

SMOKE HEAT CO REPORTING & CONTROL

TESTING TECHNOLOGY



testifire[®]
MULTI-STIMULUS DETECTOR TESTER

testifire[®] is the world's first multi-stimulus detector tester for smoke, heat, and CO fire detectors. This enables faster and more efficient testing of single or multi-sensor detectors. Testifire includes an array of advanced and intelligent technologies that change traditional approaches to stimuli production and delivery. Testifire is the result of several years of technological development to meet 21st century health, safety, environmental and technological demands.



Smoke, Heat and CO stimuli are created in a single test unit, and delivered individually, or - for the first time - simultaneously, in whichever combination is required. Testifire does this without using pressurised cans of gas or other hazardous goods. Stimuli (Smoke, Heat, and CO) are generated at the time of test using safe and patented processes fuelled by replaceable capsules.

Speed / Productivity & Cost Benefits

- Testing with one tool is faster and more productive
- Combined stimuli (e.g. Smoke + Heat) delivers quicker activation times for combination detectors
- Simultaneous stimuli can cut test times in multi-sensors by up to 66%*
- Clearing cycle provides rapid detector reset with no repeat alarm
- Increased test capacities from both Smoke and CO capsules deliver material cost savings
- Communications Module** enables auto-configuration - automatically selecting and implementing appropriate test for detector in question
- An open protocol Communications Module** links Testifire to 3rd party PDA-based reporting software, simplifying procedures, eliminating errors and cutting test times

* If the detector and panel can enable and verify individual sensor activation

** Communications Module currently in development

Technological Benefits

- Ability to test a wider range of heat detectors with enhanced deployment of heat and multiple heat settings
- Optimised smoke delivery method enables activation of complex detectors: the sole functional test method of triggering such detectors
- Ability to perform “witness” tests for the first time on smoke or multi-sensor detectors with complex and / or interdependent algorithms
- Ability to upgrade future smoke, heat or CO profiles through firmware updates

Physical Benefits

- One tool instead of two or three makes service tasks simpler and quicker to accomplish on site

Image Benefits

- Professional and technological image sets service organisation apart from the competition

Residue / Damage Elimination Benefits

- Design eliminates possibility of residue and detector damage through misuse

Health, Safety & Hazard Benefits

- Elimination of pressurised canisters for both smoke and CO delivers safety benefits and reduces transport costs through elimination of hazardous surcharges
- On-demand CO generation and safety features deliver optimum safety for CO testing
- Safe, non-flammable, non-toxic, plastic compatible test stimuli

Environmental Benefits

- Replacing pressurised aerosols with smoke and CO capsules addresses concerns over global warming (GWP) and Volatile Organic Compounds (VOCs) while retaining safe, non-flammable test stimuli

Compliance & Audit Trail Benefits

- Ability to test all popular types and / or combinations of fire sensor delivers cost effective compliance with global test standards
- Communications Module** delivers documented traceable reports (stored, if desired, on an RFID Tag as well as on 3rd party software)

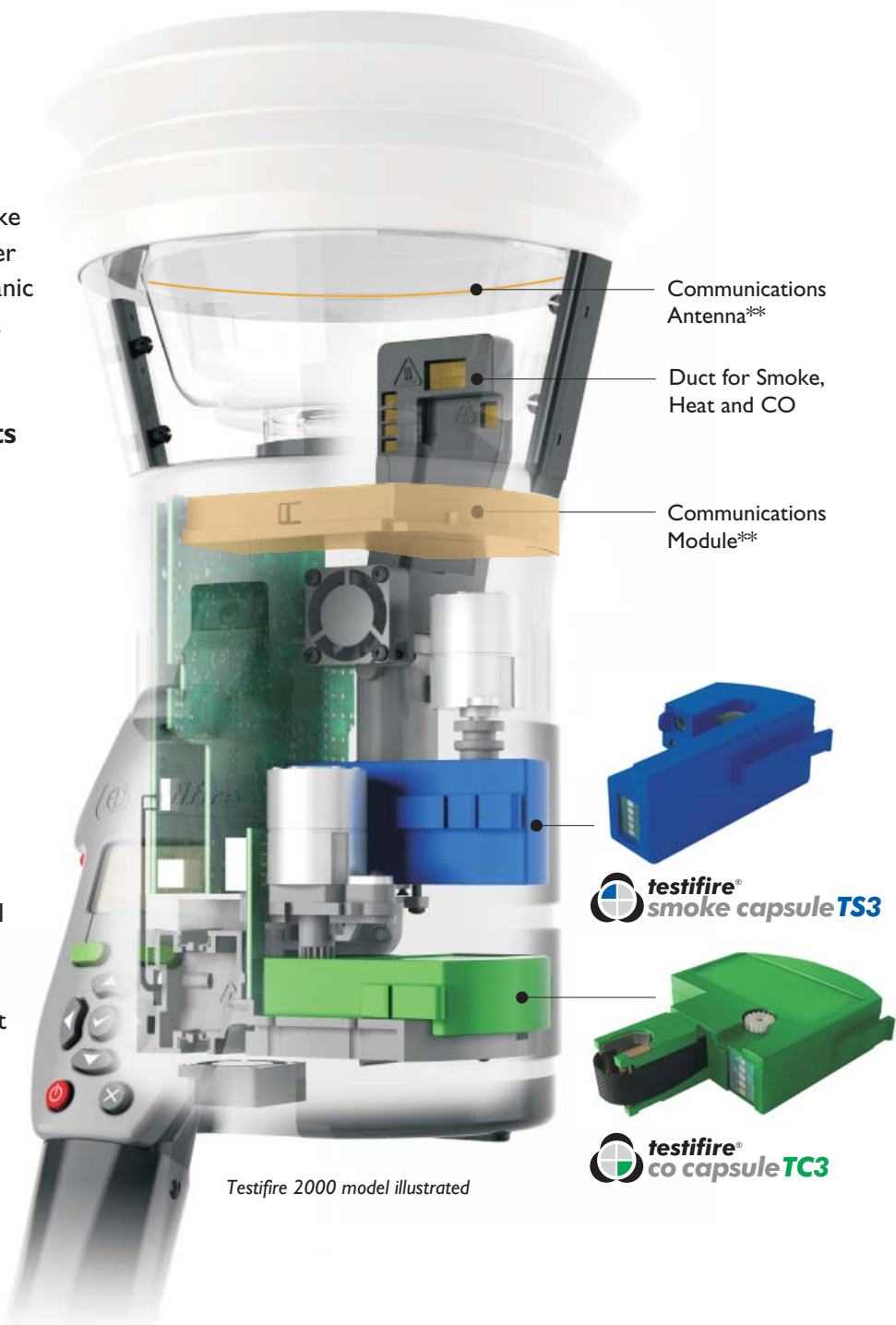
Universal Benefits and Approvals

- Suitability for use on Smoke (optical, dual optical, ionisation), Heat (rate of rise, fixed temperature), CO, Multi Sensor, Conventional, Addressable and Intelligent detectors from global manufacturers means one test instrument meets every need
- CE, RoHS, and WEEE compliant
- Tested, approved and recommended for use by world-leading detector manufacturer
- Produced by the world's only ISO 9001 listed specialist fire detector tester manufacturer

SMOKE HEAT CO REPORTING & CONTROL



- 4 in 1: **Smoke - Heat - CO - Reporting & Control****
- **Multi or single-sensor tester**
- **Simultaneous, consecutive or single stimuli**
- **Ultimate link between detector, tester and reports**





**Testifire 1000 Series
Head Unit
Smoke & Heat**

**Testifire 2000 Series
Head Unit
Smoke, Heat & CO**

International Standards

Testing with Testifire aids compliance with codes and standards globally.

“Point smoke detectors should be functionally tested by a method that confirms that smoke can enter the detector chamber and produce a fire alarm signal (e.g. by use of apparatus that generates simulated smoke or suitable aerosols around the detector). It should be ensured that the material used does not cause damage to, or affect the subsequent performance of the detector...”

BS5839 1:2002 Clause 45.4 d)

“Every heat detector should be functionally tested by means of a suitable heat source....The heat source should not have the potential to ignite a fire; live flame should not be used.”

BS5839-1: 2002 Section 6 45.4 (c)

“Carbon monoxide fire detectors should be functionally tested by a method that confirms that carbon monoxide can enter the detector chamber and produce a fire alarm signal (e.g. by use of apparatus that generates carbon monoxide or a gas that has a similar effect on the electro-chemical cell as carbon monoxide).”

BS 5839 1: 2002 Clause 45.4 (d), December 2004 update

“In the case of detectors (all types) tests must ensure that products of combustion are capable of passing unhindered from the protected area to the sensing chamber / elements of the detector and not simply test the ability of the detector to sample / verify the status of the atmosphere already in the sensing chamber.”

BS 5839 1: 2002 Clause 45.3, December 2004 update

“The detectors shall be tested in place to ensure smoke entry into the sensing chamber and an alarm response. Testing with smoke or listed aerosol...shall be permitted as acceptable test methods...”

NFPA 72 2002 Table 7-2.2 (Test Methods) 13.g.1

“...Tests shall be performed as described for the respective devices by introduction of the physical phenomena to the sensing chamber of element and an electronic check (magnets, analogue values, etc.) is not sufficient to comply with this requirement...”

NFPA 72: New for 2007

Part Numbers

Testifire Kits

SMOKE / HEAT OPTIONS

Testifire 1001 - Smoke and Heat Detector Test Kit
(supplied as a complete kit with Battery Batons and Fast Charger)

Testifire 6001 - Smoke and Heat Detector Test Kit
(supplied as a complete kit with Battery Batons, Fast Charger, Universal Removal Tool, Protective Carrying Bag and Access Poles to 6m height)

Testifire 9001 - Smoke and Heat Detector Test Kit
(supplied as a complete kit with Battery Batons and Fast Charger Universal Removal Tool, Protective Carrying Bag and Access Poles to 9m height)

SMOKE / HEAT / CO OPTIONS

Testifire 2001 - Smoke, Heat and CO Detector Test Kit
(supplied as a complete kit with Battery Batons and Fast Charger)

Testifire 6201 - Smoke, Heat and CO Detector Test Kit
(supplied as a complete kit with Battery Batons and Fast Charger Universal Removal Tool, Protective Carrying Bag and Access Poles to 6m height)

Testifire 9201 - Smoke, Heat and CO Detector Test Kit
(supplied as a complete kit with Battery Batons and Fast Charger Universal Removal Tool, Protective Carrying Bag and Access Poles to 9m height)

Individual Components

Testifire 1000 - Smoke and Heat Detector Tester head unit

Testifire 2000 - Smoke, Heat and CO Detector Tester head unit

Replacement Capsules

TS3-3PACK 3 x Smoke Capsules

TS3-6PACK 6 x Smoke Capsules

TC3-3PACK 3 x CO Capsules











TC3-6PACK 6 x CO Capsules







Additional Items

Solo760 Battery Baton

Solo725 Universal Fast Battery Charger

Product Selector

		Application					Accessories				Access		
		Smoke Testing	Heat Testing	CO Testing	Smoke/Heat Testing	Smoke/Heat/CO Testing	Battery Baton	Fast Charger	Universal Removal Tool	Protective Carrying Bag	Access Height up to 4m	Access Height up to 6m	Access Height up to 9m
	testifire 1000	●	●		●								
	testifire 2000	●	●	●	●	●							
	testifire TS3	●											
	testifire TC3			●									
	testifire 1001	●	●		●		● (x 2)	●					
	testifire 2001	●	●	●	●	●	● (x 2)	●					
	testifire 6001	●	●		●		● (x 2)	●	●		● (Solo 100 x 1)		
	testifire 6201	●	●	●	●	●	● (x 2)	●	●		● (Solo 100 x 1)		
	testifire 9001	●	●		●		● (x 2)	●	●			● (Solo 100 + Solo 101 x 3)	
	testifire 9201	●	●	●	●	●	● (x 2)	●	●			● (Solo 100 + Solo 101 x 3)	

		Solo Accessories											
		Smoke Testing	Heat Testing	CO Testing	Smoke/Heat Testing	Smoke/Heat/CO Testing	Battery Baton	Fast Charger	Universal Removal Tool	Protective Carrying Bag	Access Height up to 4m	Access Height up to 6m	Access Height up to 9m
	Solo 200								●				
	Solo 760						●						
	Solo 725							●					
	Solo 100										● (Solo 100 x 1)		
	Solo 101											● (Solo 100 + Solo 101 x 3)	
	Solo 108										●		

Solo Poles Access Height

Solo™ Model No.	Access Height (approx. max.)
100	6m (20ft)
100+101 (1)	7m (23ft)
100+101 (2)	8m (26.25ft)
100+101 (3)	9m (30ft)
108 (1*)	4m (13ft)

*Accepts additional Solo 101 poles for greater heights

Notes:

- Testifire Head Units are supplied with a TS3 Smoke capsule and a TC3 CO capsule as applicable
- Testifire Replacement Capsules are supplied in packs of 3 or 6

For additional information visit: www.testifire.com

Specifications



Suitable Detector Types	Optical (photoelectric) and ionisation smoke detectors. Thermal sensors (fixed temperature or rate-of-rise). Carbon Monoxide (CO) fire sensors. Multi-sensors or multi-criteria detectors. Conventional, addressable or analogue addressable detectors of any of the above types.
Test Modes	Smoke: generated internally through replaceable capsules and blown into the detector. Normal Heat: to test rate-of-rise and fixed temperature heat detectors up to 90°C (194°F). Hi Heat: to test rate-of-rise and fixed temperature heat detectors up to 100°C (212°F). Carbon Monoxide (CO): CO is generated internally and blown into the detector at a concentration of approximately 100ppm (not calibrated). Clearing: clean air is blown to remove previously applied Smoke or CO. Simultaneous Testing: Smoke, Heat and CO (if appropriate) in any combination as programmed by the user are all carried out in one test. Sequential Testing: Tests are performed according to the order that they have been programmed by the user.
Operating Features	Colour coded LED user feedback. Adjustable multi-position head. Automatic test initiation (infra red beam senses when cup is placed over a detector).
Safety Features	Battery over-current cut-out. Default 2 minutes maximum test duration timeout. Auto power off after 5 minutes of non-use. CO generated on demand (no gas stored).
Power Source	Battery Baton: nominal 7.2V 2.2Ah NiMH rechargeable battery pack with internal over-current protection connects directly to Testifire with no leads or wires. Must be charged by Solo 725 Battery Charger (using 100-230VAC or 12VDC input).
Battery Charge Time	75-90 mins. (if completely discharged).
Power Consumption	Dependent on mode of use: Smoke testing: <0.5A rms Heat testing: 4-6A rms CO testing: 2-5A rms N.B. Power consumption refers only to the duration of the actual test and may vary considerably due to internal control algorithms.
Environment	Operating temperature range: +5°C to +45°C (41°F to 113°F). Operating humidity range: 0 to 85% RH non-condensing. Storage temperature range: -10°C to +50°C (50°F to 122°F). Storage humidity range: 0 to 90% RH non-condensing (up to +35°C / 95°F).
Servicing Intervals	Every 12 months (may be sooner in extreme use). Message will be displayed on the LCD screen when a service is required.
IP Rating	Rated according to IEC60529 to IP20.
Weights	Testifire 1000: 0.75kg Testifire 2000: 0.9kg Testifire TS3 Smoke Capsule: 45g Testifire TC3 CO Capsule: 42g Solo 760 Battery Baton: 0.5kg
Dimensions	Testifire 1000: Bellows width: 153mm max. Head Unit height: 224mm max. (397mm including handle) Testifire 2000: Bellows width: 153mm max. Head Unit height: 273mm max. (397mm including handle)

International Patents

Testifire is protected by the following patents and has patents applied for:

Patents: EP(FR,GB)091055B, DE69820382.8, ZL98120414.7, US6423962, EP(FR,GB)1290661B, DE6012442.1, ZL01801074.1, US6640608, HK1065150, EP(FR,GB)1390927B, DE50205116.7, DE60314594.9, GB2385179B, GB2409319B.

Patents Applied for: US10/503745, EP1794728A, WO 2007/015045, WO 2007/060447, GB2432703A

Testifire® is a registered trademark.

As our policy is one of continuous improvement, details of products described within this publication are subject to change without notice. All information provided here is believed to be correct at the time of going to press. Every effort has been made to ensure the accuracy of information which is provided in good faith but nothing contained herein is intended to incorporate any representation or warranty, either express or implied or to form the basis of any legal relations between the parties hereto, additional to or in lieu of such as may be applicable to a contract of sale or purchase.

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