Indoor Air Quality Meters

**TSI IAQ-Calc™ Models 7515, 7525, and 7545**

TSI's IAQ-Calc Meters are outstanding instruments for investigating and monitoring indoor air quality (IAQ). The Model 7515 is a cost-effective meter for carbon dioxide (CO₂) measurements. The Models 7525 and 7545 simultaneously measures and data logs multiple parameters. The Model 7525 measures CO₂, temperature, humidity, calculates dew point, wet bulb temperature, and % outside air. The Model 7545 adds carbon monoxide (CO).

**FEATURES**

- Low-drift NDIR CO₂ sensor for stable, accurate readings
- Sampling function records multiple point measurements
- Ergonomic, over-molded case design

**Model 7515**
- For basic CO₂ measurements indoors

**Models 7525 & 7545 Add:**
- Temperature and relative humidity measurements help determine thermal comfort
- Calculates % outside air from either CO₂ or temperature
- Directly calculates dew point and wet bulb temperatures
- Electrochemical sensor measures CO (Model 7545)

**Data Logging – Models 7525 and 7545**
- 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

**APPLICATIONS**

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

**CALL GEOTECH TODAY (800) 833-7958**

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### SPECIFICATIONS

#### CO₂

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sensor Type</td>
<td>Dual-wavelength NDIR (non-dispersive infrared)</td>
</tr>
<tr>
<td>Range</td>
<td>0 to 5000 ppm</td>
</tr>
<tr>
<td>Accuracy</td>
<td>±3.0% of reading or ±50 ppm, whichever is greater</td>
</tr>
<tr>
<td>Resolution</td>
<td>1 ppm</td>
</tr>
<tr>
<td>Response Time</td>
<td>20 seconds</td>
</tr>
</tbody>
</table>

#### Models 7525 & 7545

**Temperature:**
- Sensor Type: Thermistor
- Range: 32°F to 140°F (0°C to 60°C)
- Accuracy: ±1.0°F (±0.6°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:**
- Sensor Type: Thin-film capacitive
- Range: 5% to 95% RH
- Accuracy: ±3.0% RH
- Resolution: 0.1% RH
- Response Time: 20 seconds (for 63% of final value)

**% Outside Air:**
- Range: 0 to 100%
- Resolution: 0.1%

#### Model 7545 CO

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sensor Type</td>
<td>Electro-chemical</td>
</tr>
<tr>
<td>Range</td>
<td>0 to 500 ppm</td>
</tr>
<tr>
<td>Accuracy</td>
<td>±3.0% of reading or ±3 ppm, whichever is greater</td>
</tr>
<tr>
<td>Resolution</td>
<td>0.1 ppm</td>
</tr>
<tr>
<td>Response Time</td>
<td>&lt;60 seconds to 90% step change</td>
</tr>
</tbody>
</table>

### Temperature Environment

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating Temperature</td>
<td>40° to 113°F (5° to 45°C)</td>
</tr>
<tr>
<td>Storage Temperature</td>
<td>-4° to 140°F (-20° to 60°C)</td>
</tr>
</tbody>
</table>

### Models 7525 and 7545 Logging Capability

- **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

- **Log Intervals:**
  - 1 second up to 1 hour (user selectable)

### Dimensions

<table>
<thead>
<tr>
<th>Description</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meter (All models)</td>
<td>3.3” x 7.0” x 1.8” (8.4 cm x 17.8 cm x 4.4 cm)</td>
</tr>
<tr>
<td>Model 7515 Probe</td>
<td>Length: 2.75” (7.0 cm)</td>
</tr>
<tr>
<td></td>
<td>Diameter: 0.75” (1.9 cm)</td>
</tr>
<tr>
<td>Models 7525 &amp; 7545 Probe</td>
<td>Length: 7.0” (17.8 cm)</td>
</tr>
<tr>
<td></td>
<td>Diameter: 0.75” (1.9 cm)</td>
</tr>
</tbody>
</table>

### Weight with Batteries

| Weight               | 0.6 lbs. (0.27 kg)                                  |

### Power Requirements

- Model 7515: Four AA-size batteries
- Models 7525, 7545: Four AA-size batteries or AC adapter

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1. At 77°F (25°C). Add uncertainty of ±0.2%/°F (±0.36%/°C) away from calibrated temperature.
2. At 77°F (25°C). Add uncertainty of ±0.03% RH/°F (±0.05% RH/°C) away from calibrated temperature.

Specifications subject to change without notice.