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# Technical Data Sheet

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



## KIGAZ 100 COMBUSTION GAS ANALYSER



Protection of sensors by pump stopping



Supplied with magnetic protective cover

### KEY POINTS

- Protection of sensors by pump stopping
- Interchangeable CO and CO<sub>2</sub> sensors
- **2 Go** memory (100 000 measurements)
- **Step-by-step** procedure
- **Self-test** menu

### MENUS / ACTIVE

#### VIEWS



Analyser menus



Example of analysis

### INSTRUMENT FEATURES

<b>GAS</b>	Ambient CO max	CO flue gas	Interchangeable sensors : O <sub>2</sub> and CO compensated H <sub>2</sub>	Excess air Losses	Efficiency > 100%
<b>PRESSURE</b>	Differential pressure measurement	Draft measurement			
<b>TEMPERATURE</b>	Ambient temperature	Flue gas temperature	Delta Temperature	DHW temperature	Dew point temperature
<b>OTHERS FUNCTIONS</b>	15 programmed combustibles <sup>1</sup>	Adding 5 combustibles by the user	Automatic measurements	Opacity index	External water trap

### HOUSING

#### Dimensions

Instrument : 331 x 112 x 86 mm  
Flue gas probe : 180 mm  
Cable length : 2.50 m

#### Weight (battery included)

900 g

#### Display

Grey scale 3.5" display

#### Keypad

10 keys dome switch keypad

#### Material

Housing and probe : ABS  
Probe cable : neoprene

#### Protection

IP40

#### PC interface

USB  
Bluetooth® (optional)

#### Power supply

Li-Ion 3,6V 4400 mA battery

#### Battery life

10 h in continuous operating

#### Use and storage temperature

From +5 to +50°C and from -20 to +50°C

<sup>1</sup>Combustibles : Sahara/Fos-sur-Mer Natural Gas, Groningen Natural Gas, Russia/North Sea Natural Gas, Propane, LPG, Butane, Light Oil, Heavy Oil, Bituminous coal, Hard coal, Coke gas, Bio fuel 5%, Wood 20%, Wood-chip 21%, Pellet 8%

## MEASURING RANGE

Parameter	Sensor	Measuring range	Resolution	Accuracy*	T <sub>90</sub> response time
O <sub>2</sub>	Electro-chemical	from 0% to 21%	0.1% vol.	±0.2% vol.	30 s
CO (with H <sub>2</sub> compensation)	Electro-chemical	from 0 to 8000 ppm	1 ppm	From 0 to 200 ppm : ±10 ppm From 201 to 2000 ppm : ±5% of the measured value From 2001 to 8000 ppm : ±10% of the measured value	30 s
Flue gas temperature	K thermocouple	from -100 to +1250°C	0.1°C	±1 °C	45 s
Ambient temperature	Internal NTC	From -20 to +120°C	0.1°C	±0.5°C	
Ambient temperature	Pt100 (1/3 Din external probe)	From -50 to +250°C	0.1°C	±0.3% of the measured value ±0.25°C	30 s
Dew point temperature	Calculated**	From 0 to +99°Ctd	0.1°C		
DHW temperature	TcK (external probe)	From -200 to +1300 °C	0.1°C	±1 °C	
Differential pressure Draft	Semiconductor	From -20 000 to +20 000 Pa	1 Pa	From -20 000 to -751 Pa : ±(-0.5% of measured value +4.5 Pa) From 750 to -61 Pa : ±(-0.9% of measured value +1.5 Pa) From -60 to 60 Pa : ±2 Pa From 61 to 750 Pa : ±(0.9% of measured value +1.5 Pa) From 751 to 20 000 Pa : ±(0.5% of measured value +4.5 Pa)	
Losses	Calculated**	From 0 to 100%	0.1%		
Excess air (λ)	Calculated**	From 1 to 9.99	0.01		
Lower efficiency (ηs)	Calculated**	From 0 to 100%	0.1 %		
Higher efficiency (ηt) (condensing)	Calculated**	From 0 to 120%	0.1%		
Opacity index	External instrument	From 0 to 9			

\*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.

\*\*Calculation is made based on the measured values by the analyzer.

## SOFTWARE

Analysers are supplied with **LIGAZ software** allowing database creation (Customers, Boilers, inspections), downloading and printing inspections and analyser configuration.

## SUPPLIED WITH

The analysers are supplied with the following items :

- Differential pressure kit including 2 x 1 m of silicone tube
- Transport bag
- 180 mm flue gas probe and its water trap
- LIGAZ software and its USB cable
- Mains adapter
- Calibration certificate
- Magnetic protective cover



Transport bag

## REFERENCES

- **KIGAZ100** : combustion analyser with 2 sensors (O<sub>2</sub> and CO-H<sub>2</sub>)

## OPTIONAL<sup>1</sup>

- **SCOT** : ambient CO probe
- **SCO2T** : ambient CO<sub>2</sub> probe
- **SPA 150SP** : ambient Pt100 probe
- **SKCT** : contact probe for pipes
- **SDFG** : gas leak detection probe (CH<sub>4</sub>)
- **KEG** : gas network tightness kit
- **PMO** : opacity pump
- **Bluetooth® module** : data downloading and device configuration
- **SCI** : Measurement probe of ionisation current

<sup>1</sup>Please see the technical datasheet of accessories for kigaz for further details



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