

## **HVAC** Measuring Instruments

Export general catalogue 2016



Pressure / Temperature / Humidity / Air velocity / Airflow / Air quality / Gas analysis / Sound level



 $\bigcirc$ 

Combustion

## Gas Analyser



#### **SOLUTION**

FOR ANY TYPE OF BOILER UP TO 400 KW

We have developed a new range of combustion gas analysers, which fulfills all the needs of heating professionals.

Our analysers are scalable and offer many solutions for any type of boiler up to 400 kW, to improve efficiency and to control pollutant emissions.

#### **NEW APP**

#### KIGAZ mobile

Mobile application compatible with all KIGAZ range (except KIGAZ 50).







# Operating software

#### LIGAZ-2

FREE Software

### Record your customers, boilers and measurements.

Download your datasets and the programme will automatically fill in the measurement report.

Synchronisation of PC/instrument.

Synchronisation of PC/instrument database.

#### LOGAZ-2

#### Optional software

Easy reading of measurement reports. Customize, print and export your files. Organize your timetable, maintenance contracts, customers follow-up. Display and recording of measurements in real-time.

Synchronisation of PC/instrument database.

### Class 310 & 210





Up to / interchangeable sensors

## KIGAZ 310

O,LV/CO-H,/NO NO, / SO, / CH,

sensors in standard or option

Built-in water trap

Any type of boiler

Max level alarm

Autozero in the flue





CO dilution

Customized procedures CO dilution Simplified water discharge Optional: probe up to 1000°C

O2, CO (H2 compensation), Losses, Excess air, Efficiency (condensation), Flue gas temperature, Ambient temperature, Dew point temperature, Draft, Differential pressure, Flue gas velocity, Dilution, CH,

## **KIGAZ 210**



Interchangeable sensors O,LV / CO-H, / NO / CH,



Autozero in the flue

Built-in printer



Reports printing

Interchangeable probe Customized procedure Up to 10 measurements displayed simultaneously

0, & CO (H, compensation) Losses, Excess air, Efficiency (condensation) Flue gas temperature & velocity Ambient temperature Differential pressure



## Class 110, 80 & 50



## **KIGAZ 110**



O<sub>2</sub>LV/CO-H<sub>2</sub> sensors





Protection of sensors by **pump stopping** 







Protective cover with magnet

Step by step procedure Self-test menu

 $\mathrm{O_2}$  flue gas, CO flue gas, CO $_2$  flue gas, ambient CO max Flue gas temperature Ambient temperature Differential pressure & Pressure draft Losses & Excess air Efficiency up to 120%

## KIGAZ 80

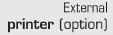








Protection of sensors by **pump stopping with treshold** 







Protective cover with magnet

Step by step procedure Self-test menu

 $\mathrm{O_2}$  flue gas, CO flue gas, CO $_2$  flue gas, ambient CO max Flue gas temperature Ambient temperature Differential pressure & Pressure draft Losses & Excess air / Efficiency up to 120%











### KIGAZ 50

### 2 sensors

O<sub>2</sub> flue gas, CO flue gas, CO<sub>2</sub> flue gas, ambient CO max Flue gas temperature Ambient temperature Differential pressure Pressure draft Losses & Excess air



O<sub>2</sub>/CO Sensors



External printer (option)



Autozero 30 seconds

## **Additional**

#### measurements



#### Gas detection

FG 110

Gas leak detector Detection of gas such as methane  $(CH_4)$ , LPG (isopropanol and isobutane) and other combustible gases (hydrocarbons)





#### Gas network

MP 130

Gas tightness special manometer for gas network ±500 mbar



#### Refrigerant gases

DF 110

Detector of refrigerant gases and hydrogen (HFC, HCFC, Nidron 5...) Visual and audible alarm Manual and automatic self-calibration

#### **Ambient CO**

CO 50/110

CO and CO max measurement From O to 500 ppm From -20 to +80°C



#### **NEW RANGE**

# HVAC Portable instruments

#### **New features**

Designed for the field Ease of use Nonstop measurements

Scalable instruments
Interchangeable probes







ABS housing **Integrated protection** 



Class 210 multi-probes





Class 50 & 110 monofunction

## The of class 210 & 310

- Designed for the field An overmoulding made of elastomere protects the instrument, guarantees shockproofing
- Nonstop measurements This new generation of instruments has an interchangeable and rechargeable Li-ion battery.
- Expandable memory (AMI 310) Internal memory of 1,000 datasets of 20,000 measuring points. Built-in location for a micro-SD memory card
- Interchangeable probes The new probes utilise a mini-Din connecting cable which is compatible with all probes



- 1. Climatic conditions
- 3. Pressure
- 2. Thermocouple (4 channels) 4. U Coefficient









#### Air Quality

CO 50/110 - AQ 110 - HQ 210

CO: O to 500 ppm CO<sub>2</sub>: O to 5,000 ppm -200 to +600°C 3 to 98 %RH 0 to 5 m/s

#### Manometers

MP 50/51/55/110/111 112/115/120/130/210

Differential pressure From  $\pm 500$  Pa to  $\pm 2,000$  mbar Air velocity with Pitot tube From 2 to 100 m/s Atmospheric pressure From 800 to 1,100 hPa



#### Anemometers

LV 50/110/111/117/130 VT 50/110/115/210

Hotwire and telescopic hotwire

0.15 to 30 m/s

Vane probes : Ø14, 70, 100 mm

0.3 to 35 m/s



Class 50, 110 & 210

2





8. Pitot tubes

### Class 310





# **AMI**

## Multifunction

AMI 310 is a multi-probe instrument which can measure up to 6 parameters simultaneously.



**Wireless**Probes



Data processing **Software** 



**Interchangeable**Probes & Modules



Micro-SD Card



**Graphical** Display



**Colour** Wide screen

#### Measuring ranges

- ±500 Pa / ±2,500 Pa / ±10,000 Pa
- ±500 mbar / ±2,000 mbar
- Thermocouple: -200 to +1760°C
- Pt 100: -200 to +600°C
- Humidity: 3 to 98 %RH
- CO: O to 500 ppm
- CO<sub>2</sub>: O to 5,000 ppm

- Air velocity: -5 to 35 m/s
- Airflow: O to 99,999 m<sup>3</sup>/h
- Gas leak detection: O to 10,000 ppm
- Tachometry: 30 to 60,000 rpm









**NEW** 

# **Portable Thermometers**













- -200 to +1,760°C
- 2 Pt 100 channels
- 4 thermocouple inputs
- 1000 datasets





Thermocouple module 4 channels

#### Class 50

TK 50/52 - TR 50/52

1 or 2 channels for Pt 100 probes, Thermocouple K, J, T, S -200 to +1,760°C



#### Class 100

TK 110/112 - TR 110/112

#### Configurable alarms Hold/Min/Max functions

1 or 2 channels for Pt 100 probes, Thermocouple K, J, T, S -200 to +1,760°C



#### **INFRARED**

#### Thermometers

KIRAY 100/200/300

Diagnose, inspect and check any temperature, with the advantage of using "no-contact" technology. -50 to +1,850°C



# **DBM 610**

## Airflow / Air velocity







A solution for airflow commissioning and balancing

DBM 610 can be used on any supply or exhaust, air distributors: rectilinear, helical and toric.

- · Quick and simple hood changes
- Measuring range from 40 to 3,500 m³/h or 24 to 2060 cfm
- Simultaneous display of airflow and temperature
- Automatic airflow direction (extraction or air blast)
- Supplied with 610x610 mm hood

**NEW** 

· 4 others hoods are available as options

720 x 720 mm 720 x 1,320 mm 420 x 1,520 mm 1,020 x 1,020 mm





#### Remote velocity grid

Designed for air velocity measurements on any type of large ceiling vent or diffuser.

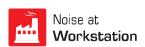
The grid is similar to the DBM610 grid. It calculates the average air velocity from 24 points to guarantee a reliable measurement. The grid is attached to a telescopic (maximum length is  $2.05 \, \text{m}$ ) and articulated pole (O to  $90^{\circ}$ ). Struts of 3 differents lengths allow for correct positioning of the grid on the ceiling surface.

A backpack allows easy carriage of the grid and its accessories (telescopic pole, articulation, 2 x 2.5m of silicone tube, positioning strut and electronic housing).



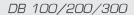
# Sound Level

## Meters









Class 1 and 2 sound level meters as per international standards

20 to 137 dB
Frequency weighting A, C, Z\*
Real time analyser by octave bands: 31.5 Hz to 8 kHz (class 2), 16 Hz to 16 kHz (class 1, DB 300 only)











#### Data processing software

In option for DB 200 and 300, LDB 300 software is specific for industry and work environment. It allows for elaborated data processing and reports printing as per NF S31-010 standard.

## **Environmental**

## Diagnosis



#### Noise dosimeters

DS 200/300

## For the measurement of noise exposure at workstation

Detection and peak counting: 135 dB - 137 dB - 140 dB Daily sound exposure level: Lex,d Data processing software



#### Luxmeters

LX 50/100/200



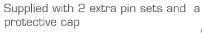
EN 12464-1 / EN 12464-2

EN 12193

#### Pin moisture meter

HM 50

Compatible with 4 types of materials: wood, plaster, brick and concrete







# Sensors

## **Transmitters**



Configurable outputs



RCR relay



Waterproof ABS housing



1 or 2 analogue **outputs** 

#### **Industry, service, food industry**

- · For air processing
- Dip switch, keypad and software configuration
- Power supply: 24 V / 115 V / 230 V
- Outputs: 4-20 mA/0-20 mA or 0-10 V/0-5 V









#### INNOVATION

#### Simplified calibration

Electronic board and measuring element connected to the front side of the sensor, which allows to configure and calibrate your device without causing any damage.

#### Monostats

PST/HST/TST/COST/CO2ST

#### 1 RCR relay

From  $\pm 100$  Pa to  $\pm 2,000$  mbar From 5 to 95 %RH From -100 to  $\pm 400$ °C CO: 0 to 500 ppm CO<sub>2</sub>: 0 to 5,000 ppm



#### Class 110 - Monofunction

CP / HM / TH / TM / CTV / CR / LR / CO

#### 1 or 2 analogue outputs

From ±100 Pa to ±2,000 mbar Atmospheric pressure: 800 to 1,100 hPa From 5 to 95 %RH From -100 to +400°C From 0 to 30 m/s From 0 to 1,500 W/m<sup>2</sup> From 0 to 10,000 lux C0: 0 to 500 ppm C0<sub>2</sub>: 0 to 5,000 ppm





#### **NEW**

### CO/CO<sub>2</sub> sensors

KIMO designed  ${\rm CO/CO_2}$  transmitters in order to meet with requirements of new norms and decrees on air quality.

## **Multifunction**

#### Class 210

CP / TH / TM / CTV / COT

#### 2 analogue outputs Calculation functions Automatic autozero

From  $\pm 100$  Pa to  $\pm 2,000$  mbar From 5 to 95 %RH From -100 to  $\pm 400$ °C From 0 to 30 m/s C0: 0 to 500 ppm C0<sub>2</sub>: 0 to 5,000 ppm





#### SQR/3 option

Connected to DEBIMO measuring blades, CP 210 can calculate air velocity and airflow in a duct, from differential pressure.

## Class 310 Multifunction

Pressure / Humidity / Temperature / Air Velocity / Airflow / CO / CO<sub>2</sub>

### **NEW GENERATION**



#### Multifunction sensor

C 310

- Display and measure 4 parameters simultaneously
- 3 Inputs for interchangeable probes
- RS485 Modbus
- 4 RCR relays
- Up to 4 analogue outputs
- · 4 visual and audible alarms





#### Multifunction sensor

CA 310



- Large display
- 2 Inputs for interchangeable probes
- RS485 Modbus
- 3 RCR relays and 3 analogue outputs





### **Interchangeable Probes**

C 310 / CPE 310-S / CA 310



Easy Clip



#### **SPECIAL FOR CLEAN ROOM**



## Flush-mount

#### Multifunction pressure sensor

CPE 310-S

- 1 Input for interchangeable probes
- Front calibration
- 3 analogue outputs
- RS485 Modbus
- Range : ±100 Pa
- 3 visual and audible alarms





Front connection for configuration and calibration

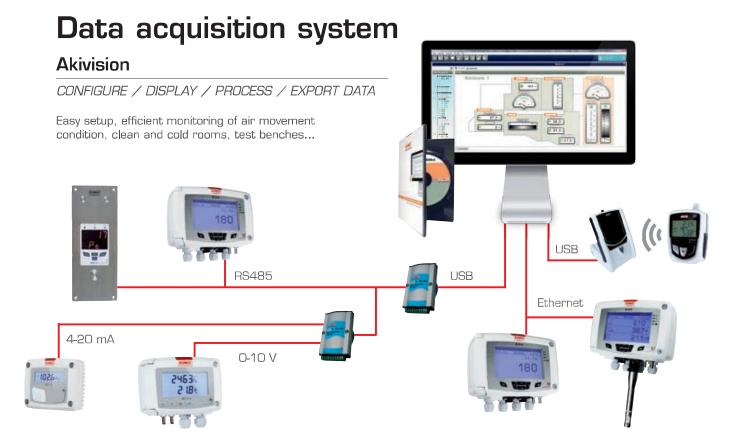


### Multi-channel Display

Flush-mount ATE 300

Display 3 parameters alternatively. RS485 Modbus





Temperature

**Probes** 

#### Standard or custom-made probes 📡

- Thermocouple, NTC, Pt 100, Pt 1000
- Probes with connection head
- Probes with cable
- Probes with ABS head

#### Wire probes

#### PVC/Silicone/Teflon®/ Glass silk cable

Stainless steel hose Wire mounting: 2, 3, 4 wires (single pair or multipair)



#### Alu/Noryl/Stainless steel head

Stainless steel, heat resisting steel or mineral insulated sheath, Alard coating...

Single pair or multipair





Duct mount, remote or ambient probe

Pt 100, 0-10 V, 4-20 mA



- Converters/transmitters
- Thermowell
- Thermocouple connectors
- Brackets and support wall fixing
- Adjustable ring
- PVC, silicone, Teflon® cable
- Stainless steel hose (with or without shielding)











# **Calibration**

## Benches

**NEW** 

#### Pressure generator

GP 500

The pressure generator allows to adjust and calibrate measurement instruments in laboratory or on-site.

-2,500 to +2,500 Pa -10,000 to +10,000 Pa

- 20 programs with adjustable generations
- Solid transport case
- Aluminium housing with adjustable carrying handle





#### **NEW**

### **Humidity generator**

GH 500

Calibration of several instruments simultaneously Muli-probe ventilated measuring chamber Interchangeable regulating probe

From 10 to 85%RH



**NEW** 

# Dataloggers



**Anti-theft** system



Multi application

#### **KISTOCK**

- · Measuring, recording and data processing
- Measurement of 1 to 5 parameters simultaneously
- Storage of up to 2,000,000 measurement points
- User-friendly configuration with KILOG software and Kistock Mobile

















#### KISTOCK mobile

Configuration, data visualisation and download (only available for class 320)







#### Class 50

KH 50 / KT 50

Temperature - Humidity -40 to +70°C 5 to 95 %RH



#### Class 120

KH 120 / KT 120

Temperature - Humidity -40 to +70°C 5 to 95 %RH PDF Reports



#### Class 220

KH 220 - KT 220 - KTT 220

Up to 2 inputs for external probes NTC or K, J, T, N, S thermocouple Humidity  $\mathbf{I}$ 

Water pressure

-200 to +1,760°C

5 to 95 %RH

O to 10,000 lux

O to 10 bar

O to 20 mA / O to 600 A

0 to 10 V



Interchangeable **probes** 



With or without display







#### Class 320

KT 320 - KTT 320 - KP 320 KPA 320 - KCC 320

Up to 4 inputs for external probes Pt 100 or K, J, T, N, S thermocouple,  ${\rm CO_2}$ , differential pressure, humidity, current

-200 to +1,760°C 5 to 95 %RH 0 to 5000 ppm 800 to 1100 hPa ±10,000 Pa 0 to 20 mA 0 to 600 A 0 to 10 V



Mobile application



Bluetooth communication

### Accessories



Large choice of temperature and hygrometry probes



Data collector for mobile data transfer (20,000,000 pts)



Anti-theft System (class 220 and 320)



Kilog software (option) and Kilog lite software (free)

## 22

# **Wireless**Datalogger

#### KISTOCK RF

- · Measuring, recording and data processing
- Remote configuration
- Storage of up to 20,000 measurement points
- Up to 100 dataloggers in network





Communication base



Alarm box



Wireless datalogger



Network extender

#### KIMO exclusivity

**Pressure datalogger KP 110-RF / KP 111-RF**-1,000 to +1,000 Pa
-10,000 to +10,000 Pa





#### Class 100

KT 110-RF/KT 150-RF/KP 110-RF

**Up to 1 input for external probe**-40 to +70°C
0 to 20 mA / 0 to 10 V
-1,000 Pa to +1,000 Pa
-10,000 Pa to +10,000 Pa



#### Class 200

KH 210-RF / KTU 210-RF

Up to 2 inputs for external probes Standard or remote probe -40 to +180°C / 0 to 100 %RH 0 to 20 mA / 0 to 10 V 0 to 20 A / 0 to 600 A



#### Class 300

KTR 310-RF / KTT 310-RF

Up to 2 inputs for external probes Pt 100 remote probe or Thermocouple K, J, T, S -200 to +1,760°C O to 20 mA / O to 10 V

# Liquid column

## Manometers

#### **Liquid column manometers**

- Inclined or vertical
- Measure slight variations in differential pressure of air or neutral gases
- Air treatment industry, clean rooms...



#### Vertical

 $0-100 \text{ mmH}_20 \text{ to } 0-2.6 \text{ bar }$  Units : mbar, Pa, DaPa...



#### **ECM**

O-10 to 300 mmH<sub>2</sub>0 Manual adjustable setpoints





#### Inclined

0-5 to 0-80  $mmH_20$  Units : Pa, DaPa...





To fit any installation with proper connections :

- Liquid for manometer
- Tubes, junctions
- Pressure connections, wall-crossing connection...





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Portables instruments



Sensors transmitters



Flue gas analysers



Dataloggers

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