KANOMAX
The Ultimate Measurements

Hot Wire Anemometer

IHW-100

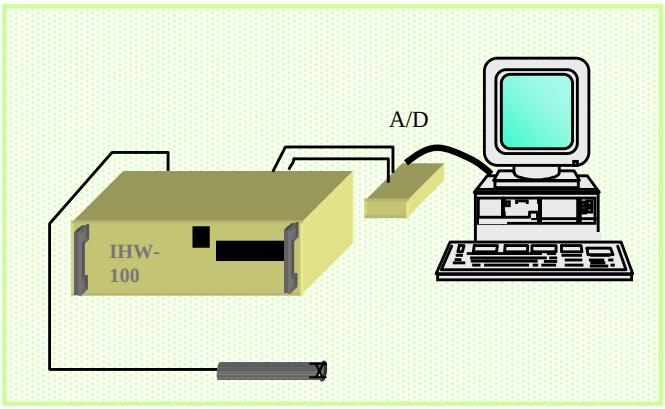
Intelligent Hot Wire Anemometer

with Software for Windows®

Highly responsive 2-channel flow measurement.
Software-controlled probe calibration, measurement, analysis, and display.
Variety of probes to meet individual measuring needs.

FEATURES

◆Automatic probe resistance measurement and setup by the built-in CPU.
◆Simple operation by the software.
◆2-dimensional (2-channel) fluctuating flow measurement.
◆Up to 4 units connected for 8 channels.
◆Linearization and temperature compensation by the software.

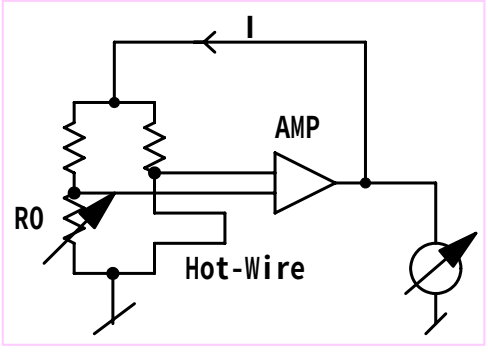


Principle of Hot-Wire Anemometry

When an airflow reduces the temperature of the hot wire sensor, the current passing through the sensor changes to generate heat and maintain equilibrium. The change is correlated to the air velocity. A hot-wire anemometer converts electric signals into air velocity readings.

$$I^2 = K\,(A + B \cdot U^{1/n})\,(T - T_a)$$

I: Current
U: Air Velocity
T: Sensor Temperature
Ta: Ambient Temperature
K, A, B, n: Constants



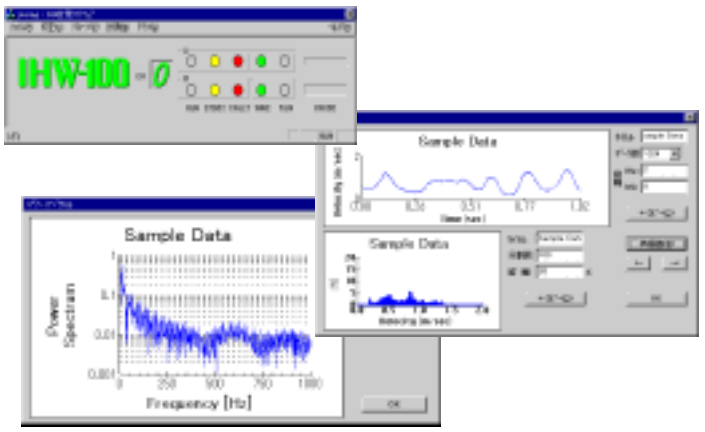
IHW-100 Main Unit

Method: Constant Temperature Anemometry
Composition: CTA, TEMP, CPU
Bridge Ratio: Approx. 10:1
Probe Current: 0.5A max.
Frequency Response:
10kHz at air velocity 50 m/s (9,840 fpm)
with φ5μm Tungsten sensor.
Temperature Compensation:
0 to 50 C (32 to 122 F) with a copper-constantan thermocouple.
Power: AC90 to 250V, 3A
Dimensions: 430x99x300 (16.9”x3.9”x11.8”)

A/D Board

Input Method: Multiple ADC
Input Voltage: Unipolar +10V
Bipolar ±5V, ±10V
Resolution: 12 bits
Conversion Time: 16 μsec
Power: +5V, 1.5A (TYP)
Board Size: Medium
Bus: PCI

Software



Calculations:
maximum and minimum velocity components, average velocity, fluctuation, and vector products.
Display: Change over time and power spectrum.
Computer: Windows-based PC.

As products are continuously upgraded, the contents of this brochure are subject to change without notice.

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