

## **Technical Data Sheet**

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



# *Vane probe thermo-anemometer* LV 101 - LV 107 - LV 110



#### Functions

- Air velocity and ambient temperature
- Selection of units
- HOLD function
- Minimum and maximum values
- Automatic average

- Airflow calculation
- Airflow calculation with cone
- Adjustable automatic shut-off
- Adjustable backlight
- Detection of flow direction (LV107 LV 110)

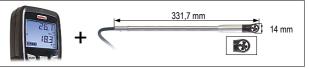


N<sup>ew</sup> CE

## **Technical features**

Measuring elements	Vana anomometer -	
measuring elements	LV101 : Proximity sensor	
	LV107/110 : Hall effect sensor	
	Ambient temperature : Pt100 class A	
Display	2 lines, LCD technology. Sizes 50 x 34.9 mm.	
	1 line of 5 digits with 7 segments (value)	
	1 line of 5 digits with 16 segments (unit)	
Housing	Shock-proof made of ABS, IP54 protection	
Keypad	Metal-coated with 5 keys	
Cable	straight, Ig. 200 mm (LV101)	
	retractable, length 450 mm, up to 2.4 m when released	
Conformity	electromagnetical compatibility (NF EN 61326-1 guideline)	
Power supply	1 alcaline battery 9V 6LR61	
Operating temperature (instrument)from 0 to 50°C		
Operating temperature (probe)	from -20 to +80°C	
Storage temperature	from -20 to +80°C	
Auto shut-off	adjustable from 0 to 120 min	
Weight	190g	
Languages	French, english	

#### LV 101 – Vane probe Ø 14 mm – Fixed probe



#### LV 107 - Vane probe Ø 70 mm – Fixed probe



#### LV 110 - Vane probe Ø 100 mm - Fixed probe



### Specifications

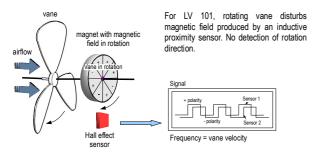
Measuring units	Measuring ranges	Accuracy*	Resolutions
,			
m/s, fpm, Km/h	from 0.8 to 3 m/s from 3.1 to 25 m/s	±3% of reading ±0.1m/s ±1% of reading ±0.3m/s	0.1 m/s
m/s, fpm, Km/h	from 0.3 to 3 m/s from 3.1 to 35 m/s	±3% of reading ±0.1m/s ±1% of reading ±0.3m/s	0.1 m/s
m/s, fpm, Km/h	from 0.25 to 3 m/s from 3.1 to 35 m/s	±3% of reading ±0.1m/s ±1% of reading ±0.3m/s	0.01 m/s 0.1 m/s
m³/h, cfm, l/s, m³/h	from 0 to 99999 m <sup>3</sup> /h	±3% of reading ±0.03 *area(cm <sup>2</sup> )	1 m³/h
PERATURE		l l	
°C, °F	from -20 to +80°C	±0.4% of reading ±0.3°C	0.1°C
	m/s, fpm, Km/h m/s, fpm, Km/h m/s, fpm, Km/h m³/h, cfm, l/s, m³/h PERATURE °C, °F	m/s, fpm, Km/h from 0.8 to 3 m/s from 3.1 to 25 m/s   m/s, fpm, Km/h from 0.3 to 3 m/s from 3.1 to 35 m/s   m/s, fpm, Km/h from 0.25 to 3 m/s from 3.1 to 35 m/s   m/s, fpm, Km/h from 0.25 to 3 m/s from 3.1 to 35 m/s   m³/h, cfm, l/s, m³/h from 0 to 99999 m³/h   PERATURE from -20 to +80°C	m/s, fpm, Km/hfrom 0.8 to 3 m/s from 3.1 to 25 m/s $\pm 3\%$ of reading $\pm 0.1$ m/s $\pm 1\%$ of reading $\pm 0.3$ m/sm/s, fpm, Km/hfrom 0.3 to 3 m/s from 3.1 to 35 m/s $\pm 3\%$ of reading $\pm 0.1$ m/s $\pm 1\%$ of reading $\pm 0.3$ m/sm/s, fpm, Km/hfrom 0.25 to 3 m/s from 3.1 to 35 m/s $\pm 3\%$ of reading $\pm 0.1$ m/s $\pm 1\%$ of reading $\pm 0.3$ m/sm/s, fpm, Km/hfrom 0.25 to 3 m/s from 3.1 to 35 m/s $\pm 3\%$ of reading $\pm 0.1$ m/s $\pm 1\%$ of reading $\pm 0.3$ m/sm³/h, cfm, l/s, m³/hfrom 0 to 99999 m³/h $\pm 3\%$ of reading $\pm 0.03$ *area(cm²)PERATURE

\*All accuracies indicated in this document were stated in laboratory conditions and can be guaranteed for measurements carried out in the same conditions, or carried out with required compensation.

## Working principle

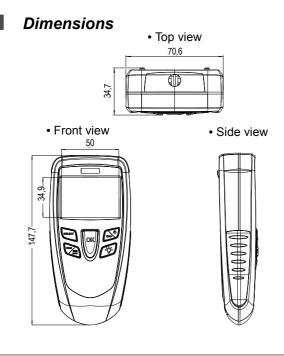
#### Anemometer : Hall effect sensor (LV 107, LV 110)

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 air velocity. Signal chronology allows the detection of rotation direction.



#### Thermometer : Pt100 probe

Pt100 is a resistance with a positive temperature coefficient which varies according to the temperature. The higher the temperature is, the more the value of the resistance increases. ie : for 0°C  $\approx$  100  $\Omega$  - for 100°C  $\approx$  138,5  $\Omega$ .











DESCRIPTION	LV 101	LV 107	LV 110
Ø 14 mm vane probe	•		
Ø 70 mm vane probe		•	
Ø 100 mm vane probe			٠
Air flow cone K25			0
Air flow cone K35-75-120 or 150	0	1 1 1	
Calibration certificate*	•	•	•
Transport case	•	•	٠
	•	•	U

\*except class 100S

#### Accessories (See related datasheet)

RTS	CE 100
Telescopic extension (for probe), 1m long and bent at 90°	Protective cover with magnet and holding system
RD 300	K 25 - 35 - 75 - 120 - 150
To be clipped extension for Ø14 mm vane (RD300), Ø 10 mm. length 300 mm	Air flow cone (See related datasheet)

#### Warranty period

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

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