



Airflow Sensors

AWM700 Series, Compensated/Amplified



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The AWM700 Series, Compensated/Amplified Airflow Sensors provide in-line flow measurement with a specially designed bypass flow housing. These sensors measure flow as high as 300 standard liters per minute (SLPM) while inducing a typical pressure drop of 1 inH₂O.

The AWM700 has a high flow range capability in a small package, as well as a 6 ms response time. These sensors require a 10 Vdc supply, but consume only 60 mW of power.

The compact plastic package withstands overpressures of 1720 mbar | 172 kPa | 25 psi without compromising performance. The snap-in AMP-compatible connector provides reliable connection.

The AWM700 Series provides a combination of time-proven reliability, high accuracy, and precision operating characteristics. This inherent accuracy over life reduces need for recalibration. AWM700 sensor circuitry performs amplification and temperature compensation.

The AWM720P1 and AWM730B5 were developed primarily for the medical ventilation market and meet the high performance requirements of many medical and analytical instrumentation applications.

Key Features and Benefits

- **Flow tubes for ranges up to 300 SLPM:** Provides low pressure drop in the customer's application
- **Highly stable null and full scale:** Does not require recalibration in most applications
- **Compact package design:** Occupies less space in the customer's enclosure, potentially reducing production costs; enclosure size may also be reduced for easier fit into space-constrained applications
- **Low hysteresis and repeatability errors (less than 0.35% of reading):** Provides better system accuracy
- **Enhanced response flow time of 6 ms:** Captures full flow event
- **Low power consumption:** Allows for use in portable devices and battery-powered applications

Potential Applications

MEDICAL

- Oxygen concentrators and conservers
- Respirators and ventilators
- Nebulizers
- Continuous positive airway pressure (CPAP)
- Anesthesia machines

INDUSTRIAL

- Mass flow controllers
- Telecommunication systems
- Environmental climate controls
- Fuel cell controls
- Process gas control welding equipment and lasers

HIGHLY STABLE • COMPACT PACKAGE • LOW HYSTERESIS