

KANE455 Infra-Red Analyser

it's easy with Kane

GAS ANALYSERS

Direct Measurement of
CO₂ using Infra-Red
Technology



455



O₂

CO

CO₂

CO/CO₂

Efficiency

Diff. Temp

Diff. Pressure

Features

- Long Life CO Sensor (>5 years expected life)
- Long Life IR based CO₂ Sensor (>5 years expected life)
- Low Annual Service Costs
- Easy to use rotary switch
- Protective rubber sleeve with magnet for "hands free" use
- Multi-fuel: Natural Gas, Propane, Butane, LPG, Light Oils (28/35 sec), and Wood Pellets
- High accuracy manometer
- Differential thermometer
- Separate reports for:
Combustion
Pressure
Let-by and Tightness
Temperature
CO build up
- Designed to meet BS7967
- Easy transfer of test results
- 5 year extended warranty if serviced annually by Kane

Optional Extras

- Plug-in gas leak detector
- Bluetooth™ module with xml compatible data transfer
- KMIRP infra-red thermal paper printer
- KANE ImPrint infra-red plain paper printer
- 12v in-vehicle charger
- Range of temperature probes



Colours shown may differ from those received.

Infra-red printer emitter



The most user friendly '6

K455 1.0
YOUR COMPANY NAME &
PHONE NUMBER HERE

TEST 10
DATE 12/07/07
TIME 12:00:08

COMBUSTION

FUEL	NAT	GAS
O2 %		5.4
CO2 %		8.8
CO PPM		12
FLUE °C		55.1
INLT °C		17.2
NETT °C		37.9
EFF (C)		98.3
LOSSES		1.7
XAIR %		34.8
CO/CO2		0.0001
PRS mBAR		0.00

Customer
Appliance
Ref.

Combustion Analyser (#1)

- Select "Ratio" on the rotary switch to view current fuel, CO/CO₂ ratio, CO, and CO₂
- Select "O₂/Eff" to view O₂, temperatures and efficiency
- Select "Aux" to view any 4 parameters, user selectable
- Measures CO₂, CO, inlet and flue temperatures
- Calculates O₂, CO/CO₂ ratio, excess air, losses and combustion efficiency, (nett, gross or condensing)
- Multi fuel - Natural gas, Propane, Butane, LPG, Light Oils (28/35 sec) and Wood Pellets
- Readings can be sent via an infra-red printer, (see printout example) or by Bluetooth™
- Memory stores up to 99 combustion tests

CO Meter (#4)

Calibrate the analyser in fresh air to set the CO sensor to zero

- Select "Ratio" or "Aux" to check the ambient CO level in a room
- Select "Room CO" to perform a 15 minute CO test
- The CO level is logged at 1 minute intervals
- "Room CO" tests are automatically stored in the memory
- Tests can be sent via an infra-red printer or by Bluetooth™
- Memory stores up to 20 "Room CO" tests

Gas Leak Detector (#5), optional

- Plug-in, handheld unit with the sensor at the tip of a flexible shaft
- LED's and a variable buzzer enable the user to pinpoint a gas leak
- Can detect leaks down to 50ppm of methane / natural gas

K455 1.0
YOUR COMPANY NAME &
PHONE NUMBER HERE

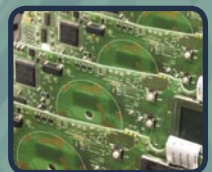
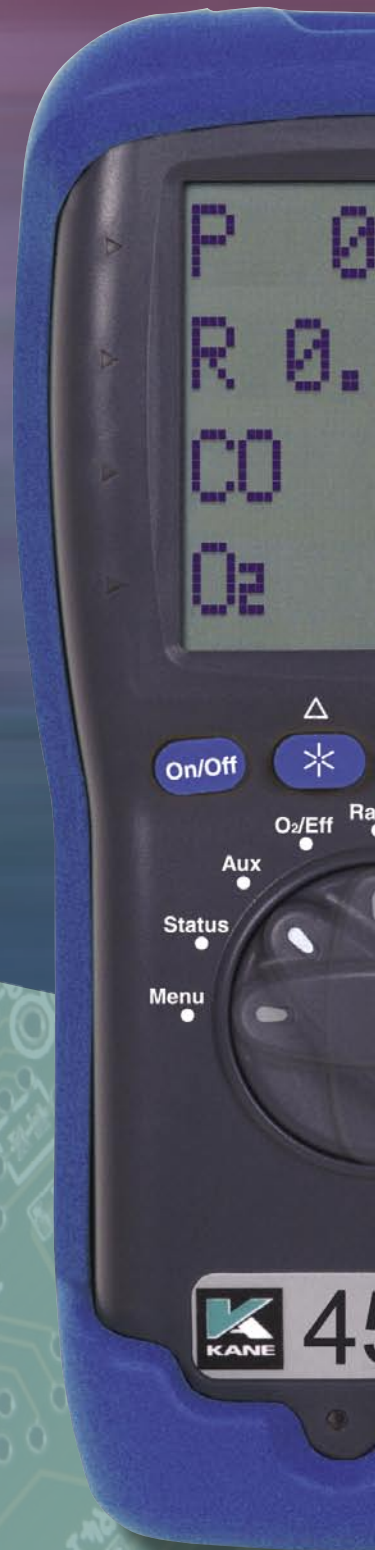
ROOM CO TEST

LOG 01
TIME 12:50 12/07/07

TEST	CO ppm
0	00
1	00
2	10
3	04
4	01
5	00
6	00
7	10
8	03
9	00
10	00
11	00
12	07
13	11
14	02
15	00

MAXIMUM CO 11

Customer
Appliance
Ref.



5 in 1" analyser available



Differential Pressure Meter (#2)

- Select "Prs" on the rotary switch for high accuracy single or differential pressure readings
- Range $\pm 80\text{mBar}$, maximum resolution 0.001mBar
Ideal for difficult applications such as flue draught
- Readings can be smoothed to damp out pressure pulsing
Ideal for setting air/gas ratio valves
- Display includes a clock for manual timing
- Readings can be sent via an infra-red printer, (see printout example) or by Bluetooth™
- Memory stores up to 20 pressure tests
- Select "Tightness" to perform a let-by test and stabilisation/tightness test
- The let-by period defaults to 1 minute
The stabilisation period defaults to 1 minute
The tightness test period defaults to 2 minutes
All 3 times can be adjusted by the user
- Tests are automatically stored in the memory
- Tests can be printed via an infra-red printer, (see printout example)
- Memory stores up to 20 "Tightness" tests

```
K455 1.0
YOUR COMPANY NAME &
PHONE NUMBER HERE
```

```
PRESSURE
.....
TIME 12:56 12/07/07
PRS MBAR -0.037
Customer
.....
Appliance
.....
Ref.
.....
```

```
K455 1.0
YOUR COMPANY NAME &
PHONE NUMBER HERE
```

```
LOG TIME 11:53 12/07/07
Let By Test
.....
PRS_1 MBAR 10.12
PRS_2 MBAR 10.11
LET BY MINS 1:00
Tightness Test
.....
PRS_1 MBAR 20.12
PRS_2 MBAR 20.10
ΔPRS MBAR -0.02
STABIL'N MINS 1:00
TIGHTN'S MINS 2:00
Customer
.....
Appliance
.....
Ref.
.....
```

Differential Thermometer (#3)

- Select "Diff Temp" to view flow (T1), return (T2) and differential (ΔT) temperatures
- Temperature probes are available to measure air, liquid and surface (pipe) temperatures
- Ideal for Benchmark log book
- Readings can be sent via an infra-red printer, (see printout example) or by Bluetooth™
- Memory stores up to 20 differential temperature tests

```
K455 1.0
YOUR COMPANY NAME &
PHONE NUMBER HERE
```

```
DIFF TEMP
.....
LOG TIME 12:10 12/07/07
T1 °C 60.1
T2 °C 47.0
ΔT °C 13.1
Customer
.....
Appliance
.....
Ref.
.....
```

Torch Light (#6)

- Never got a torch when you need one? You have now!
- The KANE455 has a backlit display and an inbuilt LED torch



Parameter	Range	Resolution	Accuracy
Temp Measurement Flue Temperature	0-600°C <i>(0-1200°C with special probe)</i>	0.1°C	±1.5°C or ±1% reading
Inlet Temperature (Internal sensor) (External sensor)	0-50°C 0-600°C	0.1°C 0.1°C	±1.0°C ±1.5°C or ±1% reading
Gas Measurement Oxygen* ² Carbon Dioxide Carbon monoxide	0-21% 0-20% 0-2,000ppm nom 4,000ppm max for 15 mins	0.1% 0.1% 1ppm	±0.3% ±0.2% ¹ ±5ppm <100ppm ¹ ±5% reading >100 ppm
Calculated values * ³ Efficiency Excess Air CO/CO ₂ ratio	0-99.9% 0-250% 0-0.9999	0.1% 0.1% 0.0001	
Pressure (differential) Nominal range ±80 mbar <i>(Maximum over range without damage to sensor is ±400 mbar)</i>	±0.2 mbar ±1 mbar ±80 mbar	0.001 mbar to 24.999 bar then 0.01 mbar	±0.005 mbar ±0.03 mbar ±3% of reading

*¹ Derived from CO₂ measurement

*² Derived from O₂ measurement

*³ All calculations in accordance with BS EN50379 approval.

Pre-programmed Fuels	Natural gas, Propane, Butane, LPG, Light Oils (28/35 sec), Wood Pellets.
Storage Capacity	99 Combustion tests 20 Pressure tests 20 Tightness tests 20 Temperature tests 20 Room CO tests
Ambient Operating Range	0°C to +45°C 10% to 90% RH non-condensing Atmospheric Pressure: 850 to 1100 mbar
Battery Type / Life	4 AA cells >8 hours using Alkaline AA cells
Chargers (optional)	220v charger, for NiMH batteries only 12v in vehicle charger, for NiMH batteries only
Dimensions Weight: Handset: Standard Probe:	0.8kg handset with protective cover 200 x 45 x 90mm 300mm long including handle. 6mm diameter x 240mm long stainless steel shaft with 3m long neoprene hose. Type K thermocouple.



Thank you for reading this data sheet.

For pricing or for further information, please contact us at our UK Office, using the details below.



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Please note - Product designs and specifications are subject to change without notice. The user is responsible for determining the suitability of this product.