

## AME 21216 –Score Sheet

### A4 – Sensor Calibration

Author name or NDID: \_\_\_\_\_

Lab Section (Day/time): \_\_\_\_\_

For more details on any of the items below, please refer to the lab handout.

Item and Description	Points Awarded	Possible Points
<b>Technical Writing</b> – Please address all questions from the lab handout in the paragraphs.		3
<b>Table containing RTD voltage, current, and resistance at both temperatures</b>		2
<b>Table containing RTD measured parameters <math>R_0</math> and <math>\alpha_T</math> with manufacturer's parameters</b>		3
<b>Plot of pressure <math>P</math> vs. transducer voltage <math>V_{out}</math></b>		3
<b>Calibration equation for pressure transducer</b>		2
<b>Sensitivity coefficient for pressure transducer</b>		1
<b>Plot of air speed <math>u</math> vs. flow rate <math>Q</math> with theoretical curve</b>		4
<b>TOTAL</b>		18

### Guidelines for Deliverables

- All figures and tables are properly labeled (i.e. Figure 1, Table 1, etc.) with captions.
- All plots should be made in Matlab. Do NOT use excel to make plots.
- Axes on figures must be labeled with units, and plots with multiple data sets must include a legend.
- Note that any curve fit or theoretical curve must be plotted as a *smooth, continuous* line, and the equation for said curve *must* be included as a numbered equation in the main text with all the variables defined.
- Equations must be numbered, and the variables must be defined (i.e. “where  $c$  is the speed of sound.”).
- Variables should be written in italics.
- Students, please **print and proofread** the hardcopy of your deliverables before you turn it in. Sometimes, equations and figures do not print correctly!