



BSI Standards Publication

Alarm systems – Intrusion and hold-up systems

Part 13: Pyrotechnic Obscuration Security Devices

National foreword

This British Standard is the UK implementation of EN 50131-13:2020, incorporating corrigendum April 2021.

The UK participation in its preparation was entrusted to Technical Committee GW/1, Electronic security systems and products.

A list of organizations represented on this committee can be obtained on request to its committee manager.

BSI, as a member of CEN, is obliged to publish EN 50131-13:2020 as a British Standard. However, attention is drawn to the fact that during the development of this European Standard, the UK committee disagreed with its approval.

This Standard has been prepared to deal specifically with Pyrotechnic Obscuration Devices (PODs) designed to produce an obscuring effect in a security application. These should not be confused with Security Fogging devices. The concept of depriving would-be thieves or intruders of the ability to see is similar, but the methods are substantially different.

Security Fogging Devices produce a 'fog' – microscopic liquid particles suspended in the atmosphere. The dense, white colour associated with fog is the result of scattering of the visible light spectrum. In comparison, 'smoke' is a visible suspension of particles in air generated by a burning substance. PODs produce pyrotechnic 'smoke', made when a chemical composition (usually a mixture of an oxidiser, fuel and a dye) is ignited and burns. An exothermic reaction occurs, producing hot gases and water vapour which combine to carry dye particles into the atmosphere, creating the obscuring smoke.

Once activated, PODs cannot be regulated or switched off. PODs will continue to burn and produce smoke until the composition is fully depleted.

It is for this reason the UK committee advises users of this standard to take particular note of clauses 9.1 Non-Toxicity and 9.2 Residue, and to consider the location, health and environmental impacts of using a POD. Users are further advised that a risk assessment should be considered to account for any effects of its use.

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