Air Velocity Meter

TSI VelociCalc® 9565 Multi-Function Ventilation Meter

The Series 9565 meters are portable, handheld, Multi-Function Ventilation Test Instruments. These instruments are available with or without a differential pressure sensor and are designed to work with a wide range of plug-in probes. The probes 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. They are designed to measure air velocity, temperature, humidity, CO, CO_2 and VOCs. Calculations include air flow, heat flow, turbulence, wet bulb and dew point temperature.

The probes can be ordered at any time and include a data sheet with certificate of traceability. When its time for servicing, only the probe needs to be returned since all the calibration data is stored within the probe.

FEATURES

- **Best-in-class air velocity accuracy**
- **Displays up to 5 measurements simultaneously**
- **Optional "smart" plug-in probes, including VOC, CO_2 and rotating vane probes**
- **Large graphic display**
- **Multiple data logging formats**
- **TrakPro™ and LogDat2™ software included**
- **Program for local language**
- **Bluetooth® communications for transferring data or remote polling**

APPLICATIONS

- HVAC commissioning and troubleshooting
- Clean room certification
- Testing and balancing
- Ventilation evaluations
- Thermal comfort studies
- IAQ investigations
- Process air flow testing

Model 9565

OPTIONAL PROBES

Model	Probe Description
960	Air Velocity and Temperature, straight probe
962	Air Velocity and Temperature, articulating probe
964	Air Velocity, Temperature, and Humidity, straight probe
966	Air Velocity, Temperature, and Humidity, articulating probe
995	Air Velocity, Temperature, 4 in. (100 mm) rotating vane probe
792	Surface Temperature probe
794	Air Temperature probe

Model	Probe Description
980	Indoor Air Quality probe
982	Indoor Air Quality probe, with CO
984	Low Concentration (ppb) VOC and Temperature
985	High Concentration (ppm) VOC and Temperature
986	Low Concentration (ppb) VOC, Temperature, CO_2, and Humidity
987	High Concentration (ppm) VOC, Temperature, CO_2, and Humidity

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SPECIFICATIONS

Meter Models 9565, 9565-A, 9565-P, 9565-X

Velocity (Pitot or Airflow probe for Meter Models 9565, 9565-A, 9565-P)

Range[1]	250 to 15,500 ft./min (1.27 to 78.7 m/s)
Accuracy[2]	±1.5% at 2,000 ft./min (10.16 m/s)
Resolution	1 ft./min (0.01 m/s)

Duct Size

Dimensions	1 to 500 in. in increments of 0.1 in. (2.5 to 1,270 cm in increments of 0.1 cm)

Volumetric Flow Rate

Range	Actual range is a function of velocity, pressure, duct size, and K factor

Static / Differential Pressure (Meter Models 9565, 9565-A, 9565-P)

Range[3]	-15 to +15 in. H_2O (-28.0 to +28.0 mm Hg, -3,735 to +3,735 Pa)
Accuracy	±1% of reading ±0.005 in. H_2O (±0.01 mm Hg, ±1 Pa)
Resolution	0.001 in. H_2O (0.1 Pa, 0.01 mm Hg)

Barometric Pressure

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

Instrument Temperature Range

Operating (Electronics)	40 to 113°F (5 to 45°C)
Storage	-4 to 140°F (-20 to 60°C)

Data Storage Capabilities

Range	26,500+ samples and 100 test IDs

Logging Interval
1 second to 1 hour

Time Constant
User selectable

External Meter Dimensions
3.8 in. x 8.3 in. x 2.1 in. (9.7 cm x 21.1 cm x 5.3 cm)

Meter Weight with Batteries
0.8 lbs. (0.36 kg)

Power Requirements
Four AA-size batteries or AC adapter

1 Pressure velocity measurements are not recommended below 5 m/s (1,000 ft./min) and are best suited to velocities over 10.00 m/s (2,000 ft./min). Range can vary depending on barometric pressure.

2 Accuracy is a function of converting pressure to velocity. Conversion accuracy improves when actual pressure values increase.

3 Overpressure range = 360 mmHg, 48 kPa (190 in. H_2O).

4 Temperature compensated over an air temperature range of 5 to 65°C (40 to 150°F).

5 The accuracy statement begins at 0.15 m/s through 50 m/s (30 ft./min through 9,999 ft./min).

6 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.

7 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.

8 At 25°C (77°F). Add uncertainty of 0.36%/°C (±0.2%/°F) for change in temperature.

9 At calibration temperature. Add uncertainty of 0.5%/°C (±0.28%/°F) for change in temperature.

Probe Models 960, 962, 964, 966, 995, 980, 982, 792, 794, 984, 985, 986, and 987

960 Thermoanemometer Straight Probe Velocity and Temperature

Range	0 to 9,999 ft./min (0 to 50 m/s) 0 to 200°F (-18 to 93°C)
Accuracy	±3% of reading or ±3 ft./min (±0.015 m/s), whichever is greater[4&5], ±0.5°F (±0.3°C)[6]
Resolution	1 ft./min (0.01 m/s) 0.1°F (0.1°C)

962 Thermoanemometer Articulating Probe Velocity and Temperature

Range	0 to 9,999 ft./min (0 to 50 m/s) 0 to 200°F (-18 to 93°C)
Accuracy	±3% of reading or ±3 ft./min (±0.015 m/s), whichever is greater[4&5], ±0.5°F (±0.3°C)[6]
Resolution	1 ft./min (0.01 m/s) 0.1°F (0.1°C)

964 Thermoanemometer Straight Probe Velocity, Temperature and Humidity

Range	0 to 9,999 ft./min (0 to 50 m/s) 14 to 140°F (-10 to 60°C) 5 to 95% RH
Accuracy	±3% of reading or ±3 ft./min (±0.015 m/s), whichever is greater[4&5], ±0.5°F (±0.3°C)[6] ±3% RH[7]
Resolution	1 ft./min (0.01 m/s) 0.1°F (0.1°C)

966 Thermoanemometer Articulating Probe Velocity, Temperature and Humidity

Range	0 to 9,999 ft./min (0 to 50 m/s) 14 to 140°F (-10 to 60°C) 5 to 95% RH
Accuracy	±3% of reading or ±3 ft./min (±0.015 m/s), whichever is greater[4&5], ±0.5°F (±0.3°C)[6] ±3% RH[7]
Resolution	1 ft./min (0.01 m/s) 0.1°F (0.1°C)

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

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

980 IAQ Probes CO_2, Temperature and Humidity

Range	0 to 5,000 ppm CO_2, 5 to 95% RH, 14 to 140°F (-10 to 60°C)
Accuracy	±3% of reading or ±50 ppm CO_2, whichever is greater[9], ±3% RH[7] ±1.0°F (±0.5°C)[6]
Resolution	1 ppm CO_2 0.1% RH 0.1°F (0.1°C)

982 IAQ Probes Model CO, CO_2, Temperature and Humidity

Range	0 to 500 ppm CO 0 to 5000 ppm CO_2, 5 to 95% RH 14 to 140°F (-10 to 60°C)
Accuracy	±3% of reading or ±3 ppm CO, whichever is greater[8] ±3% of reading or ±50 ppm CO_2, whichever is greater[9], ±3% RH[7] ±1.0°F (±0.5°C)[6]
Resolution	0.1 ppm CO 1 ppm CO_2 0.1% RH 0.1°F (0.1°C)

792 and 794 Thermocouple Probes Temperature

Range	-40 to 1200°F (-40 to 650°C)
Accuracy	±0.1% of reading +2°F (±0.056% of reading +1.1°C)
Resolution	0.1°F (0.1°C)

984 Low Concentration (ppb) VOC and Temperature

Range	10 to 20,000 ppb, 14 to 140°F (-10 to 60°C)
Accuracy	±1.0°F (±0.5°C)[6]
Resolution	Up to 10 ppb, 0.1°F (0.1°C)

985 High Concentration (ppm) VOC and Temperature

Range	1 to 2,000 ppm, 14 to 140°F (-10 to 60°C)
Accuracy	±1.0°F (±0.5°C)[6]
Resolution	Up to 10 ppm, 0.1°F (0.1°C)

986 Low Concentration (ppb) VOC, Temperature, CO_2, and Humidity

Range	10 to 20,000 ppb VOC, 0 to 5,000 ppm CO_2, 14 to 140°F (-10 to 60°C), 5 to 95% RH
Accuracy	±3% of reading or 50 ppm CO_2, whichever is greater, ±1.0°F (±0.5°C)[6], ±3% RH[7]
Resolution	Up to 10 ppb VOC, 0.1 ppm CO_2, 0.1°F (0.1°C), 0.1% RH

987 High Concentration (ppm) VOC, Temperature, CO_2, and Humidity

Range	1 to 2,000 ppm VOC, 0 to 5,000 ppm CO_2, 14 to 140°F (-10 to 60°C), 5 to 95% RH
Accuracy	±3% of reading or 50 ppm CO_2, whichever is greater, ±1.0°F (±0.5°C)[6], ±3% RH[7]
Resolution	Up to 10 ppm VOC, 0.1 ppm CO_2, 0.1°F (0.1°C), 0.1% RH

CALL GEOTECH TODAY (800) 833-7958

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TSI VELOCICALC® 9565 Multi-Function Ventilation Meter

HOW TO ORDER

Multi-Function Ventilation Meter with differential pressure sensor and Thermoanemometer Probe.

Specify	Description
9565	Multi-function ventilation meter 9565-P with straight air velocity probe Model 964
9565-A	Multi-function ventilation meter 9565-P with articulated air velocity probe Model 966

Multi-function Ventilation Meter Only. Choose a probe most appropriate for your measurement needs.

Specify	Description
9565-X	Multi-function ventilation meter, no plug-in probes, no differential pressure sensor
9565-P	Multi-function ventilation meter, no plug-in probes, with differential pressure sensor, tubing and static pressure probe

NOTE: All models include: Instrument, hard carrying case, 4 alkaline batteries, USB cable, universal power supply, instruction manual, calibration certificate, LogDat2™ and TRAKPRO™ downloading software.

Models 9565, 9565-A, and 9565-P also include (1) 8 ft. (2.4 m) rubber tube and (1) static pressure tip.

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