



Calibration  
certificate

# AMI 300 Multifunction

**New**  
**CE**



## 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

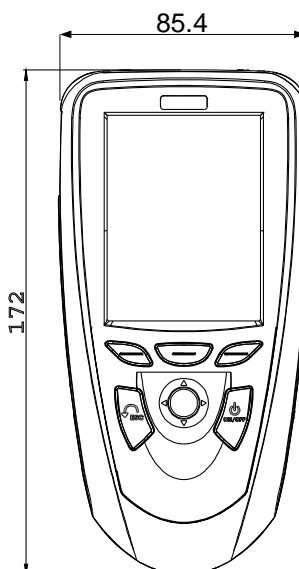


### AMI 300 PRO and AMI 300 PRF

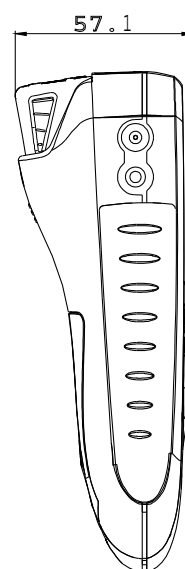


## Dimensions

### • 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

#### OMNIDIRECTIONAL PROBE

- Air velocity
- Temperature
- Hygrometry

### 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
- Calculation of U-value

- Multi-parameters recording
- Manual and automatic storage
- Memory : up to 12,000 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  $\pm 500$  Pa : 250 mbar
- Overpressure allowed  $\pm 2500$  Pa : 500 mbar
- Overpressure allowed  $\pm 10,000$  Pa : 1,200 mbar
- Overpressure allowed  $\pm 500$  mbar : 2 bar
- Overpressure allowed  $\pm 2,000$  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

##### Omnidirectional probe

**Air velocity** : Thermistance with a negative temperature coefficient

**Hygrometry/Temps.** : capacitive sensor, Pt100 1/3 DIN

##### Tachometry probe

**Optical** : optical sensor

**Contact** : optical probe with ETC adaptor

##### Gas leak detection probe

**Ch<sub>4</sub>, hydrocarbon and LPG** : electrochemical sensor

##### 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)

IP54, ABS shock-proof

##### Housing

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

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

##### Power supply.....4 alkaline batteries 1,5V LR6

##### Operating environment.....Neutral gas

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










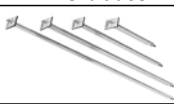



##### Storage temperature.....from -20 to +80°C

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

##### Weight.....380g

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

**Specifications**

Specifications		Measuring units	Measuring range	Accuracy*	Resolutions	
PRESSURE						
	Pa, mmH <sub>2</sub> O, In WG, mbar, hPa, mmHg, DaPa, kPa		from 0 to ±500 Pa from 0 to ±2500 Pa from 0 to ±10,000 Pa	± 100 Pa : ±0.2% reading ±0.8Pa, beyond ±0.2% reading ±1.5Pa, ±0.2% of reading ±2Pa ±0.2% of reading ±10Pa	0.1 Pa from -100 to +100 Pa, 1 Pa beyond 1Pa 1Pa	
	mmH <sub>2</sub> O, In WG, mbar, hPa, mmHg, DaPa, kPa, PSI bar, In WG, mbar, hPa, mmHg, kPa, PSI		from 0 to ±500 mBar from 0 to ±2000 mBar	±0.2% of reading ±0.5mBar ±0.2% of reading ±2mBar	0.1mBar 1mBar	
CURRENT/VOLTAGE						
	V, mA		from 0 to 2,5 V from 0 to 10 V from 0 to 4/20 mA	±2mV ±10mV ±0.01mA	0.001 V 0.01 V 0.01 mA	
THERMOCOUPLE						
	°C, °F		K: from -200 to +1,300°C J: from -100 to +750°C T: from -200 to +400°C	±1.1°C or ±0.4% of reading** ±0.8°C or ±0.4% of reading** ±0.5°C or ±0.4% of reading**	0.1 °C 0.1 °C 0.1 °C	
CLIMATIC CONDITIONS						
	Hygro. Temp. Air pressure	%RH °C, °F hPa	from 5 to 95%RH from -20 to +80°C from 800 to 1100 hPa	See datasheet interchangeable measurement modules	0.1 %RH 0.1 °C 1 hPa	
HOTWIRE - Standard and telescopic -						
	Air velocity	m/s, fpm, Km/h	from 0.15 to 1 m/s from 0.15 to 3 m/s from 3.1 to 30 m/s from -20 to +80°C	± 3% of reading ± 0.03 m/s*** ±3% of reading ±0.03 m/s ±3% of reading ±0.1 m/s ±0.3% of reading ±0.25°C	0.01 m/s 0.01 m/s 0.1 m/s 0.1 °C	
	Temperature	°C, °F				
	Airflow	m³/h, cfm, l/s, m³/s		from 0 to 99,999 m³/h	±3% of reading ±0.03*area(cm²)	1 m³/h
Ø 100 mm VANE PROBE						
	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 m³/h	±3% of reading ±0.03*area (cm²)	1 m³/h	
Ø 70 mm VANE PROBE						
	Air velocity	m/s, fpm, Km/h	from 0,0 to à 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	
	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 m³/h	±3% of reading ±0.03*area (cm²)	1 m³/h	
Ø 14 mm VANE PROBE						
	Air velocity	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	
	Airflow	m³/h, cfm, l/s, m³/s	from 0 to 99,999 m³/h	±3% of reading ±0.03*area (cm²)	1 m³/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 from 5.1 to 100 m/s	±0.3 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						
	Air 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 <sub>2</sub> / temperature / Hygrometry						
	Temperature	°C, °F	from -20 to +80°C	See related datasheet	0.1 °C	
	CO <sub>2</sub>	ppm	from 0 to 5000 ppm	"Portable probes"	1 ppm	
	CO	ppm	from 0 to 500 ppm		0,1 ppm	
	Relative humidity	%RH	from 5 to 95%RH		0.1 %RH	
STANDARD HYGROMETRY probe						
	Relative humidity	%RH	from 3 to 98 %RH	See related datasheet	0.1 %RH	
	Absolute humidity / enthalpy	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>	
	Ambient temperature	°C, °F	from -20 to	±0.3% of reading ±0.25°C	0.1 °C	
HIGH TEMPERATURE HYGROMETRY probe						
	Relative humidity	%RH	from 3 to 98 %RH	See related datasheet	0.1 %RH	
	Absolute humidity / enthalpy	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>	
	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")			OMNIDIRECTIONAL PROBE See datasheet "Portable probes"			
MULTIFUNCTION probes (See datasheet "Portable probes")			GAS LEAK DETECTION PROBE 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.

\*\*\*Optional specific adjustment and calibration

## 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 $\pm 500$ Pa	○	○	○	●	○	○	●
Pressure module from 0 to $\pm 2500$ Pa	○	○	○	○	○	○	○
Pressure module from 0 to $\pm 10000$ Pa	○	○	●	○	○	●	○
Pressure module from 0 to $\pm 500$ mBar	○	○	○	○	○	○	○
Pressure module from 0 to $\pm 2000$ mBar	○	○	○	○	○	○	○
Current / voltage module	●	●	●	●	●	●	●
Thermocouple module	○	○	○	○	○	○	○
Climatic conditions module	○	○	○	○	○	○	○
2x1 m silicone tube $\varnothing 4 \times 7$ mm	○	○	●	●	○	●	●
Stainless steel tips $\varnothing 6 \times 100$ mm	○	○	●	●	○	●	●
Pitot tube $\varnothing 6$ mm, lg. 300 mm	○	○	●	○	○	●	○
Pitot tube $\varnothing 6$ mm, lg. 300 mm T	○	○	○	●	○	○	●
Pitot tube $\varnothing 6$ mm, lg. 300 mm S	○	○	○	○	○	○	○
Optical tachometry probe	○	○	○	○	○	○	○
ETC adaptor	○	○	○	○	○	○	○
Reflective tape	○	○	○	○	○	○	○
Hot wire with specific adjustment and calibration	○	○	○	○	○	○	○
Standard hotwire	○	●	●	○	●	●	○
Straight extension for hotwire	○	●	●	○	●	●	○
Telescopic gooseneck-shaped hotwire	○	○	○	●	○	○	●
SMART-Plus $\varnothing 14$ mm vane probe	○	○	○	○	○	○	○
Telescopic SMART-Plus $\varnothing 14$ mm vane probe	○	○	○	○	○	○	○
SMART-Plus $\varnothing 70$ mm vane probe	○	●	○	○	○	○	○
Wireless $\varnothing 70$ mm vane probe	○	○	○	○	●	○	○
SMART-Plus $\varnothing 100$ mm vane probe	○	○	●	●	○	○	○
Wireless $\varnothing 100$ 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	○	○	○	○	○	○	○
Wireless Pt100 temperature probe	○	○	○	○	○	○	○
Thermocouple K, J and T probe	○	○	○	○	○	○	○
CO <sub>2</sub> / temperature probe	○	○	○	○	○	○	○
CO / temperature probe	○	○	○	○	○	○	○
CO <sub>2</sub> / temperature / Hygrometry probe	○	○	○	○	○	○	○
Gas leak detection probe	○	○	○	○	○	○	○
Omnidirectional probe (air velocity/temperature/hygrometry)	○	○	○	○	○	○	○
Air velocity/ Temperature / Hygrometry probe	○	○	○	○	○	○	○
8 rechargeable batteries with charger	●	●	●	●	●	●	●
Calibration certificate	●	●	●	●	●	●	●
Transport case	●	●	●	●	●	●	●

## Accessories (See related datasheet)

<b>Datalogger-10</b> Datalogger-10 PC software for data recording and processing. Wired (LPCF) or wireless (LPCR) interface.	<b>KPIJ 20 – 50 – 100 – 200 – 600</b> Ammeter clamp with PVC cable lg. 2m and jack connector.	<b>RTS</b> Telescopic extension, length 1 m, bent at 90° for measuring probe.	<b>BNF</b> Hotwire cleaning spray	<b>K 25 - 35 – 75 - 85 - 120 - 150</b> Airflow cones (See related datasheet)
<b>CE 300</b> Hands-free protective cover	<b>GST</b> Silicone heat conductive grease for temperature probes	<b>ADS</b> Adaptor for power supply 230 Vac	<b>See related datasheet</b> Silicone tube and crystal flexible tube	<b>See related datasheet</b> Debimo airflow blades of different sizes
<b>BN</b> Black ball $\varnothing 150$ mm with junction for temperature probe $\varnothing 4,5$ mm. Further dimensions available.	<b>RD 300</b> Straight extension for hotwire $\varnothing 10$ mm. lg. 300 mm	<b>JAC</b> Set of 4 LR6 batteries	<b>CHA</b> 4 batteries charger	