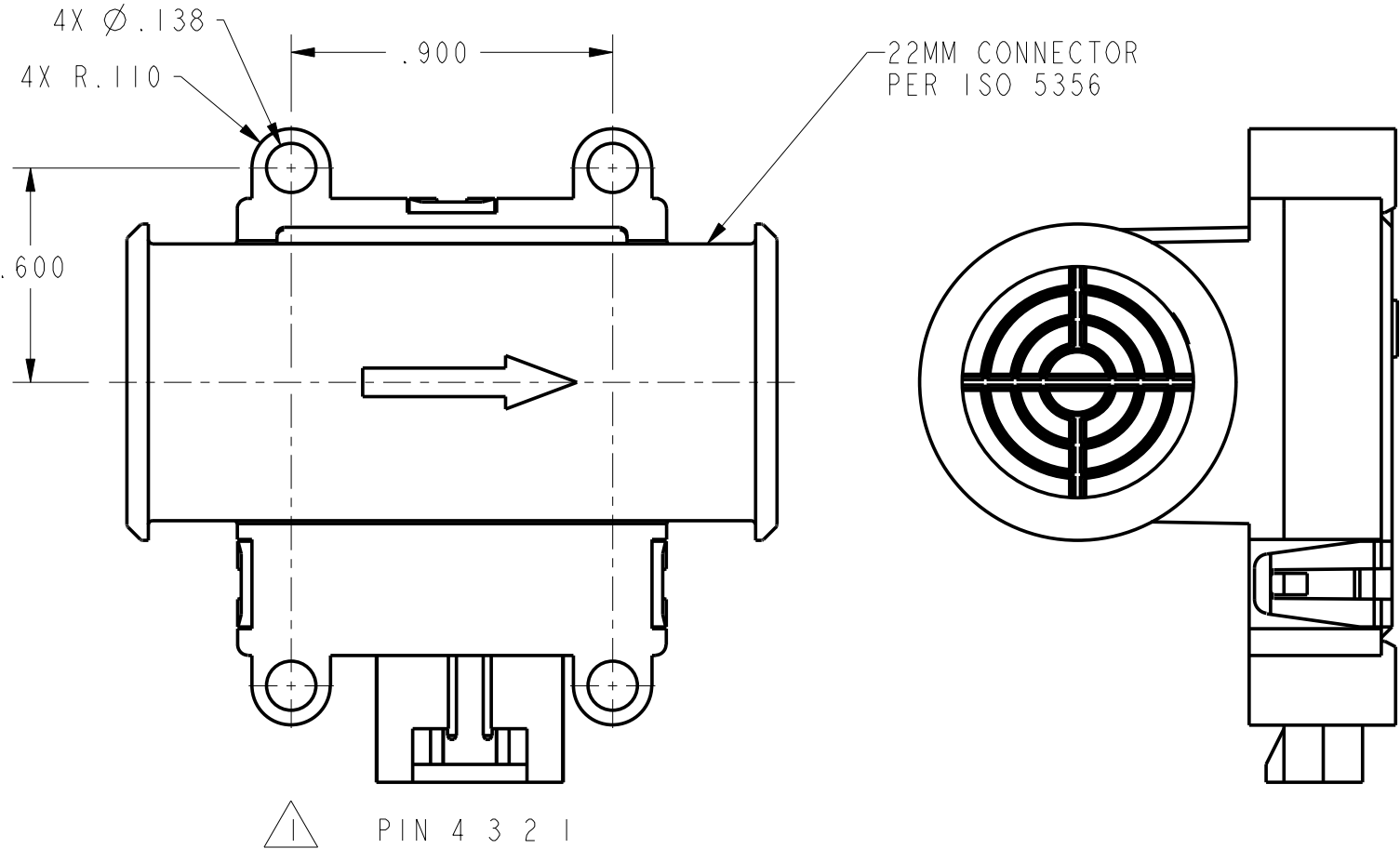


HONEYWELL  
PART NUMBER  
AWM730B5

|     |          |             |       |
|-----|----------|-------------|-------|
| REV | DOCUMENT | CHANGED BY  | CHECK |
| A   | 0013268  | VSY 07JUL05 | PM    |



NOTES  
1 PIN 1 = +15V  
PIN 2 = GND  
PIN 3 = +5  
PIN 4 = OUTPUT  
2 CUSTOMER CHANGE NOTIFICATION IS REQUIRED

|                                                                                                                                                                                                                     |  |                                                                                                                                                        |     |          |                                 |           |                          |          |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--------------------------------------------------------------------------------------------------------------------------------------------------------|-----|----------|---------------------------------|-----------|--------------------------|----------|
| DESIGN UNITS: INCH<br>TOLERANCES UNLESS NOTED:<br><br>NO PLACE X ± .040<br>ONE PLACE .X ± .030<br>TWO PLACE .XX ± .015<br>THREE PLACE .XXX ± .005<br>FOUR PLACE .XXXX ±<br>ANGLES X ±<br><br>THIRD ANGLE PROJECTION |  | DRAWN                                                                                                                                                  | VSY | 07/07/05 | <b>Honeywell</b>                |           |                          |          |
|                                                                                                                                                                                                                     |  | CHECK                                                                                                                                                  | PM  | 07/07/05 |                                 |           |                          |          |
|                                                                                                                                                                                                                     |  | THIS DRAWING COVERS A PROPRIETARY ITEM AND IS THE PROPERTY OF HONEYWELL. THIS DRAWING IS NOT TO BE COPIED OR USED WITHOUT THE PERMISSION OF HONEYWELL. |     |          | TITLE<br>MASS AIRFLOW SENSOR, - |           |                          |          |
|                                                                                                                                                                                                                     |  | INTERPRET PER ASME Y14.5M-1994<br>OTHER HONEYWELL ENGINEERING STANDARDS MAY APPLY                                                                      |     |          | SIZE<br>B                       | TYPE<br>I | DRAWING NAME<br>AWM730B5 | REV<br>A |
|                                                                                                                                                                                                                     |  | Pro/ENGINEER 3D                                                                                                                                        |     |          | SCALE                           | -         | SHEET 1 OF 1             |          |

| Flow Sensor Specification                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |          |          |          |
|-----------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|----------|----------|
| Items                                         | Specifications                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |          |          |          |
| Sensor Type                                   | Mass Flow                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |          |          |          |
| Flow Range                                    | -300 SLPM to +300 SLPM                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |          |          |          |
| Excitation                                    | 4.5 to 5.5 VDC Ratiometric Output                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |          |          |          |
| Power Supply                                  | 9 to 16 VDC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |          |          |          |
| Output Range                                  | 0.5 to 4.5 VDC nominal, 0.1 to 4.9 VDC worst case @ 5 VDC ± 0.01 VDC excitation. Zero flow output to be 2.5 VDC                                                                                                                                                                                                                                                                                                                                                                                                                                     |          |          |          |
|                                               | 0 SLPM                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 100 SLPM | 200 SLPM | 300 SLPM |
|                                               | VDC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | VDC      | VDC      | VDC      |
| Nominal                                       | 2.500                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 3.600    | 4.150    | 4.500    |
| Tol                                           | ± 0.090                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | ± 0.180  | ± 0.180  | ± 0.360  |
| Monotonic Measurement Output                  | Non-decreasing sensor output for flow measurement range                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |          |          |          |
| Reference Error Breakdown at 5 VDC excitation | <ul style="list-style-type: none"><li>Null temperature drift: ± 0.02 VDC from 5°C to 25°C, 25°C to 60°C</li><li>Span temperature drift: ± 2.5% reading from 5°C to 25°C, 25°C to 60°C</li><li>Repeatability &amp; Hysteresis: ± 0.035 VDC typical</li><li>Humidity Error: ± 0.010 VDC typical from 10% to 95% relative humidity (non-condensing)</li><li>Long term drift on Null: ± 0.015 VDC typical in 5 yrs</li><li>Long term drift on Span: ± 1.0% VDC typical in 5 yrs</li><li>Null Error: ± 0.05 VDC</li><li>Span Error: ± 0.18 VDC</li></ul> |          |          |          |
| Operating Temperature                         | 5° to 60°C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |          |          |          |
| Calibration Temperature                       | 25°C ±3°C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |          |          |          |
| Storage Temperature                           | -40°C to +90°C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |          |          |          |
| Response Time                                 | < 10ms 10 – 90% typical                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |          |          |          |
| Pressure Drop at 200 SLPM                     | < 3 cmH <sub>2</sub> O                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |          |          |          |
| Orientation Sensitivity                       | < 0.005 VDC variation at 5 VDC excitation between any two directions. Typical                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |          |          |          |
| Warm-up Time                                  | < 5 seconds typical                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |          |          |          |
| Minimum Proof Pressure                        | ±150 cmH <sub>2</sub> O                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |          |          |          |

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