770-801
Atomic/Nuclear Radiation Meter , 1 to 19,999 cpm or 0.001 to 100 mR/hr	770-802
ELF Radiation Meter , 1 to 200 G	770-803
Indoor Light Intensity Meter , 0 to 50,000 lux/0 to 5000 fc	770-804
IEMS-specific Optional Sensors (Choose up to 4) †	
Nitrogen Dioxide Sensor , 0 to 20 ppm*	770-805
Sulfur Dioxide Sensor , 0 to 20 ppm*	770-806
Oxygen Sensor , 0 to 30%* Vol.	770-807
Ozone Sensor , 0 to 0.5 ppm‡	770-808
Ozone Sensor , 0 to 5 ppm‡	770-818
PID for VOCs , 0 to 2000 ppm (isobutylene equivalent)	770-809

† Hydrocarbon sensors and specialty sensors for nitric oxide, chlorine, hydrogen cyanide, and hydrogen sulfide are available. Contact SKC; specify gas type when ordering.

CB Requires calibration using appropriate calibration gas(es) and regulator sold separately

* Additional calibration gas for the specific chemical is required when using additional toxic gas sensors.

‡ Ozone generator required for calibration

Accessories		
Size-selective Impactors	PM1.0	770-811
	PM2.5	770-812
	PM4.0	770-813
Calibration Standard , particulate		770-207
Tripod Stand for HAZ-SCANNER IEMS includes holder for IEMS		770-814
Alarm for HAZ-SCANNER IEMS		770-815
Wireless Radio Modem , 900 MHz, up to 1500 feet		770-505X

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.skinc.com/warranty>.

Performance Profile

The HAZ-SCANNER IEMS is optimized for indoor environmental air quality investigations; custom calibration is available upon request.

HAZ-SCANNER IEMS Instrument Specifications	
Display	LCD
Operation	4-key splash-proof membrane switch
Power	12-V NiMH rechargeable battery
Operating Time	8 hrs on battery, continuous on AC
Display Measurements	TWA, STEL, Max, Min
Recording Time	1 sec to 50 weeks
Sampling Rate	1-sec, 1-min, 10-min intervals
Data Storage	454,545 data points
Sampling Pump	2 L/min
Digital Output	RS-232 (PC), RS-423 (Mac)
Software	PC or Mac compatible
Dimensions	7 x 4 x 11 in (17.8 x 10.2 x 28 cm)
Weight	6 lbs (2.7 kg)
Operating Temperature	23 to 122 F (-5 to 50 C)
Storage Temperature	-4 to 140 F (-20 to 60 C)
Humidity	95% non-condensing
Wireless Radio Modem	900 MHz (U.S.); 868 MHz (Euro)
Auxiliary Analog Input	0 to 2.5 VDC (1 channel for alternative meter)

Configure IEMS for Up to 14 Simultaneous Measurements

The standard HAZ-SCANNER IEMS includes the monitor with an impactor for PM10 and sensors for TSP, CO₂, CO, temperature, and relative humidity with a 12-V NiMH battery, charger, HazComm Pro Software, cables, and CD with instructions.

Configure the monitor with additional interchangeable sensors/meters with upgradable software and/or IEMS-specific meters (up to 9 meters/sensors total) (listed below). *See page 3 for specifications. Specify sensors and meters when ordering.*

- PM1.0, 2.5, or 4.0
- Ammonia (EC)
- Chlorine (EC)
- Hydrogen Cyanide (EC)
- Hydrogen Sulfide (EC)
- Nitric Oxide (EC)
- Nitrogen Dioxide (EC)
- Oxygen (EC)
- Ozone (GSS)
- Sulfur Dioxide (EC)
- Sound and Noise
- Atomic/Nuclear Radiation
- ELF Radiation
- Air Velocity
- Indoor Light Intensity



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HAZ-SCANNER IEMS Sensor/Meter Specifications

Parameter	Sensor	Measurement/ Concentration Range	Accuracy	Minimum Resolution	Display Resolution	Additional Information
Particulate	90° infrared light scattering	0 to 20,000 µg/m ³	< ± 10% of reading or 2% of Full Scale - whichever is greater	10 µg/m ³	1 µg/m ³	Standard sensor
VOCs	PID (10.6 eV)	0 to 2000 ppm	< ± 10% of reading or 2% of Full Scale - whichever is greater	0.1 ppm	0.1 ppm	
Toxic Gas: NH ₃ - Ammonia	Electrochemical	1 to 100 ppm	< ± 10% of reading or 2% of Full Scale	< 0.2 ppm	0.1 ppm	Other specialty gases, sensors, and calibration ranges available upon request
Toxic Gas: CO ₂ - Carbon Dioxide	NDIR	0 to 10,000 ppm	< ± 10% of reading or 2% of Full Scale - whichever is greater	50 ppm	1 ppm	Standard sensor
Toxic Gas: CO - Carbon Monoxide	Electrochemical	0 to 1000 ppm	< ± 10% of reading or 2% of Full Scale - whichever is greater	< 1.5 ppm	0.1 ppm	Standard sensor
Toxic Gas: Cl ₂ - Chlorine	Electrochemical	1 to 100 ppm	< ± 10% of reading or 2% of Full Scale	< 0.2 ppm	0.1 ppm	
Toxic Gas: HCN - Hydrogen Cyanide	Electrochemical	1 to 100 ppm	< ± 10% of reading or 2% of Full Scale	< 0.2 ppm	0.1 ppm	
Toxic Gas: H ₂ S - Hydrogen Sulfide	Electrochemical	1 to 100 ppm	< ± 10% of reading or 2% of Full Scale	< 0.2 ppm	0.1 ppm	
Toxic Gas: NO - Nitric Oxide	Electrochemical	1 to 100 ppm	< ± 10% of reading or 2% of Full Scale	< 0.2 ppm	0.1 ppm	Other specialty gases, sensors, and calibration ranges available upon request
Toxic Gas: NO ₂ - Nitrogen Dioxide	Electrochemical	0 to 20 ppm	< ± 10% of reading or 2% of Full Scale - whichever is greater	0.02 ppm	0.01 ppm	IEMS unit can accommodate 6 sensors. Since CO ₂ and CO sensors are in standard IEMS, add up to 4 optional sensors. NOTE: Custom calibration ranges available on all toxic gas sensors upon request. Up to 4 from list can be used at any one time.
Toxic Gas: O ₂ - Oxygen	Electrochemical	0 to 30% Vol.	< ± 10% of reading or 2% Full Scale - whichever is greater	0.60%	0.1%	
Toxic Gas: O ₃ - Ozone (0 to 0.5 ppm)	Gas-sensing semiconductor (GSS) technology	0 to 0.5 ppm	< ± 10% of reading or 2% Full Scale - whichever is greater	1 ppb	1 ppb	
Toxic Gas: O ₃ - Ozone (0 to 5 ppm)	Gas-sensing semiconductor (GSS) technology	0 to 5 ppm	< ± 10% of reading or 2% Full Scale - whichever is greater	0.01 ppm	0.01 ppm	
Toxic Gas: SO ₂ - Sulfur Dioxide	Electrochemical	0 to 20 ppm	< ± 10% of reading or 2% Full Scale - whichever is greater	0.02 ppm	0.01 ppm	
Temperature	NTC thermistor	-4 to 140 F (-20 to 60 C)	± 3% of reading degree F or C	1 F or C	1 F or C	Standard sensor
Relative Humidity (RH)	Thin-film capacitive	0 to 100%	± 2%	1%	1%	Standard sensor
Sound and Noise	Type 2 SLM	30 to 135 dB	± 1.5 dB	1 dB	1 dB	Mounts to 770-814 tripod stand
Atomic/Nuclear Radiation	Geiger counter	1 to 19,999 CPM or 0.001 + 100 mR/hr	< ± 10% typical, ± 15% max	1 CPM or 0.001 mR/hr	1 CPM or 0.001 mR/hr	Handheld interchangeable meter with upgradable software for use with HAZ-SCANNER; measures alpha, beta, gamma, and x-rays; mounts to 770-814 tripod stand
ELF Radiation	Sensor with single-axis probe	1 to 200 G	< ± 10% or 5% Full Scale	1 G	1 G	Handheld interchangeable meter with upgradable software for use with HAZ-SCANNER; mounts to 770-814 tripod stand
Air Velocity	Hot wire	80 to 5910 ft/min	± 10% or 5% Full Scale	0.4 m/s or 80 ft/min	0.1 m/s or 10 ft/min	Handheld interchangeable meter with upgradable software for use with HAZ-SCANNER; mounts to 770-814 tripod stand
Indoor Light Intensity	Photo diode with color correction filter	0 to 50,000 lux	< ± 10% or ± 5% Full Scale	1 lux	1 lux	Handheld interchangeable meter with upgradable software for use with HAZ-SCANNER; mounts to 770-814 tripod stand

