



IAS Surveillance Measures for Safes & Strongrooms

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VdS Guidelines for Intruder Alarm Systems

IAS Surveillance Measures for Safes & Strongrooms

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1 General

1.1 Scope

These guidelines contain requirements and test methods for safes and strongrooms which are pre-prepared with system components of the intruder alarm technique or already completely equipped with these components. They shall be applied in conjunction with the "Guidelines for Intruder Alarm Systems, General Requirements and Test Methods", VdS 2227.

1.2 Validity

These guidelines are valid from 01. August 2008.

Note 1: For the VdS-guidelines for intruder alarm systems, integrated surface surveillance for containers and rooms with additional security features (formerly VdS 2264) a new VdS number was assigned; this is VdS 2477.

Note 2: This is a translation of the German guidelines; if there are any discrepancies the German version shall be binding.

2 Normative references

These guidelines contain dated and undated references to other publications. The normative references are cited at the appropriate places in the clauses, the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to these rules only when announced by a change of these rules. For undated references the latest edition of the publication referred will be applied.

- **VdS 2227** Guidelines for Intruder Alarm Systems, General Requirements and Test Methods
- **VdS 2311** Guidelines for Intruder Alarm Systems, Planning and Installation
- **VdS 2477** Guidelines for Intruder Alarm Systems, Integrated Surface Surveillance for Containers and Rooms with Additional Security Features

3 Terms, definitions and abbreviations

3.1 Terms and definitions

For general terms and definitions refer to the "Guidelines for Intruder Alarm Systems, General Requirements and Test Methods", VdS 2227.

3.2 Abbreviations

IAS Intruder Alarm System

4 Requirements

4.1 General

Safes/strongrooms should either be pre-prepared for the surveillance by an intruder alarm system (IAS) or completely equipped. For the design of the pre-preparing resp. the equipping in addition to these guidelines the guidelines for the resp. system components as well as the VdS Guidelines for Intruder Alarm Systems, Planning and Installation, VdS 2311, shall be fulfilled.

All system components which are contained in a VdS-approved IAS shall be VdS approved.

4.2 Surveillance measures

All IAS system components shall be located within the safes/strongroom.

Note: Deviations are admitted only under consideration of the Guidelines for Planning and Installation of IAS, VdS 2311, per object and require a clearance by VdS-Schadenverhütung.

4.2.1 Penetration surveillance of corpus (body) and door

4.2.1.1 Seismic detectors

The corpus (body) of a safe/strongroom and the door (each wing) shall be surveilled by at least one seismic detector.

Note concerning the adjustment of the seismic detectors: In single cases it may be necessary to deviate from the adjustment instructions (sensitivity, etc.) of the manufacturer of the seismic detector if an adjustment of the seismic detector onto the safe/strongroom or onto the additional equipment installed in safes/strongrooms (e.g. automatic teller machines for banknotes and coins) is necessary. Necessary adjustments which deviate from the adjustment instructions of the manufacturer of the seismic detector shall be stated in the documentation of the pre-prepared/equipped safe/strongroom.

4.2.1.2 Integrated surface surveillance measures

The requirements for the integrated surface surveillance measures for safes/strongrooms are described in the Guidelines for Intruder Alarm Systems, Integrated Surface Surveillance for Containers and Rooms with Additional Security Features, VdS 2477.

Note: For specific applications (e.g. deposit system where the safes/strongrooms of which are accessible in the set state of the IAS) penetration surveillance realized with seismic detectors may be not senseful (risk of false alarms). For such cases the penetration surveillance may be realized by an integrated surface surveillance.

4.2.2 Surveillance for opening

At least one opening detector of class C shall be provided per door (per door wing). The opening detector shall not be accessible in the closed state of the door. The inside of the safes/strongrooms as well as the opening detector shall be protected against access as long until the opening detector has responded.

4.2.3 Locked state monitoring

The locked state of doors (all door wings) of a safe/strongroom shall be monitored. The locked state monitoring shall indicate that the safe/strongroom is properly locked.

Note: A striking plate contact (also named sliding bolt contacts) shall be located in the bolt work such that the lock which is locked at the last one operates the striking plate contact. If multiple locks are provided in the safe/strongroom, all of these shall be monitored on locked state (provided that these are not bounded in the function with each other).

4.2.4 Blocking device (option with requirements)

If the opening of safes/strongrooms shall be impeded in the set state of the IAS, a respective blocking device shall be foreseen.

4.2.5 Ancillary control equipment (ACE) (option with requirements)

Should the safe/strongroom form a stand-alone protected premises, it shall be equipped with an ancillary control equipment (ACE) of class C. Thereby the locks provided in the bolt work may be shared provided they are approved also as an IAS-ancillary control equipment (ACE).

Note: An ancillary control equipment (ACE) using only a mental identification figure (sequence of digits or letters) is not permitted.

4.2.6 Removal surveillance

If the safe/strongroom is pre-equipped with an anchoring system a removal surveillance shall be foreseen.

In the anchored state of the safe/strongroom it shall be possible to detect and notify its removal by an IAS.

Note: For safes with a weight less than 1000 kg as well as all ATM safes anchoring and removal surveillance has to be foreseen in any case.

4.2.7 Wiring connection

For the connection of cables/the wiring of the IAS system components in the safes/strongrooms as well as interface to the IAS control and indicating equipment (I-CIE) at least one junction box of class C with a sufficient number of connectors shall be provided.

Note: For equipped safes/strongrooms also the provision of a fixed cable as interface is permitted.

4.2.8 Cable transition

Between safe doors/strongroom doors and its corpus/wall as well the door of a strongroom and its wall a reliable cable transition shall be provided. To avoid damage of the cable these shall be laid in a protected way (e.g. through a third door hinge) and shall be monitored if necessary.

4.3 Pre-prepared facilities

In case of pre-preparation no IAS system components are mounted into the safe/strongroom but there are drillings provided for an easy and proper mounting of IAS system components on site later on.

The following technical documents shall be available and shall be attached to each safe/strongroom:

- Part lists comprising all VdS approved IAS system components, for which the safe/strongroom is pre-prepared
- Drawing of the safe/strongroom including details to the site of the IAS system components and a cable routing plan
- Are surface surveillance measures foreseen a protocol with the measurement results with statements to the overall resistance of the surface surveillance measures shall be available
- Adjustment instructions, warning notices (e.g. “Work at the boltwork shall only be performed by authorized persons”)
- if necessary, specifications with additional information (e.g. adjustment instructions).

4.4 Equipped facilities

If safes/strongrooms are completely equipped by the manufacturer with IAS system components, a junction box shall be provided in the safe/strongroom as interface between the safe/strongroom and the IAS. Alternatively a connection cable shall be provided which has to be routed to the outside of the safe/strongroom. In case of equipping, all VdS approved IAS system components are mounted, wired, adjusted and a function test shall be performed.

The following technical documents shall be available and shall be attached to each safe/strongroom:

- Part lists with all VdS approved IAS system components which were mounted into the safe/strongroom
- Drawing of the safe/strongroom including details to the location of the IAS system components and a cable routing plan
- Wiring plans
- Allocation plan for junction boxes
- Installation and operation instructions as well as data leaflets of all IAS system components
- Adjustment instructions, warning notices (e.g. “Work at the bolt work shall only be performed by authorized persons”)
- Test protocols (e.g. results of the functional testing of the IAS system components)
- Are surface surveillance measures foreseen a protocol with the measurement results with statements to the overall resistance of the surface surveillance measures shall be available
- if necessary, specifications with additional information (e.g. adjustment instructions).

5 Test methods

5.1 Pre-prepared facilities

If the safe/strongroom is pre-prepared for IAS surveillance measures it is tested, if

- all IAS system components are VdS approved

- a part list is available where all IAS system components are listed, for which the safes/strongrooms are pre-prepared
- a drawing of the safe/strongroom with statements concerning the location of the IAS system components and a cable routing plan are provided
- in case of surface surveillance of the safe/strongroom the protocol with the measurement results with statements to the overall resistance of the surface surveillance measures is available
- the corpus (body) of the safe/strongroom and the door (each door wing) is surveilled with at least one seismic detector and if adjustments are necessary which deviate from the instructions of the manufacturer of the seismic detector and if these adjustments are stated in the documentation.
- at least one opening detector of class C per door (per each door wing) is foreseen and the opening detector is not accessible in the closed state of the door and the inside of the safe/strongroom as well as the opening detector is protected against access as long until the opening detector has responded
- the locked-state monitoring indicates that the safe/strongroom is locked in a proper form
- for the connection of the connection cables of the IAS system components in safes/strongrooms as well as interface to the IAS control and indicating equipment (I-CIE) at least one junction box of class C is provided with a sufficient number of connectors
- a reliable cable transition between the safe/strongroom door and the safe/strongroom corpus as well as the strongroom wall and strongroom door is provided and whether the cabling is routed in a protected way and monitored if necessary
- the safe/strongroom is pre-prepared with an anchoring system and if in this case a removal surveillance is foreseen.
- information are available which documents are provided with the safes/strongrooms

If (optional) a blocking device or an ancillary control equipment (ACE) is used it is tested whether these system components are mounted in a reliable way according to its intended use and can be operated reliably.

5.2 Equipped facilities

If the safe/strongroom is equipped with IAS surveillance measures it is tested in addition to clause 5.1, if

- a wiring plan including information to the used cables/wires is available; these information shall include indications how the wiring has to be performed (e.g. a four-wire-cable to the intruder detector)
- the allocation of junction boxes is documented (junction box allocation plan)
- installation and operating instructions as well as data sheets of all IAS system components are available
- adjustment instructions, warning notices (e.g. "Work at the bolt work shall only be performed by authorized persons") are available
- test protocols are available (e.g. results of the functional test of the IAS system components).

5.3 Test of the equipped safe or strongroom

A visual inspection is made, whether the IAS system components which are installed in the safe/strongroom are mounted and wiring in compliance with the instructions of the manufacturer. Further on it is tested whether the system components are adjusted and tuned in compliance with the instructions of the manufacturer. In the frame of the function tests it is tested, whether all system components are functioning according to its designated use and generate the signals/messages which are required.

