Honeywell

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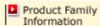
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Relays







Representative photograph, actual product appearance may vary.

- Circuit Diagrams
- Dimensions
- Output vs InterchangeabilityPerformanceCharacteristics
- Installation Instructions
- Specifications
- Engineering Drawings On-Line

Click here for a print friendly version of this datasheet.

AWM5102VN

Airflow Sensor, Signal Conditioning: Amplified; Flow/P 0 SLPM to 10.0 SLPM; Port Style: Threaded, 1/4 NPT

Features

Linear voltage output

Venturi design

Remote mounting capability

Active laser trimming improves interchangeability

Separate gas calibration types:

-Ar (argon)

-N₂ (nitrogen) or

-CO₂ (carbon dioxide)

Typical Applications

Damper control for heating, ventilation, and air conditioning systems

Gas analyzers

Low vacuum control

Process control

Medical respirators and ventilators

Oxygen concentrators

Leak detection equipment

Vent hoods

Anesthesia control

Gas metering

Gas chromatography

Description

In-Line Flow Measurement

AWM5000 Series Microbridge Mass Airflow Sensors feature a flow housing. They measure flow as high as 20 standard liter (SLPM) while inducing a maximum pressure drop of 2.25" $\rm H_2$ microbridge chip is in direct contact with the flow stream, grayeror possibilities due to orifice or bypass channel clogging. Rugged, Versatile Package

The rugged plastic package has been designed to withstand common mode pressul the small sensing element allows 100 g of shock without compromising performance compatible connector provides reliable connection in demanding applications.

On-board Signal Conditioning

Each AWM5000 sensor contains circuitry which performs amplification, linearization compensation, and gas calibration. A 1 to 5 Vdc linear output is possible for all listin range (5, 10, 15, or 20 SLPM) or calibration gas (nitrogen, carbon dioxide, nitrous or calibration is performed by active laser

CAUTION

PRODUCT DAMAGE

AWM Series Microbridge Mass Airflow Sensors are not design liquid flow and will be damaged by liquid flow through the serious to comply with these instructions could result

damage.

Product Specifications	
Signal Conditioning	Amplified
Flow/Pressure Range	0 SLPM to 10.0 SLPM
Output Voltage @ Trim Point	5.0 Vdc @ Full Scale Flow
Port Style	1/4 in - 18 NPT
Series Name	AWM5000 Series
Null Shift over Temperature	± 0.050 Vdc typ., &@177 0.20 Vdc max.
Output Shift over Temperature	± 7% Reading
Maximum change in flow rate	5.0 SLPM/s
Max. Repeatability & Hysteresis Error	± 0.50% Reading
Null Offset	0.95 Vdc min., 1 Vdc typ., 1.05 Vdc max.
Response Time	60 ms max.
Supply Voltage	8.0 Vdc min., 10.0 Vdc typ., 15.0 Vdc max.
Maximum Common Mode Pressure	50.0 psi
Power Consumption	100 mW max.
Operating Temperature Range	-20 °C to 70 °C [-4 °F to 158 °F]
Storage Temperature Range	-20 °C to 70 °C [-4 °F to 158 °F]
Media Compatibility	Dry gas only
Weight	60 g
Shock	100 g peak 6 ms half-sine (3 drops, each direction of 3 axe
Availability	Global
Comment	Nitrogen calibration gas. This calibration is identical to using oxygen or air as calibration gas.
UNSPSC Code	411121
UNSPSC Commodity	411121 Transducers

Due to regional agency approval requirements, some products may not be available in your area. Please contact your regional Honeywell office regarding your product of choice.