# Q-TRAK™ MULTI-FUNCTION INDOOR AIR QUALITY MONITOR MODEL 7575

Providing a comfortable, safe and healthy indoor environment is an increasingly important concern. Good indoor air quality increases concentration and productivity which can reduce lost days due to absence. TSI's Q-Trak™ IAQ Monitor is a handheld, multi-function test instrument which features a menu-driven user interface for easy operation and provides quick, accurate information to measure and assess key IAQ parameters.

On-screen prompts and step-by-step instructions guide the user through operation, instrument setup and field calibration. The Q-Trak IAQ Monitor 7575 also features an ergonomic, over molded case design with probe holder and a keypad lockout to prevent tampering during unattended use. The Q-Trak IAQ Monitor 7575 is designed to work with a wide range of plug-in probes which expands measurement capability.

### Applications

- + IAQ investigations
- + Industrial hygiene surveys
- + Baseline trending and screening
- + Building commissioning
- + Tracking down emissions to their source (point source location)

### Features and Benefits

- + Simultaneously measures CO<sub>2</sub>, CO, temperature and humidity
- + Calculates dew point, wet bulb and percent outside air
- + Large graphic display
  - Displays up to 5 measurements
  - On-screen messages and instructions
  - Supports 12 different languages
- + One instrument with multiple plug-in probe options including VOCs and air velocity
- + Store up to 39 days of data collected at one-minute log intervals
- + TrakPro<sup>™</sup> Data Analysis Software provided for data logging, analysis and documenting results
- + Bluetooth communications for transferring data or remote polling



### Q-Trak IAQ Monitor Plug-In Probes

The plug-in probe accessories allow users to make various measurements by simply plugging in a different probe that has the features and functions best suited for a particular application. Plug-in probes for the Q-Trak IAQ Monitor can be ordered at any time and include a data sheet with certificate of traceability. When it's time for servicing, only the probe needs to be returned since all the calibration data is stored within the probe.

### Indoor Air Quality (IAQ) Probes

A good indicator of proper ventilation is the level of  $CO_2$  present in a space. Carbon dioxide is a normal by-product of occupant respiration. Elevated levels of  $CO_2$  may indicate that additional dilution ventilation is required.

IAQ probes are available to measure temperature, humidity, CO and  $CO_2$  of indoor environments. Calculations include percent outside air, wet bulb and dew point temperatures. The IAQ probes feature field calibration capability, and the CO sensor in the Model 982 is field replaceable.

### Volatile Organic Compounds (VOC) Probes

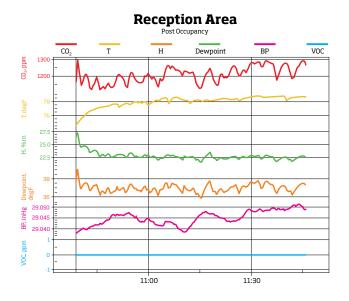
Volatile Organic Compounds (VOCs) are organic-based chemicals emitted as gases or vapors from solids or liquids that vaporize at room temperatures. Health effects from inhaling VOC's depend on the type of chemical, amount in the air (concentration in ppm or ppb), how long a person is exposed, and personal sensitivity to a given VOC.

VOC probes are available to measure temperature, humidity, VOC and CO<sub>2</sub> or just VOC and temperature. Calculations include percent outside air, wet bulb and dew point temperatures. VOC exposure in mass concentration can be calculated by inputting the molecular weight and response factor for a particular VOC. The VOC probes feature field calibration, maintenance and replacement sensors.

### **Data Collection and Reporting**

Expanded data logging capacity and the inclusion of TrakPro Data Analysis Software provides the capabilities to work more effectively and efficiently. The Q-Trak can store up to 39 days of data collected at one-minute log intervals which is useful for investigating trends, performance or complaints. The stored data can be recalled, reviewed on screen, and downloaded for easy reporting. TrakPro software helps you to generate professional graphs for your reports.

- + Log multiple parameters to investigate trends
- + User selectable logging intervals and start/stop times
- + Download data to data analysis software
  - Report generation
  - Graph creation
  - Instrument programming





# PROBE SPECIFICATIONS

### 980 IAQ Probes CO<sub>2</sub>, Temperature and Humidity

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Range	0 to 5,000 ppm CO <sub>2</sub> , 5 to 95% RH, -10 to 60°C (14 to 140°F)
Accuracy	±3% of reading or ±50 ppm CO <sub>2</sub> , whichever is greater <sup>6</sup>
	±3% RH <sup>4</sup> ±0.5°C (±1.0°F) <sup>3</sup>
Resolution	1 ppm CO <sub>2</sub> 0.1% RH 0.1°C (0.1°F)

### 982 IAQ Probes Model CO, CO<sub>2</sub>, Temperature and Humidity

Range	0 to 500 ppm CO 0 to 5,000 ppm $CO_2$ 5 to 95% RH -10 to 60°C (14 to 140°F)
Accuracy	±3% of reading or ±3 ppm CO, whichever is greater <sup>s</sup>
	$\pm 3\%$ of reading or $\pm 50$ ppm CO <sub>2</sub> , whichever is greater <sup>6</sup>
	±3% RH <sup>4</sup> ±0.5°C (±1.0°F) <sup>3</sup>
Resolution	$0.1 \text{ ppm CO 1 ppm CO}_2 0.1\% \text{ RH } 0.1^{\circ}\text{C} (0.1^{\circ}\text{F})$

### 792 and 794 Thermocouple Probes Temperature

Range	-40 to 650°C (-40 to 1,200°F)
Accuracy	$\pm 0.1\%$ of reading $\pm 1.1^{\circ}C$ ( $\pm 0.1\%$ of reading $\pm 2^{\circ}F$ )
Resolution	0.1°C (0.1°F)

### 984 Low Concentration (ppb) VOC and Temperature

Range	10 to 20,000 ppb, -10 to 60°C (14 to 140°F)
Accuracy	±0.5°C (±1.0°F) <sup>3</sup>
Resolution	Up to 10 ppb, 0.1°C (0.1°F)

### 985 High Concentration (ppm) VOC and Temperature

Range	1 to 2,000 ppm, -10 to 60°C (14 to 140°F)
Accuracy	±0.5°C (±1.0°F) <sup>3</sup>
Resolution	Up to 10 ppm, 0.1°C (0.1°F)

### 986 Low Concentration (ppb) VOC, Temperature, CO<sub>2</sub>, and Humidity

Range	10 to 20,000 ppb VOC, 0 to 5,000 ppm $\rm CO_2$
	-10 to 60°C (14 to 140°F), 5 to 95% RH
Accuracy	±3% of reading or 50 ppm CO <sub>2</sub> , whichever is greater
	±0.5°C (±1.0°F) <sup>3</sup> , ±3% RH <sup>4</sup>
Resolution	Up to 10 ppb VOC, 0.1 ppm CO <sub>2</sub> , 0.1°C (0.1°F), 0.1% RH

# 987 High Concentration (ppm) VOC, Temperature, CO<sub>2</sub>, and Humidity

1 to 2,000 ppm VOC, 0 to 5,000 ppm CO <sub>2</sub>
-10 to 60°C (14 to 140°F), 5 to 95% RH
$\pm 3\%$ of reading or 50 ppm CO <sub>2</sub> , whichever is greater
±0.5°C (±1.0°F) <sup>3</sup> , ±3% RH <sup>4</sup>
Up to 10 ppm VOC, 0.1 ppm CO <sub>2</sub> , 0.1°C (0.1°F), 0.1% RH

### 960 Thermoanemometer Straight Probe Velocity and Temperature

962 Thermoanemometer Articulating Probe	
Resolution	0.01 m/s (1 ft/min) 0.1°C (0.1°F)
	±0.3°C (±0.5°F)³
Accuracy	$\pm 3\%$ of reading or $\pm 0.015$ m/s (±3 ft/min), whichever is greater^1&2
Range	0 to 50 m/s (0 to 9,999 ft/min) -18 to 93°C (0 to 200°F)

#### **962 Thermoanemometer Articulating Probe Velocity and Temperature** Range 0 to 50 m/s (0 to 9 999 ft/min)

Range 0 to 50 m/s (0 to 9,999 ft/min) -18 to 93°C (0 to 200°F)	
Accuracy ±3% of reading or ±0.015 m/s (±3 ft/min whichever is greater <sup>1 &amp; 2</sup>	n),
±0.3°C (±0.5°F) <sup>3</sup>	
Resolution 0.01 m/s (1 ft/min) 0.1°C (0.1°F)	

### 964 Thermoanemometer Straight Probe Velocity, Temperature and Humidity

Range	0 to 50 m/s (0 to 9,999 ft/min) -10 to 60°C (14 to 140°F), 5 to 95% RH
Accuracy	$\pm 3\%$ of reading or $\pm 0.015$ m/s ( $\pm 3$ ft/min), whichever is greater^1&2
	±0.3°C (±0.5°F) <sup>3</sup> ±3% RH <sup>4</sup>
Resolution	0.01 m/s (1 ft/min) 0.1°C (0.1°F)

### 966 Thermoanemometer Articulating Probe Velocity, Temperature and Humidity

Range	0 to 50 m/s (0 to 9,999 ft/min )
	-10 to 60°C (14 to 140°F), 5 to 95% RH
Accuracy	$\pm 3\%$ of reading or $\pm 0.015$ m/s ( $\pm 3$ ft/min), whichever is greater^{1\&2}
	±0.3°C (±0.5°F) <sup>3</sup> ±3% RH <sup>4</sup>
Resolution	0.01 m/s (1 ft/min) 0.1°C (0.1°F)

## 995 Rotating Vane 4 in. (100 mm) Probe Velocity, and Temperature

Range	0.25 to 30 m/s (50 to 6,000 ft/min) 0 to 60°C (32 to 140°F)
Accuracy	±1% of reading ±0.02 m/s (±4 ft/min) ±1.0°C (±2.0°F)
Resolution	0.01 m/s (1 ft/min) 0.1°C (0.1°F)

### **SPECIFICATIONS**

### Q-TRAK™ MULTI-FUNCTION INDOOR AIR QUALITY MONITOR **MODEL 7575**

### Carbon Monoxide (IAQ Probe Model 982)

Sensor Type Electro-chemical 0 to 500 ppm Range ±3% of reading or 3 ppm, whichever is greater Accuracy<sup>5</sup> Resolution 0.1 ppm Response Time <60 seconds to 90% step change

### Carbon Dioxide (IAQ Probe Models 980 and 982)

Sensor Type	Dual-wavelength NDIR (non-dispersive infrared)
Range	0 to 5,000 ppm
Accuracy <sup>6</sup>	±3.0% of reading or ±50 ppm, whichever is greater
Resolution	1 ppm
Response Time	20 seconds

### Temperature (IAQ Probe Models 980 and 982)

Sensor Type	Thermistor
Range	0 to 60°C (32 to 140°F)
Accuracy <sup>3</sup>	±0.5°C (1.0°F)
Resolution	0.1°C (0.1°F)
Response Time	30 seconds (90% of final value, air velocity at 2 m/s [400 ft/min])

### Relative Humidity (IAQ Probe Models 980 and 982)

Sensor Type	Thin-film capacitive
Range	5 to 95% RH
Accuracy <sup>4</sup>	±3% RH
Resolution	0.1% RH
Response Time	20 seconds (for 63% of final value)

### % Outside Air

Range

Range

Accuracy

0 to 100% Resolution 0.1%

### **Barometric Pressure**

517.15 to 930.87 mm Hg (20.36 to 36.648 in. Hg) ±2% of reading

### **Operating Temperature**

5 to 45°C (40 to 113°F)

### **Storage Temperature**

-20 to 60°C (-4 to 146°F)

### **Logging Capability**

Range

Logs up to 56,035 data points with key (4) measured parameters enabled, 39 days at 1-minute log intervals

### **Time Constants**

1 sec, 5 sec, 10 sec, 20 sec, 30 sec (user selectable)

### Log Intervals

1 second up to 1 hour (user selectable)

### **Meter Dimensions**

9.7 cm × 21.1 cm × 5.3 cm (3.8 in. × 8.3 in. × 2.1 in.)

### **Probe Dimensions**

Length Diameter 17.8 cm (7.0 in.) 1.9 cm (0.75 in.)

Weight (with batteries) 0.36 kg (0.8 lbs)

### **Power Requirements**

Four AA-size alkaline batteries or AC adapter, both included

#### TO ORDER **Multi-function IAQ Monitor and Probe** Specify Description

Multi-function IAQ meter 7575-X with IAQ probe Model 982

#### Multi-function IAQ Monitor Only. Choose a probe most appropriate for your measurement needs. Specify Description

7575-X

7575

Multi-function IAQ meter, no plug-in probes

NOTE: All models include: Instrument, hard carrying case, four alkaline batteries, USB cable, universal power supply, instruction manual, calibration certificate, and TrakPro downloading software.

Specifications are subject to change without notice

- $^1$  Temperature compensated over an air temperature range of 5 to 65°C (40 to 150°F).  $^2$  The accuracy statement begins at 0.15 m/s through 50 m/s (30 ft/min through 9,999 ft/min).
- <sup>3</sup> Accuracy with instrument case at 25°C (77°F), add uncertainty of 0.03°C/°C (0.05°F/°F) for change in instrument temperature.
- <sup>4</sup> Accuracy with probe at 25°C (77°F). Add uncertainty of 0.2% RH/°C (0.1% RH/°F) for change in probe temperature. Includes 1% hysteresis.
- <sup>5</sup> At 25°C (77°F). Add uncertainty of 0.36%/°C (±0.2%/°F) for change in temperature.
  <sup>6</sup> At calibration temperature. Add uncertainty of 0.5%/°C (±0.28%/°F) for change in temperature.

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