KIMO INSTRUMENTS

# Technical Data Sheet

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

New

CE

# *Measuring probes*

## *for Class 200 - 300 portable instruments*

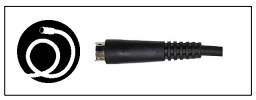
**Wireless communication**
instrument/ PC
instrument / probe

**Smart-plus system**
Wireless or wired probes automatically recognized when connected to the instrument.

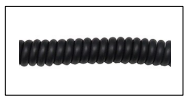
## ■ Vane Ø 100 mm

| | Measuring range | Accuracy* | Res. | $t_{63}$ | Ref. |
|---|---|---|---|---|---|
| **Air velocity** | from 0.25 to 3 m/s<br>from 3.1 to 35 m/s | ± 3% of reading ± 0,1 m/s<br>± 1% of reading ± 0.3m/s | 0.01 m/s<br>0.1 m/s | 1 sec. | **HE 100** |
| **Airflow** | from 0 to 99999 $m^3/h$ | ± 3% of reading<br>± 0.03*area ($cm^2$) | 1 $m^3/h$ | | |
| **Temperature** | from -20 to +80°C | ± 0.4% of reading ± 0.3°C | 0.1°C | | |

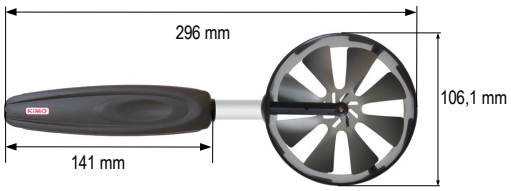
Air velocity : Hall effect sensor
Airflow : calculated
Temperature : Pt100 class A.
ABS handle (from -40 to +85°C).
Detection of rotation direction.



Secured mini-Din connector.



Retractable cable lg. 450 mm, up to 2,4 m.




**Wireless communication.**
Max. distance 10 m


**HE 100 RF**

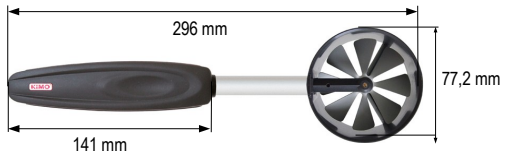
## ■ Vane Ø 70 mm

| | Measuring range | Accuracy* | Res. | $t_{63}$ | Ref. |
|---|---|---|---|---|---|
| **Air velocity** | de 0,3 à 3 m/s<br>de 3,1 à 35 m/s | ± 3% lecture ± 0.1 m/s<br>± 1% lecture ± 0.3 m/s | 0.1 m/s | 0.8 sec. | **HE 70** |
| **Airflow** | from 0 to 99999 $m^3/h$ | ± 3% of reading<br>± 0.03*area ($cm^2$) | 1 $m^3/h$ | | |
| **Temperature** | from -20 to +80°C | ± 0.4% of reading ± 0.3°C | 0.1°C | | |

Air velocity : Hall effect sensor
Airflow : calculated
Temperature : Pt100 class A.
ABS handle (from -40 to +85°C).
Detection of rotation direction.

Secured mini-Din connector.

Retractable cable lg. 450 mm, up to 2,4 m.




**Wireless communication.**
Max. distance 10 m

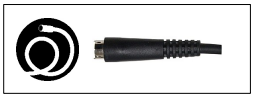

**HE 70 RF**

**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.*

## ■ Vane Ø 14 mm

| | Measuring range | Accuracy* | Res. | $t_{63}$ | Ref. |
|---|---|---|---|---|---|
| **Air velocity** | from 0,8 to 3 m/s<br>from 3,1 to 25 m/s | ±3% reading ±0,1m/s<br>±1% reading ±0,3m/s | 0.1 m/s | 0.6 sec. | |
| **Airflow** | from 0 to 99999 $m^3/h$ | ± 3% of reading<br>± 0.03*area ($cm^2$) | 1 $m^3/h$ | | |
| **Temperature** | from -20 to +80°C | ± 0.4% of reading ± 0.3°C | 0.1°C | 5 sec. for $V_{air}$=1m/s | |

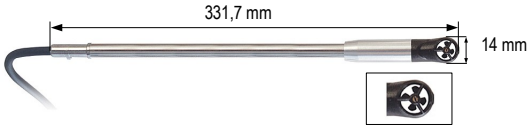
Air velocity : proximity sensor
Airflow : calculated
Temperature : Pt100 class A.
Straight (HE14)
or telescopic (HET14) handle



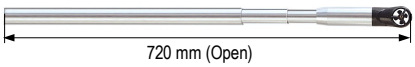
Secured mini-Din connector.

Straight cable lg. 170mm.

Standard model **HE 14**



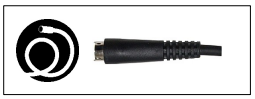

Telescopic model **HET 14**




## ■ Hotwire

| | Measuring range | Accuracy* | Res. | $t_{63}$ | Ref. |
|---|---|---|---|---|---|
| **Air velocity** | from 0.15 to 1 m/s<br>from 0.15 to 3 m/s<br>from 3.1 to 30 m/s | ± 3% of reading ± 0.03 m/s**<br>± 3% of reading ± 0.03 m/s<br>± 3% of reading ± 0.1 m/s | 0.01 m/s<br>0.01 m/s<br>0.1 m/s | 0.6 sec. | |
| **Airflow** | from 0 to 99999 $m^3/h$ | ± 3% of reading<br>± 0.03*area ($cm^2$) | 1 $m^3/h$ | | |
| **Temperature** | from -20 to +80°C | ± 0.3% of reading ± 0.25°C | 0.1°C | 5 sec. for $V_{air}$=1m/s | |

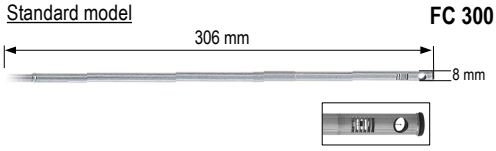
Air velocity : NTC regulated in temperature
Airflow : calculated
Temperature : Pt100 class 1/3 DIN
Straight (FC300)
or telescopic and gooseneck (FC900) handle



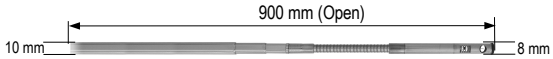
Secured mini-Din connector.

Straight cable lg. 1.70 m.

Standard model **FC 300**



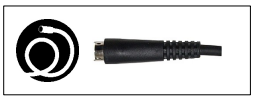

Telescopic and gooseneck model **FCT 900**




## ■ Hygrometry probe

| | Measuring range | Accuracy* | Res. | $t_{63}$ | Ref. |
|---|---|---|---|---|---|
| **Relative humidity** | from 3 to 98%RH | **Accuracy*** (Repeatability, linearity, hysteresis)** : ±1,5%RH (from 15°C to 25°C)<br>**Factory calibration uncertainty :** ±0,88 %RH<br>**Temperature dependence :**<br>±0.04 x (T-20) %RH (if T<15°C or T>25°C) | 0.1%RH | <10sec. (from 10%RH to 80%RH; $V_{air}$=2m/s) | |
| **Absolute humidity**<br>**Enthalpy** | Function of humidity and temperature measuring ranges | | | | |
| **Dew point** | from -50 to +80°$C_{td}$ | ±0.6% of reading ±0.5°$C_{td}$ | 0.1°$C_{td}$ | | |
| **Ambient temperature :** | | | | | |
| *Standard* | from -20 to +80°C | ±0.3% of reading ±0.25°C | 0.1 °C | 7sec. $V_{air}$=1m/s | |
| *High temperature* | from -40 to +180°C | ±0.3% of reading ±0.25°C | 0.1 °C | 7sec. $V_{air}$=1m/s | |

Hygrometry : capacitive sensor
Temperature : Pt100 class 1/3 DIN
**Standard model**
ABS Sheath and handle
(from -40 to +85°C).
**High temperature model**
ABS handle (from -40 to +85°C)
and inox sheath.

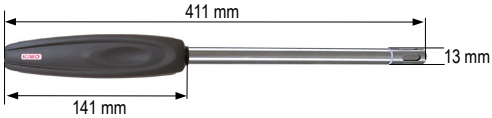


Secured mini-Din connector.

Retractable cable lg. 450 mm, up to 2,4 m.

Standard model **HR 110**


High temperature **HRI 300**




**Wireless communication.**
Max. distance 10 m

Standard model **HR 110 RF**

High temperature model **HRI 300 RF**

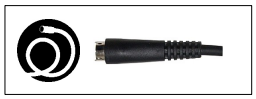
**All accuracies indicated in this document were stated in laboratory conditions and can be guaranteed for measurements carried out in the same conditions, or carried out with required compensation.*
*** Optional specific adjustment and calibration*
****As per NFX 15-113 and the Charter 2000/2001 HYGROMETERS, GAL (Guaranteed Accuracy Limit) which has been calculated with a coverage factor value of 2 is ±2.88%RH between 18 and 28°C on the measuring range from 5 to 95%RH. Sensor drift is less than 1%RH/year.*

## ■ Optical tachometry

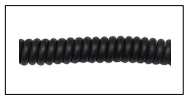
| Measuring range | Accuracy* | Res. | $t_{63}$ | Ref. |
|---|---|---|---|---|
| from 60 to 10000 RPM | ± 0.3% of reading ± 1 RPM | 1 RPM | 2 sec. | **TOP** |
| from 10001 to 60000 RPM | ± 30 RPM | | | |

Optical tachometry probe.
ABS handle (from -40 to +85°C).

**Probe exclusively compatible with class 300 instruments**



Secured mini-Din connector.



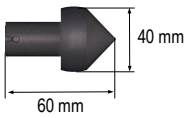
Retractable cable lg. 450 mm, up to 2,4 m.


## ■ Contact adaptor

| Measuring range | Accuracy* | Res. | $t_{63}$ | Ref. |
|---|---|---|---|---|
| from 30 to 20000 RPM | ± 1% of reading ± 1 RPM | 1 RPM | 2 sec. | **ETC** |

Contact adaptor for optical probe
.

**Probe exclusively compatible with class 300 instruments**

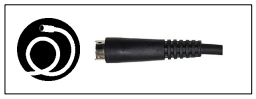



## ■ Multifunction probe

| | Measuring range | Accuracy* | Res. | $t_{63}$ | Ref. |
|---|---|---|---|---|---|
| **Velocity** | from 0.15 to 3 m/s<br>from 3.1 to 30 m/s | ± 3% of reading ± 0.03 m/s<br>± 3% of reading ± 0.1 m/s | 0.01 m/s<br>0.1 m/s | 0,6 sec. | **SVTH** |
| **Relative humidity** | from 5 to 95%RH | **Accuracy** (Repeatability, linearity, hysteresis)** : ±1,8%RH (from 15°C to 25°C)<br>**Factory calibration uncertainty :** ±0,88 %RH<br>**Temperature dependence :**<br>±0.04 x (T-20) %RH (if T<15°C or T>25°C) | 0.1%RH | | |
| **Temperature** | from -20 to +80°C | ± 0.3% of reading ± 0.25°C | 0.1°C | 5 sec. for $V_{air}$=1m/s | |

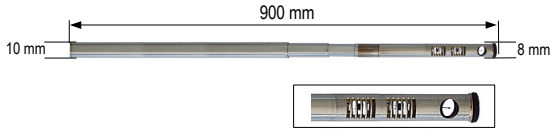
Velocity : NTC regulated in temperature
Hygrometry : capacitif sensor
Temperature : Pt100 class 1/3 DIN
Telescopic handle

**Probe exclusively compatible with class 300 instruments**



Secured mini-Din connector.

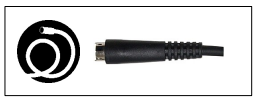
Straight cable lg. 1.70 m.



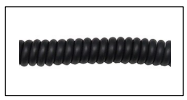

## ■ CO / temperature probe

| | Measuring range | Accuracy* | Res. | $t_{63}$ | Ref. |
|---|---|---|---|---|---|
| **CO** | from 0 to 200 ppm<br>from 200 to 500 ppm | ± 3 ppm<br>± 3% of reading | 1 ppm | 10 sec. | **SCOT** |
| **Temperature** | from -20 to +80°C | ± 0.3% of reading ± 0.25°C | 0.1°C | | |

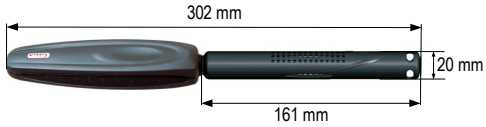
CO : Electrochemical sensor
Temperature : Pt100 class 1/3 DIN
ABS handle (from -40 to +85°C)



Secured mini-Din connector.



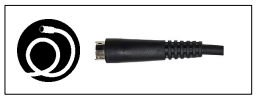
Retractable cable lg. 450 mm, up to 2,4 m.



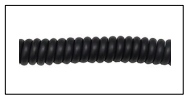

## ■ $CO_2$ / temperature probe

| | Measuring range | Accuracy* | Res. | $t_{63}$ | Ref. |
|---|---|---|---|---|---|
| **$CO_2$** | from 0 to 5000 ppm | ± 3% of reading or ± 50 ppm | 1 ppm | 30 sec. | **SCO2T** |
| **Temperature** | from -20 to +80°C | ± 0.3% of reading ± 0.25°C | 0.1°C | | |

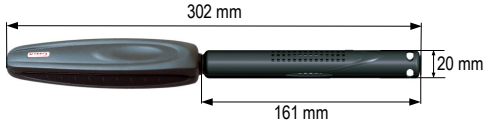
$CO_2$ : NDIR sensor
(Non dispersive- infrared sensor NDIR)
Temperature : Pt100 class 1/3 DIN
ABS handle (from -40 to +85°C)



Secured mini-Din connector.



Retractable cable lg. 450 mm, up to 2,4 m.

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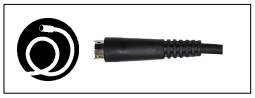
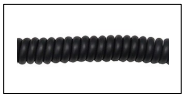
***As per NFX 15-113 and the Charter 2000/2001 HYGROMETERS, GAL (Guaranteed Accuracy Limit) which has been calculated with a coverage factor value of 2 is ±2.88%RH between 18 and 28°C on the measuring range from 5 to 95%RH. Sensor drift is less than 1%RH/year.*

## ■ $CO_2$ / temp./hygro. probe

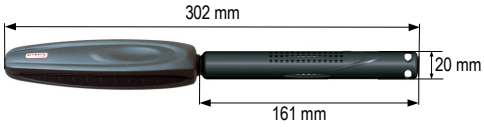
| | | Measuring range | Accuracy* | Res. | $t_{63}$ | Ref. |
|---|---|---|---|---|---|---|
| $CO_2$ : NDIR sensor (Non dispersive- infrared sensor NDIR)<br>Hygrometry : capacitive sensor<br>Temperature : Pt100 class 1/3 DIN<br>ABS handle (from -40 to +85°C) | **$CO_2$** | from 0 to 5000 ppm | ±3% of reading or ±50ppm | 1 ppm | 30 sec. | **SCO2TH** |
| | **Relative humidity** | from 5 to 95%RH | **Accuracy** (Repeatability, linearity, hysteresis)** : ±1,8%RH (from 15°C to 25°C)<br>**Factory calibration uncertainty :** ±0,88 %RH<br>**Temperature dependence :** ±0.04 x (T-20) %RH (if T<15°C or T>25°C) | 0.1%RH | | |
| | **Temperature** | from -20 to +80°C | ± 0.3% of reading ± 0.25°C | 0.1°C | | |



Secured mini-Din connector.

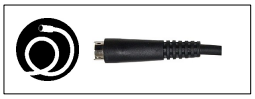


Retractable cable lg. 450 mm, up to 2,4 m.



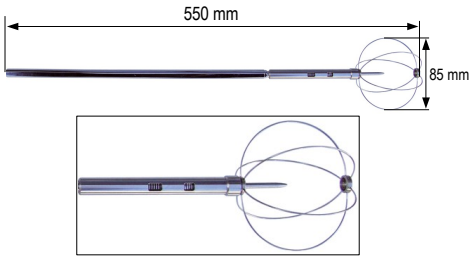

## ■ Omnidirectional probe

| | | Measuring range | Accuracy* | Res. | $t_{63}$ | Ref. |
|---|---|---|---|---|---|---|
| Velocity : NTC regulated in temperature<br>Hygrometry : capacitif sensor<br>Temperature : Pt100 class 1/3 DIN<br><br>Possibility to put the sensing element inside the probe.<br>Sonde supplied with tripod.<br>Only for AQ 200 et AMI 300 | **Velocity** | from 0.00 to 5.00 m/s | ± 3% of reading ± 0.05 m/s | 0.01 m/s | 0.6 sec. | **SFCO** |
| | **Relative humidity** | from 5 to 95%RH | **Accuracy** (Repeatability, linearity, hysteresis)** : ±1,8%RH (from 15°C to 25°C)<br>**Factory calibration uncertainty :** ±0,88 %RH<br>**Temperature dependence :** ±0.04 x (T-20) %RH (if T<15°C or T>25°C) | 0.1%RH | | |
| | **Temperature** | from -20 to +80°C | ± 0.3% of reading ± 0.25°C | 0.1°C | 5 sec. for $V_{air}$=1m/s | |



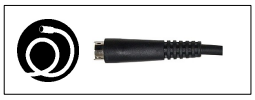
Secured mini-Din connector.

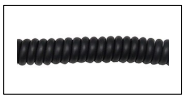
Straight cable lg. 1.70 m.



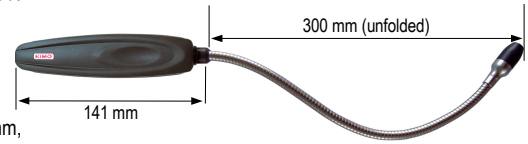

## ■ Gas leak detection probe

| | | Measuring range | Accuracy* | Res. | $t_{63}$ | Réf. |
|---|---|---|---|---|---|---|
| Gas : Electrochemical sensor.<br>Flexible probe | **Hydrocarbon and $CH_4$** | From 1 to 10 000 ppm | ±20% of full scale at 20°C at 65%HR ± 5%HR | 1 ppm | 10 sec. | **GAS** |
| | **GPL** | From 0 to 1800 ppm | ±20% of full scale at 20°C at 65%HR ± 5%HR | 1 ppm | | |





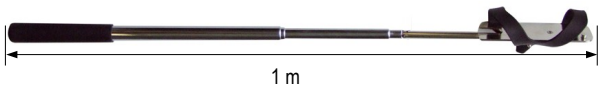
Retractable cable lg. 450 mm, up to 2,4 m.




# ■ Extensions

## ■ General use

| | Réf. |
|---|---|
| Telescopic extension compatible with all measuring probes equipped with a handle | **RTS** |




## ■ For Hotwire

| | Réf. |
|---|---|
| Straight extension for hotwire probe | **RD 300** |


**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.*
***As per NFX 15-113 and the Charter 2000/2001 HYGROMETERS, GAL (Guaranteed Accuracy Limit) which has been calculated with a coverage factor value of 2 is ±2.88%RH between 18 and 28°C on the measuring range from 5 to 95%RH. Sensor drift is less than 1%RH/year.*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