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Vehicle Security Alarm Systems – Passenger Cars

电缆管理用导管系统　第 1 部分：通用要求

(IEC 60839-10-1:1995 Alarm systems – Part 10: Alarm systems for road vehicles – Section1: Passenger cars, MOD)

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Foreword

4.2.1, 4.2.2 a), 4.2.3.2, 4.2.4, 4.2.5.1, 4.2.6, 4.2.7.1, 4.2.8, 4.2.9 and 4.3 in this standard are mandatory and the others are recommendatory.

This standard is adopted from IEC 60839-10-1:1995 *Alarm systems – Part 10: Alarm systems for road vehicles – Section 1: Passenger cars* (English version).

This standard is redrafted according to IEC 60839-10-1:1995. For comparison, the informative Annex A gives cross references of the clauses between this national standard and the international standard.

Allowing for the state of the nation and the development requirements of vehicle security protection and making reference to the relevant international regulation and standard, i.e. *Annex VI: Scope, definitions and requirements for vehicle alarm systems* of COMMISSION DIRECTIVE 95/56/EC of 1995 and British standard of insurance industry *Security system evaluation – Passenger cars* (1996 Edition 2), this standard adopts and partially modifies IEC 60839-10-1:1995. These technical differences have been marked with perpendicular single lines at the margin of relevant clauses. The summary list for these technical differences and their reasons is given in Annex B for reference.

This standard modifies IEC 60839-10-1:1995 mainly in three aspects: prevention against false alarms and noise disturbance, improvement of protection level, easy understanding and use, as detailed below:

-- As prevention against noise disturbance from the warning device of vehicle is a great national and public concern, this standard cancels the requirements of IEC60839-10-1:1995 regarding sending out non-warning audible signals by sound signaling device, allows reduction in alarming sound level, limits the repeated warnings, and adds test on prevention against false alarms (Annex D);

-- Allowing for the current means of vehicle burglary, the anti-theft alarming is to be of higher requirement, so methods and higher requirements for unsetting, warning and immobilization of VSAS are added;

-- To adapt to the development of anti-theft alarming technology for vehicles, contents regarding protection with VSAS and networking are proposed;

-- To evaluate VSAS more accurately and support risk rating for vehicle insurance, protection classification of product by protection performance is added;

-- Basing on the original IEC 60839-10-1:1995 and referring to relevant international standards, some contents are detailed and some correlated contents are arranged collectively.

Vehicle Security Alarm Systems - Passenger Cars

1 Scope

This standard specifies technical requirements and test methods for vehicle security alarm systems (VSAS) intended for installation within vehicles used for the carriage of passengers and having not more than eight seats in addition to the driver's seat, i.e. M1 category.

The object of the standard is to ensure a high standard of safety, performance and reliability of the VSAS and the reduction of false alarms.

The standard covers VSAS designed to detect and signal the unauthorized opening of any of the vehicle doors, boot/luggage compartment, bonnet/engine hood and, in addition, to immobilize the vehicle when set.

The standard covers VSAS intended both for installation as original equipment and or installation after delivery of the vehicle.

2 Normative References

The following documents contain provisions which, through reference in this text, constitute provisions of this standard. For dated reference, subsequent amendments to (excluding any corrigendum), or revisions of, any of these publications do not apply. However, parties to agreements based on this standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. For any undated references, the latest edition of the document referred to applies.

GB/T 2423.6	*Environmental Testing for Electric and Electronic Products – Part 2: Test Methods – Test Eb and Guidance: Bump* (GB/T 2423.6-1995, idt IEC 60068-2-29:1987)
GB 4208-1993	*Degrees of Protection Provided by Enclosure (IP Code)* (eqv IEC 60529:1989)
GB 14023	*Vehicles Boats and Internal Combustion Engine Driven Devices – Radio Disturbance Characteristics – Limits and Methods of Measurement* (GB 14023-2006, CISPR 12:2005, IDT)
GB/T 19951	*Road Vehicles – Test Methods for Electrical Disturbances from Electrostatic Discharge* (GB/T 19951-2005, ISO 10605:2001, IDT)
ISO 512:1979	*Road Vehicles – Sound Signaling Devices – Technical Specifications*
ISO 7637-1:1990	*Road Vehicles – Electrical Disturbances by Conduction and Coupling*

An electrical/electronic device, e.g. remote control and inductive type switch, shall either

Case I -- have a coded transmitter signal with at least 50000 effective combinations and have a minimum scan time of 24h per 5000 variants; or

Case II -- incorporate automatically changing codes, e.g. rolling codes, jumping codes, such that the mathematical chance of obtaining the correct code within 24 h is less than 4 %; or

Case III -- incorporate codes at least meeting the requirements of Case II and also a transmission mode not imperceptible (e.g. optical transmission of narrow angle).

d) If this is a coded key incorporating directly electrical connection:

It shall incorporate codes at least meeting the requirements of the Case II as specified in the above c) and such that the mathematical chance of obtaining the correct code within 24h is less than 4%.

If this coded key switch is fitted within the vehicle, the entry period shall be timed, see f);

e) If this is a biometric key:

Since the biometric characteristics of human body constitute the key to identify each authorized person, the maximum keys accommodated/stored, n_{max}, shall be provided so that at least five unauthorized person(s), who operate at the fastest identification rates, cannot be identified as authorized person within 5 min or that the chance of identifying an unauthorized person as authorized within 24h is less than 4% of the n_{max}.

If this identification device is fitted within the vehicle, the entry operation period shall be timed, see f).

f) If the key switch/device for code entry is fitted within the protected passenger compartment

If this key switch/device is fitted within the vehicle in conjunction with a timed entry period, the time allowed to unset the VSAS after the opening of the door, shall be not less than 5 s and not more than 15 s.

4.2.5 Warning signal

The alarm condition shall be indicated by an acoustic warning signal, or may be indicated in addition by (an) optical warning signal(s) or remote wire-free signaling or any combination of these.

The warning signal shall be activated once for every detection. However, within one setting period, at most 10 repeated activations of acoustic warning signal are allowed to each detector (so as to avoid endless warning).

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