

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



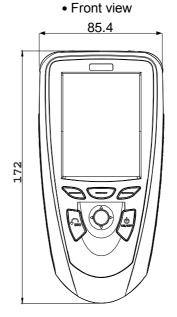


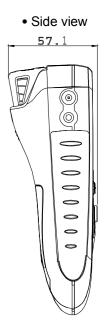






Dimensions



















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

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

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 ±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,: 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

Ch4, 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)

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

| Specification | s | Measuring units | Measuring range | Accuracy* | Resolutions |
|--|-----------------------------|--|---|--|--------------------------|
| PRESSURE | | 0.1.100 | from 0 to ±500 Pa | ± 100 Pa : ±0.2% reading ±0.8Pa, | 0.1 Pa from -100 to +100 |
| | 4 | O, In WG, mbar, | from 0 to ±2500 Pa | beyond ±0.2% reading ±1,5Pa, ±0.2% of reading ±2Pa | 1 Pa beyond 1Pa |
| 0000 | • | nHg, DaPa, kPa | from 0 to ±10,000 Pa | ±0.2% of reading ±10Pa | 1Pa |
| mml | l ₂ O, In WG, mb | oar, hPa, mmHg, DaPa, kP | a, PSI from 0 to ±500 mBar | ±0.2% of reading ±0,5mBar | 0,1mBar |
| CURRENT/VOLTAGE | bar, In WG, | mbar, hPa, mmHg, kPa, P | SI from 0 to ±2000 mBar | ±0.2% of reading ±2mBar | 1mBar |
| - CONTROL - CONT | | V, mA | from 0 to 2,5 V | ±2mV | 0.001 V |
| 100 | | | from 0 to 10 V | ±10mV | 0.01 V |
| THERMOCOUPLE | | | from 0 to 4/20 mA | ±0.01mA | 0.01 mA |
| THERWOOD LE | — | 00 0F | V . f 200 t 1 200 0 | .1.1°C or .0.40/ of roading** | 0.4.90 |
| + | | °C, °F | K : from -200 to +1,300°C J : from -100 to +750°C | ± 1.1 °C or ± 0.4 % of reading** ± 0.8 °C or ± 0.4 % of reading** | 0.1 °C 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 | 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 | telescopic - | | from 0.15 to 1 m/s | ± 3% of reading ± 0.03 m/s*** | 0.01 m/s |
| | 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 |
| O DEED | Temperature | °C, °F | from 3.1 to 30 m/s | ±3% of reading ±0.1 m/s | 0.1 m/s |
| | Airflow | m³/h, cfm, l/s, m³/s | from -20 to +80°C | ±0.3% of reading ±0.25°C | 0.1 °C 1 m³/h |
| Ø 100 mm VANE PROE | | 111711, C1111, 1/5, 11175 | from 0 to 99,999 m ³ /h | ±3% of reading ±0.03*area(cm²) | I MY/N |
| ~ IVV IIIII VANL FROE | Air velocity | m/s, fpm, Km/h | from 0,25 to 3 m/s | ±3% of reading ±0,1m/s | 0.01 m/s |
| | 7 til VOIOCILY | , | from 3,1 to 35 m/s | ±1% of reading ±0,1m/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 ³ /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,to à 3 m/s | ±3% of reading ±0,1m/s | 0.1 m/s |
| | Temperature | °C, °F | from 3,1 to 35 m/s from -20 to +80°C | ±1% of reading ±0,3m/s ±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 | $\pm 3\%$ of reading ± 0.03 *area (cm ²) | |
| 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 |
| (3) | Airflow | m ³ /h, cfm, l/s, m ³ /s | from 3,1 to 25 m/s from 0 to 99,999 m³/h | ±1% of reading ±0,3m/s ±3% of reading ±0.03*area (cm ² |) 1 m³/h |
| | Temperature | °C, °F | from -20 to +80°C | ±0.4% of reading ±0.3°C | 0.1 °C |
| PITOT TUBE | | | | | |
| T | Air velocity | m/s, fpm, Km/h, mph | from 2 to 5 m/s | ±0.3 m/s | 0.1 m/s |
| | Airflow | m³/h, cfm, l/s, m³/s | from 5.1 to 100 m/s from 0 to 99,999m³/h | ±0.5% of reading ±0.2m/s ±0.2% of reading ±1% PE | 1 m³/h |
| DEBIMO blades | 711110W | 111 /11, 61111, 1/3, 111 /3 | 110111 0 to 99,999111 /11 | ±0.2 % 01 10ading ±1 % 1 E | 1 111 /11 |
| | 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 | $\pm 1\%$ of reading ± 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 ₂ / tempera | ture / Hygrometry | | | |
| | Temperature | °C, °F | from -20 to +80°C | See related datasheet | 0.1 °C |
| | CO ₂ | ppm | from 0 to 5000 ppm | "Portable probes" | 1 ppm |
| Dala | CO | ppm | from 0 to 500 ppm | | 0,1 ppm |
| Rela STANDARD HYGROMET | RY probe | %RH | from 5 to 95%RH | | 0.1 %RH |
| R | elative humidity | %RH | from 3 to 98 %RH | See related datasheet | 0.1 %RH |
| SID | idity / enthalpy | g/Kg / Kj/Kg | According to temperature and | "Portable probes" | 0.1 g/Kg |
| | Dew point | °C _{td} , °F _{td} | hygrometry measuring ranges from -50 to +80°C _{td} | ±0.6% of reading ±0.5°C _{td} | 0.1 °C _{td} |
| Ambie | nt temperature | °C, °F | from -20 to | ±0.3% of reading ±0.25°C | 0.1 °C |
| HIGH TEMPERATURE H | GROMETRY p | probe | | | |
| | elative humidity | %RH | from 3 to 98 %RH | See related datasheet | 0.1 %RH |
| | idity / enthalpy | g/Kg / Kj/Kg | According to temperature and hygrometry measuring ranges | "Portable probes" | 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} |
| | nt temperature | °C, °F | from -40 to +180°C | ±0.3% of reading ±0.25°C | 0.1 °C |
| Ambie | | | | | |
| | | Portable probes") | OMNIDIRECTIONAL PRO | BE See datasheet "Portable probe | es" |
| Ambie TACHOMETRY probe (Se MULTIFUNCTION probes | ee datasheet " | | | BE See datasheet "Portable probe PROBE See datasheet "Portable probe | |

^{*}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

| 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 | • | 0 | 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 |
| Hot wire with specific adjustment and calibration | 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 ₂ / temperature probe | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CO / temperature probe | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CO ₂ / temperature / Hygrometry probe | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Gas leak detection probe | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Omnidirectional probe (air velocity/temperature/hyrometry) | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Air velocity/ Temperature / Hygrometry probe | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8 rechargeable batteries with charger | • | • | • | • | • | • | • |
| Calibration certificate | • | • | • | • | • | • | • |
| Transport case | | | • | • | • | • | • |

Accessories (See related datasheet)

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

Warranty period

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



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