

F900 Air Velocity and Air Temperature Sensor

Features

- Measures Air & Inert Gas Velocity and Temperature
- Standard Flow Ranges between 30 and 1969 fpm
- Custom Flow Ranges up to 20 m/s (4000 fpm), with NRE fee
- Temperature measurements from 0-60°C
- Digital Output and Linear 0-4VDC Output
- Universal Supply: 7-13VDC
- Temperature compensated from 15-35°C



F900 Air Velocity Sensor
(Not Actual Size)

About the F900

The F900 Airflow Sensor is designed to measure the velocity and temperature of airflows in applications such as HVAC, industrial processes, automotive, air filtration systems, electronics enclosures, and critical containment areas such as biological safety cabinets, fume hoods, and clean rooms.

With a normal airflow sensing range from 0.15-2 m/s (30-200 fpm) to 0.15-10 m/s (30-2000 fpm), depending on the setting, the Series F900 offers unparalleled price to performance, compact size, reliability, and resistance to mechanical shock and vibration.

The F900 series has a linear 0-4V output or a digital TTL output depending on the model. The F900 is easy to install and operate. An adjustable bracket is included with the sensor. In addition, the F900 can be ordered with any of the AccuSense remote sensing head options.

Flow Measurement

Standard medium is air at standard pressure (101.3 kPa, 29.95" Hg). For altitude compensation and use with other gases, please contact AccuSense.

0.15-2 m/s (30-394 fpm)

0.15-5 m/s (30-985 fpm)

0.15-10 m/s (30-1969 fpm)

Additional custom flow ranges available up to 20 m/s (4,000 fpm), with NRE fee

Available Airflow Accuracies

15-35°C Greater of $\pm 10\%$ of reading or 1% of full-scale

15-35°C Greater of $\pm 5\%$ of reading or 1% of full-scale

Output resolution is 4,000 steps. Repeatability is $\pm 1\%$ under same conditions

Cambridge AccuSense, a division of Degree Controls, Inc.
18 Meadowbrook Drive
Milford, NH 03055

Tel: 603-672-8900
Fax: 603-672-9565

web site: <http://www.degreec.com>
e-mail: customer.service@degreec.com

Temperature Measurement

Range 0-70°C (50-1400F)	Available on TTL output only
Accuracy $\pm 1.5^{\circ}\text{C}$ above 1 m/s (200 fpm) $\pm 2.5^{\circ}\text{C}$ below 1 m/s (200 fpm)	Resolution is $\pm 0.1^{\circ}\text{C}$

Electrical Specifications

Supply Voltage 7-13 VDC	Warm-up Time <5 seconds
Supply Current 40-75mA	Operating Temperature 0-70°C (32-158°F)
Response Time 1.5 seconds	Storage Temperature -10-100°C
Output is linear 0-4 VDC full scale (airflow only, 5K min. load) or TTL level RS-232 (both airflow & temperature)	

Connector Configuration

Pin 1	Ground
Pin 2	Supply 7-13 VDC
Pin 3	Analog Airflow Output (0-4Vout, 5V max) for calibrated range. Maximum current draw is 20 mA
Pin 4	Rxd digital input. 19200 Bps. RS-232 protocol without level shift. 3-5V level.
Pin 5	Txd digital output for airflow & temperature. 19200 Bps. RS-232 protocol without level shift. 5V level.
Mating connector	AMP #640441-5

Mechanical Specifications

Dimensions	119 mm long X 13 mm diameter for standard unit
Vibration	25 or more Gs

Part# Format & Product Configuration

F900 - V - A - B - S - L

V = Velocity Range

N = 0.15 - 2 m/s

O = 0.15 - 5 m/s

P = 0.15 - 10 m/s

A = Accuracy Specification

5 = 5% of reading or 1% of full-scale

10 = 10% of reading or 1% of full-scale

B = Body Type

0 = Standard (Default) -short tube

1 = Long tube (for extended sensor heads)

S = Sensor Head Type (for B =1 ONLY)

0 = Plastic

1 = Low Profile

2 = 50 mm (2") Stainless steel wand/w flange

4 = 100 mm (4") Stainless steel wand/w flange

6 = 150mm (6") Stainless steel wand/w flange

9 = Xs Sensor Head

L = Sensor Cable Length (for B =1 ONLY)

2 = 2 m