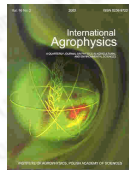




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Development of multiple velocity and temperature probe sets for ventilated spaces

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abstract Development of a low-cost computer-based system for multi-point measurement of velocity and temperature has been completed. The principle is based on hot-wire anemometry. A typical probe consists of a cold thermistor for flow temperature detection and a hot thermistor for flow velocity detection. The later is self-heated by a thermal potentiometer circuit. The change in resistance of the thermistor is related to the airflow. The designed probes were calibrated with reference to known parameters. The system developed can monitor and analyze 48 velocities and temperature sets in a ventilated space. System development and results are presented.

keywords velocity, temperature, ventilation, probe, thermistor

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