



# KANE988 INT



## Industrial Boiler, Heat Pump, A/C & Refrigeration Analyser with KANE LINK™

- As KANE958 plus:
- Double headed pump tests any size boiler
- O<sub>2</sub>, CO<sub>2</sub> & CO to 10,000ppm with H<sub>2</sub> compensation & 10%, HC to 5000ppm
- 4 toxic gases option
- Commission & test air conditioning & refrigeration systems - no manifold or hoses required
- Structured let by, tightness & flue draught tests
- **KANE LINK™** wireless measurement & future proof promise
- Large graphic display & memory
- SEE, SAVE & SEND - **KANE LINK™** transfers tests to KANE LIVE app



### Applications

- All boilers & heat pumps
- Combustion performance, efficiency & emissions
- Boiler & heat pump temperature flow & return
- Air conditioning & refrigeration system superheat & subcool
- IAQ - Room CO migration, temperature, RH & airflow



Industrial Boiler Analysis

## KANE988

- Industrial Boiler & HVACR analyser with **KANE LINK™**, O<sub>2</sub> & CO with over range protection to 10,000ppm & 10%, HC to 5000ppm, differential temperature, 2 psi sensor & water stop filter. Supplied with pressure hose, CHSP5 probe, U12VDCS21 battery charger, MSC00117 protective pouch & 20106 backpack



Independently tested by TUV SUD to EN50379



# World 1st - Test Boilers, Heat Pumps, A/C & Refrigeration

## Measures (Standard Kit)

- O<sub>2</sub> 0-21%
- CO<sub>2</sub> 0-20%
- CO 0-10,000ppm H<sub>2</sub> compensated & 100,000ppm
- HC 0-5000ppm
- Option to measure 4 extra gases
- Differential temperature -20 to +135°C
- Differential pressure +/- 160mbar

## Calculates

- CO/CO<sub>2</sub> ratio
- Excess air
- Combustion efficiency
- NO<sub>x</sub> (option)
- Lambda / AFR 0.8-1.2
- Superheat & Subcool

## Fuel Types

- 12 standard fuels including:  
Natural Gas, LPG, Butane, Propane, Light Oil, Heavy Oil & user fuels
- 40 refrigerants including:  
R22, R32, R134a, R290 & R410A

## Features

- Automatic sensor stability & filter check
- 10 year warranty under KANE CARE Service & Recertification - our promise to never let you down or your money back



Gas Engine Testing

## KANE988 sensor, accessory & LINK options

### Sensor options - up to 4

NO 0-5,000ppm	
NO <sub>2</sub> 0-1,000ppm**	
SO <sub>2</sub> 0-5,000ppm**	
H <sub>2</sub> S 0-200ppm	

### Probe & accessory options

<b>CHSP5</b> 285mm high temperature PTFE lined smoke probe with removeable shaft & 4m neoprene hose	
<b>CHSLP5</b> 1m high temperature PTFE lined smoke probe with removeable shaft & 4m neoprene hose	
<b>KMCE10</b> 10m hose & thermocouple extension	
<b>KANE-GCU**</b> Gas conditioning unit	
<b>KANE-IRP3</b> Printer	

### KANE LINK options

<b>KANE-WPCP2</b> Wireless LINK temp clamp probes - connect as a pair	
<b>KANE-WPP2</b> Wireless LINK pass through pressure probes - connect as a pair	
<b>KANE-DTHA2</b> Wireless LINK airflow, temp & RH	
<b>KANE79</b> Wireless LINK CO monitor to 999ppm - connect up to 4	



### Optional extra:

#### KANE-GCU

Gas conditioner for accurate NO<sub>2</sub>, SO<sub>2</sub> & H<sub>2</sub>S measurements

# systems & IAQ - No cables, manifold, hoses or refrigerant leaks

## Specifications

PARAMETER	RANGE	RESOLUTION	ACCURACY
<b>Temperature Measurement</b>			
Flue Temperature	0 - 600°C	0.1°C	±0.5°C
Inlet temperature (Internal Sensor)	0 - 50°C	0.1°C	±1°C
Inlet temperature (External Sensor)	0 - 600°C	0.1°C	±0.5°C

<b>Flue Gas Measurement</b>			
Oxygen	0 - 25%	0.01%	±0.3% Volume
Carbon Monoxide H <sub>2</sub> compensated	0 - 10,000ppm	1ppm	±5ppm < 100ppm +20ppm < 400ppm ±5% > 400ppm – 2000ppm +10% > 2000ppm – 10,000ppm
Carbon Monoxide High Range	0 - 10%	0.01%	±5% of reading
Nitric Oxide (optional)	0 - 5000ppm	1ppm	±5ppm < 100ppm +5% > 100ppm
Nitrogen Dioxide (optional)	0 - 1000ppm	1ppm	±5ppm < 100ppm +5% > 100ppm
Sulphur Dioxide (optional)	0 - 5000ppm	1ppm	±5ppm < 100ppm +5% > 100ppm
Hydrogen Sulphide (optional)	0 - 200ppm	1ppm	±5ppm < 100ppm +5% > 100ppm
Carbon Dioxide	0 - 40%	0.10%	±5% of reading
Hydrocarbons	0 - 5000ppm	1ppm	±5% of reading

<b>Pressure measurement</b>			
Pressure (Differential)	±160mbar	0.1mbar	±0.5% FSD
Velocity:	0-30m/s	1m/s	±0.5% FSD

<b>Calculations</b>			
CO/CO <sub>2</sub> Ratio	0 - 0.9999	0.0001	±5% of reading
Efficiency (Net or Gross)	0 - 99.9%	0.10%	±1% of reading
Efficiency High (C)	0 - 119.9%	0.10%	±1% of reading
Excess Air	0 - 119.9%	0.10%	±0.2% of reading

Pre-programmed Fuels	
UK, USA & France	Natural Gas, Propane, Butane, LPG, Light Oil, Digester Gas & Wood Pellets
European	Natural Gas, Light Oil, Bio Oil, Coke, LPG, Wood, Town Gas, Butane & Propane
Battery Life	>5 hours (continuous with pump on)
Certification	The KANE988 is independently tested & certified to EN 50379, Parts 1-2 in accordance to 1st German Federal Emission Control Ordinance (Bim5chV) Pending

Operating Conditions	
Temperatures	0 - 50°C
Humidity	15 to 90% RH, (non-condensing)
Power Supply	Rechargeable batteries, 12v DC @ 2A Charging

Physical Characteristics	
Weight	Approx. 1.2kg
Dimensions	L: 240mm x H: 165mm x W: 65mm

## Optional extra:

### KANE-GCU

KANE-GCU Gas conditioning unit

#### Features

- Gas conditioning unit for KANE958 & 988
- Enables accurate NO<sub>2</sub>, SO<sub>2</sub> & H<sub>2</sub>S measurements compatible with MCERTS (approval pending)
- Peltier chiller stops water condensate absorbing gas sample
- Supplied with KMCH 285mm High Temp 8mm dia probe, KMCE 10M hose & thermocouple extension & GCU1 power supply with 3M lead & EU, UK & USA adaptors



### MSC00235

Hose & thermocouple extension lead for KANE-GCU

