KIMO®
INSTRUMENTS

Combustion gas analyser
KIGAZ 80

KEY POINTS

- **2 Go** memory (100 000 measurements)
- **Step by step procedure menu** (gas flow, inspections)
- **Self-test** menu
- External infra-red IRDA® printer (optional)

CONFORMITY AND STANDARDS

Conformity
The analyser is in compliance with the following european directives:
- 2004/108/EC
- 2006/95/EC Low voltage
- 2011/65/EU RoHS II
- 2012/19/EU WEEE

Standards
The analyser is in compliance with the EN 50379-1 and EN 50379-2 standards.

KIGAZ MOBILE
Application

HOUSING

Dimensions
Instrument: 240 x 100 x 80 mm
Flue gas probe: 180 mm

Weight (battery and protective cover included)
660 g

Display
Graphic screen
Active view dimensions: 54 x 50 mm

Keypad
10 keys
Dome switch keypad

Material
Housing: ABS
Probe cable: neoprene
Probe: PA 6.6 reinforced
10% glass fiber

Protection
IP40

PC communication
Bluetooth® (optional)
USB
Infra-red IRDA® (printer)

Power supply
Li-Ion battery 6 V 1.5 A

Battery life
10 h in continuous operating

Battery charging time
10 h

Operating and storage temperature
From +5 to +50°C and from -20 to +50°C
Altitude: from 0 to 2000 m

FEATURES OF THE INSTRUMENT

GAS	Ambient max CO	CO flue gas	Interchangeable sensors: O_2 and CO compensated H_2	Excess air Losses	Efficiency > 100%
PRESSURE	Draft measurement	Differential pressure measurement			
TEMPERATURE	Ambient temperature	Flue gas temperature	Delta Temperature	DHW temperature	Dew-point measurement
OTHER FUNCTIONS	15 programmed combustibles[1]	Adding 5 combustibles by the user	Opacity index	External water trap	

[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

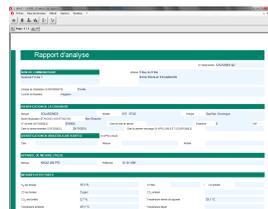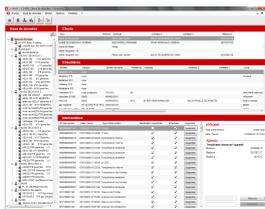| Parameter	Sensor	Measuring range	Resolution	Accuracy*	T_{90} response time
O_2	Electro-chemical	From 0% to 21%	0.1% vol.	±0.2% vol.	30 s
CO (with H_2 compensation)	Electro-chemical	From 0 to 8000 ppm	1 ppm	From 0 to 200 ppm: ±10 ppm From 201 to 2000 ppm: ±5% of measured value From 2001 to 8000 ppm: ±10% of measured value	30 s
Flue gas temperature	K thermocouple	From -100 to +1250°C	0.1°C	±0.4% of 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 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% of measured value ±1.1°C	-
Differential pressure	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	-
Draft		From -10 to +10 Pa From -1000 to +1000 Pa	0.1 Pa 1 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 analyser.

SOFTWARE

The analysers are supplied with the LIGAZ-2 software

It allows database creation (customers, boilers, inspections), inspections downloading and printing, synchronisation instrument/PC and analyser configuration.

SUPPLIED WITH

The analysers are supplied with the following items:

- Transport bag
- 180 mm flue gas probe and its water trap
- LIGAZ-2 software and its USB cable
- Power supply adapter and Li-ion battery
- Calibration certificate
- Protective cover with magnets

OPTIONS

- **SCOT: ambient CO probe**
- **SCO2T: ambient CO_2 probe**
- **SPA 150SP: Pt100 ambient probe**
- **SKCL 150: thermocouple probe**
- **SDFG: Gas leak detection probe (CH_4)**
- **SCI: Ionisation current measurement probe**
- **PMO: Opacity pump**
  Supplied with 50 filters and a reference table
- **KDIP-2: Infra-red IRDA® printer**
- **KEG: Gas network tightness kit**

Bluetooth® module

KIGAZ MOBILE Application For smartphones and tablets

Allows connection to the KIGAZ MOBILE application:
- Graphic visualisation
- Saving
- Exportation under CSV, XML, PDF format
- Reports sending by e-mail

*See the technical datasheet of accessories for KIGAZ for more details.

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