

ENERGY AND COMFORT

Ventilation Test Instruments



Model 9555

Features and Benefits

- Best in class accuracy, especially in low flows
- Displays up to 5 measurements simultaneously
- Optional "smart" plug-in probes, including CO₂ and rotating vane probes
- Large graphic display
- Manual or continuous data logging
- TRAKPRO™ and LogDat2™ software included
- Name test IDs meaningful to you
- Bluetooth® printer capability
- Fast calibration and repair service—just send in the probe

VELOCICALC® Multi-Function Ventilation Meter

Series 9555

The Series 9555 are portable, hand held, 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 and CO₂. 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.

Applications

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



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Specifications

VELOCiCALC

Models 9555, 9555-A, 9555-P, 9555-X and Optional Probes

Velocity (Pitot Tube for Meter Models 9555, 9555-A, 9555-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 250 inches in increments of 0.1 in. (1 to 635 cm in increments of 0.1 cm)
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Volumetric Flow Rate

Range	Actual range is a function of velocity, pressure, duct size, and K factor
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Static/Differential Pressure (Meter Models 9555, 9555-A, 9555-P)

Range ³	-15 to +15 in. H ₂ O (-28.0 to +28.0 mm Hg, -3735 to +3735 Pa)
Accuracy	±1% of reading ±0.005 in. H ₂ O (±0.01 mm Hg, ±1 Pa)
Resolution	0.001 in. H ₂ O (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
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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

Optional Probes for VELOCiCALC 9555 Series Multi-Functional Anemometers

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	4 in. (100 mm) Rotating Vane probe
496	1.5 in. (35mm) Rotating Vane probe
792	Surface Temperature probe
794	Air Temperature probe
980	Indoor Air Quality probe
982	Indoor Air Quality probe, with CO

	9555	9555-A	9555-P	9555-X
Probe that measures velocity, temperature, and humidity	includes 964 probe	includes 966 probe	optional	optional
Pressure measurement	•	•	•	
Calculates flow, wet bulb, dew point, standard/actual	•	•	optional	optional
Optional velocity and temperature probe	•	•	•	•
Optional rotating vane probe	•	•	•	•
Optional IAQ probes (CO ₂ , temperature, humidity, CO)	•	•	•	•
Data Logging (manual, auto save continuous)	•	•	•	•
Data logging software	•	•	•	•
Optional Bluetooth printer	•	•	•	•
Certificate of Calibration	•	•	•	•

¹ Pressure velocity measurements are not recommended below 1000 ft/min (5 m/s) and are best suited to velocities over 2,000 ft/min (10.00 m/s). 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 = 190 in. H₂O (360 mmHg, 48 kPa).

Probe Specifications

Models 960, 962, 964, 966, 995, 496, 980, 982, 792 and 794

Thermoanemometer Probe Models		Range	Accuracy	Resolution	Probe Dimensions
	962	0 to 9,999 ft/min (0 to 50 m/s) 0 to 200°F (-18 to 93°C)	±3% of reading or ±3 ft/min (±0.015 m/s), whichever is greater ^{4,5} ±0.5°F (±0.3°C) ⁶	1 ft/min (0.01 m/s) 0.1°F (0.1°C)	Length 40 in. (101.6 cm) Tip dia. 0.28 in. (7.0 mm) Base dia. 0.51 in. (13.0 mm) Articulating Section Length 6 in. (15.2 cm) Articulating Knuckle dia. 0.38 in. (9.5 mm)
	966	0 to 9,999 ft/min (0 to 50 m/s) 14 to 140°F (-10 to 60°C) 0 to 95% RH	±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	1 ft/min (0.01 m/s) 0.1°F (0.1°C) 0.1% RH	Length 40 in. (101.6 cm) Tip dia. 0.28 in. (7.0 mm) Base dia. 0.51 in. (13.0 mm) Articulating Section Length 6 in. (15.2 cm) Articulating Knuckle dia. 0.38 in. (9.5 mm)
	960	0 to 9,999 ft/min (0 to 50 m/s) 0 to 200°F (-18 to 93°C)	±3% of reading or ±3 ft/min (±0.015 m/s), whichever is greater ^{4,5} ±0.5°F (±0.3°C) ⁶	1 ft/min (0.01 m/s) 0.1°F (0.1°C)	Length 40 in. (101.6 cm) Tip dia. 0.28 in. (7.0 mm) Base dia. 0.51 in. (13.0 mm)
	964	0 to 9,999 ft/min (0 to 50 m/s) 14 to 140°F (-10 to 60°C) 0 to 95% RH	±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	1 ft/min (0.01 m/s) 0.1°F (0.1°C) 0.1% RH	Length 40 in. (101.6 cm) Tip dia. 0.28 in. (7.0 mm) Base dia. 0.51 in. (13.0 mm)
Rotating Vane Probe Models		Range	Accuracy	Resolution	Probe Dimensions
	995	50 to 6,000 ft/min (0.25 to 30 m/s) 32 to 140°F (0 to 60°C)	±1% of reading ±4 ft/min (±0.02 m/s) ±2.0°F (±1.0°C)	1 ft/min (0.01 m/s) 0.1°F (0.1°C)	Diameter 4 in. (100mm)
	496	100 to 3,000 ft/min (0.50 to 15.00 m/s) 32 to 140°F (0 to 60°C)	±3% of reading ±4 ft/min (±0.02 m/s) ±2.0°F (±1.0°C)	1 ft/min (0.01 m/s) 0.1°F (0.1°C)	Diameter 1.5 in. (35mm)
IAQ Probe Models		Range	Accuracy	Resolution	Probe Dimensions
	980	0 to 5000 ppm CO ₂ 0 to 95% RH 14 to 140°F (-10 to 60°C)	±3% of reading or ±50 ppm, whichever is greater ⁹ CO ₂ ±3% RH ⁷ ±0.5°F (±0.3°C) ⁶	1 ppm CO ₂ 0.1% RH 0.1°F (0.1°C)	Length 7.0 in. (17.8 cm) Diameter 0.75 in. (1.9 cm)
	982	0 to 500 ppm CO 0 to 5000 ppm CO ₂ 0 to 95% RH 14 to 140°F (-10 to 60°C)	±3% of reading or ±3 ppm, whichever is greater ⁸ CO ±3% of reading or ±50 ppm, whichever is greater ⁹ CO ₂ ±3% RH ⁷ ±0.5°F (±0.3°C) ⁶	0.1 ppm CO 1 ppm CO ₂ 0.1% RH 0.1°F (0.1°C)	Length 7.0 in. (17.8 cm) Diameter 0.75 in. (1.9 cm)
Thermocouple Probe Models		Range	Accuracy	Resolution	Probe Dimensions
	792	-40 to 1200°F (-40 to 650°C)	±0.1% of reading +2°F (±0.056% of reading +1.1°C)	0.1°F (0.1°C)	Length 6 in. (15.0 cm) Diameter
	794	-40 to 1200°F (-40 to 650°C)	±0.1% of reading +2°F (±0.056% of reading +1.1°C)	0.1°F (0.1°C)	Length 6 in. (15.0 cm) Diameter

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

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

⁶ Accuracy with instrument case at 77°F (25°C), add uncertainty of 0.05°F/°F (0.03°C/°C) for change in instrument temperature.

⁷ Accuracy with probe at 77°F (25°C). Add uncertainty of 0.1% RH/°F (0.2% RH/°C) for change in probe temperature. Includes 1% hysteresis.

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

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



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