ALAT UJI
Products, Solution, Services

C.A 1052 : Multifunction Physics Measurement

Check all the performances of your HVAC system

FUNCTIONS

- Air speed measurement (rotating vane and hot wire) and ambient temperature
- Relative humidity measurement
- Pressure measurement
- Contact temperature measurement
- Units choice
- HOLD function
- Display of the maximum and minimum values
- Automatic average measurement for all kind of measurement
- Airflow measurement with or without cone
- Record up to 8 000 datas
- Data analysis software delivered in standard
- Setting of the automatic stop
- Setting of the retro-lighting

SPECIFICATIONS

Metrological specifications

	Measurement range	Resolution	Accuracy	Units
Air speed (Rotating vane)	0,25 to 3 m/s 3,1 to 35 m/s	0,01 m/s 0,1 m/s	± 3% R + 0,1 m/s ± 1% R + 0,3 m/s	m/s , fpm, km/h
Ambient temperature	-20 to +80°C	0,1°C	± 0,4% R + 0,3 °C	°C, °F
Airflow	0 to 99 999 m3/h	1 m3/h	± 3% R ± 0,03 * Surf. Gaine(cm^2)	m3/h, m3/s, L/s, cfm

	Measurement range	Resolution	Accuracy	Units
Air speed (Hot wire)	0,15 to 3 m/s 3,1 to 30 m/s	0,01 m/s 0,1 m/s	± 3% R + 0,03 m/s ± 3% R + 0,1 m/s	m/s , fpm, km/h
Ambient temperature	-20 to +80°C	0,1°C	± 0,3% R + 0,25 °C	°C, °F
Airflow	0 to 99 999 m3/h	1 m3/h	± 3% R ± 0,03 * Surf. Gaine(cm^2)	m3/h, m3/s, L/s, cfm

	Measurement range	Resolution	Accuracy	Units
Relative Humidity	3 to 98 %RH	0,1 %RH	± 1% R ± 1,5 %RH	%RH
Ambient temperature	-50 to +80 °C	0,1 °C	± 0,6% R + 0,5 °C	°C, °F
Dewpoint temperature	-20 to +70 $°C_{td}$	0,1 $°C_{td}$	± 0,8% R + 0,6 $°C_{td}$	$°C_{td}$, $°F_{td}$

Pressure	0 to ± 1000 mmH^2O	0,1 mm h^2O	± 0,2% R ± 1 mmH^2O	MmH^2O, mbar, hpa, Pa, In Wg, mmHG, DataPa

Thermocouple temperature	-200 to +1300°C -100 to +750°C -200 to +400°C	0,1°C 0,1°C 0,1°C	± 0,4% R or 1,1°C ± 0,4% R or 0,8°C ± 0,4% R or 0,5°C	°C, °F

Technical specifications

Work conditions: 0 to 50°C ; < 85 % HR
Use environment : gaz neutre
Storage conditions : -20°C to 80°C ; 15 to 85 % HR
Power supply :4 batteries 1,5V LR6
Auto-switch off of the product adjustable from 0 to 120 min.

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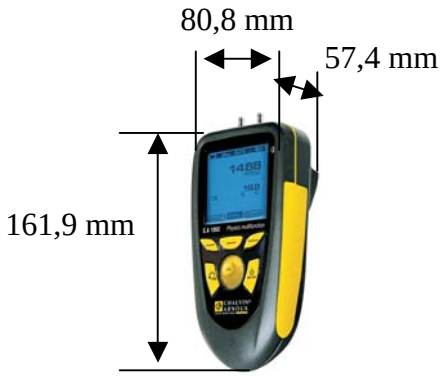
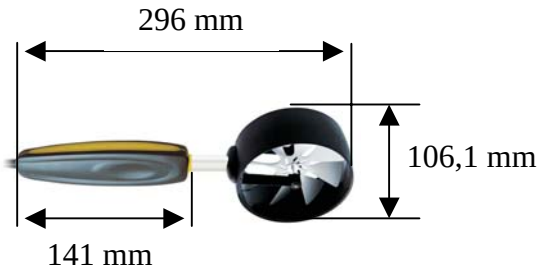


Display : 6 lines
50 x 54 mm
Weight : 380 g

Rotating vane

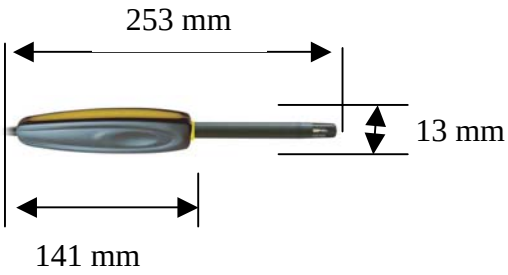


Wire : L = 450 mm, extension up to 2,4 m

Hot wire

Wire: L = 2 m

Relative humidity probe



Wire : L = 450 mm, extension up to 2,4 m

Conformity
Electromagnetic Compatibility : complies with NF EN 61326-1.

PRINCIPLE OF OPERATION

Rotating vane air speed
The air rotates the propeller and rotations are converted into electrical signal. Detector induction account rotations and produced a series of pulses that are converted into voltages by the instrument, and are displayed.
These devices are robust and adapted to harsh operating conditions. They are sensitive to the direction of air flow but not sensitive to turbulence.

Hot wire air speed
The principle of this sensor is based on the temperature of an element. It is cooled by the airflow. Regulation of the element is performed so that the temperature returns to its initial level.
Energy for this regulation is the image of the airflow.

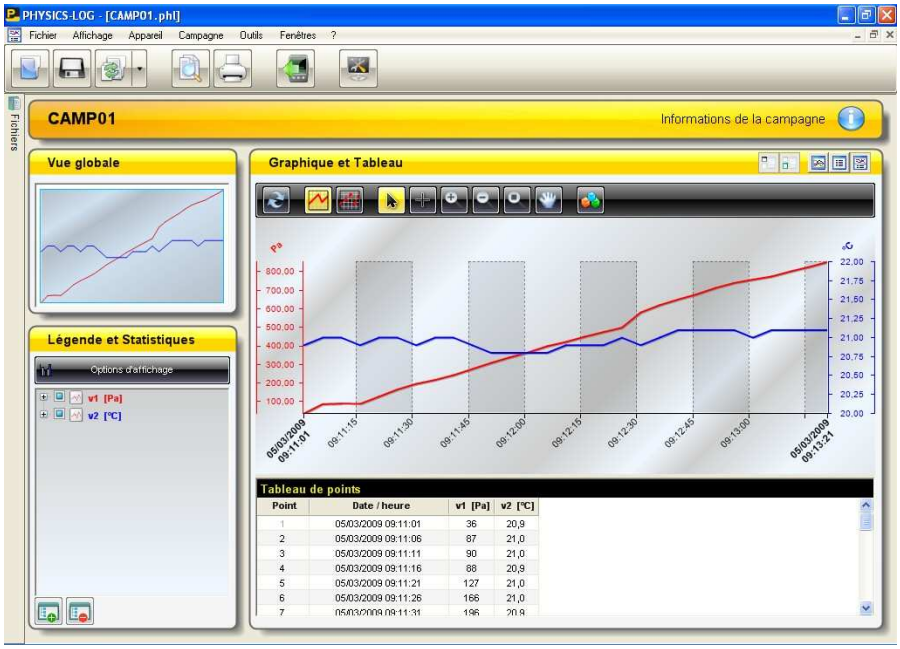
Relative humidity
The relative humidity is the ratio between vapor pressure in the air and satured vapor pressure generated by the water. It indicates the air humidity in percentage.

Dewpoint temperature
The dewpoint temperature is the temperature it needs to obtain to have the first point of condensation.

Pressure
We speak about differential pressure between two points (pressure of the air).

PHYSICS-LOG SOFTWARE

Physics-log software, delivered in standard, allows to transfert the datas recorded in the product to analysis them and to save them.



It is possible to associate to the transfered campaign the details about the operator and the customer for the inspection report creation.