

VELOCICALC[®]

Air Velocity Meters

Models 8345 and 8346

TSI's VELOCICALC[®] Air Velocity Meters are easy to use from the first time you pick them up. The meters measure velocity and temperature, and with a few simple keystrokes they calculate flowrate, perform multi-value averaging, and determine minimum and maximum readings.

The VELOCICALC Features

- Extended velocity range of 0 to 30 m/s
- Temperature range of -17.8 to 93.3°C
- Easy to read digital display
- Variable time constant modes available for a steady display when measuring fluctuating flows
- 94.0 cm telescoping probe with etched length marks to make duct traverse measurements easier
- Sampling function allows for easy recording of multiple measuring points
- Statistics function can display average, maximum and minimum values, and the number of recorded samples
- Flowrate feature allows for simple and quick calculations of volumetric flowrate when the user inputs the duct shape and size
- Optional portable printer provides a hard copy documentation of your readings
- Includes a battery check that monitors battery level to ensure accurate readings
- NIST* traceable calibration certificate

Model Options

The Models 8345 and 8346 both measure air velocity, temperature, calculate flowrate, perform multi-value averaging, and determine minimum and maximum readings. The Model 8346 has the added feature of an articulating probe for measurements in ceiling outlet flows or clean benches.

Applications

- HVAC duct measurements
- Fume hood face velocity tests
- Clean room studies
- Wind tunnel work
- Filter face velocity measurements
- Indoor Air Quality tests



Models 8345 and 8346 VELOCICALC

Specifications

Velocity (all models):

Range: 0 to 30 m/s (0 to 6,000 ft/min)
 Accuracy^{1&2}: 3.0% of reading or $\pm .015$ m/s (± 3 ft) whichever is greater

Temperature (all models):

Range: -17.8 to 93.3°C (0 to 200°F)
 Resolution: 0.1°C (0.1°F)
 Accuracy³: ± 0.3 °C (± 0.5 °F)

Instrument Temperature Range (all models):

Operating (Electronics): 5 to 45°C (40 to 113°F)
 Operating (Probe): -17.8 to 93.3°C (0 to 200°F)
 Storage: -30 to 90°C (-22 to 194°F)

Volumetric Flowrate (all models):

Range⁴: 0.1 to 195,000 l/s, 0.0424 to 702,000 m³/hr, 0.2 to 2,700,000 ft³/min

Duct Size (all models):

Range: 1 to 100 cm in increments of 0.5 cm, 100 to 255 cm in increments of 1 cm (1 to 100 inches in increments of 0.5 inches, 100 to 255 inches in increments of 1 inch)

Averaging Capability (all models):

Range: Up to 255 values each of velocity, temperature

Time Constant (all models):

Range: Adjustable from 1 to 20 seconds

Response Time (all models):

Range: To velocity - 200 msec
 To temperature - 8 seconds

External Meter Dimensions (all models):

Size Measurements: 10 cm \times 16.8 cm \times 3.8 cm (3.9 in. \times 6.6 in. \times 1.5 in.)

Meter Probe Dimensions (Model 8345):

Probe Length: 94.0 cm (37 in.) telescopic
 Probe Diameter of Tip: 6.0 mm (0.236 in.) telescopic
 Probe Diameter of Base: 10.03 mm (0.395 in.)

Meter Probe Dimensions (Model 8346):

Probe Length: 94.0 cm (37 in.) telescopic articulating
 Probe Diameter of Tip: 6.0 mm (0.236 in.) telescopic
 Probe Diameter of Base: 10.03 mm (0.395 in.)

Meter Weight Dimensions (all models):

Weight (with batteries): 0.5 kg (1.1 lbs)

Meter Display Dimensions (all models):

Display: 4-digit LCD, 15 mm (0.6 in.) digit height

Power (all models):

Requirements: Four AA-size batteries (included) or AC adapter (optional)

Printer Interface:

Type: Serial
 Baud Rate: 1200

	Velocity	Temperature	Volumetric Flowrate	Averaging Capability	Variable Time Constant	Articulating Probe	Printer Output	NIST* Calibration Certificate
8345	●	●	●	●	●		●	●
8346	●	●	●	●	●	●	●	●

*U.S. National Institute of Standards and Technology

- 1 Temperature compensated over an air temperature range of 5 to 65°C (40 to 150°F).
 - 2 The accuracy statement of 3.0% of reading or $\pm .015$ m/s (± 3 ft), applies to 0.15 m/s through 30 m/s.
 - 3 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. Add uncertainty of 0.5°C (0.9°F) for exposure to RF radiation levels of 3 V/m per IEC 801-3.
 - 4 Actual range is a function of maximum velocity and duct size.
- Specifications are subject to change without notice.



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