

## **Technical Data Sheet**

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



# **AMI 300** Multifunction







#### Connection





#### Interchangeable measurement modules

1 instrument = more than 1 range and 1 parameter available.



#### Wireless connection Instrument / PC

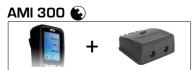
Instrument / Probe



#### Smart-plus system

Probes automatically recognized when connected to the instrument.

### The multifunctions

















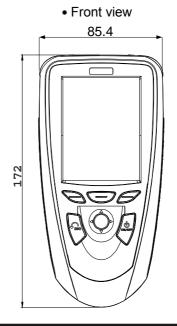


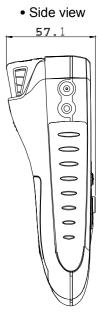






## **Dimensions**





#### **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<sub>2</sub>: 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

Weight......380g

Languages.....French, English, Dutch, German, Italian,

Spanish, Portuguese, Swedish, Norwegian,

Finn, Danish



Specifications		Measuring units	Measuring range	Accuracy*	Resolutions
PRESSURE			from 0 to ±500 Pa		0.1 Pa from -100 to +100
		Pa, mmH <sub>2</sub> O, In WG,	from 0 to ±2500 Pa	beyond ±0.2% reading ±1,5Pa, ±0.2% of reading ±2Pa	1 Pa beyond 1Pa
880		-	from 0 to ±10,000 Pa	±0.2% of reading ±10Pa	1Pa
		mbar, hPa, mmHg, DaPa	from 0 to ±500 mBar	$\pm 0.3\%$ of reading $\pm 0.5$ mBar	0,1mBar
CURRENT/VOLTAGE			from 0 to ±2000 mBar	±0.3% of reading ±2mBar	1mBar
CURRENT/VOLIAGE		V. mA	from 0 to 2,5 V	±2mV	0.001 V
		v, iiiA	from 0 to 10 V	±10mV	0.01 V
			from 0 to 4/20 mA	±0.01mA	0.01 mA
THERMOCOUPLE	<u> </u>				
		°C, °F	K: from -200 to +1,300°C	±1.1°C or ±0.4% of reading**	0.1 °C
T -			J : from -100 to +750°C T : from -200 to +400°C	$\pm 0.8$ °C or $\pm 0.4$ % of reading** $\pm 0.5$ °C or $\pm 0.4$ % of reading**	0.1 °C 0.1 °C
CLIMATIC CONDITIONS				<u> </u>	
	Hygro.	%RH	from 5 to 95%RH	See datasheet	0.1 %RH
	Temp.	°C, °F	from -20 to +80°C	interchangeable	0.1 °C
Air	pressure	hPa	from 800 to 1100 hPa	measurement modules	1 hPa
HOTWIRE - Standard and te	lescopic -				
	Air velocity	m/s, fpm, Km/h	from 0.15 to 3 m/s	$\pm 3\%$ of reading $\pm 0.03$ m/s	0.01 m/s
0	Tomporot	۰٫۰۰	from 3.1 to 30 m/s	±3% of reading ±0.1 m/s	0.1 m/s 0.1 °C
	Temperature	°C, °F	from -20 to +80°C	±0.3% of reading ±0.25°C	
<u> </u>	Airflow	m³/h, cfm, l/s, m³/s	from 0 to 99,999 m <sup>3</sup> /h	±3% of reading ±0.03*area(cm²)	1 m³/h
Ø 100 mm VANE PROBE		m/o f V "	from 0.05 to 0.07	00/ ( " 0 " )	0.01 m/s
	Air velocity	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
	Temperature	°C, °F	from -20 to +80°C	±0.4% of reading ±0.3°C	0.1 °C
	Airflow	m³/h, cfm, l/s, m³/s	from 0 to 99,999 m <sup>3</sup> /h	$\pm 3\%$ of reading $\pm 0.03$ *area (cm <sup>2</sup> )	
Ø 70 mm VANE PROBE	Allilow	111 /11, 61111, 1/3, 111 /3	110111 0 (0 99,999 111711	±0 % of reading ±0.00 area (cill )	1 111 /11
O TO HIM VAILET ROBE	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
Ø 14 mm VANE PROBE	Airflow	m <sup>3</sup> /h, cfm, l/s, m <sup>3</sup> /s	from 0 to 99,999 m <sup>3</sup> /h	±3% of reading ±0.03*area (cm <sup>2</sup> )	1 m³/h
0 14 mm VANE PROBE	A' l't	m/a fam Vm/h	from 0,8 to 3 m/s	±3% of reading ±0,1m/s	0.1 m/s
	Air velocity	m/s, fpm, Km/h	from 3,1 to 40 m/s	±1% of reading ±0,3m/s	
	Airflow	m³/h, cfm, l/s, m³/s	from 0 to 99,999 m <sup>3</sup> /h	±3% of reading ±0.03*area (cm <sup>2</sup>	
PITOT TUBE	Temperature	°C, °F	from -20 to +80°C	±0.4% of reading ±0.3°C	0.1 °C
<u> </u>	Air velocity	m/s, fpm, Km/h, mph	from 2 to 5 m/s	±0.3 m/s	0.4/-
1 '	All velocity	iii/5, ipiii, Kiii/ii, iiipii	from 5.1 to 100 m/s	±0.5 m/s ±0.5% of reading ±0.2m/s	0.1 m/s
	Airflow	m³/h, cfm, l/s, m³/s	from 0 to 99,999m3/h	±0.2% of reading ±1% PE	1 m³/h
DEBIMO blades					
A	ir velocity	m/s, fpm, Km/h, mph	from 4 to 20 m/s from 21 to 100 m/s	±0.3 m/s ±1% of reading ±0.1m/s	0.1 m/s 0.1 m/s
	Airflow	m³/h, cfm, l/s, m³/s	from 0 to 99,999m³/h	±0.2% of reading ±1% PE	1 m³/h
Air quality probes : CO / Co			110111 0 10 00,000111 /11		,
	mperature	°C, °F	from -20 to +80°C	See related datasheet	0.1 °C
16	CO,	ppm	from 0 to 5000 ppm	"Portable probes"	1 ppm
	CO	ppm	from 0 to 1,000 ppm		1 ppm
Relativ	e humidity	%RH	from 5 to 95%RH		0.1 %RH
STANDARD HYGROMETRY	probe				
S 11)	tive humidity	%RH	from 3 to 98 %RH	See related datasheet	0.1 %RH
Absolute humidit	-	g/Kg / Kj/Kg	According to temperature and hygrometry measuring ranges	"Portable probes"	0.1 g/Kg
	Dew point	°C <sub>td</sub> , °F <sub>td</sub>	from -50 to +80°C <sub>td</sub>	±0.6% of reading ±0.5°C <sub>td</sub>	0.1 °C <sub>td</sub>
	emperature	°C, °F	from -20 to	±0.3% of reading ±0.25°C	0.1 °C
HIGH TEMPERATURE HYG					
	tive humidity	%RH	from 3 to 98 %RH According to temperature and	See related datasheet	0.1 %RH
Absolute humidit	y / enthalpy	g/Kg / Kj/Kg	hygrometry measuring ranges	"Portable probes"	0.1 g/Kg
	Dew point	${}^{\circ}C_{td}^{}$ , ${}^{\circ}F_{td}^{}$	from -50 to +80 $^{\circ}$ C $_{td}$	$\pm 0.6\%$ of reading $\pm 0.5^{\circ}\text{C}_{\text{td}}$	0.1 °C <sub>td</sub>
	temperature	°C, °F	from -40 to +180°C	±0.3% of reading ±0.25°C	0.1 °C
TACHOMETRY probe (See					
	San datach	eet "Portable probes")			
MULTIFUNCTION probes (S	bee ualasiit	occ i ditubio pioneto j			

<sup>\*</sup>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.

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

## 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 s	pray	Hands-free pro cover	tective	Silicone heat conduc grease for temperatu 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				xtension for hotwire . 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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