PRODUCT NAME	APPROVAL STATUS	EQUIVALENT AREA MM²/CM²	PRODUCT IMAGE
Rytons Building Products Ltd Design House, Kettering Business Park Kettering, Northants NN15 6NL	**RYTONS** BUILDING PRODUCTS INNOVATION IN VENTILATION	01536 511874 admin@rytons.com www.vents.co.uk	
TAL9SET – Rytons 9×9 Acoustic AirLiner® Set with Louvre Ventilator (39 dB D$_{n,e,w}$)	*Equivalent Area Values given by BRE test memorandum ref. 283-275 dated 01-March 2013*	13100/131	
TAL9CWL – Rytons 9×9 Cowled Acoustic AirLiner® Set with Louvre Ventilator (40 dB D$_{n,e,w}$)	*Equivalent Area Values given by BRE test memorandum ref 283-275 dated 01-March 2013*	12200/122	

EQUIPMENT LISTED ON BEHALF OF COGDEM CARBON MONOXIDE ALARMS

CoGDEM
The Council of Gas Detection and Environmental Monitoring

INTRODUCTION

Carbon Monoxide (CO) is a poisonous gas with no taste, colour or smell. It is produced by the incomplete combustion of carbon based fuels (e.g. gas, oil & solid fuels like wood). Tragically each year people die because of CO poisoning - others are made ill.

Unfortunately the list of causes of these deaths includes the incorrect installation of the heater, lack of maintenance of the appliance and its chimney or to inadequate air supply for the appliance to function properly. Changes to the Building Regulations which came into effect in October 2010 mean that whenever a new or replacement fixed solid fuel or wood/biomass appliance is installed in a dwelling a carbon monoxide alarm must be fitted in the same room as the appliance.

Carbon monoxide alarms are readily available and the British Standards Institution has published a Standard (*BS EN 50291*) for electrical apparatus designed to detect carbon monoxide in domestic premises and to provide an alarm to alert the householder to its presence. In this section of the Guide HETAS list a range of these devices supplied by members of the Council of Gas Detection and Environmental Monitoring (CoGDEM), which are claimed, or certified, to be manufactured to *BS EN 50291* and which are suitable for use with solid fuel heating appliances.

Purchasers & specifiers must understand that claims recorded in the Approval Status area as "Manufacturer claims to *BS EN 50291*" is a claim of the manufacturer alone and has not been endorsed by HETAS or any Independent Certification/Approval body. Where the claim in the Approval status column quotes a BSI Kitemark, this indicates the product has been independently assessed by the BSI which is one of the UK bodies entitled to engage in third party certification and product monitoring. Purchasers & specifiers should use *BS EN 50291* as a basis for product selection. The older standard, *BS7860*, was withdrawn in 2006. CoGDEM does not recommend using "colour change" indicator cards, as these do not have an audible alarm and have very limited lifetimes.

Under Building Regulations it is mandatory to fit a CO alarm whenever a new or replacement solid fuel appliance is installed in a dwelling. The Smoke and Carbon Monoxide Alarm (England) Regulations 2015 also require all private sector landlords with solid fuel appliances to have CO alarms fitted. When choosing an alarm for this purpose or to upgrade an existing installation to current regulations please refer to *Approved Document J;* October 2010: paragraphs 2.34 to 2.36. This alarm must be a permanently installed type, rather than a portable type, be powered by a battery designed to operate for the working life of the alarm and should incorporate self-test and audible alert if the battery or sensor develop a fault.

The alarm manufacturer's installation and operating instructions must be strictly conformed to at all times. The British and European Standard (*BS EN 50292*) has been produced as a guide on the selection, installation, use and maintenance of these detectors/alarms and should be adhered to. **HETAS Technical Note 0022** gives guidance to HETAS registrants on alarm positioning.

An alarm is not a substitute for correct initial appliance installation, regular and effective chimney sweeping, proper appliance operation and maintenance by a HETAS registered business. If an alarm is activated or if fume emission from an appliance is detected follow the safety instruction on "Carbon Monoxide alarm" on page 100.

Further information on CoGDEM (The Council of Gas Detection and Environmental Monitoring) is available from:

CoGDEM, Unit 9, Knowl Piece Business Centre, Wilbury Way, Hitchin, Herts, SG4 0TY

01462 434322 Fax: **01462 434488** Helpline: **0800 1694 457**
admin@cogdem.org.uk **www.cogdem.org.uk**

CARBON MONOXIDE ALARMS

PRODUCT NAME	APPROVAL STATUS	MANUFACTURER'S REMARKS	PRODUCT IMAGE
BRK Brands Newell Brands UK Services Ltd, Halifax Avenue, Fradley Park, Staffordshire, WS13 8SS		**BRK®** THE PROFESSIONAL STANDARD	02039013920 brkeurope@newellco.com www.brk.co.uk
CO4000EN	Approved and kitemarked to BS EN 50291 - 1: 2010	*The CO4000EN carbon monoxide alarm is a portable battery powered alarm that can be easily installed on the wall or placed on a table. Features silence/ test button with audible alarm signal and visual LED indicators.*	
CO850Mi	Approved and kitemarked to BS EN 50291 - 1: 2010	*The CO850Mi carbon monoxide alarm is a 230V mains powered alarm which uses the latest in electrochemical sensing technology. Interlinkable with up to 12 compatible alarms for simultaneous warning.*	
CO850MBXi	Approved and kitemarked to BS EN 50291 - 1: 2010	*The CO850MBXi carbon monoxide alarm is a 230V mains powered alarm which uses the latest in electrochemical sensing technology. The 9V alkaline battery back-up provides power to the unit in the event of mains failure. Interlinkable with up to 12 compatible alarms for simultaneous warning.*	
CO850MRLi	Approved and kitemarked to BS EN 50291 - 1: 2010	*The CO850MRLi carbon monoxide alarm is a 230V mains powered alarm which uses the latest in electrochemical sensing technology. Tamper-proof rechargeable lithium cells give reliable back up for at least 6 months. Interlinkable with up to 12 compatible alarms for simultaneous warning.*	
Ei Electronics Ltd Shannon, Co. Clare, Ireland.		**Ei Electronics®** fire + gas detection	0151 298 158 / 00 353 61 471053 / 00 353 61471140 eielectronics@eielectronics.ie www.eielectronics.com
Ei207	BSI Kitemarked. BS EN 50291-1:2010 + A1:2012 BSI Kitemarked. BS EN 50291-2:2010	*Alkaline Battery Powered Carbon Monoxide Alarm. with CO memory function. Powered for five years.*	
Ei207D	BSI Kitemarked. BS EN 50291-1:2010 + A1:2012 BSI Kitemarked. BS EN 50291-2:2010	*Battery Powered Carbon Monoxide Alarm with CO memory function and Digital Display. Display shows from Very Low level of 10 ppm upwards. Ideal for homes with very young children, the elderly and people with impaired lung function.*	
Aico Ei208	BSI Kitemarked. BS EN 50291-1:2010 + A1:2012 and BS EN 50291-2:2010. Meets the requirements of the Building Regulations in England, Wales, Scotland and Northern Ireland	*Battery Powered Carbon Monoxide Alarm with sealed-in 10 yr life lithium cell and AudioLINK Alarm Data Extraction.*	
Aico Ei208DW	BSI Kitemarked. BS EN 50291-1:2010 + A1:2012 and BS EN 50291-2:2010. Meets the requirements of the Building Regulations in England, Wales, Scotland and Northern Ireland.	*Battery Powered Carbon Monoxide Alarm with Digital Display, sealed-in 10 yr life lithium cell, RadioLINK RF interconnect option and AudioLINK Alarm Data Extraction*	
Aico Ei208WRF	BSI Kitemarked. BS EN 50291-1:2010 + A1:2012 and BS EN 50291-2:2010. Meets the requirements of the Building Regulations in England, Wales, Scotland and Northern Ireland	*RadioLINK RF Interconnect Battery Powered Carbon Monoxide Alarm with sealed-in 10 yr life lithium cell and AudioLINK Alarm Data Extraction*	
Ei3018	BSI Kitemarked. BS EN 50291-1:2010 + A1:2012. Meets the requirements of the Building Regulations in England, Wales, Scotland and Northern Ireland.	*Mains Powered Carbon Monoxide Alarm with rechargeable lithium back-up, interconnect and AudioLINK Alarm Data Extraction (Compatible with RF SmartLINK module).*	
Ei3028	BSI Kitemarked. BS EN 50291-1:2010 + A1:2012 and BS 5446-2:2003. Meets the requirements of the Building Regulations in England, Wales, Scotland and Northern Ireland	*Mains Powered Heat and Carbon Monoxide Alarm with rechargeable lithium back-up, interconnect and AudioLINK Alarm Data Extraction (Compatible with RF SmartLINK module).*	
Ei208W	BSI Kitemarked. BS EN 50291-1:2010 + A1:2012 and BS EN 50291-2:2010. Meets the requirements of the Building Regulations in England, Wales, Scotland and Northern Ireland.	*Battery Powered Carbon Monoxide Alarm with sealed-in 10 yr life lithium cell and AudioLINK Alarm Data Extraction. (Compatible with RF RadioLINK module).*	

Carbon Monoxide Alarms

PRODUCT NAME	APPROVAL STATUS	MANUFACTURER'S REMARKS	PRODUCT IMAGE
FireHawk - FireBlitz Extinguisher Ltd 15/17 Manford Industrial Estate, Manor Road, Erith, Kent DA8 2AJ		01322 342238 brendan@fireblitz.co.uk www.fireblitz.co.uk	
FireHawk CO5B	BSI Kitemark to BS EN50291-1:2010 + A1:2012 and BS EN50291-2:2010. Meets the requirements of the building regulations in England, Wales, Scotland & Northern Ireland.	*5 year life battery powered CO alarm. Fully sealed battery designed to power for life of alarm. Warranty - 5 years, automatic sensor test, alarm silence, low battery warning & versatile mounting system.*	
FireHawk CO7B	BSI Kitemark to BS EN50291-1:2010 + A1:2012 and BS EN50291-2:2010. Meets the requirements of the building regulations in England, Wales, Scotland & Northern Ireland.	*7 year life battery powered CO alarm. Fully sealed battery designed to power for life of alarm. Warranty - 7 years, automatic sensor test, alarm silence, low battery warning & versatile mounting system.*	
FireHawk CO7BD	BSI Kitemark to BS EN50291-1:2010 + A1:2012 and BS EN50291-2:2010. Meets the requirements of the building regulations in England, Wales, Scotland & Northern Ireland.	*7 year life battery powered CO alarm with digital display. Fully sealed battery designed for life of alarm. Warranty - 7 years, automatic sensor test, alarm silence, low battery warning & versatile mounting system.*	
FireHawk CO7B-10Y	BSI Kitemark to BS EN50291-1:2010 + A1:2012 and BS EN50291-2:2010. Meets the requirements of the building regulations in England, Wales, Scotland & Northern Ireland.	*10 year life battery powered CO alarm. Fully sealed battery designed for life of alarm. Warranty - 10 years, automatic \sensor test, alarm silence, low battery warning & versatile mounting system.*	
FireHawk CO7B-10Y W	BSI Kitemark to BS EN50291-1:2010 + A1:2012 and BS EN50291-2:2010. Meets the requirements of the building regulations in England, Wales, Scotland & Northern Ireland.	*10 year life battery Wireless interlink CO alarm. Sealed battery designed to last the life of the alarm. Automatic test, alarm silence, low battery warning, separate power/batteries for Alarm and Wireless module. 7 year warranty. WI-FI Version also available – CO7B-10YN (please ask for details).*	
First Alert Newell Brands UK Services Ltd, Halifax Avenue, Fradley Park, Staffordshire, WS13 8SS		02039 013920 firstalertuk@newellco.com www.firstalert-online.co.uk	
SCO5UK	Approved and kitemarked to BS EN 14604 & BS EN 50291	*The SCO5UK is a battery operated Smoke & Carbon Monoxide detector.* - Combined optical smoke and CO sensor - AA alkaline battery powered (Batteries included) - Test and hush button feature - 7 year warranty	
Honeywell Analytics (Domestic Products) 4 Stinsford Road, Nuffield Ind. Est., Poole, Dorset BH17 0RZ		01202 645587 adrian.keats@honeywell.com www.homesafety.honeywell.com	
XC70-EN-A	Approved and Kitemarked to EN50291:2010.(-1 & -2)	*Self contained (sealed for life batteries) carbon monoxide alarm. Completely tamper proof. Fully comprehensive 7 year maintenance free operational life & guarantee. Additional features include memory function, low level monitoring mode, early warning "Ventilate" function, low volume test mode & upgradeable to wireless interconnection options. All XC CO alarms include the new Alarmscan feature enabling the wireless data download of what has happened to the unit since activation, straight to a smart phone or tablet.*	
XC100-EN-A	Approved and Kitemarked to EN50291:2010 (-1 & -2).	*All the same features and benefits of the XC70-EN model with the addition of a fully comprehensive 10 year operational life and guarantee and the unique Action Text feature which gives a clear indication to the user of what to do in the event of a full alarm. All XC CO alarms include the new Alarmscan feature enabling the wireless data download of what has happened to the unit since activation, straight to a smart phone or tablet.*	
XC100D-EN-A	Approved and Kitemarked to EN50291:2010. (-1 & -2)	*All the same features and benefits of the XC100-EN model with the addition of a multi function digital display which can provide a range of information including, CO alarm concentrations, peak level indicator/ memory, other units connected wirelessly and percentage CO levels when in low level monitoring mode. All XC CO alarms include the new Alarmscan feature enabling the wireless data download of what has happened to the unit since activation, straight to a smart phone or tablet.*	

Carbon Monoxide Alarms

PRODUCT NAME	APPROVAL STATUS	MANUFACTURER'S REMARKS	PRODUCT IMAGE
Kidde Safety Europe Ltd 1st Floor, Ash House, Littleton Road, Ashford, Middlesex TW15 1TZ	**Kidde** United Technologies	0800 917 0722 www.kiddesafetyeurope.co.uk	
Kidde 5CO	Kitemarked to EN50291:2010	*Battery operated CO alarm. Easy to set-up and use. Wall-mounting or free-standing options. End-of-life warning signal. 7 year warranty.*	
7CO	Kitemarked to EN50291-1:2010 & EN50291-2:2010	*Battery operated CO alarm. Easy to set-up and use. Wall-mounting or free-standing options. End-of-life warning signal after 10 years. Certified to EN 50291-2 for use in boats and caravans. 10 year warranty.*	
7DCO	Kitemarked to EN50291-1:2010 & EN50291-2:2010	*Battery operated CO alarm. Easy to set-up and use. Wall-mounting or free-standing options. End-of-life warning signal after 10 years. Includes an LCD digital display screen that shows CO levels detected. Certified to EN 50291-2 for use in boats and caravans. 10 year warranty.*	
10LLCO	Kitemarked to EN50291-1:2010	*10-year CO alarm with sealed-in non-removable battery to last the full 10 year alarm life. 3 LED's (power, alarm & fault). Easy to set-up and use. Wall-mounting or free-standing options. LED and audible end of life warning signal. 10 year warranty.*	
10LLDCO	Kitemarked to EN50291-1:2010	*10-year CO alarm with sealed-in non-removable battery to last the full 10 year alarm life. 3 LED's (power, alarm & fault). Includes an LCD digital display screen that shows CO levels and can also recall peak level detected. Easy to set-up and use. Wall-mounting or free-standing options. LED and audible end of life warning signal. 10 year warranty.*	
4MCO	Kitemarked to EN50291:2010	*Hard wired CO alarm, with Smart Interconnect to Kidde hard wired smoke & heat alarms. Rechargeable lithium back up. Test & Reset Buttons. Wall or ceiling-mount. 7 Year warranty.*	
4MDCO	Kitemarked to EN50291:2010	*Hard wired CO alarm, with Smart Interconnect to Kidde hard wired smoke & heat alarms. Digital display & peak level/memory. Rechargeable lithium back up. Test & Reset Buttons. Wall or ceiling-mount. 7 Year warranty.*	
10SCO	Kitemarked to EN50291: 2010	*This battery-powered combination alarm is certified to provide detection from both smoke and carbon monoxide. Features include a voice warning which tells you which danger has been detected, and also a front-loading battery compartment for added convenience. 10 year warranty.*	
FireAngel Safety Technology Ltd Vanguard Centre, Sir William Lyons Road, Coventry, CV4 7EZ	**FireAngel.**	02477 717 700 info@fireangel.co.uk www.fireangel.co.uk	
AngelEye CO-AE-9B	Kitemarked to BS EN 50291-1:2010 +A1:2012 and BS EN 50291-2:2010. Meets the requirements of the Building Regulations in England, Wales, Scotland and Northern Ireland.	*Battery powered 7 year life carbon monoxide alarm. Large test and reset button makes testing easy. Automatic self diagnostic check. Includes end of life indication. Retail pack available. 7 year warranty.*	
FireAngel CO-9X	Kitemarked to BS EN 50291-1:2010 +A1:2012 and BS EN 50291-2:2010. Meets the requirements of the Building Regulations in England, Wales, Scotland and Northern Ireland.	*7 year sealed for life carbon monoxide alarm. Large test and reset button makes testing easy. Automatic self diagnostic check. Triple LED display shows power, fault and alarm. Retail and trade packs available. 7 year warranty.*	
FireAngel CO-9B	Kitemarked to BS EN 50291-1:2010 +A1:2012 and BS EN 50291-2:2010. Meets the requirements of the Building Regulations in England, Wales, Scotland and Northern Ireland.	*Battery powered 7 year life carbon monoxide alarm. Large test & reset button makes testing easy. Automatic self diagnostic check. LED display. Retail and trade packs available. 7 year warranty.*	
FireAngel CO-9D	Kitemarked to BS EN 50291-1:2010 +A1:2012 and BS EN 50291-2:2010 (Excluding boats). Meets the requirements of the Building Regulations in England, Wales, Scotland and Northern Ireland.	*7 year sealed-for-life carbon monoxide alarm. Digital LCD display shows low levels of CO down to 10ppm and also peak readings over the previous 4 weeks. Automatic self diagnostic check. Integrated digital thermometer. Switchable between temperature and CO modes. Retail and trade packs available. 7 year warranty.*	
FireAngel CO-9X-10	Kitemarked to BS EN 50291-1:2010 +A1:2012 and BS EN 50291-2:2010. Meets the requirements of the Building Regulations in England, Wales, Scotland and Northern Ireland.	*10 year sealed for life battery powered carbon monoxide alarm. Large test and reset button makes testing easy. Automatic self diagnostic check. Triple LED display shows power, fault and alarm. Retail and trade packs available. 10 year warranty.*	

Carbon Monoxide Alarms

PRODUCT NAME	APPROVAL STATUS	MANUFACTURER'S REMARKS	PRODUCT IMAGE
FireAngel Safety Technology Ltd Vanguard Centre, Sir William Lyons Road, Coventry, CV4 7EZ	FireAngel.	02477 717 700 info@fireangel.co.uk www.fireangel.co.uk	
FireAngel SCB-10	Certified to EN 50291-1:2010 +A1:2012 – CO Alarm. Certified to EN 14604:2005+AC:2008 – Smoke Alarm.	*10 Year sealed for life battery powered combined smoke and carbon monoxide alarm.. LED light to indicate power and alarm mode. Retail packs available. 3 year warranty.*	
FireAngel W2-CO-10X SONA WCOB-SN-1	Kitemarked to BS EN 50291-1:2010 +A1:2012 and BS EN 50291-2:2010. Meets the requirements of the Building Regulations in England, Wales, Scotland and Northern Ireland..	*10 year sealed for life battery powered carbon monoxide alarm with wireless interconnect. Large test and reset button makes testing easy. Automatic self diagnostic check. Triple LED display shows power, fault and alarm. Retail (FireAngel - pictured above right) and trade packs (SONA - pictured below right) available. 5 year warranty.*	
FireAngel CW1	Kitemarked to BS EN 50291-1:2010. Meets the requirements of the Building Regulations in England, Wales, Scotland and Northern Ireland.	*Mains powered carbon monoxide alarm with 9V battery back up. Large central test button. Triple LED display shows power, fault and alarm. Retail and Trade packs available. 5 year warranty.*	

FLUE GAS & AMBIENT AIR CO ANALYSERS, AIR FLOW METERS

You should use a Flue Gas Analyser for two purposes:

APPLIANCE TESTING

A Flue Gas Analyser measures the levels of constituents of flue gases. Place the probe in the chimney or appliance exhaust and see what levels of Oxygen (O_2), Carbon Monoxide (CO), Carbon Dioxide (CO_2) and flue gas temperature are present. They are no more complicated to operate than a video camera and behave as if they are your eyes inside the appliance. Some analysers offer additional information such as boiler efficiency, data logging, differential pressure and other gas measurements. They should also offer the option to print or store the measurements for later review. Flue gas analysers usually display a CO/CO_2 ratio. This shows the ratio of carbon monoxide to carbon dioxide in the exit flue (chimney) of the appliance. The levels which indicate the correct operation of an appliance may vary widely with the fuel burned & appliance type. Refer to the manufacturer's instructions.

AMBIENT AIR MONITORING

A Flue Gas Analyser also measures the levels of constituents of room air. This information is invaluable, for example, when attempting to find out if there is CO leaking from an appliance or pinpointing why a CO alarm is being triggered.

An ambient air CO analyser will also monitor ambient levels of CO in any room. This is carried out by first switching the analyser on in fresh, outdoor air to set its zero value, following the manufacturer's instructions. The analyser should only then be taken into the room to be monitored. If the analyser measures CO levels above 9 ppm, an investigation should be made. Any reading over 35 ppm should prompt immediate action, such as opening all windows and doors, switching off and isolating any appliances present and leaving the room. A subsequent room retest should be made after each appliance has been checked.

Do not forget that CO levels in rooms can occur from being adjacent to a busy road, car park or garage, as well as from smoking, outdoor barbecues, adjacent properties sharing the same flue systems etc. These factors need to be taken into account when determining whether there is a problem and expert help should be sought. Also national regulations that apply should be consulted when performing appliance installation and servicing. Finally, whilst every effort is made to ensure accuracy, this document is always subject to revision as more information becomes available on CO sources, levels and appropriate testing methods. Consequently, neither HETAS nor CoGDEM can be held liable for any information given above.

FLUE GAS & AMBIENT AIR CO ANALYSERS, AIR FLOW METER LISTINGS

PRODUCT NAME	APPROVAL STATUS	MANUFACTURER'S REMARKS	PRODUCT IMAGE
Anton Industrial Services Ltd Unit 6 Greenhill House, 26 Greenhill Crescent, Watford Business Park, Watford WD18 8JA		ANTON	01923 274730 / 01923 256382 sales@anton-group.com www.anton-group.com
Sprint Pro1	Complies with BS7967:2010 Parts 1 to 5 & BSI tested to EN50379:2012 Parts 1 & 3	*High quality UK manufactured Flue Gas Analyser, flue probe, charger & carry bag. Unrivalled protection damage from water ingress – water stop technology. New robust condensate trap design with washable particulate filter. Intuitive easy to use menu driven software & high contract colour screen. Easy USB-C charging for analyser & printer. Printer available separately if required. New drop-in bag allows quick removal & replacement of FGA/ accessories. New secure click in flue probe connector. Built in sensor over range protection.*	
Sprint Pro3	Complies with BS7967:2010 Parts 1 to 5 & BSI tested to EN50379:2012 Parts 1 & 3	*As Pro1 but also includes a plug-in gas leak detector & pressure hose. Also provides wireless comms to connect to iOS & Android devices for paperless reporting. Also includes full pressure menu for timed let by/tightness test (IGE/Up/1b) (0.01 resolution up to 199.99 mBar). Draught / differential pressure measurement with timer. Operating / working pressure report. Pro3 is future proof – Direct CO_2 and/or NO sensors can be added if your requirements change in the future.*	
Sprint Pro5	Complies with BS7967:2010 Parts 1 to 5 & BSI tested to EN50379:2012 Parts 1 & 3	*As Pro3 wireless comms to iOS & Android is standard on Pro5 allowing seamless interaction with Anton's free smart new Sprint Mobile app & many other 3rd party software. Pro5 also has an NO sensor fitted to provide NOx readings in FGA mode in both ppm and mg/m3. Again a full range of kits are available, contact Anton for assistance in choosing the right option for your needs.*	
APM 135	-	*Suitable for all domestic pressure testing. Standard push fit spigot connections, robust & simple to use. 8 x units of measurement, clear backlit LCD display. Max/Min recording to monitor any pressure drops. Measurement range: -39.99 to 130.0 mbar. 0.01 resolution up to 19.99 mbar then 0.1 resolution Standard rubber boot & AA batteries included.*	
APM 145	-	*As APM 135 but ability to test, log & share data, perfect for smart meter testing. Large high resolution colour display. Timed let by/stabilisation & Tightness test; working pressure, operating pressure & flue draught tests. Save logs & print test results to infrared printer (available to purchase separately), with your company name & number on, or wireless transfer to Sprint Mobile app (iOS or Android) to create professional personalised PDF customer reports. Rubber boot included with magnet, tilt stand & hanging hook.*	
Clip CO	Intrinsically Safe to EN 60079-11	*Personal CO alarm with audible, visual & vibrate alarm at 30 & 100 ppm. Sensor range 0-300 ppm. Protects against CO hazards for 2 years from point of activation. Maintenance free operation. On screen life duration countdown. Self-test assures user of operation. Ingress protection IP66 & IP67. Dimensions 54mm (W) x 91mm (H) x 32mm (D).*	
IAQ 8494	Compliant with BS 8494	*Offers the ability to review both ambient temperature as well as direct CO_2 0-9,999 ppm, CO_2 NDIR sensor (anticipated life 15 years). Adjustable audible alarm, min/max levels. Time weighted averages, short time exposure limit. Backlit for confined spaces. Auto power off. Rugged blow moulded carry case & mains charger.*	
Anton Service Costs: Anton offer full service and calibration facilities for all our products. Following major investments to our service department, we now offer improved turnaround times and have also introduced fixed price annual servicing on Sprint V, eVo and our new Pro range of analysers, to give you peace of mind and great value. Visit **www.anton-group.com/calibration.htm** for more details			
KANE International Ltd 11 Bessemer Road, Welwyn Garden City, Herts AL7 1GF		KANE	01707 375550 / 0800 059 0800 sales@kane.co.uk www.kane.co.uk
KANE458	Complies with EN50379 and EN50543	*Flue Gas Analyser with direct CO & CO_2 measurement with CO sensor overrange protection. Measures differential temperature and pressure/draught to 0.001mbar resolution. Room / ambient CO testing. Structured commissioning test, Wireless data transfer option. Extended warranty if serviced annually by KANE.*	
KANE452NO	Complies with EN50379 and EN50543	*Flue Gas Analyser with direct CO & CO_2 measurement, CO sensor overrange protection & low range NO sensor. Features as KANE458 plus extra pre-programmed fuels including 'user fuel', factory fitted NO sensor as standard ideal for oil fired and biomass applications.*	

Ambient Air Monitoring

PRODUCT NAME	APPROVAL STATUS	MANUFACTURER'S REMARKS	PRODUCT IMAGE
KANE International Ltd 11 Bessemer Road, Welwyn Garden City, Herts AL7 1GF		01707 375550 / 0800 059 0800 sales@kane.co.uk www.kane.co.uk	
KANE457	Complies with EN50379 and EN50543	*Combination Flue Gas & Ambient Air Analyser.* *Ideal for installation, commissioning boilers & incident investigation (CMDDA1), testing flueless gas appliances, commercial kitchens and workspace air quality.*	
KANE905	Complies with EN50379	*Handheld commercial / industrial flue gas analyser. Measures O_2 and CO (4,000ppm). Options to measure two further gases, NO, NO_2 or SO_2. Infrared output to optional printer. Wireless options to link to Android, Windows PC or iOS.*	
KANE975	Complies with EN50379	*Commercial/Industrial Flue Gas Analyser.* *Latest Flue Gas Analyser technology with options for up to 7 gas measurements. CO (0-10,000 ppm), CO_2, O_2, NO, NO_2, SO_2 & H_2S. Built in overrange protection – ideal for Commercial/Industrial applications.*	
KANE700	-	*Combustible Gas Leak Detector.* *Key features: Flexible goose neck, audible and visual LED indicators. Gases detected include: Acetone, Alcohol, Ammonia, Benzene, Butane, Ethylene, Methane. Natural Gas, & Propane – for full details see website www.kane.co.uk.*	
KANE3200	-	*High accuracy manometer.* *Measures +/- 200mbar, (+/- 999 if displaying in pascal), with resolution to 0.01mbar / 1 pascal. Ideal for flue draught readings if used with the optional flue sampling probe.*	
KANE3500-1	-	*High accuracy manometer.* *Measures +/- 80mbar with resolution to 0.001mbar / 0.1 pascal. Ideal for flue draught measurement (optional flue sampling probe required also tightness / let by tests. Optional printing of timed and dated records.*	
KANE3500-2	-	*High accuracy manometer.* *As 3500-1 but measures 0 to +/- 160mbar with resolution to 0.003mbar / 0.3 pascal*	

KANE Fixed Service Costs: All flue gas analysers should be checked, recalibrated & recertified annually.
The KANE after-sales service team repair & recertify your analyser to national standards & UKAS calibration is available.
Our customer service team's new calibration & IT systems speed up FGA recertification & service.
See www.kane.co.uk or call 0800 059 0800 for more details on our fixed price service & free postage return offer.

PRODUCT NAME	APPROVAL STATUS	MANUFACTURER'S REMARKS	PRODUCT IMAGE
TPI Europe Ltd Longley House, International Drive, Southgate, Crawley, West Sussex. RH10 6AQ		01293 530196 / 01293 531870 sales@tpieurope.com www.tpieurope.com	
TPI770	Complies with BS7967 for measuring CO in ambient air.	*CO monitor measuring up to 999ppm CO in 1 ppm increments. Visual & audible alarm set at 30ppm CO (user adjustable). Will also display the maximum CO level and elapsed time since power on.*	
TPI 775	Complies with BS7967 for measuring CO in ambient air.	*Combination CO and Combustible Gas Detector. Same features as TPI 770 plus 50ppm sensitivity to Methane to detect combustible gases. Trace leaks using the adjustable tick rate. View both CO and Combustible gases at the same time in one, easy-to-use instrument.*	
DC710C1	Complies with EN50379 & BS7967	*Screenless Smart Bluetooth iOS & Android compatible Flue Gas Analyser measuring CO, O2 & Dual Temperature. Connection with the FREE TPI View app allows calculation of CO_2 Ratio, Efficiency & Excess Air. Multi-Fuel including Wood Pellet as Standard. View, Print, Store to Jobs and E-mail Time, Date & Location Stamped Reports. Fixed Price Servicing.*	
TPI 709R	Complies with EN50379 & BS7967	*Handheld flue gas analyser measuring O_2, CO, dual temperature & dual pressure. Calculates CO_2, Ratio, Efficiency & Excess Air. Easy to use with single button print option. Multi-Fuel, including Wood and Pellet as Standard. 6 Year Warranty with Remote diagnostics and Fixed Price Servicing. Various kit options available.*	

Ambient Air Monitoring

PRODUCT NAME	APPROVAL STATUS	MANUFACTURER'S REMARKS	PRODUCT IMAGE
TPI Europe Ltd Longley House, International Drive, Southgate, Crawley, West Sussex. RH10 6AQ		*7pi*	01293 530196 / 01293 531870 sales@tpieurope.com www.tpieurope.com
TPI 717R	Complies with EN50379 and BS7967	*As TPI 709R plus Timed Tightness & CO Build Up Tests. Calibration Countdown on switch on with Next Calibration Due Date and Serial Number on Print-Outs. 6 Year Warranty & various kit options available.*	
TPI 716	Complies with EN50379 and BS7967	*As TPI 717R plus PC cable & Software and Large easy to read Graphic LCD. Quick switch on, large capacity pump with visible regulated flow rate on screen for better repeatable readings. Upgrade options to add NOx, High CO or Bluetooth available with Free To Download Smartphone App.*	
TPI 719	-	*Combustible Gas Sniffer with 16" Gooseneck, 30 ppm sensitivity and adjustable tick rate for tracing gas leaks.*	
TPI 725L	-	*Pocket Gas Sniffer with 185mm Flexi-Neck. 40 ppm sensitivity and zero button to trace gas leaks.*	
SP620	-	*Screenless Smart Bluetooth iOS & Android compatible Dual Input Manometer measuring pressure . Connection with the FREE TPI View app allows the performing of UK Let By/Tightness Tests. View, Print, Store to Jobs and E-mail Time, Date & Location Stamped Reports.*	
TPI 608 **TPI 608BT**	-	*Single input digital manometer with +/- 150 mBar range and 0.01 mBar resolution. Perfect replacement for messy water u-gauge. Ideal for Tightness Test & Burner Pressures. Comes with Wall Hook and Magnet. Also available in Bluetooth version with Free To Download Smartphone App (TPI 608BT).*	
TPI 621	-	*Dual input digital manometer with +/- 300 mBar range and 0.01 mBar resolution. Perfect replacement for messy water u-gauge. Ideal for Tightness Test & Burner Pressures. Comes with tilt stand protective rubber boot.*	
TPI 665	-	*High Pressure dual input digital manometer with +/- 7 Bar (100 PSI) range and 0.001 Bar resolution. ¼" NPT fittings and full data logging facility with time stamp and Print (optional IR Printer) or PC communication (optional software & docking station). Supplied in magnetic protective rubber boot.*	
SP1000	Complies with EN50543	*Screenless Smart Bluetooth iOS & Android compatible Ambient IAQ Meter measuring ambient CO_2. Perfect for CMDDA1, COMCAT & Commercial Kitchens. Connection with the FREE TPI View app allows the performing of various tests. View, Print, Store to Jobs and E-mail Time, Date & Location Stamped Reports.*	
TPI 1010a	Complies with EN 50543	*Direct Ambient CO_2 & Temperature plus CO & Humidity. 0 to 6,000 ppm CO_2 0 to 500 ppm CO and 5 to 95% Humidity with Dew Point and Wet Bulb readings. Log up to 1,000 readings in intervals of 1 & 60 minutes.*	
DC580C3	-	*Smart Bluetooth iOS & Android compatible combination Vane & Hotwire Anemometer measuring Airflow & Temperature. Connection with the FREE TPI DC580 app allows the performing of various tests. View, Print, Store to Jobs and E-mail Time, Date & Location Stamped Reports.*	
SP341	-	*Screenless Smart Bluetooth iOS & Android compatible "K" type thermometer measuring temperature. Connection with the FREE TPI View app allows the performing of various tests including Flow & Return. View, Print, Store to Jobs and E-mail Time, Date & Location Stamped Reports.*	

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TPI 343	-	*Dual Input Digital Differential Thermometer with a range of -50 to 1,350 deg C. Scroll through the Temperature 1, Temperature 2 and the Differential Temperature. Ideal for Flow & Return, Water or Surface temperatures with the optional appropriate industry standard "K" type sub-mini connected probes. Auto Field calibration using a simple crushed ice solution. Supplied in Protective Rubber Boot with Tilt Stand.*	

TPI Fixed Service Costs: The TPI fixed price service policy returns instruments to published specification. If serviced annually by TPI, or one of their approved service centres then TPI flue gas analysers have a six year warranty – See www.tpieurope.com or call 01293 530196 for more details and prices

ANCILLARY EQUIPMENT

PRODUCT NAME	APPROVAL STATUS	MANUFACTURER'S REMARKS	PRODUCT IMAGE
Anton Industrial Services Ltd Unit 6 Greenhill House, 26 Greenhill Crescent Watford Business Park, Watford WD18 8JA		01923 274730 / 01923 256382 sales@anton-group.com www.anton-group.com	
Anton ACMT	-	*For responding to reports of fumes and carbon monoxide activation. To carry out atmosphere testing as laid out in CMDDA1. 2m retractable tripod stand with carry holdall. (Analyser & flue probe for illustration purposes only).*	
Anton Pro Printer (USB)	-	*Anton's Pro Printer is compatible with all Anton V, eVo and our new Pro range of analysers. It uses the convenient USB-C charging cable (supplied separately if required) for ease of charging at home, in the vehicle or on site. Supplied with 4 x rechargeable AA batteries and a thermal paper roll (ink not required)*	

Anton Service Costs: Anton offer full service and calibration facilities for all our products. Following major investments to our service department, we now offer improved turnaround times and have also introduced fixed price annual servicing on Sprint V, eVo and our new Pro range of analysers, to give you peace of mind and great value. Visit **www.anton-group.com/calibration.htm** for more details