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



TSI IAQ-Calc™ Meters are outstanding instruments for investigating and monitoring indoor air quality (IAQ). Model 7515 is a cost-effective meter for carbon dioxide (CO_2) measurements. Models 7525 and 7545 simultaneously measure and data log multiple parameters. Model 7525 measures CO_2, temperature, humidity, and calculates dew point, wet bulb temperature, and percentage outside air. Model 7545 adds detection of carbon monoxide (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_2 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 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

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SPECIFICATIONS

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

CO_2

Sensor Type	Dual-wavelength NDIR (non-dispersive infrared)
Range	0 to 5,000 ppm
Accuracy[1]	±3.0% of reading or ±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
Accuracy[2]	±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	±3.0% of reading or ±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_2	+	+	+
CO			+
Temperature		+	+
Humidity		+	+
Percentage outside air		+	+
Dew point		+	+
Wet bulb temperature		+	+
Data logging/downloading		+	+
Statistics	+	+	+
Review data		+	+
Certificate of Calibration	+	+	+

[1] Accuracy with probe at 77°F (25°C). Add uncertainty of ±0.2%/°F (±0.36%/°C) away from calibrated temperature.
[2] Accuracy with probe at 77°F (25°C). Add uncertainty of ±0.1% RH/°F (±0.2% RH/°C) away from calibrated temperature.

Specifications are subject to change without notice.

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