CERTALARM SYSTEM CERTIFICATION RULES

PART 3

Specification for testing to be conducted at periodic surveillance of products and systems

DOCUMENT NUMBER R-03

FOREWORD:

The CERTALARM Quality Mark has been established to provide a single Quality Mark, recognised throughout Europe, for products, systems and services in the Electrical and Electronic Fire & Life Safety and Security industries.

It provides assurance to the specifier and user that the product, system or service consistently meets all requirements of the relevant European or other specified standards.

The CERTALARM Mark is owned by CERTALARM AISBL and administered on their behalf by CERTALARM Management. The CERTALARM System is made available to Certification Bodies who wish to offer the CERTALARM Mark to clients desiring to demonstrate the compliance of their products, systems or services to the relevant standards by conformity testing, assessment of the quality management system applicable to the manufacture / provision of that product, system or service and associated inspection of the manufacture or service provision.

Whilst provision has been made for the expansion of the CERTALARM Scheme to include services and additional product types, appropriate standards will not be included in this document until preparations are made for operations to extend into that area.

AUTHORSHIP and COPYRIGHT

This document was prepared by the CERTALARM Technical Advisory Group and approved by CERTALARM Board of Directors

OFFICIAL LANGUAGE

The official version of this document is English.
It may be translated as required into other languages, but in case of dispute, the English version will remain the definitive version.

LATEST VERSION

The revision status of this document may be checked on the CERTALARM website (www.certalarm.org) and the latest version downloaded as required.

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Surveillance testing of products certified under the CERTALARM scheme

CONTENTS

1. Scope 3
2. Normative References 3
3. General 3
4. FIRE DETECTION & ALARM SYSTEMS and PRODUCTS 4
5. INTRUSION & HOLD UP ALARM SYSTEMS and PRODUCTS 5
6. ALARM TRANSMISSION SYSTEMS 7

1. Scope

This document specifies the tests to be conducted during periodic surveillance procedures of products certified under the CERTALARM scheme. These are carried out at the intervals specified in CERTALARM System: Certification Rules - Part 2: Standards specified for various products, systems and services.

2. Normative References

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

CERTALARM System: Certification Rules - Part 1	Definition of procedures and conditions for testing and certification
CERTALARM System: Certification Rules - Part 2	Standards specified for various products, systems and services
CERTALARM System: Certification Rules - Part 4	Procedures for confirmation of continued consistency of results

3. General

Unless otherwise stated, the version of each standard that is referenced by CERTALARM System: Certification Rules - Part 2: Standards specified for various products, systems and services shall apply, including any referenced amendments,

Where sensitivity parameters are variable, the certifier may specify the setting to be used according to previous results.

On all samples the following checks shall be carried out.
This may be performed as part of a factory production control audit.

Checks:

- Technical Documentation, including Bill of Material (BoM)
- PCB layout version
- Firmware / software version(s)
- Bill of Material (BoM)
- Documentation (including change records)
- Marking / labelling
- Visual inspection of the sample with respect to build, assembly of the unit.

If the above does not identify any problems requiring specific attention, the following tests will be carried out at the specified surveillance re-test interval. The tests are identified by clause number from the applicable standard.

Additional tests may be required if the product has been modified or other problems are identified.

4. FIRE DETECTION & ALARM SYSTEMS and PRODUCTS

Standard	**Component**	**Require-ment (clause)**	**Tests**	**Number of samples / configuration**
EN54-2	Control & indicating equipment	15.2	Functional test	1 sample Minimum configuration necessary to conduct this test.
EN54-4	Power supply	9.2.2 Table 1 (Tests 3 – 9)	Full functional test	1 sample Minimum configuration necessary to conduct this test.
EN54-16	Voice Alarm Control Equipment	16.2	Functional test	1 sample Minimum configuration necessary to conduct this test.
EN12094-1	Electrical control & delay device	9.2	Functional tests	1 sample Minimum configuration necessary to conduct this test.
EN54-13	System compatibility	Assess-ment only (4.1)	See Certalarm System Rules – Part 2 clause 6.2.1: “Periodic surveillance of system components will be carried out by verification of the ongoing certified status of all individual components”	-
EN 54-3	Sounder	5.3.3.a/b/c	Sound level meets specs of manufacturer for all specified directions and within sound level range specified in EN54-3	1 sample, one tone, max and min sound levels
EN54-5	Heat detector	5.8	Reproducibility – within limits of standard (no comparison with previous results)	1 sample 1 sensitivity level

Standard	Component	Require-ment (clause)	Tests	Number of samples / configuration
EN54-7	Smoke detector	5.2	Repeatability test, restricted to three readings only	1 sample 1 parameter set
EN 54-10	Flame detector	5.5	Fire sensitivity for n-heptane fire	1 sample least sensitive parameter set
EN54-11	Manual call point	5.2	Operational performance test	1 sample
EN54-12	Linear smoke detector	5.3	Repeatability test, omitting 7-day interval test	1 sample 1 parameter set
EN54-17	Short circuit isolators	5.1.5	Functional test	1 sample
EN54-18	Input/output devices	5.1.4	Functional test	1 sample 1 configuration
EN54-20	Aspirating smoke detectors	6.2	Repeatability test, restricted to three readings only	1 sample 1 configuration
EN54-24	Loudspeakers	5.2	Reproducibility (requires freq.- curve, sound level and sensitivity).	1 sample one frequency sweep
EN54-25	Components using radio links	4.2.1	Test for immunity to site attenuation	1 configuration
EN14604	Smoke alarm devices	5.1.5	Repeatability test, restricted to three readings only	1 sample 1 parameter set

5. INTRUSION & HOLD UP ALARM SYSTEMS and PRODUCTS

Standard	Component	Security Grade	Require-ment (clause)	Tests	Number of samples / configuration
-	ALL PRODUCTS	All	See relevant standard	Resistance to and detection of unauthorized access to the housing	1 sample Minimum configuration necessary to conduct test.
EN50131-2-2, EN50131-2-3, EN50131-2-4, EN50131-2-5	Movement detectors	All	6.3.3	Detection across and detection range tests	1 sample Minimum configuration necessary to conduct this test.
		3 and 4	6.7.5 / 6.7.6	Anti-masking	
		4	6.3.7	Significant reduction of range	
EN50131-2-6	Magnetic Contacts	All	6.4.2	Make / break approach / removal distances	1 sample Minimum configuration necessary to conduct this test.
		3 and 4	6.6.4	Immunity to magnetic interference	
		4	6.6.5	Matched coded pairs	

Standard	Component	Security Grade	Require-ment (clause)	Tests	Number of samples / configuration
EN50131-3	CIE	All	11.5.1	Access Levels	1 sample, Minimum configuration to conduct tests – all types peripheral connected
			11.8.2/3/4/5	Tamper protection and detection	
			11.4.1 – 11.4.5 (STEP 1 only) + 11.10	Timing performance	
		2 to 4	11.12 (STEPS 1 to 7)	Event recording (Step 7 reduce to 5 minutes)	
		3 and 4	11.7.9	Monitoring of processor	
		4	11.8.5	Penetration of housing **	
			11.4.6	Significant reduction of range	
	ACE	All	11.8.2/3/4/5	Tamper protection and detection	
		4	11.8.5	Penetration of housing **	
EN50130-4	Warning devices	ALL	6.4	Acoustic output level	1 sample, Minimum configuration to conduct tests
			6.6.5	Storage device operating time	
			6.5 (EXCEPT 6.5.4, 6.5.5)	Tamper protection, detection and security	
			6.3.1 / 6.3.2	Response to trigger command	
		3 and 4	6.5.4	Removal from mounting detection	
		4	6.5.5	Penetration of housing	
EN50131-6	Power Supplies	All	7.13	Charging performance / SD recharging	1 sample, Minimum configuration to conduct tests
			7.15	Short circuit protection	
			7.19 – 7.20	Tamper protection and detection	
		3 and 4	7.17	Deep discharge protection	
			7.8	Storage device failure	
		4	7.22	Penetration of housing **	
EN50131-5-3	Equipment using radio inter-connections	All	5.1.2	Immunity to attenuation	1 sample Minimum configuration necessary to conduct this test.
			5.1.6	Immunity to interference	
EN50131-8	Security fog device			Full test	1 sample Minimum configuration necessary to conduct this test.

**** - where applicable to manufacturer's claim for product**

6. ALARM TRANSMISSION SYSTEMS

Standard	Component		Require-ment (clause)	Tests	Number of samples / configuration
EN50136-2-1	SPT		6.1	Functional test	1 sample Minimum configuration necessary to conduct this test.
			6.2.4	Interface – interconnections	
			6.7	Enclosure	
EN54-21	Alarm transmission and fault warning routing equipment		TBA		1 sample Minimum configuration necessary to conduct this test.