KIMO INSTRUMENTS

Technical Data Sheet

Pressure / Temperature / Humidity / Air Velocity / Airflow / Sound level

CE

Vane probe thermo-anemometer
LV 130

KEY POINTS

- Airflow calculation
- Automatic average
- Hold-min-max functions
- Selection of units

TECHNICAL FEATURES

Measuring elements	**Air velocity :** Hall effet sensor **Ambient temperature :** NTC
Display	4 lines, LCD technology. Sizes 50 x 36 mm 2 lines of 5 digits with 7 segments (value) 2 lines of 5 digits with 16 segments (unit)
Vane probe diameter	Ø100 mm
Housing	ABS, protection IP54
Keypad	5 keys
European directives	2014/30/EU EMC ; 2014/35/EU Low Voltage ; 2011/65/EU RoHS II ; 2012/19/EU WEEE
Power supply	4 batteries AAA LR03 1.5 V
Battery life	180 hours
Ambience	Neutral gas
Conditions of use (instrument) (°C, %RH, m)	From 0 to +50 °C. In non condensing conditions. From 0 to 2000 m.
Operating temperature (probe)	From 0 to +50 °C
Storage temperature	From -20 to +80 °C
Auto shut-off	Adjustable from 0 to 120 min
Weight	390 g

SPECIFICATIONS

Measuring units	Measuring range	Accuracy[1]	Resolution
Velocity			
m/s, fpm, km/h	From 0.3 to 35 m/s	De 0.3 à 3 m/s : ±3% of reading ±0.1 m/s De 3.1 à 35 m/s : ±1% of reading ±0.3 m/s	0.01 m/s 0.1 m/s
Airflow			
m³/h, cfm, l/s, m³/s	From 0 to 99 999 m³/h	±3% of reading ±0.03 * area (cm²)	1 m³/h
Temperature			
°C, °F	From 0 to +50 °C	±0.4 % of reading ±0.3 °C	0.1 °C

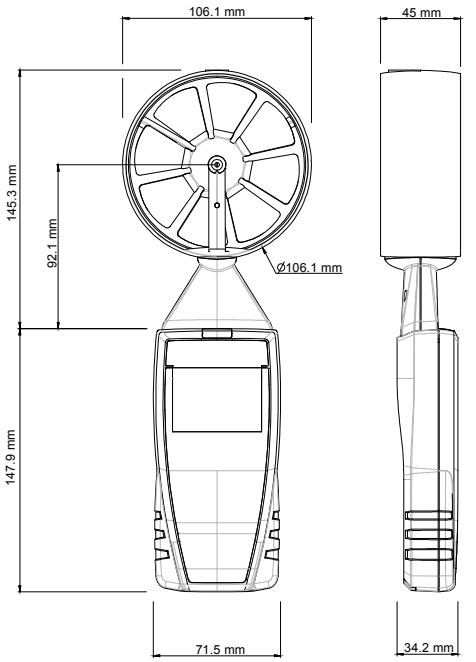
[1]All the accuracies indicated in this technical datasheet were stated in laboratory conditions, and can be guaranteed for measurements carried out in the same conditions, or carried out with calibration compensation

*Except class 110 S

FUNCTIONS

- Airflow calculation
- Airflow calculation with cone
- Automatic average
- Selection of units (air velocity, airflow and temperature)
- Hold function
- Display of minimum and maximum values
- Adjustable auto shut-off
- Backlight
- Detection of flow direction

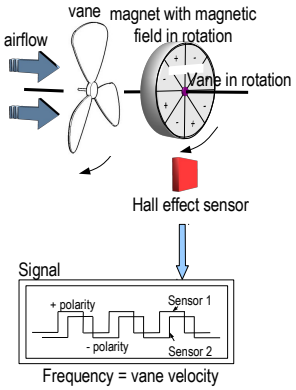
DIMENSIONS



OPERATING PRINCIPLES

Air velocity : Hall effect sensor

Rotation of the shaft of the vane powers a circular magnet of 8 poles. A dual Hall effect sensor, placed next to the magnet senses the signals of magnetic field polarity transition. The sensor signal is converted to electrical frequency and is proportional to the rotation velocity of the van probe. Signals chronology allows to determine the rotation direction.



Thermometer : CTN probe

Negative temperature coefficient probes are thermistors with a resistance that decreases with temperature according to the equation below:

$$R_{(T)} = R_{(T0)} e^{\left(\frac{\alpha}{100} \times (T_0 + 273.15)^2 \times \left(\frac{1}{T + 273.5} - \frac{1}{T_0 + 273.5}\right)\right)}$$

RT= resistance sensor value at temperature T

R(T0)=resistance sensor value at reference temperature T_0

T and T_0 in °C

α and T_0 sensor specific constants

SUPPLIED WITH

Instruments are supplied with:

- Calibration certificate*
- Transport case(ref : ST 110)

*Except class 110 S

ACCESSORIES

CQ 15 : Magnetic protective housing

K 25 – 85 : Airflow cone for anemometer

MT 51 : ABS transport case

MAINTENANCE

We carry out calibration, adjustment and maintenance of your instruments to guarantee a constant level of quality of your measurements. As part of Quality Assurance Standards, we recommend you to carry out a yearly checking.

GUARANTEE

Instruments have 1-year guarantee for any manufacturing defect (return to our After-Sales Service required for appraisal).

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