

Installation Instructions for the AWM90000 Series Mass Airflow Sensors

ISSUE 2
PK 80171

⚠ WARNING

PERSONAL INJURY

DO NOT USE these products as safety or emergency stop devices or in any other application where failure of the product could result in personal injury.

Failure to comply with these instructions could result in death or serious injury.

GENERAL INFORMATION

AWM90000 Series microbridge mass airflow sensors operate on the theory of heat transfer due to mass gas flow across the surface of the sensing element. The sensing element consists of a resistor bridge heater circuit and dual temperature-sensing resistor bridges. This configuration senses mass flow rates and flow direction.

⚠ CAUTION

LARGE PARTICULATE DAMAGE

Use a 5-micron filter upstream of the sensor to keep media flow through the sensor free of condensing moisture and particulates. Large, high-velocity particles or conductive particles may damage the sensing element. **Failure to comply with these instructions may result in product damage.**

PERFORMANCE CHARACTERISTICS

	(Min.)	(Typ.)	(Max.)
Excitation	8.0 Vdc	10.0 Vdc	15.0 Vdc
Power Consumption			50 mW

MOUNTING INSTRUCTIONS

Mount AWM90000 Series sensors with 6-32 screws. Honeywell recommends using washers below screw head. Mounting torque is 0.68 N m [6.0 in lb] max.

CLEANING INSTRUCTIONS

Avoid cleaning the sensor, however if it must be cleaned use isopropyl alcohol and dry the device thoroughly.

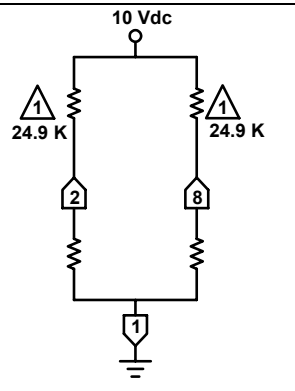
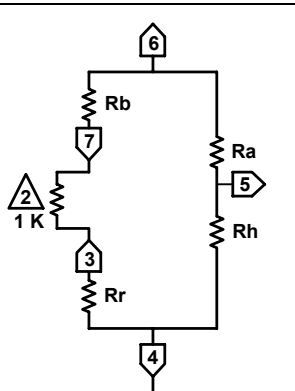
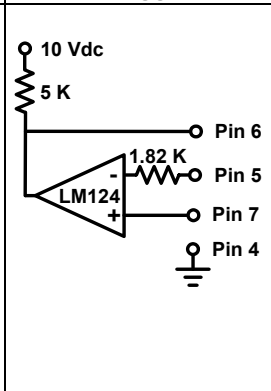


⚠ CAUTION

CLEANING DAMAGE

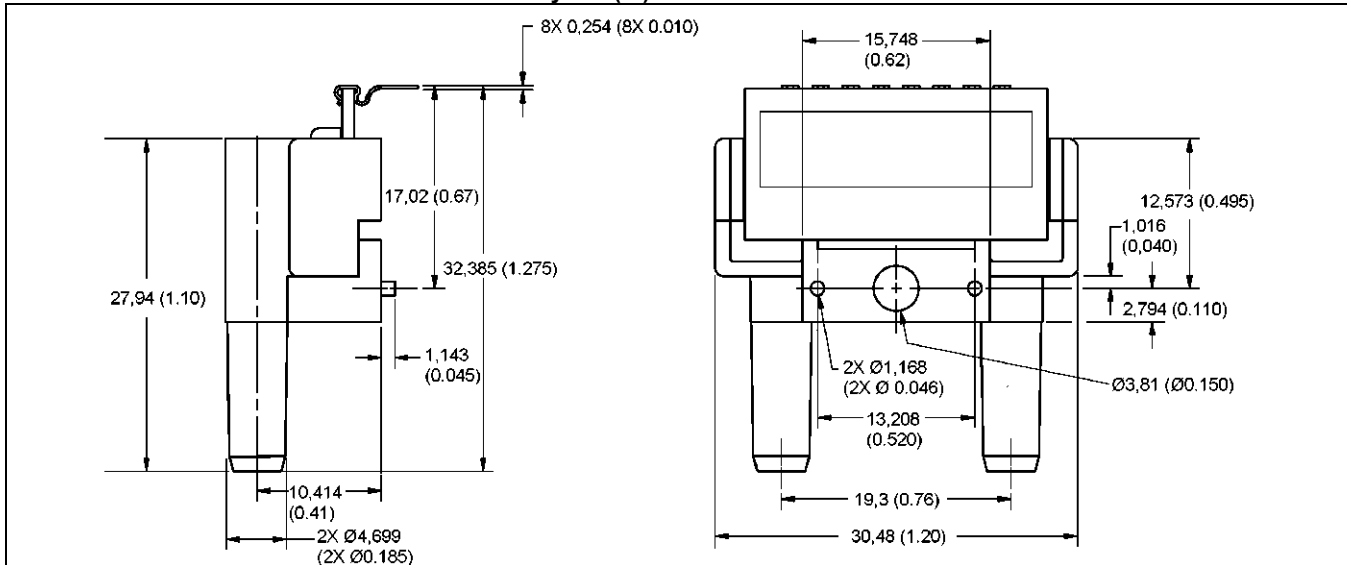
- Ultrasonic cleaning may damage the sensor's microstructure.
- Solvent cleaning may attack the epoxy that seals the chip tube. Do not use III Tri-chloroethane, methylene chloride, methyl pyrrolidone, or any oxidizing type acid such as formic acid.

Failure to comply with these instructions may result in product damage.

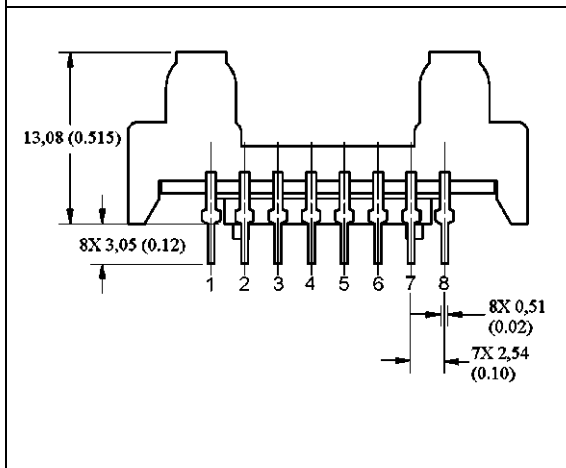
WIRING DIAGRAMS

Sensor Bridge Circuit	Used with Heater Control Circuit	Heater Control Circuit (suggested)
		
	Customer supplied 24.9K matched bridge resistors (affects null output voltage). Output is measured differentially from pins 8 to 2.	
	Customer supplied 1K resistor (affects temperature compensation and span voltage).	

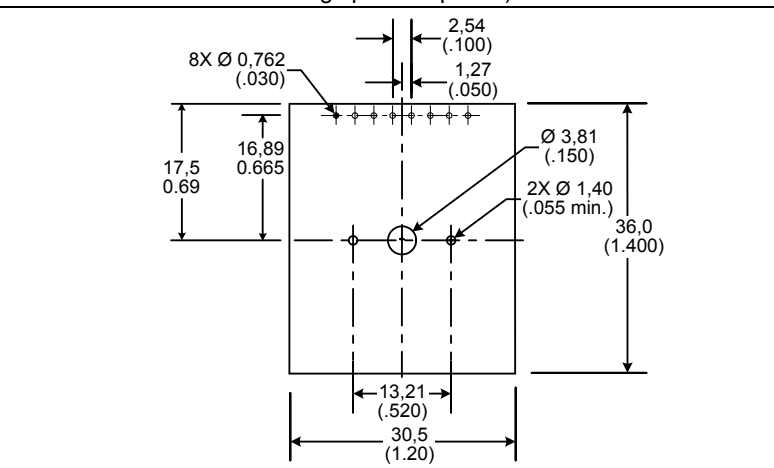
MOUNTING DIMENSIONS - for reference only mm(in)



Sensor Pinout



PC Board Mounting Dimensions (outer dimensions represent the minimum sensor mounting space required.)



WARRANTY/REMEDY

Honeywell warrants goods of its manufacture as being free of defective materials and faulty workmanship. Contact your local sales office for warranty information. If warranted goods are returned to Honeywell during the period of coverage, Honeywell will repair or replace without charge those items it finds defective. **The foregoing is Buyer's sole remedy and is in lieu of all other warranties, expressed or implied, merchantability and fitness for a particular purpose.**

Specifications may change without notice. The information we supply is believed to be accurate and reliable as of this printing. However, we assume no responsibility for its use.

While we provide application assistance personally, through our literature and the Honeywell web site, it is up to the customer to determine the suitability of the product in the application.

For application assistance, current specifications, or name of the nearest Authorized Distributor, check the Honeywell web site or call:

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 1-800-737-3360 Canada
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