KIMO INSTRUMENTS

Technical Data Sheet

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

New

CE

Supplied with Calibration certificate

AMI 300
Multifunction

Connection

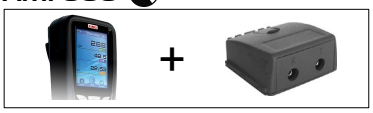
Interchangeable measurement modules
1 instrument = more than 1 range and 1 parameter available.

Wireless connection
Instrument / PC
Instrument / Probe

Smart-plus system
Probes automatically recognized when connected to the instrument.

The multifunctions

AMI 300



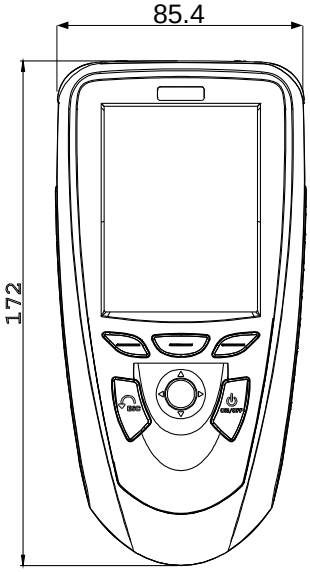
AMI 300 CLA and **AMI 300 CRF**

AMI 300 STD and **AMI 300 SRF**

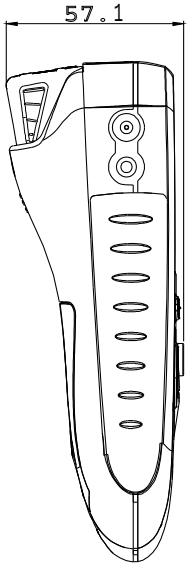
AMI 300 PRO and **AMI 300 PRF**

Dimensions

• Front view



• Side view



Functions

Manometer

PRESSURE

- Automatic or manual self-calibration
- Selection of units
- Pressure integration (0 to 9)
- Point/point, automatic point/point, automatic average
- Minimum / maximum values, hold, standard deviation
- Storage

AIR VELOCITY AND AIRFLOW

- Selection of Pitot tube, Debimo blades, hotwire or factor for other sensing elements
- Selection of duct type
- Selection of units
- Point/point, automatic point/point, automatic average
- Manual or automatic temperature balancing
- Manual air pressure balancing
- K2 factor
- Minimum / maximum values, hold, standard deviation
- Storage

Thermo-hygrometer

HYGROMETER

- Selection of units
- Minimum / maximum values and hold function
- Storage

PSYCHROMETER

- Dew point, wet temperature, enthalpy, absolute temperature
- Minimum / maximum values and hold function
- Storage

WBGT index

For hygrometry probe with black ball.

- Calculation of comfort index inside / outside
- Storage

Air Quality

CLIMATIC CONDITIONS MODULE

- Selection of units
- Minimum / maximum values and hold function
- Storage

AIR QUALITY PROBES

- Audible Alarm (2 setpoints)
- CO maximum
- Selection of units
- Minimum / maximum values and hold function
- Storage

Current / voltage module

- Adjustable ranges
- Minimum / maximum values and hold function
- Storage

Thermometer

Thermocouple module, Pt100 and thermocouple temperature probes

- Dynamic delta T
- Selection of units
- Minimum / maximum values and hold function
- Alarme (upper and lower setpoints)
- Storage

Datalogger-10

- Multi-parameters recording
- Manual and automatic storage
- Memory : up to 8,000 measurement points or 50 datasets
- User-friendly with printing of customized report
- Management of instruments pool, follow-up of calibration periods
- Intervention planning
- Wired or wireless interface

Technical features

Sensing elements

Pressure module Piezoresistive sensor
Overpressure allowed ±500 Pa : 250 mbar
Overpressure allowed ±2500 Pa : 500 mbar
Overpressure allowed ±10,000 Pa : 1,200 mbar
Overpressure allowed ±500 mbar : 2 bar
Overpressure allowed ±2,000 mbar : 6 bar

Hotwire : Thermistance with a negative temperature coefficient.
Ambient temperature : Pt100 1/3 Din.

Ø 70 and 100 mm vane probes : Hall effect sensor
Ambient temperature : Pt100 class A.

Ø 14 mm vane probe : Proximity sensor
Ambient temperature : Pt100 class A.

Hygrometry/Temp. Probe : capacitive sensor, Pt100 1/3 DIN

Thermocouple probes : type K, J and T class 1

Pt100 probes Smart-plus : Pt100 class 1/3 Din

Climatic conditions module
Hygrometry : capacitive sensor
Temperature : semiconductor sensor
Air pressure : piezoresistive sensor

Air quality probes
CO_2 : NDIR sensor
CO : electrochemical sensor
Temperature : Pt100 class A
Hygrometry : capacitive sensor

Climatic conditions module
Hygrometry : capacitive sensor
Temperature : semiconductive sensor
Air pressure : piezoresistive sensor

Multifunction probe
Air velocity : Thermistance with a negative temperature coefficient.
Hygrometry/Temp.: capacitive sensor, Pt100 1/3 DIN

Tachometry probe
Optical : optical sensor
Contact : optical probe with ETC adaptor

Instrument connections.....**On the top :**
2 secured mini-DIN connectors for SMART-Plus probes
Left side :
1 USB port for KIMO cable only
1 power supply plug

Module connections.....**Thermocouple**
4 inputs for compensated miniature plug of thermocouple type K, J or T Class 1 (as per IEC 584-3norm)
Pressure
2 pressure connectors Ø 6,2 mm made of nickelled brass.
2 threaded pressure connectors Ø 4,6 mm made of nickelled brass
+ 1 thermocouple temperature input for miniature connectors
Current / voltage module
2 stereo jacks

Display.....Graphic display 320x240 pixels
Dim. 70 x 52 mm, color display
Display of 6 measurements (including 4 simultaneously)

Housing IP54, ABS shock-proof

Keypad.....Metal-coated, 5 keys, 1 joystick

Conformity.....Electromagnetical compatibility (NF EN 61326-1 norm)

Power supply.....4 alcaline batteries 1,5V LR6

Operating environment.....Neutral gas

Operating temperature.....from 0 to 50°C

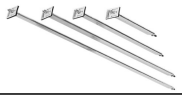
Storage temperature.....from -20 to +80°C

Auto shut-off.....adjustable from 0 to 120 min

Weight.....380g

Languages.....French, English, Dutch, German, Italian, Spanish, Portuguese, Swedish, Norwegian, Finn, Danish

Specifications

	Measuring units	Measuring range	Accuracy*	Resolutions
PRESSURE				
	Pa, mmH_2O, In WG, mbar, hPa, mmHg, DaPa	from 0 to ±500 Pa	± 100 Pa : ±0.2% reading ±0.8Pa, beyond ±0.2% reading ±1,5Pa,	0.1 Pa
		from 0 to ±2500 Pa	±0.2% of reading ±2Pa	1Pa
		from 0 to ±10,000 Pa	±0.2% of reading ±10Pa	1Pa
		from 0 to ±500 mBar	±0.2% of reading ±0,5mBar	1mBar
		from 0 to ±2000 mBar	±0.2% of reading ±2mBar	1mBar
CURRENT/VOLTAGE				
	V, mA	from 0 to 2,5 V	±1mV	0.001 V
		from 0 to 10 V	±10mV	0.01 V
		from 0 to 4/20 mA	±0.01mA	0.01 mA
THERMOCOUPLE				
	°C, °F	K : from -200 to +1,300°C	±1.1°C or ±0.4% of reading**	0.1 °C
		J : from -100 to +750°C	±0.8°C or ±0.4% of reading**	0.1 °C
		T : from -200 to +400°C	±0.5°C or ±0.4% of reading**	0.1 °C
CLIMATIC CONDITIONS				
	Hygro. %RH	from 5 to 95%RH	See datasheet interchangeable measurement modules	0.1 %RH
	Temp. °C, °F	from -20 to +80°C		0.1 °C
	Air pressure hPa	from 800 to 1100 hPa		1 hPa
HOTWIRE - Standard and telescopic -				
	Air velocity m/s, fpm, Km/h	from 0.15 to 3 m/s	±3% of reading ±0.03 m/s	0.01 m/s
		from 3.1 to 30 m/s	±3% of reading ±0.1 m/s	0.1 m/s
	Temperature °C, °F	from -20 to +80°C	±0.3% of reading ±0.25°C	0.1 °C
	Airflow m^3/h, cfm, l/s, m^3/s	from 0 to 99,999 m^3/h	±3% of reading ±0.03*area(cm^2)	1 m^3/h
Ø 100 mm VANE PROBE				
	Air velocity m/s, fpm, Km/h	from 0,25 to 3 m/s	±3% of reading ±0,1m/s	0.01 m/s
		from 3,1 to 35 m/s	±1% of reading ±0,3m/s	0.1 m/s
	Temperature °C, °F	from -20 to +80°C	±0.4% of reading ±0.3°C	0.1 °C
	Airflow m^3/h, cfm, l/s, m^3/s	from 0 to 99,999 m^3/h	±3% of reading ±0.03*area (cm^2)	1 m^3/h
Ø 70 mm VANE PROBE				
	Air velocity m/s, fpm, Km/h	from 0,to à 3 m/s	±3% of reading ±0,1m/s	0.1 m/s
		from 3,1 to 35 m/s	±1% of reading ±0,3m/s	
	Temperature °C, °F	from -20 to +80°C	±0.4% of reading ±0.3°C	0.1 °C
	Airflow m^3/h, cfm, l/s, m^3/s	from 0 to 99,999 m^3/h	±3% of reading ±0.03*area (cm^2)	1 m^3/h
Ø 14 mm VANE PROBE				
	Air velocity m/s, fpm, Km/h	from 0,8 to 3 m/s	±3% of reading ±0,1m/s	0.1 m/s
		from 3,1 to 40 m/s	±1% of reading ±0,3m/s	
	Airflow m^3/h, cfm, l/s, m^3/s	from 0 to 99,999 m^3/h	±3% of reading ±0.03*area (cm^2)	1 m^3/h
	Temperature °C, °F	from -20 to +80°C	±0.4% of reading ±0.3°C	0.1 °C
PITOT TUBE				
	Air velocity m/s, fpm, Km/h, mph	from 2 to 5 m/s	±0.3 m/s	0.1 m/s
		from 5.1 to 100 m/s	±0.5% of reading ±0.2m/s	
	Airflow m^3/h, cfm, l/s, m^3/s	from 0 to 99,999m^3/h	±0.2% of reading ±1% PE	1 m^3/h
DEBIMO blades				
	Air velocity m/s, fpm, Km/h, mph	from 4 to 20 m/s	±0.3 m/s	0.1 m/s
		from 21 to 100 m/s	±1% of reading ±0.1m/s	0.1 m/s
	Airflow m^3/h, cfm, l/s, m^3/s	from 0 to 99,999m^3/h	±0.2% of reading ±1% PE	1 m^3/h
Air quality probes : CO / CO_2 / temperature / Hygrometry				
	Temperature °C, °F	from -20 to +80°C	See related datasheet "Portable probes"	0.1 °C
	CO_2 ppm	from 0 to 5000 ppm		1 ppm
	CO ppm	from 0 to 1,000 ppm		1 ppm
	Relative humidity %RH	from 5 to 95%RH		0.1 %RH
STANDARD HYGROMETRY probe				
STD 	Relative humidity %RH	from 3 to 98 %RH	See related datasheet "Portable probes"	0.1 %RH
	Absolute humidity / enthalpy g/Kg / Kj/Kg	According to temperature and hygrometry measuring ranges		0.1 g/Kg
	Dew point $°C_{td}$, $°F_{td}$	from -50 to +80°C_{td}	±0.6% of reading ±0.5°C_{td}	0.1 °C_{td}
	Ambient temperature °C, °F	from -20 to	±0.3% of reading ±0.25°C	0.1 °C
HIGH TEMPERATURE HYGROMETRY probe				
H.T 	Relative humidity %RH	from 3 to 98 %RH	See related datasheet "Portable probes"	0.1 %RH
	Absolute humidity / enthalpy g/Kg / Kj/Kg	According to temperature and hygrometry measuring ranges		0.1 g/Kg
	Dew point $°C_{td}$, $°F_{td}$	from -50 to +80°C_{td}	±0.6% of reading ±0.5°C_{td}	0.1 °C_{td}
	Ambient temperature °C, °F	from -40 to +180°C	±0.3% of reading ±0.25°C	0.1 °C
TACHOMETRY probe (See datasheet "Portable probes")				
MULTIFUNCTION probes (See datasheet "Portable probes")				
Pt100 Smart-Plus probes (See related datasheet)				

*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.
**The accuracy is expressed either by a deviation in °C, or by a percentage of the value concerned. Only the bigger value is considered.

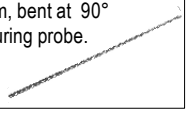
Supplied with ...

● Supplied with ○ Option

DESCRIPTION	AMI 300	AMI 300 CLA	AMI 300 STD	AMI 300 PRO	AMI 300 CRF	AMI 300 SRF	AMI 300 PRF
Pressure module from 0 to ±500 Pa	○	○	○	●	○	○	●
Pressure module from 0 to ±2500 Pa	○	○	○	○	○	○	○
Pressure module from 0 to ±10000 Pa	○	○	●	○	○	●	○
Pressure module from 0 to ±500 mBar	○	○	○	○	○	○	○
Pressure module from 0 to ±2000 mBar	○	○	○	○	○	○	○
Current / voltage module	●	●	●	●	●	●	●
Thermocouple module	○	○	○	○	○	○	○
Climatic conditions module	○	○	○	○	○	○	○
2x1 m silicone tube Ø 4 x 7 mm	○	○	●	●	○	●	●
Stainless steel tips Ø 6 x 100 mm	○	○	●	●	○	●	●
Pitot tube Ø 6mm, lg. 300 mm	○	○	●	○	○	●	○
Pitot tube Ø 6mm, lg. 300 mm T	○	○	○	●	○	○	●
Pitot tube Ø 6mm, lg. 300 mm S	○	○	○	○	○	○	○
Optical tachometry probe	○	○	○	○	○	○	○
ETC adaptor	○	○	○	○	○	○	○
Reflective tape	○	○	○	○	○	○	○
Standard hotwire	○	●	●	○	●	●	○
Straight extension for hotwire	○	●	●	○	●	●	●
Telescopic gooseneck-shaped hotwire	○	○	○	●	○	○	●
SMART-Plus Ø 14 mm vane probe	○	○	○	○	○	○	○
Telescopic SMART-Plus Ø 14 mm vane probe	○	○	○	○	○	○	○
SMART-Plus Ø 70 mm vane probe	○	●	○	○	○	○	○
Wireless Ø 70 mm vane probe	○	○	○	○	●	○	○
SMART-Plus Ø 100 mm vane probe	○	○	●	●	○	○	○
Wireless Ø 100 mm vane probe	○	○	○	○	○	●	●
SMART-Plus standard hygrometry probe	○	●	●	○	○	○	○
Wireless standard hygrometry probe	○	○	○	○	●	●	○
SMART-Plus high temperature hygrometry probe	○	○	○	●	○	○	○
Wireless high temperature hygrometry probe	○	○	○	○	○	○	●
SMART-Plus Pt100 temperature probe	○	○	○	○	○	○	○
Wirelesss Pt100 temperature probe	○	○	○	○	○	○	○
Thermocouple K, J and T probe	○	○	○	○	○	○	○
CO_2 / temperature probe	○	○	○	○	○	○	○
CO / temperature probe	○	○	○	○	○	○	○
CO_2 / temperature / Hygrometry probe	○	○	○	○	○	○	○
Air velocity/ Temperature / Hygrometry probe	○	○	○	○	○	○	○
8 rechargeable batteries with charger	○	○	○	○	○	○	○
Calibration certificate	●	●	●	●	●	●	●
Transport case	●	●	●	●	●	●	●

Accessories *(See related datasheet)*

Datalogger-10	K 25 - 35 - 75 - 120 - 150	BNF	CE 300	GST	ADS
Datalogger-10 PC software for data recording and processing. Wired (LPCF) or wireless (LPCR) interface. 	Airflow cones (See related datasheet) 	Hotwire cleaning spray 	Hands-free protective cover	Silicone heat conductive grease for temperature probes 	Adaptor for power supply 230 Vac

KPIJ 20 – 50 – 100 – 200 - 600	See related datasheet	BN (See datasheet)	RD 300	RTS
Ammeter clamp with PVC cable lg. 2m and jack connector. 	Debimo airflow blades of different sizes 	Black ball Ø 150mm with junction for temperature probe Ø 4,5mm. Further dimensions available.	Straight extension for hotwire Ø 10 mm. lg. 300 mm	Telescopic extension, length 1 m, bent at 90° for measuring probe. 

Warranty period

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

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