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TECHNICAL SPECIFICATIONS FOR 8386 VELOCICALC

Specifications are subject to change without notice.

Velocity From Thermal Sensor (all models):

Range	-	0 to 9999 ft/min (0 to 50 m/s)
Accuracy ^{1&2}	-	± 3% of reading or ± 3 ft/min (± 0.015 m/s), whichever is greater
Resolution	-	1 ft/min (0.01 m/s)

Velocity From a Pitot Tube (Models 8385/8385A/8386/8386A):

Range ³	-	250 to 15500 ft/min (1.27 to 78.7 m/s)
Accuracy ⁴	-	± 1.5% at 2000 ft/min (10.16 m/s)
Resolution	-	1 ft/min (0.1 m/s)

Volumetric Flow rate (all models):

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

Temperature (Models 8384/8384A/8385/8385A):

Range	-	0 to 200°F
Accuracy ⁵	-	± 0.5°F (±0.3°C)
Resolution	-	0.1°F (0.1°C)

Temperature (Models 8386/8386A):

Range	-	14 to 140°F (-10 to 60°C)
Accuracy ⁵	-	± 0.5°F (± 0.3°C)
Resolution	-	0.1°F (0.1°C)

Instrument Temperature Range (Models 8384/8384A/8385/8385A)

Operating (Electronics)	-	40 to 113°F (5 to 45°C).
Operating (Probe)	-	0 to 200°F (-17.8 to 93.3°C)

Storage - -4 to 140°F (-20 to 60°C)

Instrument Temperature Range (Models 8386/8386A)

Operating (Electronics) - 40 to 113°F (5 to 45°C)
Operating (Probe) - 14 to 140°F (-10 to 60°C)
Storage: - -4 to 140°F (-20 to 60°C)

Instrument Operating Conditions:

- Altitude up to 4000 meters
- Relative humidity up to 80% RH, non-condensing
- Pollution degree 1 in accordance with IEC 664 Transient over voltage category n

Relative Humidity (Models 8386/8386A):

Range - 0 to 95% RH
Accuracy ⁶ - ± 3% RH
Resolution - 0.1% RH

Wet Bulb Temperature (Models 8386/8386A)

Range - 40 to 140°F (5 to 60°C)
Resolution - 0.1°F (0.1°C)

Dew point (Model 8386/8386A)

Range - 5 to 120°F (-15 to 49°C)
Resolution - 0.1°F (0.1°C)

Heat Flow (Models 8386/8386A)

Range - Function of velocity, temperature, humidity, and barometric pressure
Measurements available - Sensible heat flow, latent heat flow, total heat flow and sensible heat factor
Units measured - BTU/hr, kW

Static / Differential Pressure (Models 8385/8385A18386/8386A)

Range ⁷ - -5 to + 15 in. H₂O (-9.3 to +28.0 mm Hg, -1245 to +3735 Pa)
Accuracy - ± 1% of reading ± 0.005 in. H₂O (± 1 Pa, ± 0.01 mm Hg)
± 0.02% / °F (±0.03% / °C)
Resolution - 0.001 in. H₂O (1 Pa, 0.01 mm Hg)

Duct Size (all models)

Range - 1 to 250 inches in increments of 0.1 inches (1 to 635 cm in increments of 0.1 cm)

Data Storage Capabilities (all models)

Range - Up to 1394 samples and 275 test IDs (one sample can contain all eleven measurement types)

Logging Interval (all models)

Intervals: 2 sec, 5 sec, 10 sec, 20 sec, 30 sec, 60 sec, 2 min, 5 min, 10 min, 20 min, 30 min, 60 min

Time Constant (all models)

Intervals: 1 sec, 2 sec, 5 sec, 10 sec, 15 sec, 20 sec

Response Time (all models):

Velocity	-	200 msec
Temperature	-	2 minutes (to 66% of final value)
Pressure	-	0.1 msec
Humidity	-	< 1 minute (to 66% of final value)

External Meter Dimensions (all models)

4.2 in. x 7.2 in. x 1.5 in. (10.7 cm x 18.3 cm x 3.8 cm)

Meter Probe Dimensions (all models)

Probe Length	-	40 inches (101.6 cm)
Probe Diameter of Tip	-	0.276 inches (7.01 mm) Probe Diameter of Base: 0.395 inches (10.03 mm)

Articulating Probe Dimensions (Models 8384A/8385A/8386A)

Articulating Section Length	-	6.4 inches (16.26 cm)
Diameter of Articulating Knuckle	-	0.372 inches (9.44 mm)

Meter Weight (all models)

Weight With Batteries: 1.2lbs (0.54 kg)

Meter Display Dimensions (all models)

Primary Display	-	4-digit LCD, 0.6 inches (15 mm) digit height
Secondary Display	-	3.5-digit LCD, 0.3 inches (8 mm) digit height

Power Requirements (all models)

Four AA-size batteries (included) or AC adapter (optional) 7.2 VDC, 300 mA, 4-18 watts (input voltage and frequency vary depending on which adapter is used)

¹Temperature compensated over an air temperature range of 40 to 150°F (5 to 65°C).

²The accuracy statement of 0.103.0% of reading or 0.103 ft/min (0.100.015 *mls*), whichever is greater, begins at 30 ft/min through 9999 ft/min (0.15 *mls* through 50 *mls*).

³Pressure velocity measurements are not recommended below 1000 ft/min (5 *mls*) and are best suited to velocities over 2000 ft/min. Range can vary depending on barometric pressure.

⁴Accuracy is a function of converting pressure to velocity. Conversion accuracy improves when actual pressure values increase.

⁵Accuracy with instrument case at 77°F (25°C), add uncertainty of 0.05°F/oF (0.03°C/°C) for change in instrument temperature.

⁶Accuracy with probe at 77°F (25°C). Add uncertainty of 0.1 % RH/F (0.2% RHfC) for change in probe temperature. Includes 1 % hysteresis.

⁷Overpressure range = 7 psi (190 in. H₂O, 360 mmHg, 48 kPa).