

Features and Benefits

Precise measurement maximizes performance.

TOTAL ERROR BAND (TEB)*

Honeywell specifies TEB, the most comprehensive, clear, and meaningful measurement that provides the sensor's true accuracy (see Figure 1). TEB allows for precise airflow measurement, often ideal for demanding applications with high accuracy requirements for precise airflow measurement.

- 10 SLPM, 15 SLPM, 20 SLPM, 50 SLPM, 100 SLPM, 200 SLPM:
 - 0 %FS to 12.5 %FS = 0.5% FS
 - 12.5 %FS to 100 %FS = 4.0% reading
- 300 SLPM only:
 - 0 SLPM to 199 SLPM = 0.5% FS or 4.0% reading
 - 200 SLPM to 300 SLPM = 7.0% reading

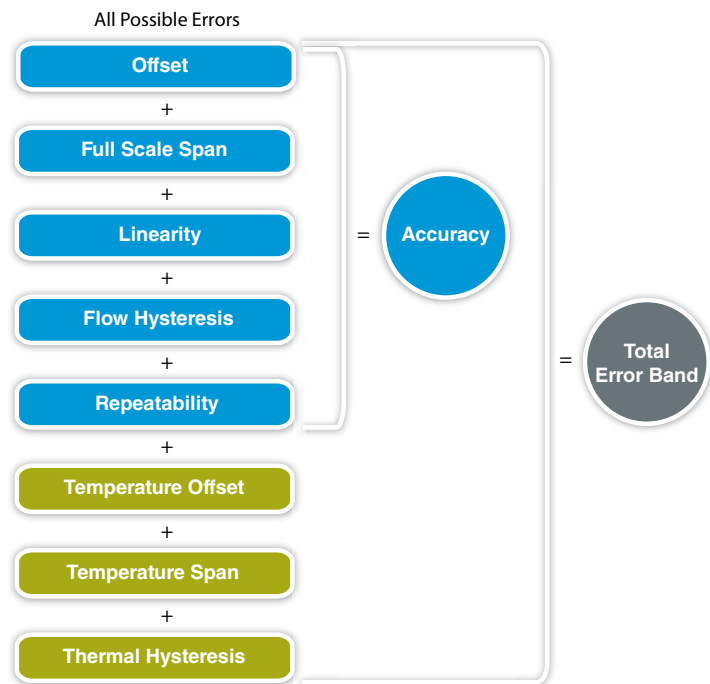


Figure 1. Total Error Band vs. Accuracy

Other airflow sensor manufacturers only report on accuracy, while Honeywell reports Total Error Band.

HIGH ACCURACY

Ideal for use in demanding applications that require high accuracy.

- 10 SLPM, 15 SLPM, 20 SLPM, 50 SLPM, 100 SLPM, 200 SLPM:
 - 0 %FS to 14.3 %FS = 0.5% FS
 - 14.3 %FS to 100 %FS = 3.5% reading
- 300 SLPM only:
 - 0 %FS to 14.3 %FS = 0.5% FS
 - 14.6 %FS to 100 %FS = 3.5% reading

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FAST RESPONSE TIME (1 MS)

Allows the customer's application to respond quickly to a change in airflow, important in critical medical (e.g., anesthesia) and industrial (e.g., fume hood) applications.

HIGH STABILITY

Reduces errors due to thermal effects and null shift, providing accurate readings over time and often eliminating the need for system calibration after PCB mount and periodically over time.

HIGH SENSITIVITY AT VERY LOW FLOWS

Provides a fast response time at the onset or cessation of flow.

HIGH 12-BIT RESOLUTION

Increases the ability to sense small airflow changes, allowing customers to more precisely control their application.

Simplifies design and integration while reducing costs.

WIDE AIRFLOW RANGE*

The industry's broadest airflow range measures mass flow with standard flow ranges of 0-10 SLPM, 0-15 SLPM, 0-20 SLPM, 0-50 SLPM, 0-100 SLPM, 0-200 SLPM, and 0-300 SLPM, or custom flow ranges, increasing the options to integrate the sensor into the application.

CHOICE OF PORT STYLES*

Manifold mount, 22 mm OD tapered male fitting, and G 3/8 female threaded fitting provide flexibility to choose the pneumatic connection that is best for the customer's application.

LINEAR OUTPUT*

Provides a more intuitive sensor signal than the raw output of basic airflow sensors, which can help reduce production costs, design, and implementation time.

WIDE SUPPLY VOLTAGE RANGE [3 VDC TO 10 VDC]

Flexible regulated power circuit allows the designer the flexibility to choose the supply voltage that works best in the system.

ASIC-BASED I²C DIGITAL OUTPUT

Simplifies integration to microprocessors or microcontrollers, reducing PCB complexity and component count.

FACTORY OR CUSTOM CALIBRATION FOR MULTIPLE GAS TYPES

Can be factory calibrated for gas types such as dry air, helium (He), argon (Ar), nitrogen (N₂), nitrous oxide (N₂O), and carbon dioxide (CO₂), or custom calibrated for the end customer, eliminating the need to implement gas correction factors.

ROHS-COMPLIANT MATERIALS

Meet Directive 2002/95/EC.