

# Portable Instruments



Pressure • Temperature • Humidity • Velocity and Airflow • Tachometry • Air quality • Sound level • Light



# Summary

## Class 100 & 200

Thermometers Page 4

**Hygrometers** Page 6

Anemometers Page 8

Page **10** Manometers

> Air guality Page 12

Tachometer Page **12** 

Gas detection Page 16

Page 16 Infrared thermometers

> Sound level meters Page 20

Noise dosimeters Page **21** 

> Page 22 Luxmeters

Page 23 Solarimeters



#### Dedicated to Food Industry

Thermometers - Hygrometers

Class 150

Page 17







#### Airflow meter

Airflow & Air velocity **DBM610** 

Page 18

Page **19** 

#### Software



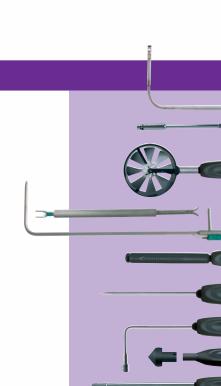
Interchangeable measurement modules Class 200/300

## Class 300

## Multifunction

Pages **14-15** 

**Thermometer** Hygrometer Anemometer Manometer Air quality **Tachometer** 



#### TK100/TK102

Thermocouple K, J, T

- 1 or 2 channels thermometer
- Interchangeable probes







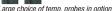
#### TN100/TN101/TN102

**NTC** 

- 1 or 2 channels thermometer
- One fixed probe or a large choice of interchangeable probes









## TR100/TR102

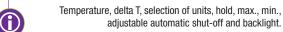
- 1 or 2 channels thermometer
- Interchangeable probes













## Class 100 & 200 accessories

#### **Probes**

PT100, NTC, Thermocouple K, J, T



#### Interchangeable SMART + probes

Probes automatically recognized when connected to the instrument. (PT100 probes)



(PT 100 probes)



Supplied with Optional

Current/voltage module

Module with 4
THERMOCOUPLE inputs

Thermocouple K, J, T probe\*

NTC probes \*

NTC penetration probe

PT100 probe\*

PT100 probe\* - wireless -

\*Large choice of temperature probes in option

#### Class 200

page 17

Temperature, delta T, selection of units, hold, max., min., audible alarm (2 setpoints).

8,000 measurement points.



Range dedicated to Food-Industry **INFRARED** page 16

#### **TM200**

4 Thermocouple inputs 2 PT100 inputs











## Interchangeable modules

Module with 4 Thermocouple inputs

2 PT100 channels

4 Thermocouple K,J,T channels





Current/voltage module



For  $\Delta T$  supervision on air handling system.

Supplied in a transport case



	4	2.6	26	18 y	7	Va.
0 to 2,5 V 0 to 10 V 0 to 4-20 mA						•
K:-200 to +1300°C J:-100 to +750°C T:-200 to +400°C						•
(Measuring range according to model)						
-40 to +120°C (according to model)			•			•
-50 to +250°C (according to model)						



.. Magnetic protective cover Hands-free

..Black ball (class 200) With connection gland



Datalogger - 10 (class 200) Software for data recording and processing.

> Wireless connection (class 200)



#### SERVICE

**Humidity rate monitoring** 



#### **CLEAN ROOMS**

Hazardous area control



#### **HM100**

Pin moisture meter

Indication of humidity percentage for

- 4 types of different material:
- Hardwood
- Softwood
- Concrete and plaster
- Bricks





Relative humidity, dew point and temperature. Selection of units, hold, max., min., adjustable automatic shut-off and backlight.

#### HD100

#### **Hygrometry Temperature**



Class 100 & 200 accessories

#### **Probes**

Hygrometry, temperature



Interchangeable SMART + probes

Probes automatically recognized when connected to the instrument.



Wireless (Pt 100 probes)



High temperature and hygrometry probe





Supplied with Optional

Current/voltage module

Module with 4 THERMOCOUPLE inputs

Standard hygrometry probe

Standard hygrometry probe - wireless -

High temperature hygrometry probe High temperature hygrometry probe

- wireless -

PT100 \* temperature probe

PT100 temperature probe - wireless -\*

Thermocouple K, J, T\* probes

\*Large choice of temperature probes in option







Wired Wireless





#### Class 200

Absolute and relative humidity, dew point, surface dew point, temperature and wet temperature, enthalpy, WBGT index, delta T, selection of units, hold, max., min.

8,000 measurement points.



Range dedicated to Food-Industry page 17

#### HD200

**Hygrometry** PT100 Thermocouple K, J, T







#### Interchangeable modules

Module with 4 Thermocouple inputs Current/voltage module





 Stainless steel probe • Up to 180°C



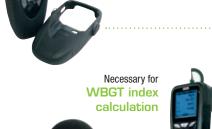
For all humidity measurement fields.



Supplied in a transport

probes in option

	•	•	•	
0 to 2,5 V 0 to 10 V 0 to 4-20 mA		•	•	•
K : -200 to +1300°C J : -100 to 750°C T : -200 to +400°C		•	•	
3 to 98 %RH 0 to 600 g/Kg				
-40 to +70°C <sub>td</sub> -20 to +80°C				
3 to 98 %RH 0 to 600 g/Kg				
-50 to +80°C <sub>td</sub> -40 to +180°C				
-50 to +250°C (according to model)				
(according to model)				



......Magnetic protective cover

Black ball (class 200) With connection gland



Datalogger - 10 (class 200) Software for data recording and processing.





- · Velocity · Airflow in ducts and with cones
- Temperature Fixed probe





#### LV107 & LV110 Ø70mm & Ø100mm vane

- Velocity Airflow calculation Temperature Fixed probe Detection of airflow direction





#### LV120 & LV130 Ø100mm vane

Thermo-anemometer with Ø100mm fixed or rotative vane probe.





#### **Probes**

Ø14mm, Ø70mm and Ø100mm vanes, Hotwire



#### Hotwire

- Standard or telescopic gooseneck-shaped
- Built-in Pt100 temperature probe

#### Ø 70mm, Ø 100mm vane

- Detection of airflow direction
- Built-in Pt100 temperature probe

#### Ø14mm vane

· Built-in Pt100 temperature probe

**Control Led** Instrument connection Measurement Multifunction key

Wired Wireless



(PT 100 probes)



Velocity and airflow in ducts and with cones, temperature. Selection of units, hold, max., min., automatic average, adjustable automatic shut-off and backlight.



#### Class 100 & 200 accessories

Cupplied with Optional

Current/voltage module	0 to 2,5 V 0 to 10 V 0 to 4-20 mA
Module with 4 THERMOCOUPLE inputs	K:-200 to +1300°C J:-100 to +750°C T:-200 to +400°C
Standard Hotwire Telescopic gooseneck-shaped hotwire	0,15 to 30 m/s -20 to +80°C 0 to 99999 m³/h
Airflow cones	
Ø14 mm vane Ø14 mm telescopic vane	0,8 to 25m/s -20 to +80°C 0 to 99999 m³/h
Ø70 mm vane Ø70 mm wireless vane	0,3 to 35m/s -20 to +80°C 0 to 99999 m³/h
Ø100 mm vane Ø100 mm wireless vane	0,25 to 35m/s -20 to +80°C 0 to 99999 m³/h
PT100 temperature probe * PT100 temperature probe * - wireless -	-50 to +250°C  (according to model)
Thermocouple K, J, T probe*	(Measuring range according to model)

#### Class 200

Velocity and airflow in ducts and with cones, average (point per point, automatic and automatic point per point), K2 factor, temperature, delta T. Selection of units, hold, max. min., Standard deviation.

8,000 measuring points.



#### **Hotwire**

- Standard or telescopic gooseneck-shaped
- Built-in Pt100 temperature probe

#### **VT200**

**Vanes Hotwire Temperature** 







#### Airflow cones for hotwire and vane probes :

200 x 200 mm 300 x 300 mm 450 x 450 mm 550 x 100 mm

#### Wireless probes



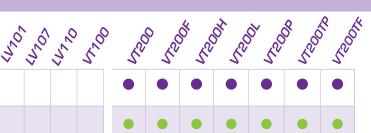


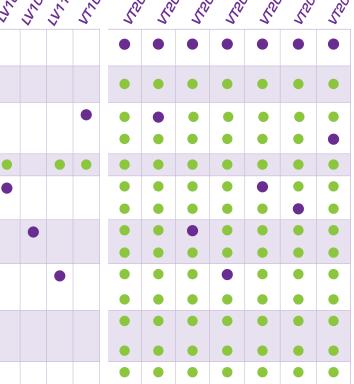


Ø70 mm and Ø100 mm vane and PT100 temperature probes.

#### Interchangeable modules

4 inputs Thermocouple module Current/voltage module







Airflow cones for vane and hotwire probes.

Magnetic protective cover Hands-free

Datalogger - 10 (class 200) Software for data recording and processing.



Wireless connection

(class 200)





Supplied in a transport case

#### MP100 & MP101

From 0 to ±1000 Pa From 0 to ±1000 mmH<sub>2</sub>0





#### MP105/112

From O to  $\pm 500/\pm 2000$  mbar





#### **MP115**

For atmospheric pressure



From 700 to 1100 mbar



#### Pressure, selection of units, Self-calibration, hold, min., max., adjustable automatic shut-off and backlight.

#### **MP120**

#### From 0 to ±1000 Pa

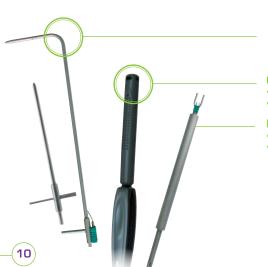
- Pressure
- Velocity and airflow calculation
- Velocity calculation with air pressure compensation.



## Class 100 & 200 accessories

#### **Probes**

Pitot Tubes, Thermocouple, CO/temp.



#### Pitot Tubes «L type»

- With or without temperature compensation
- Several diameters and lengths available

#### CO/Temperature probe

- From 0 to 1000 ppm
- PT 100 from -20 to +80°C

#### Pitot Tube «S type»

- Built-in thermocouple temperature probe
- TIG welding and stainless steel sheath.



#### Supplied with Optional

Supplied with Optional						
Interchangeable PRESSURE Modules	0 to ± 500 Pa					
PRESSURE IVIUdules	0 to ± 2500 Pa					
	0 to ± 10 000 Pa					
	0 to ± 500 mBar					
	0 to ± 2000 mBar					
Current/voltage module	0 to 2,5 V 0 to 10 V 0 to 4-20 mA					
Module with 4 THERMOCOUPLE inputs	K:-200 to +1300°C J:-100 to +750°C T:-200 to +400°C					
Thermocouple K, J, T probes	(Measuring range according to model)					
CO/Temperature probe	-20 to +80°C 0 to 500 ppm					
Pitot Tubes 'L' and 'S'	2 to 100 m/s					
Diameter : from Ø3 to Ø14 mm Length : from 100 mm to 3 m	0 to 99999 m³/h					
Airflow DEBIMO blades	4 to 100 m/s					
	0 to 99999 m³/h					

## Manometers

Pressure, Self-calibration automatic or manual, CO maximum, pressure integration, average (pt per pt, automatic and automatic pt per pt), velocity, airflow. Selection of units, hold, min., max., standard deviation, audible alarm (2 Setpoints).



8,000 measuring points.

#### **MP200**

From 0 to ±10 000 Pa Velocity





## Interchangeable modules

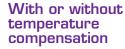
- 5 pressure modules :5 measuring ranges available
- 0 to ±500 Pa\* 0 to ±2500 Pa 0 to ±10 000 Pa
- 0 to ±500 mBar 0 to ±2000 mBar
- Specially designed for low pressure measurement in clean room environment\*.



• 1 current voltage module

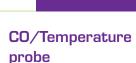
• 1 thermocouple module

#### **Pitot Tubes**



- 'L' or 'S' Types
- Straigth or bent
- Ø 3 to Ø 14 mm
- Length : from 100 mm to 3 m





- Audible alarm (2 Setpoints)
- From 0 to 500 ppm



20,	000	100 00 00 00 00 00 00 00 00 00 00 00 00	100 mg	100 M	00/2*	\$ 60 CQ		S CO	S ROS	A COO A	8
40	400	40	400	40	,	4.	4,	41.	4,	4.	
								•			
							•				
						•		•	•	•	
				°		•	o <sup>*</sup>	Č	•	•	'
						*	*	*	*	*	
D					D						

from 100 mm to 3 m length

Datalogger - 10 (class 200) Software for data recording and processing.









#### **SERVICE**



#### AGRONOMY



WINE MAKING



CO<sub>2</sub>, temperature, selection of units, hold, max., min., adjustable automatic shut-off and backlight.



## Tachometer

Class 100



## Contact/Optical

- Fixed probe
- Selection of units · Function, Hold, max., min.
- Selection of contact or optical
- Adjustable auto-extinction and backlight

#### Rpm indicator



Supplied with	Ontional

Optical probe From 60 to 60000 rpm ETC adaptor From 30 to 20000 rpm





CO, CO<sub>2</sub>, temperature, Delta T, humidity, selection of units, hold, max., min., audible alarm (2 setpoints),...

8,000 measuring points.



#### **AQ200**

CO/CO<sub>2</sub> Temperature/ Hygrometry Air pressure







#### Air quality probes

CO/Temperature probe • From 0 to 500 ppm / From -20 to +80°C

CO<sub>2</sub>/Temperature probe

From 0 to 5000 ppm / From -20 to +80°C

CO<sub>2</sub>/Temp./Hygrometry probe

From 0 to 5000 ppm / From -20 to +80°C / From 5 to 95 %RH





#### Interchangeable modules

Climatic conditions • Hygro/Temp./Air pressure

Module with 4 Thermocouple inputs Current/voltage module



#### Wireless probes



Wireless connection

> PT100 temperature probes

#### **Accessories**

Magnetic protective cover... Hands-free



Datalogger - 10 (class 200) Software for data recording and processing.









probe

		8	Q		8 6	s d
Supplied with Optional		401	POST	POS	A CO	\$ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
Climatic conditions module	5 to 95%RH -20 to +80°C 800 to 1100hPa					
Current/voltage module	0 to 2,5 V 0 to 10 V 0 to 4-20 mA		•			
Module with 4 THERMOCOUPLE inputs	K:-200 to +1300°C J:-100 to +750°C T:-200 to +400°C					
CO/Temperature probe	0 to 500 ppm -20 to + 80°C					
CO <sub>2</sub> /Temperature probe	0 to 5000 ppm -20 to +80°C		•			
CO <sub>2</sub> /Temp./Hygro probe	0 to 5000 ppm -20 to 80°C 5 to 95%RH					
PT100 temperature probes* PT100 temperature probes-wireless-*	-50 to +250°C (according to model)		•	•	•	•
Thermocouple K, J, T probes*	(Measuring range according to model)					
Omnidirectional probe air velocity/temperature/hygrometry	0 to 5m/s -20 to 80°C 5 to 95%RH					

## Multifunction Pressure-Temperatuciass











# 36 Jumidity-Velocity-Airflow-Air qua



#### **Temperature**



#### Pressure



#### Humidity





Joystick and 5 metal coated keys

#### Multifunction probe

Large color display



#### Wireless probes



Wireless connection



Air quality



- HumidityTemperatureAir pressure





#### elocity and airflow





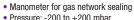
## Gas detection

Selection of units, auto hold, max. min., Adjustable automatic shut-off and backlight adjustable alarm



#### MP130 Gas network sealing









Supplied in a transport case



## CO detector CO100

- CO detection
- . Displaying of ambient temperature
- COmax display







- Detection of gas such as methane (CH4), LPG (isopropanol and isobutane) and others combustible gas (hydrocarbon)
- Display of the concentration of measured gas in ppm, %VOL and %LEL
- · Flexible probe with semiconductor gas sensor





## Infrared thermometers

KIRAY 100 - 200 - 300

Temperature control of surfaces : burning hot, dangerous or difficult to access

From -50 to +1,850°C





# Food Industry

Selection of units, auto hold, max. min., Adjustable automatic shut-off and backlight adjustable alarm

> HACCP principle



#### Thermometer TK150 Thermocouple K, J, T

- 1 channel Thermometer
- Supplied with IP67 waterproof protective cover





#### Thermometers TN150/

- NTC
- 1 channel Thermometer . Supplied with IP67 waterproof protective cover







#### Thermometer TR1 PT1000

- 1 channel Thermometer
- · Supplied with IP67 waterproof protective cover







Waterproof protective cover

#### Calibration certificate





Supplied with Optional

Hygrometry probe	• 5 to 95%RH • -40 to +70°Ctd • -20 to +70°C
Thermocouple K, J, T probes*	-50 to +250°C (according to model)
NTC probes* Penetration NTC probes	-40 to +120°C (according to model)
PT1000 probes*	-50 to +250°C
IP67 Waterproof protective cover	

*Large choice of	temperature	probes	in option
------------------	-------------	--------	-----------

# HD150 Hygrometer

- · Relative humidity, temperature,
- dew point
   Fixed probe



•				
		•		
•	•	•	•	

## Airflow meter





Velocity and airflow in ducts, pressure, temperature. Selection of units, hold, max., min., automatic average, adjustable automatic shut-off and backlight.

#### **DBM610**

For airflow commissioning and balancing

Check air volume of your diffusers and grilles.

- Measuring range: from 40 to 3500  $\mbox{m}^{\mbox{\tiny 3}}\mbox{/h}$  or from 24 to 2060 cfm
- Quick and simple hood change
- Simultaneous display of airflow and temperature
- Automatic detection of airflow direction (supply or exhaust)
- Removable measuring unit (thermo-anemo-manometer functions)
- Software for data processing on computer



#### Thermo-anemo-manometer functions

- · Removable measuring unit
- Measurement of airflow in duct with Pitot Tubes
- Check filters fouling with two silicone tubes





### Accessories





Supplied in a transport case

## 4 other hoods are available as options:

- 720x720 mm
- 720x1320 mm
- 420x1520 mm - 1020x1020 mm





#### Pitot Tubes «L type»

- With or without temperature compensation
- Several diameters and lengths available

#### Datalogger - 10

Software for data recording and processing.



## Data processing software



#### **DATALOGGER-10**

**Configure** 

Plan

Data process

**O**perate

# Instruments configuration

Configure your clients, sites and vent types.



# Intervention planning

Configure sites and specifications of your next measuring dataset.



## Instruments management

Record your instruments and their calibration certificates.





Display of measurements per period

# Dataset processing

- Customized channels
- Insert comments
- Display theoritical values and/or tolerances
- Insert legends and statistics
- Add math functions

## Sound level meters

dB, selection of units, hold, max., min., adjustable automatic shut-off and backlight.



#### **Standards**

As per following standards:

Class 100 & 200

NF EN 61672-1 / NF EN 60651 / NF EN 60804



#### **DB200**

Sound level meter Integrating-averaging with storage function

#### Five different measurement modes

- Conventional sound level meter
- · Conventional sound level meter with storage
- · Conventional and integrating-averaging sound level meter
- Integrating-averaging sound level meter with storage
- · Sound level meter «calculator» of two sound sources

#### Measured values

- Weighted sound level: L
- · Equivalent continous level: Leq
- Sound exposure level: LE
- · Peak pressure level: Lpk
- 30 130 dB
- Class 2
- X frequency weighting: A C Z
- Y frequency weighting: Fast Slow Impulse Peak



#### **DB100**

- 30 130 dB
- · Frequency weighting: A
- Sound-pressure level
- Time averaged sound level





Calibration certificate







#### Class 100 & 200 accessories





CAL200 (class 200) 94 dB calibrator



#### Noise dosimeters Class 200 & 300

dΒ selection of units, hold, max., min., adjustable automatic shut-off and backlight.



#### DS200

#### Individual noise dosimeter

Sound pressure level: LAF - LAS - max-min Equivalent continuous level: LAeq - LCeq - max - min Peak pressure level: LCpk - LZpk Detection and peak counting: 135dB - 137dB - 140dB

Daily sound exposure level: Lex,d Sound exposure: EA,T: en Pa2h

**DOSE** 







#### Standards

NEW

As per following standards:

NF EN ISO 9612 / NF S 31-084 and 2003/10/CE



#### **DS300**

#### Individual noise dosimeter with two channel measurement

- Only one dynamic range extended from 100 dB: 40-140 dB
- Conventionnal and integrating-averaging sound level meter mode
- Two-channel measurement
- · Audio-recording on exceeding thresholds, peaks or short LAeq

#### Measured values

- Sound pressure level: LAF LAS max-min
- Equivalent continuous level: LAeq LCeq LXeq octave bandes 63 Hz/8 kHz
- Detection and peak counting: 135dB 137dB 140dB
- · Daily sound exposure level: Lex,d
- Sound exposure: EA,T: en Pa2h
- DOSE

#### Class 200 & 300 accessories



D-MB microphone direct



#### LDS300 (class 200 & 300)

LDS300 data processing software allows an elaborated management of data and a presentation of results according to the used measurement methodology.

**(1)** 

lux, fc selection of units, hold, max., min., adjustable automatic shut-off and backlight.

#### Standards

As per following standards:

NF EN 12464-1 / NF EN 12464-2 / NF EN 12193



#### LX100

- From 0.1 to 150 000 lux
- From 0.01 to 13 940 fc
- Instantaneous measurement
- Timed measurement
- Relative illuminance function
- Hold function



#### LX200

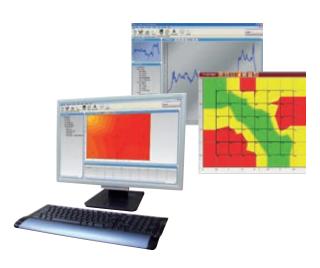
#### Illuminance measurement

- From 0.1 to 200 000 lux
- From 0 to 18 585 fc
- Instantaneous illuminance
- Relative illuminance
- Evolution of illuminance according to weather conditions
- · Cartography of illuminance
- Uniformity
- Supplied with LLX200 software









**LLX200 (class 200)**Operating software for data processing and printing of reports.



Supplied in a transport case

## Class 100 & 200 Solarimeters / Pyranometers

W/m², Wh/m², selection of units, hold, max., min., adjustable automatic shut-off and backlight.













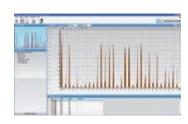
#### SL200

#### Solarimeter / Pyranometer

- From 1 W/m2 to 1300 W/m2
- From 1 Wh/m2 to 500 Wh/m2
- Measurement and spot check of solar irrigation (instantaneous, average, time-recording)
- Calculation of energetic exposure in Wh/m²
- Storage and saving of average values of power and updating the energetic exposure calculation every minutes
- Recorded datas can be read on the display, and the graphic function allows a fast interpretation of the measure file



#### Class 100 & 200 accessories



LSL200 (class 200)

LSL 200 is a configuration, recovery and data processing software of stored data in the instrument.



Fixing kit For solar panels





Via Bologna 50 - 10154 Torino info@kimisure.it - www.kimisure.it