# IAQ-CALCTM INDOOR AIR QUALITY METERS MODEL 7515, 7525, & 7545

TSI IAQ-Calc<sup>TM</sup> Meters are outstanding instruments for investigating and monitoring indoor air quality (IAQ). Model 7515 is a cost-effective meter for carbon dioxide ( $\mathrm{CO}_2$ ) measurements. Models 7525 and 7545 simultaneously measure and data log multiple parameters. Model 7525 measures  $\mathrm{CO}_2$ , temperature, humidity, and calculates dew point, wet bulb temperature, and percentage outside air. Model 7545 adds detection of carbon monoxide ( $\mathrm{CO}$ ).



#### **Applications**

- + Conduct IAQ evaluations
- + Verify building HVAC system performance
- + Examine building IAQ conditions to optimize worker productivity
- + Comply with regulations and guidelines

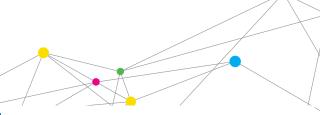
#### Features and Benefits - All Models

- + Low-drift NDIR CO<sub>2</sub> sensor for stable, accurate readings
- + Sampling function records multiple point measurements
- + Ergonomic, overmolded case design

### Models 7525 and 7545

- + Temperature and relative humidity measurements help determine thermal comfort
- + Calculates percentage outside air from either  $\mathrm{CO_2}$  or temperature
- + Directly calculates dew point and wet bulb temperatures
- + Electrochemical sensor measures CO (Model 7545)
- + Displays up to three parameters
- + TSI LogDat2™ software permits easy transfer of data to a computer
- + Data can be reviewed on-screen, or downloaded to a computer for easy report generation
- + Statistics function displays average, maximum and minimum values, and the number of recorded samples





## **SPECIFICATIONS**

# IAQ-CALC™ INDOOR AIR QUALITY METERS MODELS 7515, 7525 & 7545

CO<sub>2</sub>

Sensor Type Dual-wavelength NDIR

(non-dispersive infrared)

Range 0 to 5,000 ppm

Accuracy<sup>1</sup>  $\pm 3.0\%$  of reading or  $\pm 50$  ppm,

whichever is greater

Resolution 1 ppm Response Time 20 seconds

Temperature (Models 7525 and 7545)

 Sensor Type
 Thermistor

 Range
 32 to 140°F (0 to 60°C)

 Accuracy
 ±1.0°F (±0.5°C)

 Resolution
 0.1°F (0.1°C)

Response Time 30 seconds (90% of final value, air

velocity at 400 ft/min [2 m/s])

Relative Humidity (Models 7525 and 7545)

Sensor Type Thin-film capacitive
Range 5% to 95% RH
Accuracy² ±3.0% RH
Resolution 0.1% RH

Response Time 20 seconds (for 63% of final value)

Percentage Outside Air (Models 7525 and 7545)

Range 0 to 100% Resolution 0.1%

CO (Model 7545 only)

Sensor Type Electro-chemical Range 0 to 500 ppm

Accuracy  $\pm 3.0\%$  of reading or  $\pm 3$  ppm,

whichever is greater

Resolution 0.1 ppm

Response Time <60 seconds to 90% step change

Operating Temperature

40 to 113°F (5 to 45°C)

Storage Temperature

-4 to 140°F (-20 to 60°C)

Logging Capability (Models 7525 and 7545)

Ranges Model 7525 logs up to 30,300 data points with key (3) measured parameters enabled

Model 7545 logs up to 26,900 data points with key (4) measured parameters enabled

Time Constant 1 sec, 5 sec, 10 sec, 20 sec, 30 sec

(user selectable)

Log Intervals 1 second up to 1 hour (user selectable)

Meter Dimensions (all models)

3.3 in. x 7.0 in. x 1.8 in. (8.4 cm x 17.8 cm x 4.4 cm)

Probe Dimensions (Model 7515)

Length 2.75 in. (7.0 cm) Diameter 0.75 in. (1.9 cm) Probe Dimensions (Models 7525 and 7545)

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

Weight (with batteries)

0.6 lbs (0.27 kg)

**Power Requirements** 

Model 7515 Four AA-size batteries

Models 7525 and 7545 Four AA-size batteries or AC adapter

	7515	7525	7545
CO <sub>2</sub>	+	+	+
СО			+
Temperature		+	+
Humidity		+	+
Percentage outside air		+	+
Dew point		+	+
Wet bulb temperature		+	+
Data logging/downloading		+	+
Statistics	+	+	+
Review data		+	+
Certificate of Calibration	+	+	+

 $<sup>^1</sup>$  Accuracy with probe at 77°F (25°C). Add uncertainty of ±0.2%/°F (±0.36%/°C) away from calibrated temperature.

Specifications are subject to change without notice.

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 $<sup>^2</sup>$  Accuracy with probe at 77°F (25°C). Add uncertainty of  $\pm 0.1\%$  RH/°F ( $\pm 0.2\%$  RH/°C) away from calibrated temperature.