

**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

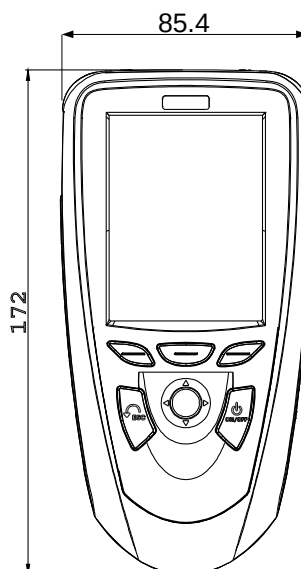


### AMI 300 PRO and AMI 300 PRF

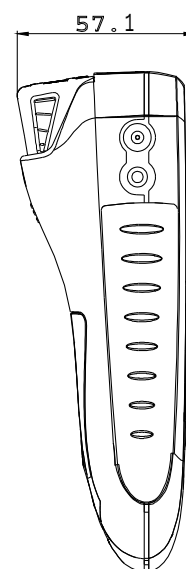


## Dimensions

### 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 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

#### 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 alkaline batteries 1,5V LR6

**Operating environment**.....Neutral gas

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

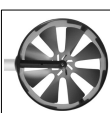
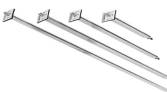
**Storage temperature**.....from -20 to +80°C

**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,<br>mbar, hPa, mmHg, DaPa              |  | from 0 to ±500 Pa<br>from 0 to ±2500 Pa<br>from 0 to ±10,000 Pa<br>from 0 to ±500 mBar<br>from 0 to ±2000 mBar                           |  | ± 100 Pa : ±0.2% reading ±0.8Pa,<br>beyond ±0.2% reading ±1.5Pa,<br>±0.2% of reading ±2Pa<br>±0.2% of reading ±10Pa<br>±0.2% of reading ±0.5mBar<br>±0.2% of reading ±2mBar |  | 0.1 Pa from -100 to +100 Pa,<br>1 Pa beyond<br>1Pa<br>1Pa<br>0.1mBar<br>1mBar |  |
| CURRENT/VOLTAGE                                                                     |                                                                                              |                                                                      |  |                                                                                                                                          |  |                                                                                                                                                                             |  |                                                                               |  |
|    |                                                                                              | V, mA                                                                |  | from 0 to 2,5 V<br>from 0 to 10 V<br>from 0 to 4/20 mA                                                                                   |  | ±2mV<br>±10mV<br>±0.01mA                                                                                                                                                    |  | 0.001 V<br>0.01 V<br>0.01 mA                                                  |  |
| THERMOCOUPLE                                                                        |                                                                                              |                                                                      |  |                                                                                                                                          |  |                                                                                                                                                                             |  |                                                                               |  |
|    |                                                                                              | °C, °F                                                               |  | K: from -200 to +1,300°C<br>J: from -100 to +750°C<br>T: from -200 to +400°C                                                             |  | ±1.1°C or ±0.4% of reading**<br>±0.8°C or ±0.4% of reading**<br>±0.5°C or ±0.4% of reading**                                                                                |  | 0.1 °C<br>0.1 °C<br>0.1 °C                                                    |  |
| CLIMATIC CONDITIONS                                                                 |                                                                                              |                                                                      |  |                                                                                                                                          |  |                                                                                                                                                                             |  |                                                                               |  |
|    | Hygro.<br>Temp.<br>Air pressure                                                              | %RH<br>°C, °F<br>hPa                                                 |  | from 5 to 95%RH<br>from -20 to +80°C<br>from 800 to 1100 hPa                                                                             |  | See datasheet<br>interchangeable<br>measurement modules                                                                                                                     |  | 0.1 %RH<br>0.1 °C<br>1 hPa                                                    |  |
| HOTWIRE - Standard and telescopic -                                                 |                                                                                              |                                                                      |  |                                                                                                                                          |  |                                                                                                                                                                             |  |                                                                               |  |
|    | Air velocity<br>Temperature<br>Airflow                                                       | m/s, fpm, Km/h<br>°C, °F<br>m³/h, cfm, l/s, m³/s                     |  | from 0.15 to 3 m/s<br>from 3.1 to 30 m/s<br>from -20 to +80°C<br>from 0 to 99,999 m³/h                                                   |  | ±3% of reading ±0.03 m/s<br>±3% of reading ±0.1 m/s<br>±0.3% of reading ±0.25°C<br>±3% of reading ±0.03*area(cm²)                                                           |  | 0.01 m/s<br>0.1 m/s<br>0.1 °C<br>1 m³/h                                       |  |
| Ø 100 mm VANE PROBE                                                                 |                                                                                              |                                                                      |  |                                                                                                                                          |  |                                                                                                                                                                             |  |                                                                               |  |
|    | Air velocity<br>Temperature<br>Airflow                                                       | m/s, fpm, Km/h<br>°C, °F<br>m³/h, cfm, l/s, m³/s                     |  | from 0.25 to 3 m/s<br>from 3.1 to 35 m/s<br>from -20 to +80°C<br>from 0 to 99,999 m³/h                                                   |  | ±3% of reading ±0.1m/s<br>±1% of reading ±0.3m/s<br>±0.4% of reading ±0.3°C<br>±3% of reading ±0.03*area (cm²)                                                              |  | 0.01 m/s<br>0.1 m/s<br>0.1 °C<br>1 m³/h                                       |  |
| Ø 70 mm VANE PROBE                                                                  |                                                                                              |                                                                      |  |                                                                                                                                          |  |                                                                                                                                                                             |  |                                                                               |  |
|  | Air velocity<br>Temperature<br>Airflow                                                       | m/s, fpm, Km/h<br>°C, °F<br>m³/h, cfm, l/s, m³/s                     |  | from 0.25 to 3 m/s<br>from 3.1 to 35 m/s<br>from -20 to +80°C<br>from 0 to 99,999 m³/h                                                   |  | ±3% of reading ±0.1m/s<br>±1% of reading ±0.3m/s<br>±0.4% of reading ±0.3°C<br>±3% of reading ±0.03*area (cm²)                                                              |  | 0.1 m/s<br>0.1 °C<br>1 m³/h                                                   |  |
| Ø 14 mm VANE PROBE                                                                  |                                                                                              |                                                                      |  |                                                                                                                                          |  |                                                                                                                                                                             |  |                                                                               |  |
|  | Air velocity<br>Airflow<br>Temperature                                                       | m/s, fpm, Km/h<br>m³/h, cfm, l/s, m³/s<br>°C, °F                     |  | from 0.8 to 3 m/s<br>from 3.1 to 25 m/s<br>from 0 to 99,999 m³/h<br>from -20 to +80°C                                                    |  | ±3% of reading ±0.1m/s<br>±1% of reading ±0.3m/s<br>±3% of reading ±0.03*area (cm²)<br>±0.4% of reading ±0.3°C                                                              |  | 0.1 m/s<br>1 m³/h<br>0.1 °C                                                   |  |
| PITOT TUBE                                                                          |                                                                                              |                                                                      |  |                                                                                                                                          |  |                                                                                                                                                                             |  |                                                                               |  |
|   | Air velocity<br>Airflow                                                                      | m/s, fpm, Km/h, mph<br>m³/h, cfm, l/s, m³/s                          |  | from 2 to 5 m/s<br>from 5.1 to 100 m/s<br>from 0 to 99,999m³/h                                                                           |  | ±0.3 m/s<br>±0.5% of reading ±0.2m/s<br>±0.2% of reading ±1% PE                                                                                                             |  | 0.1 m/s<br>1 m³/h                                                             |  |
| DEBIMO blades                                                                       |                                                                                              |                                                                      |  |                                                                                                                                          |  |                                                                                                                                                                             |  |                                                                               |  |
|  | Air velocity<br>Airflow                                                                      | m/s, fpm, Km/h, mph<br>m³/h, cfm, l/s, m³/s                          |  | from 4 to 20 m/s<br>from 21 to 100 m/s<br>from 0 to 99,999m³/h                                                                           |  | ±0.3 m/s<br>±1% of reading ±0.1m/s<br>±0.2% of reading ±1% PE                                                                                                               |  | 0.1 m/s<br>0.1 m/s<br>1 m³/h                                                  |  |
| Air quality probes : CO / CO <sub>2</sub> / temperature / Hygrometry                |                                                                                              |                                                                      |  |                                                                                                                                          |  |                                                                                                                                                                             |  |                                                                               |  |
|  | Temperature<br>CO <sub>2</sub><br>CO<br>Relative humidity                                    | °C, °F<br>ppm<br>ppm<br>%RH                                          |  | from -20 to +80°C<br>from 0 to 5000 ppm<br>from 0 to 1,000 ppm<br>from 5 to 95%RH                                                        |  | See related datasheet<br>"Portable probes"                                                                                                                                  |  | 0.1 °C<br>1 ppm<br>1 ppm<br>0.1 %RH                                           |  |
| STANDARD HYGROMETRY probe                                                           |                                                                                              |                                                                      |  |                                                                                                                                          |  |                                                                                                                                                                             |  |                                                                               |  |
|  | STD<br>Relative humidity<br>Absolute humidity / enthalpy<br>Dew point<br>Ambient temperature | %RH<br>g/Kg / Kj/Kg<br>°C <sub>td</sub> , °F <sub>td</sub><br>°C, °F |  | from 3 to 98 %RH<br>According to temperature and<br>hygrometry measuring ranges<br>from -50 to +80°C <sub>td</sub><br>from -20 to        |  | See related datasheet<br>"Portable probes"                                                                                                                                  |  | 0.1 %RH<br>0.1 g/Kg<br>0.1 °C <sub>td</sub><br>0.1 °C                         |  |
| HIGH TEMPERATURE HYGROMETRY probe                                                   |                                                                                              |                                                                      |  |                                                                                                                                          |  |                                                                                                                                                                             |  |                                                                               |  |
|  | H.T<br>Relative humidity<br>Absolute humidity / enthalpy<br>Dew point<br>Ambient temperature | %RH<br>g/Kg / Kj/Kg<br>°C <sub>td</sub> , °F <sub>td</sub><br>°C, °F |  | from 3 to 98 %RH<br>According to temperature and<br>hygrometry measuring ranges<br>from -50 to +80°C <sub>td</sub><br>from -40 to +180°C |  | See related datasheet<br>"Portable probes"                                                                                                                                  |  | 0.1 %RH<br>0.1 g/Kg<br>0.1 °C <sub>td</sub><br>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 $\pm 500$ 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                                      | ○       | ○           | ○           | ○           | ○           | ○           | ○           |
| 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     | ○       | ○           | ○           | ○           | ○           | ○           | ○           |
| Air velocity/ Temperature / Hygrometry probe         | ○       | ○           | ○           | ○           | ○           | ○           | ○           |
| 8 rechargeable batteries with charger                | ○       | ○           | ○           | ○           | ○           | ○           | ○           |
| Calibration certificate                              | ●       | ●           | ●           | ●           | ●           | ●           | ●           |
| Transport case                                       | ●       | ●           | ●           | ●           | ●           | ●           | ●           |

## Accessories (See related datasheet)

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

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