

**LABSS INFORMATION PAPER INFOP26 - 2020 Version 1 – February 2020****COMBINED SMOKE/HEAT and CARBON MONOXIDE DETECTORS**

Applicable to Domestic Buildings only in relation to  
Section 2: Fire and Section 3: Environment  
Standard 2.11 Communication  
Clause 3.20.20 Carbon monoxide detection

**BACKGROUND**

This information paper provides clarification with regards to combination smoke/heat detectors (2.11) and carbon monoxide detectors related to faulty heat producing appliances (3.20.20).

**LABSS POSITION**

Labss considers that the installation of a hard wired combination smoke/heat and CO alarms is deemed acceptable based on the following requirements.

Smoke alarms should conform to BS EN 14604: 2005, heat alarms should conform to BS 5446: Part 2: 2003. Carbon monoxide detectors should comply with BS EN 50291-1:2010 (Type A).

Wiring and power of the combination detectors should conform to Clause 2.11.9

The detector should be sited in accordance with the relevant guidance in Standard 2.11 and Clause 3.20.20

A voice alarm audible feature which announces which danger has been detected should be incorporated into the alarm.

The interconnection of separate smoke/heat and CO detectors should not be accepted unless all the criteria above can be fulfilled.

**SUMMARY**

On condition that a “multi-detection” unit meets all the individual standards noted in the Technical Handbooks, for smoke, CO & heat detection and are activated by an individual audible voice alarm feature which announces the particular hazard, it is considered such appliances would be suitable.

**NOTES**

1. A combined detector should not be confused with a multi sensor fire alarms cited within Clause 2.11.5.
2. Multi sensor fire alarms cited within BS 5839: Part 6: 2019 are alarms which detect carbon monoxide in the early stages of a fire, detecting CO<sub>2</sub> at lower levels (carbon monoxide fire detectors). Carbon monoxide toxic gas detectors are not fire alarms and are therefore not covered in part of BS 5839. This BS covers only carbon monoxide fire detectors.
3. Carbon monoxide alarms conforming to BS EN 50291 are intended only to detect carbon monoxide from faulty, or inadequately ventilated, heating appliances. This type of alarm is intended to give an alarm signal at much higher carbon monoxide levels than carbon monoxide fire detectors and therefore they are not suitable for giving early warning of fire. Accordingly, BS EN 50291 excludes from its scope carbon monoxide detectors that are intended to detect fire.