Installation Instructions for the **AWM 5000 Series Microbridge Mass Airflow Sensor**

ISSUE 4
PK 88762

GENERAL INFORMATION

The AWM5000 Series Microbridge Mass Airflow Sensors operate on the theory that airflow directed across the surface of a sensing element causes heat transfer. Output voltage varies in proportion to the mass of air or other gas flowing through a given sensor's inlet and outlet ports.

CURRENT SINK/SOURCE

Maximum current ratings are 10 mA sinking and 20 mA sourcing, governed by an LM224 operational amplifier in the final stage of the instrumentation amplifier.

MEDIA CONTAMINATION

Media flowing through the sensor should be free of condensing moisture and particulate contaminants. A 5 micron filter upstream of the sensing element reduces the risk of damage due to contaminants.

MOUNTING INSTRUCTIONS

Mount AWM5000 Series sensors with 6-32 screws. The use of washers below the screw head is recommended. Mounting torque is 1,1 N m (9.75 in lb) max. for steel screws, or 0,75 N m (6.75 in lb) max. for brass screws.

NOTICE

- When making flow connections to a mounted sensor, the AWM5000 **must** be supported at the flow adapter.
- If end adapters are twisted with respect to the flow tube during installation, the seal between O-ring and flow tube will be broken, causing a small temporary leak. The leak can be as high as 1 psi, or may remain within specification. It will self-heal as the O-ring conforms. About 85% of the leak will be gone within approximately 24 hours, with complete recovery within approximately 48 hours.
- Do not expose ports to forces greater than 1 kg [2 lb] in a direction perpendicular to the port centerline.
- Torque on ports should not exceed 4,52 N m [40 in lb].

ELECTRICAL CONNECTION

The AWM5000 Series accepts a latch detente connector, such as:

1. Amp part number 5-103956-3.
2. Sensing and Control part number SS-12143

Information and literature on the latch detente connector is available from Amp Product Information Center, 1-800-522-6752 or the Customer Hotline, 1-800-722-1111.

RECOMMENDED AMP LITERATURE

–	MTE Interconnection System (AMPMODU) Catalog
108-25034	Product Specification (technical performance information)
114-25026	Application Specification (describes product, proper assembly, full tooling information)
408-6790 408-9359	Instruction Sheet for assembly procedure

TO MAKE ELECTRICAL CONNECTIONS

1. Remove (unlatch) the connector from the AWM5000.
2. Hand-crimp the interface wire to the appropriate pin on connector. Suggested tool: AMP Hand-Crimp Tool, part number 58074-1 and terminating head 58336-1.
3. Insert the terminal contacts into the connector housing after the carrier strip (lead-frame) is removed.
4. Reconnect (latch) connector to the AWM5000 device.

CLEANING

CAUTION

PRODUCT DAMAGE

- Do not use ultrasonics.
- Do not use III Tri-chloroethane, methylene chloride, methyl pyrrolidone or any oxidizing type acid such as formic acid.
- Cover the ends of the tube during cleaning because certain solvents may attack the epoxy which seals the chip tube to the ceramic substrate.

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

AWM5000 Series

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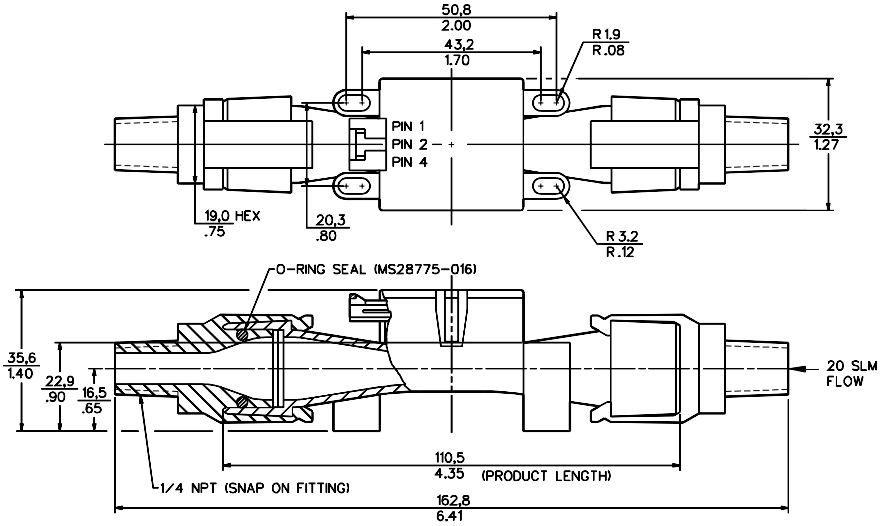
MOUNTING DIMENSIONS (For reference only. mm/[in])

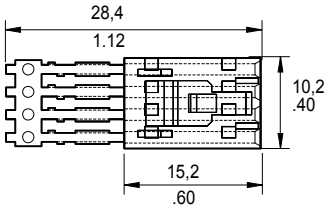


OUTPUT CONNECTIONS

Pin 1	+ Supply voltage
Pin 2	Ground
Pin 3	No connection
Pin 4	Output voltage

Note: Flow direction is marked on housing.

SS-12143 CONNECTOR



⚠ 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.**

WARRANTY/REMEDY
Honeywell warrants goods of its manufacture as being free of defective materials and faulty workmanship. Honeywell's standard product warranty applies unless agreed to otherwise by Honeywell in writing; please refer to your order acknowledgement or consult your local sales office for specific warranty details. If warranted goods are returned to Honeywell during the period of coverage, Honeywell will repair or replace, at its option, 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, including those of merchantability and fitness for a particular purpose. In no event shall Honeywell be liable for consequential, special, or indirect damages.**

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.

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.

SALES AND SERVICE
Honeywell serves its customers through a worldwide network of sales offices, representatives and distributors. For application assistance, current specifications, pricing or name of the nearest Authorized Distributor, contact your local sales office or:

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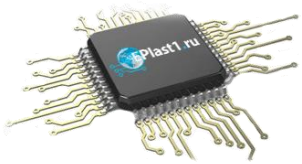

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