

Indoor Air Quality Meter

NEW!

Features:

- Triple LCD display for CO₂, % relative humidity and air temperature
- Display backlight function
- Dual wavelength NDIR (non-dispersive infrared) CO₂ sensor
- Diffusion sampling method
- Simple and safe calibration in fresh air
- Data Memory and READ function
- Data hold and Maximum/Minimum with time stamp
- Continuous or manual data logging (up to 20,000 sets)
- Alarm and time setting
- RS232 serial interface
- Includes 6 AAA batteries, AC adapter (110V or 220V), Windows software, RS232 cable and carrying case

Specifications:

CO ₂ Range:	0 to 6,000 ppm
Resolution:	1 ppm
Accuracy:	±3% rdg. or ±50ppm, which is greater
Temperature Range:	-20 to 60°C (-4 to 140°F)
Resolution:	0.1°C (0.1°F)
Accuracy:	±0.5°C (±0.9°F)
Humidity Range:	10 to 95%RH
Resolution:	0.1%RH
Accuracy:	±3%RH (at 25°C, 30 to 95%RH), ±5%RH (at 25°C, 10 to 30% RH)
Memory Capacity:	Manual: 99 sets; Auto: 20,000 sets
Power Supply:	6 AAA alkaline batteries
Battery Life:	Approx. 8 hours (w/o backlight or alarm)
Dimensions:	158(L) × 72(W) × 35(H)mm
Weight:	Approx. 255g (including batteries)



Model	Description	Price
TES-1370B	Indoor Air Quality Meter	\$787

Indoor Air Quality Monitor



Features:

- Air quality monitor for temperature and carbon dioxide
- Easy-to-read LCD display indicates the measured values for each parameter
- Non-dispersive infrared carbon dioxide sensor
- Audible alarm
- Operates on four AA batteries that provide 80 hours of running time or continuously on supplied wall adapter

Specifications:

Measurement Range:	0 to 10,000 ppm
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Resolution:	1 ppm @ 0-1,000ppm; 5 ppm @ 1,000-2,000 ppm; 10 ppm @ 2,000-4,000 ppm; 20 ppm @ 4,000-6,000 ppm; 40 ppm @ 6,000-10,000 ppm
Accuracy:	±5% rdg. or ±50 ppm
Repeatability:	±20 ppm
Temp. Dependence:	±0.1% rdg./°C or 2 ppm/°C
Pressure Dependence:	±0.13% rdg./mm Hg
Sampling Method:	Diffusion (50 to 200 ml/min)
Temperature Range:	32 to 122°F (0 to 50°C)
Resolution:	0.1°F (0.1°C)
Accuracy:	±2°F (±1°C)
Outputs:	Normally low, 100mA max. @ 24 VDC. Adjustable setpoint, factory setting is 1,000 ppm, hysteresis is 50 ppm
Power Supply:	4 x "AA" alkaline batteries or 6VDC from external AC/DC adapter
Battery Life:	80 hours
Dimensions:	25 x 81 x 165mm (1 x 3.2 x 6.5")
Weight:	274 g (9.7 oz)

Model	Description	Price
FALCON-II	Indoor Air Quality Monitor	\$280

Indoor Air Quality Meter



Features:

- Simultaneous monitoring of three parameters: carbon dioxide (CO₂), relative humidity and temperature
- Dew point and wet bulb temperatures can also be displayed
- Instantaneous readings are displayed on a high resolution LCD with backlight
- Displays STEL readings (Short-term exposure limit) over a 15-minute period and TWA readings (Time-weighted average) over a period of 8 hours
- Hold function
- Maximum, minimum and average functions
- Low drift, non-dispersive infrared CO₂ sensor
- Audible warning alarm of excessive CO₂ concentrations
- RS-232 serial interface



Specifications:

CO₂ Range: 0 to 5,000 ppm
 Resolution: 1 ppm
 Accuracy: ±5% rdg. ±50 ppm
 Temperature Range: -10 to 60°C (14 to 140°F)
 Resolution: 0.1°C/°F
 Accuracy: ±0.6°C (±0.9°F)
 Humidity Range: 0 to 99.9% RH
 Resolution: 0.1% RH
 Accuracy: ±3% RH @ 25°C (10 to 90% RH), ±5% RH <10% & >90%
 Dew Point Range: -73.4 to 60°C
 Wet Bulb Range: -13.3 to 60°C
 Sensors: CO₂: Non-Dispersive Infrared (NDIR); Humidity: Rotronic capacitor
 Response Time: 30 seconds
 Alarms: Audible: 80dB
 Power Supply: 4 x "AA" alkaline batteries
 Battery Life: 24 hours

Model	Description	Price
77535	Indoor Air Quality Meter	\$495
VW3USB11A	RS232 Converter Cable to USB	\$40

Indoor Air Quality Meters

NEW!

Features All Models:

- Stable, low-drift NDIR sensor to monitor CO₂
- Real-time CO₂ readings 0 to 5,000 ppm
- Statistics function for average, maximum and minimum values

Features Models CF920 & CF930:

- Displays three parameters simultaneously: CO₂, temperature and humidity
- Displays humidity as %RH, dew point and wet bulb
- Calculates % outside air from either CO₂ or temperature
- Manual or continuous data logging
- Stores 12,700 sets of downloadable readings with time and date stamp
- Includes LogDat2 software cable and interface cable
- Electrochemical sensor for CO measurements (Model CF930 only)



Specifications:

CO₂ (all models)
 Sensor Type: Dual-wavelength, non-dispersive infrared (NDIR)
 Range: 0 to 5000 ppm
 Resolution: 1 ppm
 Accuracy: ±3% rdg. or ±50 ppm, whichever is greater
TEMPERATURE (Models CF920 & CF930)
 Sensor Type: Thermistor
 Range: 32 to 140°F (0 to 60°C)
 Resolution: 0.1°F (0.1°C)
 Accuracy: ±1.0°F (±0.6°C)
RELATIVE HUMIDITY (Models CF920 & CF930)
 Sensor Type: Thin-film capacitive
 Range: 5 to 95% RH
 Resolution: 0.1% RH
 Accuracy: ±3.0% RH
CO (Model CF930 only)
 Sensor Type: Electrochemical
 Range: 0 to 500 ppm
 Resolution: 0.1 ppm
 Accuracy: ±3% rdg. or 3 ppm, whichever is greater
GENERAL
 Logging Capability: **CF920:** 30,300 data points w/ 3 parameters enabled
CF930: 26,900 data points w/ 3 parameters enabled
 Log Intervals: 1 second up to 1 hour (user selectable)
 Time Constant: 1s, 5s, 10s, 20s, 30s (user selectable)
 Power Supply: 4 x AA-size 1.5V batteries
 Dimensions: 3.3 x 7.0 x 1.8" (84 x 178 x 44mm)
 Weight: **CF910:** 0.6 lb (0.27 kg); **CF920/CF930:** 1.16 lb (0.53 kg)

Model	Description	Price
CF910	Indoor Air Quality Meter	\$674
CF920	Datalogging IAQ Meter, CO ₂ /Temp/RH	\$2470
CF930	Datalogging IAQ Meter, CO ₂ /Temp/RH/CO	\$2823

Indoor Air Quality Meters

Features:

- Combines five powerful tools in one rugged and easy-to-use handheld tool
- Simultaneously measures, logs and displays temperature, humidity, carbon dioxide, and carbon monoxide
- Determine air flow and velocity with available probe attachment
- Wet bulb and dew point temperature
- % of outside air temperature
- CO₂ and CO field calibration feature
- Automatically compensates for barometric pressure changes
- Self-test function at start-up
- LCD display with auto-backlight
- Min/Max/Avg on all measured and calculated readings
- Multi-language user interface
- Metric or Imperial units
- Audible and visual threshold alarms
- Extensive discrete or continuous data logging capacity, downloadable to PC via USB interface
- Keypad lock for security
- Includes FlukeView Forms® software (975V)

Specifications:

MEASURED PARAMETERS

Temperature Range:	-20 to 50°C (-5 to 122°F)
Resolution:	0.1°C (0.1°F)
Accuracy:	±0.9°C/±1.62°F ≥40°C; ±0.5°C/±1.0°F from 5 to 40°C; ±1.1°C/±2.0°F ≤5°C
Humidity Range:	10 to 90% RH
Resolution:	1% RH
Accuracy:	±2% RH
Air Velocity Range:	0.50 to 3000 fpm (0.25 to 15 m/s)
Resolution:	1 fpm (0.005 m/s)
Accuracy:	±4% or 4 fpm (0.02 m/s)
CO ₂ Range:	0 to 5000 ppm
Resolution:	1 ppm
Accuracy:	±(2.75% rdg. +75 ppm)
CO Range:	0 to 500 ppm
Resolution:	1 ppm
Accuracy:	±(5% rdg. +3 ppm)

MEASURED PARAMETERS

Dew Point Temp. Range:	-44 to 50°C (-47 to 122°F)
Resolution:	0.1°C (0.1°F)
Accuracy:	±1°C: -20 to 50°C, 40 to 90% RH; ±2°C: -20 to 50°C, 20 to 40% RH; ±4°C: 10 to 20% RH
Wet Bulb Temp. Range:	-16 to 50°C (3 to 122°F)
Resolution:	0.1°C (0.1°F)
Accuracy:	±1.2°C: -20 to 50°C, 20 to 90% RH; ±2.1°C: 10 to 20% RH
Volume Flow Rate:	0 to 3,965 M ³ /m (0 to 140,000 cfm)
Resolution:	0.001 M ³ /m (1 cfm)
% Outside Air:	0 to 100%
Resolution:	0.1%

GENERAL

Power Supply:	Rechargeable Li-Ion (primary), 3 x "AA" (backup)
Data Logging	25,000 records (continuous), 99 records (discrete)



Applications:

- Makes indoor air quality testing easier and faster
- Verify the operation of HVAC control systems
- Determine whether adequate ventilation exists
- Respond to comfort related calls from occupants
- Test for dangerous carbon monoxide leaks
- Perform duct traversals
- Monitor air flow and velocity (975V)

Model	Description	Price
975	AirMeter	\$3752
975V	AirMeter w/ Velocity	\$4042

Indoor Air Quality Meter

CO₂ concentration is used as an indicator when assessing indoor air quality. If the CO₂ concentration in indoor air is too high, the air feels "stuffy and stale". Bad air quality can lead to fatigue, lack of concentration and illness (Sick Building Syndrome) and is caused, in many cases, by insufficient ventilation.

The CO₂ concentration in demand controlled ventilating (DCV) systems is used to regulate the supply of fresh air. Stationary CO₂ transducers are used and should be checked on a regular basis.

The indoor air to be measured diffuses through the particle filter in the measuring cell. At a certain wavelength, the radiation from the radiation source is absorbed by the CO₂ in the measuring cell. The higher the CO₂ concentration in the measuring cell, the lower the radiation intensity detected. The detector then converts the incoming radiation to an electrical signal. Only the radiation wavelength needed for the measurement is allowed by the optical filter to pass through in the direction of the detector.



The new CO₂ sensor is based on the dual beam infrared absorption principle. This CO₂ sensor has many advantages; long-term stability, high accuracy and efficiency, as well as sensor calibration is not required. When compared to electrochemical measuring cells, the CO₂ sensor does not show any cross-sensitivity to other gases.

Additionally, the sensors are not "poisoned" if the concentration of CO₂ is too high. This new CO_v sensor has a measured value detector and a reference detector so that environmental and disturbing influences such as ageing of the radiation source, are compensated by the reference beam.

Specifications:

Sensor:	2-channel infrared absorption principle
Range:	0 to 9,999 ppm or 0 to 1 vol.%
Resolution:	1 ppm or 0.001 vol.%
Accuracy:	0-5000 ppm: ±(50 ppm + 2% m.v.); 5000-9999 ppm: ±(100 ppm + 3% m.v.)
Display:	LCD, 0.5" high digits w/ ppm/vol.% switch
Ambient Temp.:	32 to 122°F
Power Supply:	One 9V alkaline battery
Battery Life:	More than 8 hours
Dimensions:	7.5 x 2.25 x 2"
Weight:	11 oz.

Model	Description	Price
0560.5350	Indoor Air Quality Meter	\$1208

Indoor Air Quality Monitors

NEW!



Features:

- Indoor air quality (IAQ) monitor that measures carbon dioxide, temperature and humidity for demand-controlled ventilation (DCV)
- Integrates easily into an existing building automation system through its wide array of analog and digital outputs including BACnet, LON, and Modbus
- Utilizes dual channel IR sensing technology for better drift and temperature compensation for measuring ambient CO₂ levels
- Offers multiple variations and options including duct mount, digital display and vandal-resistant protective cover
- Three sensor outputs
- Surface-mount (standard) or duct-mount (optional) (Please contact us for ordering information)

Specifications:

CO₂ SENSOR

Detection Method: Dual-beam, non-dispersive infrared (NDIR), diffusion sampling

Range: 0-2000 ppm (factory set); 0-10000 ppm (user selectable)

Accuracy: 0-2000 ppm: ± 100 ppm + 3% of reading
2000 to 10000 ppm: ± 10% of reading

Response Time: <60 sec. for 90% step change

TEMPERATURE SENSOR

Detection Method: Solid state, integrated circuit

Range: -4 to 122°F (-20 to 50C)

Accuracy: ±0.5°C at 25°C

Response Time: 30 sec.

HUMIDITY SENSOR

Detection Method: Solid state, integrated circuit

Range: 0-99 % RH, non-condensing

Accuracy: ±3.0% RH

Longterm Drift: Less than 0.5% RH/yr

GENERAL

Analog Outputs: 0-20mA, 4-20mA (selectable)

Digital Outputs: Modbus RTU, BACnet MS/TP, LON, FLN

Response Time: 4 sec.

Housing: ABS Alloy

Display: Graphic LCD, 122 x 32

Power Supply: 20 - 30 VAC or 18 - 30 VDC 200 mA @ 24 VDC, 50/60 Hz

Dimensions: 3.9" x 2.5" x 1.2" (9.9 x 6.3 x 3.0 cm)

Weight: SM: 0.44 lbs (0.20 kg); DT: 0.66lbs (0.30 kg)

Model	Description	Price
IAQPT-SM-A	CO ₂ Monitor w/ 4-20mA	\$235
IAQPT-SM-A-D	CO ₂ Monitor w/ 4-20mA, Display	\$265
IAQPT-SM-A-TRH	CO ₂ /Temp/RH w/ 4-20mA	\$295
IAQPT-SM-A-TRH-D	CO ₂ /Temp/RH w/ 4-20mA, Display	\$325
IAQPT-SM-B-D	CO ₂ Monitor w/ BACnet, Display	\$340
IAQPT-SM-B-TRH-D	CO ₂ /Temp/RH w/ BACnet, Display	\$400
IAQPT-SM-L-D	CO ₂ Monitor w/ LON, Display	\$380
IAQPT-SM-L-TRH-D	CO ₂ /Temp/RH w/ LON, Display	\$440
IAQPT-SM-M-D	CO ₂ Monitor w/ Modbus, Display	\$340
IAQPT-SM-M-TRH-D	CO ₂ /Temp/RH w/ Modbus, Display	\$400
IAQPT-OUTDOOR	Outdoor Enclosure, NEMA 3	\$425
IAQPT-COVER	Wall-mount Protective Cover	\$13

Carbon Dioxide Monitors

NEW!

Features:

- Specific CO₂ monitoring
- Improved drift and temperature compensation
- Redesigned enclosure to enhance airflow
- Optional backlit display
- Proven infrared technology
- Built-in microprocessor
- Optional relay contact closure (fail safe)
- Optional 4-20mA
- No moving parts means trouble-free operation
- Menu driven easy calibration
- Optional 0-5% detection range
- Modbus network output available (RS-485)
- Featured models are duct type monitors with network capability, 4-20mA, relay and display



Specifications:

Detection Range: 0-2000 ppm, 0-5%

Accuracy: ±100 ppm + 3% of reading

Response Time : < 60 sec. (for 90% of the reading)

Sensor Life Expectancy: >10 years

Relay Output Rating: 5A, 30 Vdc or 250 Vac (resistive load)

Optional Outputs: 4-20 mA (current sourcing only); 1 SPDT relay

Power Supply: 17-27 Vac or 24-38 Vdc, 200 mA @ 24Vac

Dimensions: 13.7 x 9.5 x 4.4 cm (15.4 x 3.75 x 1.75")

Weight: SM: 200 g (8.8 oz.); DT: 300 g (10.56 oz.)

Model	Description	Price
90DM4DT-NETCR-D-2000	CO ₂ Monitor, 0-2000ppm	\$480
90DM4DT-NETCR-D-50000	CO ₂ Monitor, 0-50,000ppm	\$480

Indoor Air Quality Monitors



Model YESPLUS



Model YESAIR

Features:

- Multi-sensor air quality monitoring and information recording instruments that simultaneously measure and record temperature, relative humidity and carbon dioxide levels in the air, plus 4 (YESAIR) or 9 (YESPLUS) more gases with specific plug and play sensors installed
- All sensors are installed internally and an air sample from the target environment is delivered to them through active sampling by an internal sample pump
- User can set one alarm level for each gas to activate an internal audible alarm (80dB at 4')
- LCD indicates all installed sensor types and measured values for each gas as well as battery status and other information
- Monitor will operate continuously from the supplied wall adapter/battery charger
- YESAIR features a miniature USB port for downloading recorded information and auxiliary port for uploading from plug-in probes (USB cable included) and 12-bit, multi-channel, user-configurable data logger with removable flash card
- YESPLUS offers data logging options such as real-time viewing; flexible zoom-in or zoom-out; point-to-point for information backup; statistic and tabular information; graph properties (general, axis, curve); Y-axis show or hide; auto/manual scale toggling

Specifications:

Sample:	Internal sample pump @ 0.5 lpm, low flow alarm, in-line filter
Alarms:	Internal 80dB @ 4', one set point
Display:	YESAIR: Multi-line backlit LCD; YESPLUS: 4-line alphanumeric, scrolling LCD
Recording:	YESAIR: 12-bit, multi-channel, user-configurable w/ removable flash card 16MB to 1GB; YESPLUS: 2.1MB capacity, 163,000 records; 12-bit resolution; 1-sec to 1-day sample interval
Communication:	YESAIR: Miniature USB port; YESPLUS: Serial port
Power Supply:	3 x "AA" alkaline batteries or rechargeable 3.6V NiMH battery pack (YESPLUS)
Dimensions:	YESAIR: 98 x 78 x 197mm (3.87 x 306 x 7.75"); YESPLUS: 259 x 180 x 65mm (10.2 x 7.1 x 2.6")
Weight:	YESAIR: 524 g (18.5 oz); YESPLUS: 1.4 kg (3.0 lb)

Model	Description	Price
YESAIR	Indoor Air Quality Monitor	\$1610
YESAIR-A+	IAQ Monitor w/ CO ₂ Sensor	\$2460
YESPLUS	Data Logging IAQ Monitor	\$2440
YESPLUS-A	Data Logging IAQ Monitor w/ CO ₂ Sensor	\$2870
YES-SFTWRE	Datalogging Software for YESAIR	\$28
CBL-3100	Serial Interface Cable	\$12

Plug & Play Sensors:

Model	Description	Price
YES-A	CO ₂ IR Sensor, 0-5000ppm (YESPLUS)	\$430
YES-A+	CO ₂ IR Sensor, 0-5000ppm (YESAIR)	\$850
YES-C	CO Electrochemical Sensor, 0-50ppm	\$270
YES-D	NO ₂ Electrochemical Sensor, 0-5.0ppm	\$290
YES-E	NO Electrochemical Sensor, 0-100ppm	\$315
YES-F	O ₂ Electrochemical Sensor, 0-25%vol.	\$190
YES-G	O ₃ Electrochemical Sensor, 0-1.0ppm	\$885
YES-H	NH ₃ Electrochemical Sensor, 0-50ppm	\$905
YES-I	Cl ₂ Electrochemical Sensor, 0-5.0ppm	\$365
YES-J	CLO ₂ Electrochemical Sensor, 0-1.0ppm	\$810
YES-K	H ₂ Electrochemical Sensor, 0-1000ppm	\$575
YES-L	H ₂ S Electrochemical Sensor, 0-50ppm	\$280

Both the YESAIR and YESPLUS include a temperature and RH sensor. Gas sensors are optional, see selection below. TVOC PID and infrared sensors (for combustibles) are also available.

Model	Description	Price
YES-M	HCL Electrochemical Sensor, 0-30ppm	\$930
YES-N	HCN Electrochemical Sensor, 0-100ppm	\$550
YES-O	HF Electrochemical Sensor, 0-10ppm	\$1050
YES-P	SO ₂ Electrochemical Sensor, 0-20ppm	\$420
YES-Q	HCHO Electrochemical Sensor, 0-10ppm	\$545
YES-S	F ₂ Electrochemical Sensor, 0-1.0ppm	\$575
YES-T	N ₂ H ₄ Electrochemical Sensor, 0-1.0ppm	\$1040
YES-U	COCL ₂ Electrochemical Sensor, 0-1.0ppm	\$790
YES-V	PH ₃ Electrochemical Sensor, 0-1.0ppm	\$790
YES-W	SIH ₄ Electrochemical Sensor, 0-50ppm	\$1245
YES-X	Combustible Catalytic Sensor, 0-100%LEL	\$350