The New RASI 300 Flue Gas Analysers

Plug & Play sensors
User Replaceable plug and play sensor

Touch Screen
High definition colour touch screen display, one hand operation.

Multifunction
- Flue gas Analyser
- CO ambient meter
- Let-by Tightness test
- Differential Temp.
- Differential Press.

O2 [%]	9.8
CO [ppm]	121
CO/CO2 ratio	0.0020
CO2 [%]	6.1
stop	

1000 Data Set
Internal memory for data storage and site administration

menu storage
menu extras
start gas meas.
Zero setting...
Instrument leak test

O2 [%]	9.8
CO [ppm]	121
CO/CO2 ratio	0.0020
CO2 [%]	6.1
stop	

RASI 300
Flue Gas Analyser

EiUK

Print on site
Print on site with our fast IRDA Printer with custom reports

APP for Smartphone or Tablet
Control, measure and share data with our new free APP
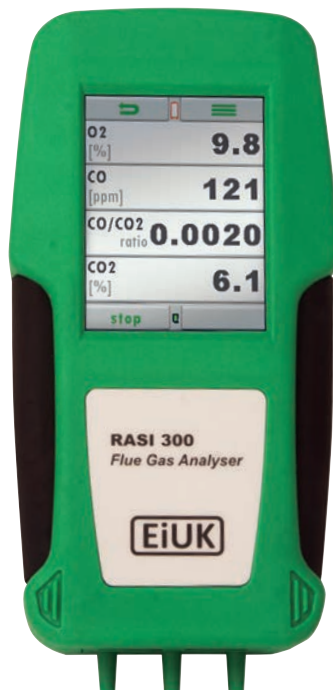
Communication
All modern communication media

Magnet
Robust magnet for hands free operation

RASI 300 Series Flue Gas Analysers

Flue Gas Analysers for Domestic and Commercial Oil, Gas and Biomass appliances

Build on the legacy on the RASI 200 series, the new RASI 300 range of multifunctional gas analysers feature touch screen display, plug and play sensors technology and many more improved features that make them the clear choice for heating professionals.

Suitable for all types of burners (OIL& GAS), the new RASI 300 come now with specific functions to help heating engineers commissioning and adjusting biomass boilers. The easy to use touch screen display and the intuitive task menu', make the RASI300 range the easiest to use flue gas analysers in the market today.

RASI 300 for use on domestic appliances
The RASI 300 is the clear choice if you are working on domestic boilers installations.

RASI 300C for use on commercial appliances
The RASI 300C offers all the capabilities of the RASI300 plus:
- CO (H2) compensated 0 to 10.000 ppm range.
- High Accuracy pressure sensor with 0.001 mbar resolution.
- Integrated Bluetooth® module for real time data transfer.
- Optional NO/NOx measurement cell.

Plug & Play user replaceable cells
Replace faulty sensors on-site and minimise the analyser down-time thanks to our new plug and play pre-calibrated sensors.
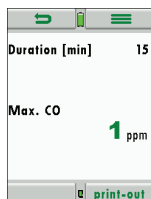
Touch Screen Display
The new colour, high resolution touch screen display allow for quick setting of the analyser and for one hand operation
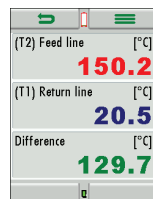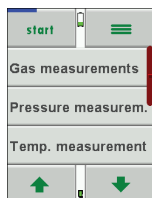
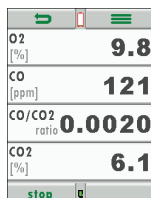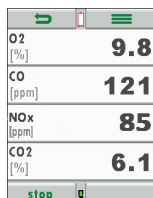### Display Screens/Applications
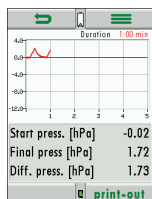
Timed let-by/ tightness

Ambient CO (BS 7967)

T flow/Return

Smart Menu

Flue Gas Measurements

NOx measurement

Features

	300	300C
Domestic Oil, Gas appliances	●	●
Commercial Oil, Gas & Biomass Boilers		●
Touch Screen colour graphic display	●	●
Intuitive Task oriented menu	●	●
Plug & Play pre-calibrated user replaceable sensors	●	●
Flue Gas probe withe integrated large water trap, temperature measurements and draught	●	●
02, CO, CO_2, CO/CO_2 ratio, Ex Air, efficiency Net, Gross and condensing, temperature and pressure measurements	●	●
CO Range 0-4000 ppm	●	
CO Range 0-10.000 ppm (H2 compensated)		●
18 programmed fuels plus 2 user define (see specification)	●	●
IRDA for optional printer	●	●
NO/NOx measurement sensor	Option	Option
Draught 0.01 mbar resolution	●	●
Fine Draught 0.001 mbar resolution for natural draft boilers		●
Timed let-by/tightness test (IGE/up/ib) with separate print-out	●	●
Differential pressure menu with separate print-out	●	●
Timed CO build up tests (BS 7967) with separate print-out	●	●
T Flow/ T Return menu with separate prints-out	●	●
30 seconds zero function and smart purging function	●	●
LI-Ion internal rechargeable batteries with USB charger	●	●
Micro SD card for data export and software upgrade	●	●
Large Internal memory (1000 test data)	●	●
Recall and view previous logs direct on screen	●	●
Personalised print out with engineer/company details	●	●
USB communication, USB cable and software	●	●
Bluetooth© communication for real time data transfer works with PC and android based smart phone and tablets	Option	●
5 years extended warranty when serviced annually at EiUK ltd	●	●

RASI 300 Series
Flue Gas Analysers

Rasi 300 CPA1 Kit

Rasi 300 OIL Kit
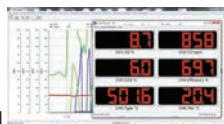

Rasi 300C Professional Kit

Smart phone/tablet APP
View data and control the RASI300 from a remote location with our new "Smart Data" application.

•Connect
•Start/Stop the RASI 300
•View live data
•Save and email data

Online View
Real Time data transfer to a PC or laptop via Bluetooth or USB. Read, save and manage your data in a more professional way

RASI 300 KITS Selection

	Standard KIt	Printer KIt	Advance KIT	CPA1 KIT	OIL KIT
Rasi 300 analyser with O2 and CO (0-4000 ppm) sensors	●	●	●	●	●
250X8 mm flue gas probe with water trap and filter	●	●	●	●	●
Integrated Magnet	●	●	●	●	●
USB lead and Online View Software	●	●	●	●	●
USB charger for analyser and printer	●	●	●	●	●
Full calibration certificate	●	●	●	●	●
IRDA Fast infrared printer with spare roll		●	●	●	●
Custom made vinyl case with separate space for instruments and accessories		●	●	●	●
2 x Pipe Clamp on probes (26 mm)			●	●	
Differential pressure hose kit suitable for use on NAT Gas and LPG			●	●	
Gas Pressure controller			●	●	
BS 7967 Appliance probe set (3 pcs)				●	
Gas Leak detector(sniffer)				●	
Smoke pump with filters/chart					●
Oil commissioning Kit (see page 9)					●

Options

Robust ABS case instead vinyl case

BlueTooth® and free mobile APP

RASI 300C KITS Selection

	Standard KIT	Printer KIT	BIOMASS KIT
Rasi 300C analyser with High CO 0-10.000 ppm sensor, bluetooth and fine draught sensor	●	●	●
250X8 mm flue gas probe with water trap and filter	●	●	●
Integrated Magnet	●	●	●
USB cable and Online View Software	●	●	●
USB charger for analyser and printer	●	●	●
Full calibration certificate	●	●	●
IRDA Fast infrared printer with spare roll		●	●
Special Particulate filter			●
Custom made vinyl case with separate space for instruments and accessories		●	●

Options

NO/NOx cell 0-5000 ppm

Robust ABS case instead vinyl case

Accessories

Modular Sampling Probe with longer shafts.
See Pages 9-10

RASI 300 Series
Flue Gas Analysers

	Range	Accuracy	Resolution
02	0-25 %	± 0.2% Vol abs	0.1% Vol
CO(H2 compensated) RASI 300C Only	0-10000 ppm	± 10 ppm or ± 5% rdg up to 4,000 ppm ± 10 % rdg from 4,000 to 10,000 ppm	1 ppm
CO RASI 300 Only	0-4000 ppm	± 10 ppm or ± 5% rdg up to 4,000 ppm	1 ppm
NO(NOX) (Optional) RASI 300C Only	0-5000 ppm	± 5 ppm or ± 5% rdg up to 1,000 ppm ± 10 % rdg from 1,000 to 5,000 ppm	1 ppm
Gas Temperature	-50-1200 °C	± 2 °C	0.1 °C
Air Temperature	-50 °C to 100 °C	± 1 °C	0.1 °C
Differential Pressure	-300 to 300 mbar	± 0.02 mbar	0.01 mbar
Draught	± 50 mbar	± 0.02 mbar	0.01 mbar
Fine Draught (RASI 300C Only)	± 50 mbar	± 0.02 mbar	0.001 mbar
Calculations			
Efficiencies (Net, Gross, Condensing)	0 to 120 %	n/a	0.1 %
Air Ratio	1 to 9.99	n/a	0.01
CO/CO2 Ratio	0-9999	n/a	0.0001
Excess Air	0 to 99,9%	n/a	0.1%
Heat losses	0 to 99.9 %	n/a	0.1%
CO2%	0 to CO2% max	± 0.3% vol	0.1%
Fuel Selection	Nat Gas, Oil Heavy, Oil Light, Propane, Butane, Wood 0%, Wood@10%, Wood@20%, Wood@30%, Wood@40%, Wood@50%, Pellets, Kerosene, Coal, Diesel, Petrol, Coke, Anthracite, plus 2 user define		
Memory, data capture and communication			
Storage medium	1000 sites/measurement on internal memory, or micro SD card		
Digital communications	Micro USB, Bluetooth®, Micro SD card, IRDA		
General			
Gas Sample probe	250 mm stainless steel probe with integrated temperature and pressure measurement, large water trap with filter.		
Display	4 lines touchscreen graphic colour display		
Weight, Dimension (W x L x H)	390g, 82x169x44 mm		
IP protection	IP40		
Power/Mains	Rechargeable LI-Ion 2250 mA/h, USB charging AC 100-240 VAC, 47-63 Hz. Cable and wall charger included		
Operating/Storage Temperature	5 to 45 °C / -20 to 50 °C		
Standard Warranty	2 years manufacturing warranty on instruments and cell		
5 years Warranty	5 years extended warranty when annual serviced by EIUK ltd- Include sensors replacement		
Approval (Rasi 300)	conform to BS7967 and BS EN 50379-3		
Approval (Rasi 300 C)	conform to BS7967, Independently tested by TUV SUD to BS EN 50379- 1&2		

Part Number	Image	Description
Temperature probes		
RASI-ACC-05		Differential temperature set (Velcro), Ideal for Tflow/Return on commercial pipes. Maximum Temperature 100 °C Dimensions 20 x 500 mm. Set of 2 probes supplied
RASi-ACC-20		AiR Temperature probe, Range -40 to 250 °C Dimension 4 x 130 mm, c/w handle and cable
RASI-ACC-03		Immersion/Air Temperature probe, Range -40 to 250 °C Dimension 4 x 130 mm, c/w handle an cable
RASI-ACC-04		Fast action surface temperature probe, sprung loaded,. Range -60 to 250 °C, dimension 8 x 130 mm, c/w handle and cable
RASI-ACC-02		Differential temperature set (Clamp on), ideal for T T Flow/Return on domestic pipes. Max temperature 100 °C Max pipe size 26 mm- Set of 2 probe supplied
RASi-ACC-21		PTFE long wire temperature probe suitable for measurement in oven and anywhere length is required Dimension 1.5 x 2000 mm, Range -60 to 250 °C
CPA1 accessories		
RASI-ACC-06		BS 7967 appliance probe KIT: Include right angled probe with 5 hoses, cooker probe with supporting disk, straight probe, simple interchangeable handle, 1 mt sampling hose
RASI-ACC-09		Gas Leak Detector with flexible probe for hard to reach locations. Visible and audible alarm set at 50 ppm CH4 Probe length 16"
RASI-ACC-08		Gas Pressure controller, suitable for NAT GAS and LPG appliances. Supplied with 2 x 1 mt flexible hose
OIL accessories		
RASI-ACC-07		Smoke KIT includes: Smoke pump, smoke scale chart and smoke filters
RASI-ACC-13		Oil Commissioning KIT include: Pressure gauge Manifold, 1/8" female high pressure hose, 0-300 psi glycerin filled pressure gauge, -1 to 1.5 bar compound gauge, adapters, hard case as shown in picture

Part Number	Image	Description
Other Accessories and Consumable		
RASI-ACC-22		FAST IRDA infrared Printer, with easy loading paper USB charging
RASI-CON-18		Thermal Paper Rolls for IRDA printer, Pack of 5
RASI-CON-06		Water Trap complete assembly for RASI 700CA only
RASI-CON-01		Washable and re-usable Teflon coated star filters for RASI-CON-06 water trap **(RASI700CA only)**
RASI-CON-26		Water Trap complete assembly for **RASI 300/RASI300C**
RASI-CON-27		Washable and re-usable teflon coated star filter for RASI-CON-26 water trap **(RASI 300/300C only)**
RASI-CASE-02		Robust Hard carrying case with customised foam and divider for document holding and accessories. Suitable for RASI 300/300C/700 - Can store Analyser, probe up to 380 mm , printer, and full CPA1 KIT accessories
RASI-CASE-03		Sturdy Vinyl case with space for accessories and divider for document holding. Suitable for RASI 300/300C/700 - Can store Analyser, probe up to 300 mm, printer , and full CPA1 KIT accessories
RASI-ACC-01		Dual USB car charger Charge printer and RASI300/RASI700 at the same time
Optional Modular Sampling probe for RASI 300 C only		
RASI300C-PRBH-01		Probe Handle for RASI 300C, with 2.7 meter triple hose for gas, temperature and continuous draft measurement. Probe shaft nit included. Please select from below:
RASI-SHFT-360-08		Replaceable shaft 8 x 360 mm including positioning cone and integrated thermocouple. Tmax 850 °C
RASI-SHFT-500-08		Replaceable shaft 8 x 500 mm including positioning cone and integrated thermocouple. Tmax 850 °C
RASI-SHFT-500-08		Replaceable shaft 8 x 750 mm including positioning cone and integrated thermocouple. Tmax 850 °C
RASI-SHFT-1K-08		Replaceable shaft 8 x 1000 mm including positioning cone and integrated thermocouple. Tmax 850 °C

Test and Measurement

DT 8863 Infrared Thermometer	DT 9917 Professional Multimeter	DT 3343 Current Clamp Meter
• Range -50 to 800°C • Dual Laser Target • Adjustable Emissivity • Optics: 20:1 • Automatic Data Hold • Max & Mix Value • High and Low Alarm	• AC/DC 1000 V • AC/DC 10 A • 400 mΩ • Frequency 10 MHz • Capacitance 40mf • Duty Cycle • Temperature • Diode and Continuity • CAT IV 600V • CAT III 1000V	• AC/DC 1000 V • AC/DC 10 A • 400 mΩ • Frequency 10 KHz • Duty Cycle 99.9 • Temperature • CAT IV 600V • CAT III 1000V

Related Products: Emissions Monitoring

RASI 901
Portable Emissions Analyser

RASI 800 MCERT
Portable Emissions Analyser

SGW100 CEM
Continuos Emissions Monitoring

- O_2, CO, NO, NO_2, SO_2, H_2S, H_2
- NDIR bench for $CO/CO2/HC$
- Built-In Gas Cooler and condensate pump
- CO sensor protection
- Heated Sampling Line

- O2, CO, NO, NO_2 and SO2
- NDIR sensor for $CO2\%/HC$
- Built-In Gas Cooler and condensate pump
- CO sensor protection
- MCERTS Approved

- 0_2, CO, NO, NO_2, SO_2
- NDIR sensor for $CO2\%$
- Built-In Gas Cooler and condensate pump
- CO sensor protection
- Heated Sampling Line

KeiSon

PRODUCTS

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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