USING CUSTOM SOFTWARE AND HARDWARE RATHER THAN THERMALPRO

FREQUENTLY ASKED QUESTION #18

Question:

I have my own LabView based software and acquisition board for taking data on my PC. We have recently developed some software for processing hotwire anemometry signals. Now we would like to buy a hotwire probe so we can start to measure velocities in our wind tunnel. Which probe should we buy?

Answer:

First we commend you for all your effort developing the data acquisition system and software for thermal anemometry. You do, however, need more than a probe in order to start measuring velocities. We recommend the 1750A Constant Temperature Anemometer with Power Supply. You also get a free probe cable with the 1750A. For electronics, you have your own acquisition board & software. You should use a signal conditioner with variable gain & offset to bring the signals up from the original 2.0 ±1V to the range of your A/D board, e.g. ±5V.

For calibration, you would have to do that yourself too, since it is part of the ThermalPro/IFA300 software/hardware package from TSI. Having access to a small wind tunnel or other stable velocity source makes calibration much easier. Customers typically use a pitot tube or other reference measurement for the calibration.

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