

KANE455 ANALYSER SPECIFICATION (NOTE: MAY BE SUBJECT TO CHANGE)

Parameter	Range	Resolution	Accuracy
Temp Measurement			
Flue Temperature	0-600°C (0-1200°C with special probe)	0.1°C	±1.5°C or ±1% reading
Inlet Temperature			
(Internal sensor)	0-50°C	0.1°C	±1.0°C
(External sensor)	0-600°C	0.1°C	±1.5°C or ±1% reading
Gas Measurement			
Oxygen ¹	0-21%	0.1%	±0.3%
Carbon Dioxide	0-20%	0.1%	±0.2% ²
Carbon monoxide	0-2,000ppm nom 4,000ppm max for 15 mins	1ppm	±5ppm <100ppm ¹ ±5% reading >100 ppm
Calculated values ³			
Efficiency	0-99.9%	0.1%	
Excess Air	0-250%	0.1%	
CO/CO ₂ ratio	0-0.9999	0.0001	
Pressure (differential)			
Nominal range ±80 mbar (Maximum over range without damage to sensor is ±400 mbar)	±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:	0.8kg handset with protective cover
Handset:	200 x 45 x 90mm
Standard Probe:	300mm long including handle. 6mm diameter x 240mm long stainless steel shaft with 3m long neoprene hose. Type K thermocouple.

Each KANE455 is supplied with:
Flue probe, protective rubber sleeve with integral magnet, 2 pressure connectors, 4 x AA NiMH batteries with fast charger and instruction manual.

KANE455 options include:
Soft protective carry case, infra-red printer, plug-in gas leak detector, 12v in-vehicle charger and a range of probes for air, liquid and surface temperatures. A Bluetooth™ wireless module can be factory fitted. Data can be added to xml compatible Service Management software programs eg: Cognito.

KANE455 Kits:
Various KANE455 Kits are available offering extra value. Contact your distributor or Kane International for more details.

5 year Warranty Offer.

All flue gas analysers should be checked and recalibrated annually. Kane's unique fixed price service system includes the following benefits...

- Another 12 months warranty each time the analyser is returned*
- Equivalent to a 5 year Extended Warranty if returned annually
- Free software upgrades if applicable
- New traceable calibration certificate as required by BS7967
- Return carriage via courier to a UK address
- Very competitive fixed prices - makes budgeting much easier
- Recalibration reminders can be sent
- See www.kane.co.uk for full details

*Applies to all Kane analysers up to 5 years old



Your distributor



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Ref: KA455IT308

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KANE455 Infra-Red Analyser

it's easy with Kane

Direct Measurement of
CO₂ using Infra-Red
Technology



455

O₂
CO
CO₂
CO/CO₂
Efficiency
Diff. Temp
Diff. Pressure

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.

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



Infra-red printer emitter



The most user friendly "6 in 1" analyser available

6

Combustion Analyser (#1)

- Select "Ratio" on the rotary switch to view current fuel, CO/CO₂ ratio, CO, and CO₂
- Select "O₂/EH" 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



Differential Pressure Meter (#2)

- Select "Prs" on the rotary switch for high accuracy single or differential pressure readings
- Range ± 80mBar, 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

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

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

K455 1.0
YOUR COMPANY NAME &
PHONE NUMBER HERE

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

COMBUSTION

FUEL	NAT	GAS
O2 %	5.4	
CO2 %	8.8	
FLUE ppm	55.1	
INLET °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.

K455 1.0
YOUR COMPANY NAME &
PHONE NUMBER HERE

ROOM CO TEST

LOG TIME	CO ppm
01	00
02	00
03	04
04	01
05	00
06	00
07	10
08	03
09	00
10	00
11	00
12	07
13	11
14	02
15	00
MAXIMUM CO	11

Customer
Appliance
Ref.

K455 1.0
YOUR COMPANY NAME &
PHONE NUMBER HERE

LOG 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
4PRS mBAR -0.02
STABIL'N MINS 1:00
TIGHTN'S MINS 2:00
Customer
Appliance
Ref.

K455 1.0
YOUR COMPANY NAME &
PHONE NUMBER HERE

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

