

UK Codes and Standards – Smoke Testing

- [BS 5839 1: 2002 45.3 - Real Stimuli Required](#)
- *Real Stimuli Required*

“Since stimulus of the sensing element through introduction of the phenomena or surrogate phenomena which the detectors are designed to detect forms part of the test(s), use of a test button or a test magnet (for example) or compliance with 45(i) (confirmation of analogue values) does not satisfy the recommendations..”

BS 5839 1: 2002 45.3 (Note 4)

- [BS 5839 1: 2002 45.4 \(d\) - Compatible Materials](#)
- *Compatible materials only*

It should be ensured that the material used does not cause damage to, or affect the subsequent performance of the detector...”

BS 5839 1: 2002 45.4 (d)

- [BS 5839 1: 2002 Clause 45.3 - All Stimulus Entry](#)
- *“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

- [BS 5839 Part 1: 2002 39.2 \(c\) - 100% Testing](#)
- *100% testing*

“.. the entire system should be inspected and tested to ensure that it operates satisfactorily and that, in particular, .. all manual call points and automatic fire detectors function correctly in accordance with the recommendations in 45.4;

BS 5839 Part 1: 2002 39.2 c:

- **BS5839 1:2002 Clause 45.4 (d) - Smoke**
- ***Smoke***

“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)