Transmitters
Sensors

KIMO®
INSTRUMENTS

Transmitters
Sensors

Pressure • Temperature • Humidity • Air velocity • Airflow

www.kimo.fr
EUROPEAN MANUFACTURER

Transmitters

Features

Designed and manufactured in France, KIMO range of transmitters is perfectly suitable with any industry, process, building services, indoor climate, OEM…
KIMO offers many models: from the simplest to the most complete, adequate for any application, with easy configuration and calculation functions.
Innovating range: the interchangeable measuring elements enable easy maintenance and on-site calibration.

Housing	ABS - Aluminium
Display	LCD - Alphanumeric - Graphic
Configuration	DIP switch - Keypad - Software - Remote control
Outputs	Analog - Digital

RCR relay
MODBUS system
Interchangeable measuring elements
Calculation functions

Technology :
KIMO analog and digital measurement and output (Modbus communication system), can be **adapted on any existing or new installations.**

Monostats

Applications
Refrigeration ■ Air conditioning

- **ABS housing**
- **5-digit LCD display**
- **Software or DIP switch configuration**
- **RCR relay**
- **Power supply 24Vac / Vdc**

Thermostats TST

Range ..... from 0 to +50°C (TST-M)
from -50 to +400°C (TST-B)
from -20 to +80°C (TST-E)
Selection of units .... °C or °F

TST-E
Waterproof

TST-M
Ambient

TST-B
Optional remote probe

Humidistats HST

HST-M
Ambient Sensor
Wall-mount

HST-D
Remote probe

Selection of units ..... %RH, °C or °F
Range ..... from 0 to 100 %RH and
from -20 to +80°C (HST-A / HST-D)
or from 0 to +50°C (HST-M)

HST-A
Duct-mount

Manostats PST

Selection of units ..... Pa, mmH_2O, mbar, InWg, KPa and PSI

References	Ranges
PST-1	0-1000 Pa
PST-2	0-10 000 mmH_2O
PST-3	0-500 mbar
PST-4	0-2000 mbar

Class 50

Applications
Refrigeration ■ Indoor climate
Building services ■ OEM

- **ABS housing**
- **Easy and fast installation**
- **Software or DIP switch configuration**
- **Analog output**

Temperature

TM50

Ranges ..... from +10 to +40°C (TM50-A)
from -50 to +400°C (TM50-B / TM50-E)
Output ..... Pt100 on terminal block
Selection of units ..... °C or °F

TM50-A
Ambient

TM50-B
Pt100 on terminal block
Optional probe

TM50-E
Airtight

Humidity

HM50

Range ..... from 0 to 100 %RH
Sensor ..... ambient
Selection of units ..... %RH
Output ..... 4-20 mA or 0-10 V

Pressure

CP50

Range ..... from 0 to 10 000 Pa (configurable range)
Selection of units ..... Pa, mmH_2O, mbar, InWg, mmHg
Outputs ..... 4-20 mA and 0-10 V

Class 100

Applications
Refrigeration ■ Air-conditioning
Industries ■ OEM

- **With or without LCD display**
- **Accurate measuring**
- **ABS housing**
  Easy and fast installation
- **Software or DIP switch configuration**

configurable
OUTPUTS

Pressure CP100

References	Ranges
CP101	0-1000 Pa
CP102	0-10 000 Pa
CP103	0-500 mbar
CP104	0-2000 mbar

Ranges ..... configurable
Connection ..... barbed or compression fittings
Selection of units ..... Pa, mmH_2O, mbar, InWg, mmHg, KPa and PSI
Output ..... 4-20 mA or 0-10 V

Air velocity CTV100

Ranges ..... from 0 to 30 m/s and from 0 to +100°C
Polycarbonate probe ..... duct mount or remote
Selection of units ..... m/s, fpm, °C and °F
Output ..... 4-20 mA or 0-10 V

CTV100
Duct-mount

CTV100
Remote probe

Temperature TG100

Ranges ..... from -20 to +80°C (duct-mount)
-50 to +400°C (Pt100 on terminal block)
Selection of units ..... °C or °F
Output ..... 4-20 mA ou 0-10 V

TG100
Pt100 on terminal block
(Optional probe)

TG100
Duct-mount

TM100

Ranges ..... from -20 to +80°C (airtight)
from 0 to +50°C (ambient sensor)
Selection of units ..... °C or °F
Output ..... 4-20 mA or 0-10 V

TM100
Ambient sensor
(wall-mount)

TM100
Airtight

TH100
Remote probe

Temperature Humidity TH100

Ranges ..... from 0 to 100 %RH and from -20 to +80°C
Selection of units ..... %RH, °C or °F
Output ..... 4-20 mA or 0-10 V

TH100
Duct-mount

TH100
Standard sensor

Class 200

Applications
Industries ■ Laboratories

- Visual alarm (LED)
- Graphic display
- Software or keypad configuration
- RS 232 digital output for external transmitter
- ABS housing - IP65 Easy and fast installation

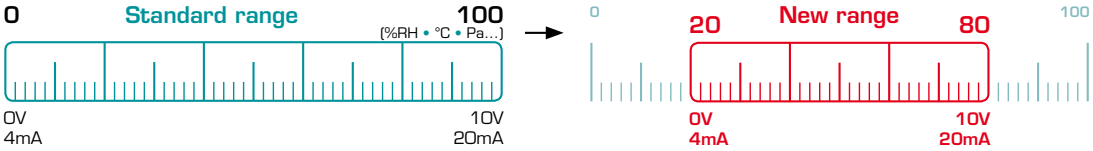
- With or without display
- Calculation functions
- 2 RCR relays

RS 232

configurable OUTPUTS

Configurable Analog outputs

Pre-configured or configure by yourself: the outputs are automatically adjusted to the new range.



Pressure

CP200

References	Ranges
CP201	0-1000 Pa
CP202	0-10 000 Pa
CP203	0-500 mbar
CP204	0-2000 mbar

Connection ..... barbed or compression fittings
Selection of units ..... Pa, mmH_2O, mbar, InWg, mmHg, KPa and PSI
Outputs ..... 2 x 4-20 mA or 2 x 0-10 V

IP65

Functions:

- Pressure
- Air velocity
- Airflow with Pitot, Debimo...
- Manual auto-zero
- Measurement integration
- Measuring correction factor
- Temperature compensation

Accessories for airflow

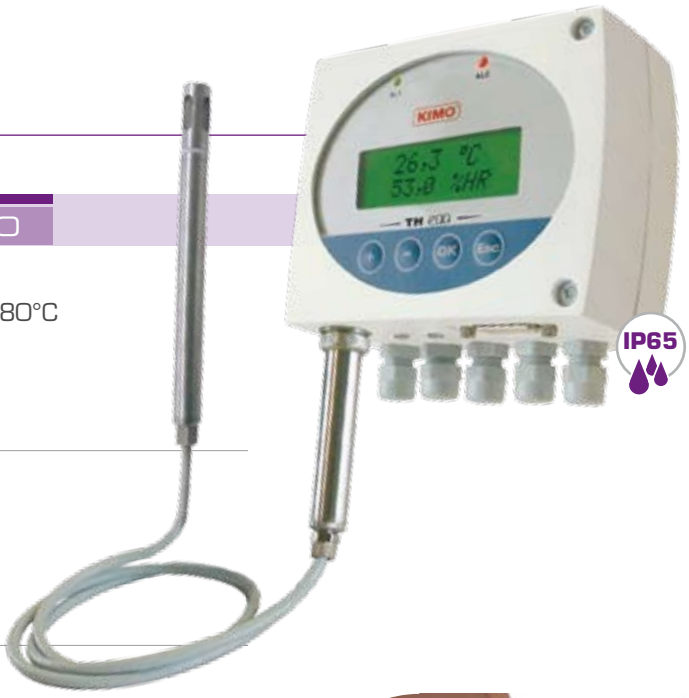
- DEBIMO measuring blades
- Pitot Tubes with integrated temperature probe

SQR/2 function (optional)

Air velocity and airflow calculation in duct from the differential pressure.

Learn more p.19

Temperature / Humidity TH200



Ranges ..... from 0 to 100 %RH and -40 to +180°C
Probe ..... Standard or remote (see below)
Selection of units ..... %RH, g/Kg, KJ/Kg, °C and °F
Output ..... 2 x 4-20 mA or 2 x 0-10 V

Functions:

- Temperature
- Wet bulb temperature
- Enthalpy
- Relative humidity
- Absolute humidity
- Dew point calculation

Stainless steel or PC probes

- PTFE sintered tip
- Protective plastic head
- Stainless steel perforated head
- Stainless steel sintered tip

On-site calibration

The EHK 500 is a referenced portable calibrator. Simply connect the RS232 connection cable and adjust humidity measurement.

Learn more p.18

Interchangeable probes

TH200/CTV210/CP200

- Unclip
- Clip
- Measure!

} Smart-PRO System

Easy and fast change of measurement element. Automatic recognition.

Learn more p.19

Made of	Ranges	Probes	Lengths
Stainless steel	-40 to +180°C (SS)	Standard	100 mm
Polycarbonate	-20 to +120°C (PC)	Remote	150 mm
			300 mm

Air velocity / Airflow CTV210

Ranges ..... from 0 to 30 m/s and from 0 to +50°C
Probe ..... stainless steel hotwire (length 150mm or 300mm and 2m of cable)
Selection of units ..... m/s, fpm, °C, °F, m^3/h, m^3/s, L/s, cfm
Outputs ..... 2 x 4-20 mA or 2 x 0-10 V

Functions :

- Measuring correction factor
- Air velocity
- Airflow

Class 300

Applications
Industries ■ Laboratories

- Visual alarm LED
- Digital display
- Software or keypad configuration
- Digital input for external transmitter
- Alu or ABS housing. Easy and fast installation.

RS 232

MODBUS
System

Configurable
OUTPUTS

- 2 contacts / RCR relays
- With or without display
- Digital communication
- Calculation functions

Smart-Pro
System

Interchangeable probes

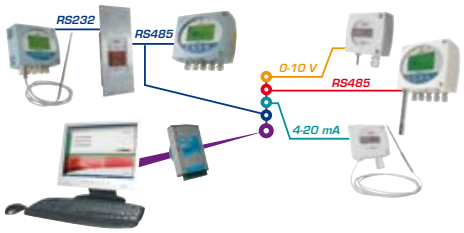
Unclip - Clip - Measure!

Easy and fast change of measurement element. Automatic recognition.

Learn more p.19

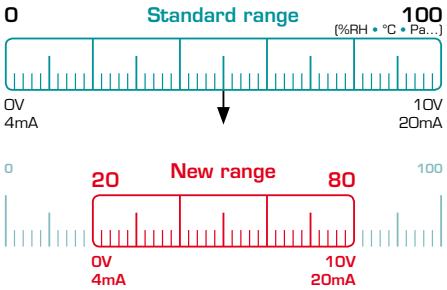
MODBUS network

Class 300 transmitters can be linked in one network, on a RS 485 modbus. They can also be integrated into an existing network.



Configurable analog outputs

Pre-configured or configure by yourself: the outputs are automatically adjusted to the new range.



Air velocity / Airflow

CTV310

Ranges ..... from 0 to 30 m/s and 0 to +50°C
Probe ..... stainless steel hotwire (lg. 150mm or 300mm and 2m of cable)
Selection of units ..... m/s, fpm, °C, °F, m^3/h, m^3/s, L/s, cfm
Outputs ..... 2 x 4-20 mA or 2 x 0-10 V

Functions :

- Measuring correction factor
- Air velocity
- Airflow

Temperature / Humidity

TH300

Ranges ..... from 0 to 100 %RH and -20 to +120°C (PC)
from 0 to 100 %RH and -40 to +180°C (SS)
Probe ..... standard or remote
Selection of units ..... %RH, g/Kg, KJ/Kg, °C and °F
Outputs ..... 2 x 4-20 mA or 2 x 0-10 V
Length ..... 100mm / 150mm / 300mm

Functions:

- Temperature
- Wet bulb temperature
- Enthalpy
- Relative humidity
- Absolute humidity
- Dew point calculation

THA300

Ranges ..... from 0 to 100 %RH and -20 to +120°C (Polycarbonate)
from 0 to 100 %RH and -40 to +180°C (Stainless Steal)
Probe ..... standard or remote
Selection of units ..... %RH, g/Kg, KJ/Kg, °C and °F
Output ..... 2 x 4-20 mA or 2 x 0-10 V
Length ..... 100mm / 150mm / 300mm

Functions:

- Relative humidity
- Absolute humidity
- Dew point calculation
- Wet bulb temperature
- Temperature
- Enthalpy

On-site calibration *TH300/THA300*

The EHK 500 is a referenced portable calibrator. Simply connect the RS232 connection cable and adjust humidity measurement.

Learn more p.18

Stainless steel or PC probes *TH300/THA300*

- PTFE sintered tip
- Protective plastic head
- Stainless steel perforated head
- Stainless steel sintered tip

Pressure

CP300

Connection ..... barbed
Selection of units ..... Pa, mmH_2O, mbar, InWg
Outputs ..... 2 x 4-20 mA or 2 x 0-10 V and RS 232

References	Ranges
CP301	0-100 Pa
CP302	0-500 Pa
CP303	0-1000 Pa
CP304	0-10 000 Pa

Functions:

- Pressure and air velocity
- Airflow with Pitot, Debimo
- Airflow with other coefficients
- Measurement integration
- Self-calibration
- Measuring correction factor
- Temperature compensation: manual or automatic (thermocouple K input)

CPE300

Installation ..... flush-mount or wall-mount
Connection ..... barbed
Selection of units ..... Pa, mmH_2O, mbar, InWg
Outputs ..... 4-20 mA or 0-10 V and RS 232

References	Ranges
CPE301	0-100 Pa
CPE302	0-500 Pa
CPE303	0-1000 Pa

Functions:

- Air velocity
- Airflow
- Measuring correction factor
- Infrared remote control for configuration

CPE300
Brushed stainless steel

CPE300
White lacquered stainless steel

Alternative display

Via the RS 232 connection, the CPE300 can display alternatively, in addition to the pressure, other parameters such as temperature and humidity from a TH200 for example.

Front calibration

Enables you to adjust and calibrate your transmitters directly on site or in laboratories.
Learn more p.18

CPA300

Connection ..... barbed
Selection of units ..... Pa, mmH_2O, mbar, InWg
Outputs ..... 2 x 4-20 mA or 2 x 0-10 V and RS 232

Functions:

- Pressure
- Air velocity
- Airflow with Pitot, Debimo…
- Manual or automatic
- Measurement integration
- Measuring correction factor
- Temperature compensation

References	Ranges
CPA301	0-100 Pa
CPA302	0-500 Pa
CPA303	0-1000 Pa
CPA304	0-10 000 Pa

CPA ZC

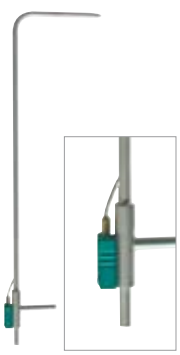
Ranges ..... from -100 to +100 Pa and -1000 to +1000 mmH_2O
Outputs ..... 4-20 mA or 0-10 V
Relays ..... 2 to 4 RCR relays 6A / 230 Vac
Display ..... LED display with color graduation and digital display of the measure

Functions:

- Pressure
- Air velocity
- Airflow with Pitot, Debimo…
- Manual or automatic
- Measurement integration
- Measuring correction factor
- Temperature compensation

Airflow accessories

- DEBIMO measuring blades
- Pitot Tubes with integrated temperature probe



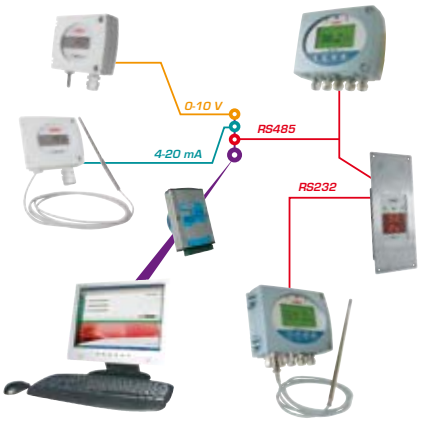
SQR function (optional)

Calculation of air velocity and airflow from the differential pressure.

Learn more p.19

Display

Applications
Refrigeration ■ Air-conditioning ■ Industries ■ Building services, indoor climate ■ ...



- **Easy and fast installation**
- **Configuration by infared remote control**
- **Digital communication**

RS 232

MODBUS System

MODBUS system

Our new range of transmitters can be managed within a **Modbus network (RS 485 system)**. You can also integrate our transmitters to your existing network.

Pre-programmed measuring units:

- Pressure
- Airflow
- Air velocity
- Temperature
- Humidity
- ...

Large display ATT300

Display ..... from -9 999 to 99 999
Display of the reading ..... 5 matrix digits (H. 53 mm)
Display of units ..... 4 digits / 14 segments (H. 12,7 mm)
Input ..... digital for external transmitter
Analog inputs ..... 3 x 4-20 mA or 3 x 0-10 V

Compatibility of current/voltage inputs

Can work with any current or voltage input of any transmitter: pressure, humidity, temperature, airflow, air velocity...

Multi-channel flush-mount display ATE300

Can be installed flush-mounted or wall-mounted.

Display ..... from -999 to 9 999
Display of the reading ..... 4 digits / 7 segments (H. 14,22 mm)
Display of units ..... 4 digits / 14 segments (H. 12,7 mm)
Input ..... digital for external transmitter
Analog inputs ..... 3 x 4-20 mA ou 3 x 0-10 V

Alternative display

Alternating display of 1 to 3 parameters (eg. humidity, temperature and pressure).

Alternative DISPLAY

Data Aquisition System

Applications

AKIVISION data acquisition system was specially developped to monitor air movement conditions. It is perfectly suitable for process monitoring and control of air parameters: Temperature Humidity - Pressure - Air Velocity - Airflow.
AKIVISION data acquisition system is also in adequation with applications of many fields such as food-processing industry, service and industry.

Akivision

AKIVISION software allows to configure, record and display data in real time, and also to process all data measured by KIMO transmitters and probes.

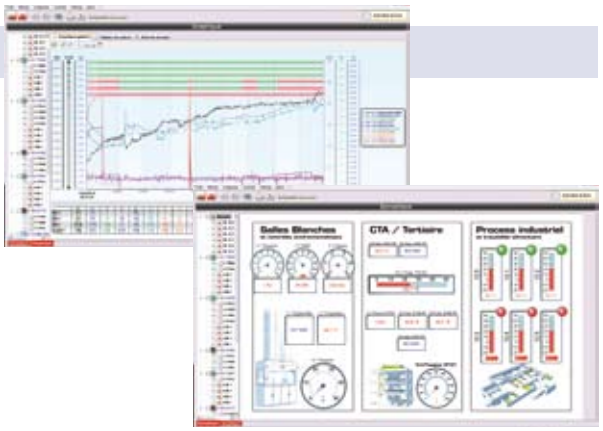
Akivision CFR

NEW

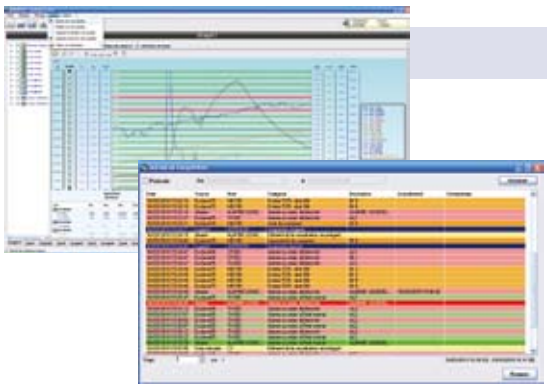
AKIVISION CFR is the key software for all users who require traceability, as per «21 CFR part 11» norm. Security and integrity of data are guaranteed; no possibility to modify or tamper with data.

Akivision A

Version A AKIVISION software enables to configure all transmitters and modules of your installation, and to record and display measurements in real time.



- **Configuration** of instruments & modules
- **Users** acces management
- **Configuration** of acquisition
- **Display** of acquisition



Akivision E

Version E AKIVISION software easily enables to process, consult, analyze and print all measured data.

- **Data processing** & exportation
- Alarms log
- **Remote lookup** & display of your records

Temperature **probes**

Standard or custom-made probes

- **Thermocouple K, J, T, N**
- **Pt100 / Pt1000 probes**
- **NTC probes**

Your need: your probe

Because your application is specific, we manufacture your customized probe.

CONTACT US !

Connection head

Alu / Noryl / Stainless steel head
Stainless steel, heat resisting steel or mineral insulated sheath, Alard coating ...
Single pair or multipair

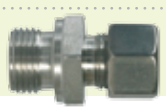
References	Features
TBCT	For pipe contact
TBEIK	With interchangeable probe system
TPTT-50	For aggressive application
TBARK	With heat-resisting steel protector
...	

Wire probes

PVC / Silicon / Teflon® / Glass silk cable
Stainless steel hose
Wire mounting: 2, 3, 4, 6 wires
(single pair or multipair)

References	Features
F-50	Output DIN connector
SFR-50	With fixing fitting
SFKI	With cable
...	

Accessories



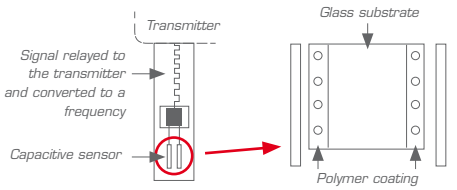
- Converters .....
- Mounting brackets .....
- Thermowells .....
- Watertight connections .....

Useful information

Humitidy tranmitters

Capacitive humidity sensor

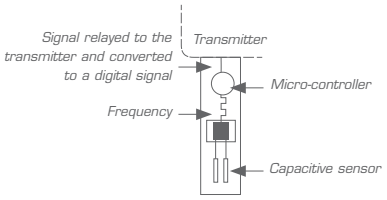
Principle: the dielectric constant of the humidity sensor varies according to the ambient humidity. This information is then relayed to the transmitter and converted to a digital signal. The measuring signal is not affected by the ambient pressure.



Digital humidity sensor

Principle: the dielectric constant of the humidity sensor varies according to the ambient humidity. This information is then relayed by the micro-controller to the transmitter and converted to a digital signal.

Smart-Pro System



Temperature transmitters

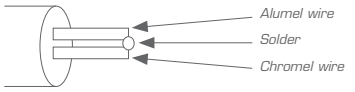
Pt100

Principle: a Pt100 sensor is a resistance, with positive temperature coeffcient, which varies according to the temperature. The value of the resistance varies according to the increase of the temperature.

For 0°C ≈ 100 Ω
For 100°C ≈ 138,5 Ω

Thermocouple K

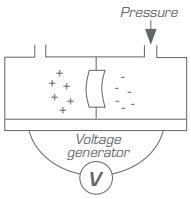
Principle: a thermocouple works thanks to voltage drop across dissimilar metals which are placed in contact. This voltage is a function of the measured temperature.



Pressure transmitters

Principle

A pressure transmitter (piezoresistive type) makes a voltage proportional to the pressure on the transmitter.



Airflow calculator

From air velocity

Principle: airflow is calculated from the air velocity multiplied by the surface of a grille or a duct.

Airflow = Velocity x Area

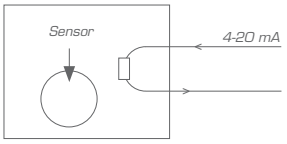
Air velocity can be calculated from the differential pressure

Velocity = Coef x $\sqrt{\text{Pressure}}$

Power supply

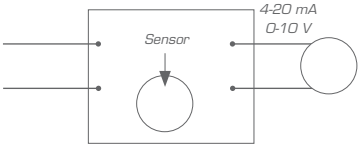
Transmitters with Passive loop

Principle: the transmitter is supplied with a continuous voltage => we measure the current used by the transmitter. This current varies between 4 and 20 mA, proportionally to the measured parameter (pressure, temperature, relative humidity...).



Active transmitter

Principle: the transmitter provides a current (4-20 mA) or a voltage (0-10 V) loop. It can work in either direct (DC) or alternative current (AC).The power supply connected to the transmitter enables it to generate a current of 4-20 mA or a voltage of 0-10 V proportional to the measured parameter.



Innovations

Calibration

Front calibration
CPE300

No need to remove the transmitter or to modify the initial connection.

On-site calibration
Class 200/300

The EHK 500 is a referenced portable calibrator. Simply connect the RS 232 connection cable and adjust humidity measurement.

Time-saving: no need to return the transmitter to our After Sales-Service. You can adjust the unit yourself.

Self-calibration
Class 300

You can enable or disable the self-calibration system.

Compensation in temperature
Class 200/300

This probe allows to measure and display the temperature and/or to compensate the calculation formula of the transmitter in real time, for a better accuracy.

Compensation is guaranteed by the permanent adjustment of the zero. Then, differential pressure measurement is done whichever the environmental conditions of the transmitters are.

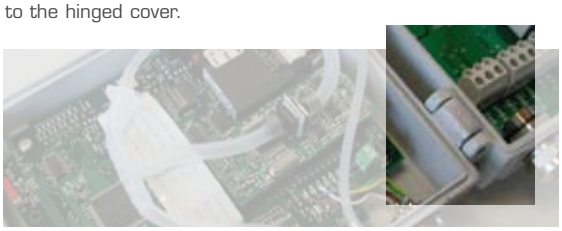
Housings

Installation

Quick and easy with the "1/4 turn" system.

Connection

Connection and maintenance are simple to carry out thanks to the hinged cover.



Safety

Installation secured

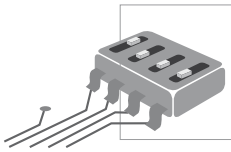
Locking system with access code, to secure the installation.

Electromagnetical

The KIMO transmitters comply with the EMC norm.

CE

Configuration



DIP Switch
Stats, classes 50/100

Set the units, measuring ranges and type of analog output.

Keypad
Class 200/300

With only 4 keys you can easily configure the transmitter. You can also modify the units, ranges (defined at our factory), relays, set points, alarms, time-delays, outputs, channels.

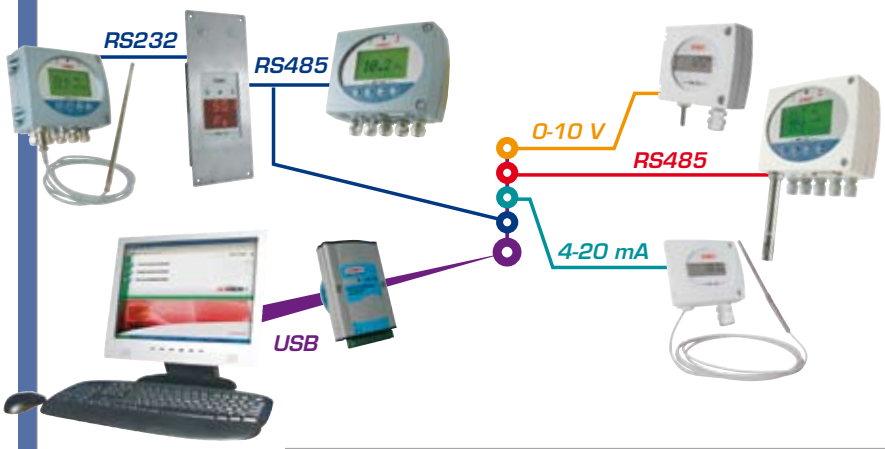
Remote control
Class 300

Recommended when configuring transmitters that are hard to reach.

Software
For our whole range of transmitters

The easiest way to configure the units, ranges, relays, alarms, time-delays, outputs, channels, set points...

Digital communication



MODBUS

Class 300

Digital communication. Easy access to data and configuration.

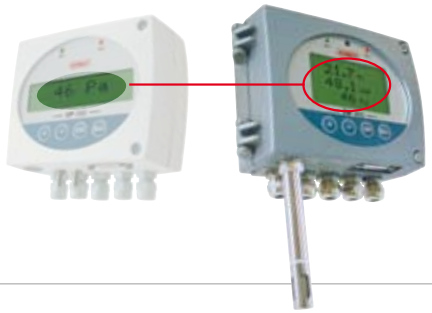
Our new range of transmitters can be managed within a Modbus network (RS 485 system). You can also integrate our transmitters to your existing network.

RS232 communication

Class 200/300

Via the RS232 connection, TH 300 can display 1 or 2 parameters that are measured by others KIMO Class 200 and 300 transmitters.
Benefit: the TH 300 can display (in addition to the humidity and temperature) other parameters such as pressure, air velocity or airflow from a CP200 for example.

RS 232



Measurement elements

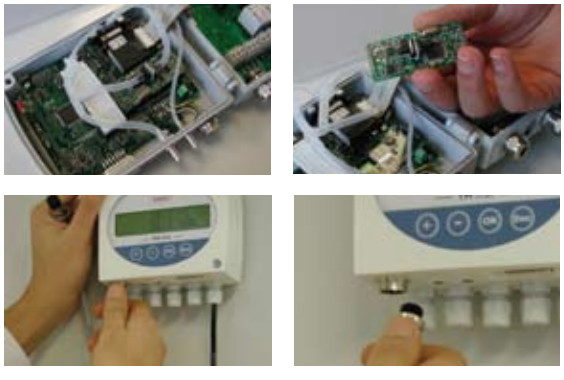
Smart-PRO system

Class 200/300

Smart-Pro System

Unclip / Clip / Measure !

Easy and fast change of measurement element, for user-friendly maintenance.
The new numeric Smart-Pro probes are fully interchangeable, individually adjusted and automatically recognized by the instrument when being connected.



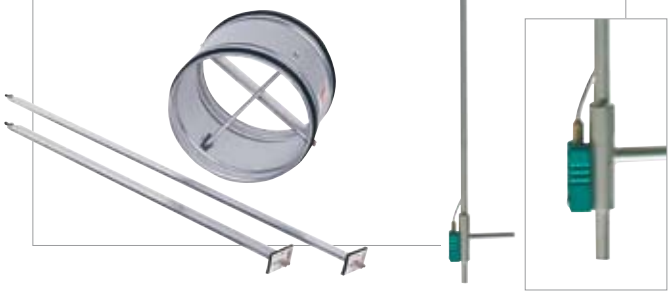
SQR/2 function

Pressure transmitters working with a differential probe (such as DEBIMO, Pitot tube, orifice plate...) can be configured with a square root function. Via this function, and from the differential pressure, the transmitter can calculate air velocity and/or airflow in a duct.

SQR/2 Fonction

Airflow accessories

- DEBIMO measuring blades
- Pitot Tubes with integrated temperature probe



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