

**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 O₂ and COH₂ sensors
- **2 Go** memory (100 000 measurements)
- **Step-by-step** procedure
- **Self-test** menu

CERTIFICATION

Combustion analysers meet all **EN 50379-1 and -2** requirements.
TÜV-SÜD laboratory performed tests according to § 5.5.3, 5.5.4, 5.5.5, 5.5.6, 5.6.2, 5.6.4, 5.6.6, 5.7.2 including :
 • Tests in O₂/CO/NO gas
 • Tests in long term stability
 • Tests under practical conditions on boilers

INSTRUMENT FEATURES

GAS	Ambient CO max	CO flue gas	Interchangeable sensors : O ₂ and CO compensated H ₂	Excess air Losses	Efficiency > 100%
PRESSURE	Differential pressure measurement	Draft measurement			
TEMPERATURE	Ambient temperature	Flue gas temperature	Delta Temperature	DHW temperature	Dew point temperature
OTHERS FUNCTIONS	15 programmed combustibles ¹	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)

Conformity

EN 50379-1 and 2

Power supply

Li-Ion 3,6V 4400 mA battery
 Voltage of power supply : 100-250 VAC, 50/60 Hz

Battery life

10 h in continuous operating

Battery charging time

10 h

Use and storage temperature

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

¹ **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 ₉₀ response time
O ₂	Electro-chemical	from 0% to 21%	0.1% vol.	±0.2% vol.	30 s
CO (with H ₂ 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	±0,4% measured value or ±1,1°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	±0,4% measured value or ±1,1°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 (O₂ and CO-H₂)

OPTIONAL¹

- **SCOT** : ambient CO probe
- **SCO2T** : ambient CO₂ probe
- **SPA 150SP** : ambient Pt100 probe
- **SKCT** : contact probe for pipes
- **SDFG** : gas leak detection probe (CH₄)
- **KEG** : gas network tightness kit
- **PMO** : opacity pump
- **Bluetooth® module** : data downloading and device configuration
- **SCI** : Measurement probe of ionisation current

¹Please see the technical datasheet of accessories for kigaz for further details

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