



# **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

Copyright is held by **CERTALARM** AISBL. This document, or its text, may NOT be copied for resale.

## **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](http://www.certalarm.org)) and the latest version downloaded as required.

Revision status:	Issue 3
Date of issue:	02.04.2018
Date of implementation:	29.06.2018

## **CERTALARM AISBL**

1080 Brussels (Molenbeek-Saint-Jean), Boulevard Edmond Machtens 180

# 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.....	7
6. Alarm Transmission Systems .....	7
7. Social Alarm Systems .....	8

### 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.

<b>CERTALARM System:</b> Certification Rules - Part 1	Definition of procedures and conditions for testing and certification
<b>CERTALARM System:</b> Certification Rules - Part 2	Standards specified for various products, systems and services
<b>CERTALARM System:</b> 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. The CertAlarm Contracted Certification Body (CCB) will be responsible to determine which are these tests according to the feature to verify.

#### 4. Fire Detection & Alarm Systems and Products

The following samples and tests are proposed for the bi-annual audit testing on fire products

Standard	Sample requirements	Tests (clauses)
EN 54-2:1997	1	Clause 14 Marking Clause 15.2 Functional test Verify hardware (and software where applicable) build revision against approved product <i>Note: The requirements of the system (components) to be assessed is to be determined following verifying the build revision of the components comprising the approved system</i>
EN 54-3:2001	8	Clause 4.6.1 Marking Clause 5.2 Reproducibility Clause 5.3 Operational performance Verify hardware (and software where applicable) build revision against approved product
EN 54-4:1997	1	Clause 8 Marking Clause 9.2.3 Reduced functional test Verify hardware (and software where applicable) build revision against approved product
EN 54-5:2000	5	Clause 4.9 Marking Clause 5.3 Static response temperature Clause 5.4 Response times from typical application temperature (3 rates of rise depending on original testing, default - 1°C/min, 10°C/min and 30°C/min) Verify hardware (and software where applicable) build revision against approved product
EN 54-7:2000	20	Clause 4.9 Marking Clause 5.4 Reproducibility
EN 54-10:2002	1 minimum	Clause 5.2 Reproducibility (response for each Class on a single sample to be compared with original testing) Clause 6 Marking Verify hardware (and software where applicable) build revision against approved product
EN 54-11:2001	1	Clause 4.2.1 Marking Clause 5.2 Operational performance test Verify hardware (and software where applicable) build revision against approved product
EN 54-12:2015	1	Clause 5.3.1 Reproducibility (response on a single sample to be compared with original testing) Clause 6.1 Marking Verify hardware (and software where applicable) build revision against approved product

Standard	Sample requirements	Tests (clauses)
EN 54-16:2008	1	<p>Clause 15 Marking</p> <p>Clause 16.2 Functional tests</p> <p>Verify hardware (and software where applicable) build revision against approved product</p> <p><i>Note: The requirements of the system (components) to be assessed is to be determined following verifying the build revision of the components comprising the approved system</i></p>
EN 54-17:2005	1	<p>Clause 4.7 Marking</p> <p>Clause 5.2 Reproducibility (response on a single sample to be compared with manufacture's specification)</p> <p>Verify hardware (and software where applicable) build revision against approved product</p>
EN 54-18:2005	1	<p>Clause 4.3.1 Marking</p> <p>Clause 5.1.4 Functional test</p> <p>Verify hardware (and software where applicable) build revision against approved product</p>
EN 54-20:2006	1	<p>Clause 6.3 Reproducibility (response on a single sample to be compared with original testing)</p> <p>Clause 8 Marking</p> <p>Verify hardware (and software where applicable) build revision against approved product</p>
EN 54-21:2006	1	<p>Clause 8 Marking</p> <p>Clause 10.2 Functional test</p> <p>Verify hardware (and software where applicable) build revision against approved product</p> <p><i>Note: The requirements of the system (components) to be assessed is to be determined following verifying the build revision of the components comprising the approved system</i></p>
EN 54-23:2010	5	<p>Clause 4.3.6.1 Marking</p> <p>Clause 5.1.7 Reproducibility (5 samples)</p> <p>Clause 5.3.1 Coverage volume</p> <p>Clause 5.3.2 Variation of luminous intensity</p> <p>Clause 5.3.3 Minimum and maximum light intensity</p> <p>Verify hardware (and software where applicable) build revision against approved product</p>
EN 54-24:2008	3	<p>Clause 4.5.1 Marking</p> <p>Clause 5.2 Reproducibility (response on a single sample to be compared with original testing)</p> <p>Clause 5.3 Rated impedance</p> <p>Clause 5.4 Horizontal and vertical coverage angles</p> <p>Clause 5.5 Maximum sound pressure level</p> <p>Verify hardware (and software where applicable) build revision against approved product</p>
EN 54-25:2008	CIE - 1 Device – 5	<p>Clause 7 Marking</p> <p>Clause 8.3.7 Reproducibility test</p> <p>Verify hardware (and software where applicable) build revision against approved product</p> <p><i>Note: Devices include Detectors, MCPs, I/O, sounders, VAD, etc</i></p> <p><i>Note: The requirements of the system (components) to be assessed is to be determined following verifying the build revision of the components comprising the approved system</i></p>

Standard	Sample requirements	Tests (clauses)
EN 54-27:2015	1	Clause 5.3.2 Reproducibility (response on a single sample to be compared with original testing) Clause 8 Marking, labelling and packaging Verify hardware (and software where applicable) build revision against approved product
EN 54-29:2015	22	Clause 5.2.7 Reproducibility of smoke response Clause 5.2.8 Reproducibility of heat response Clause 8 Marking, Labelling and Packaging Verify hardware (and software where applicable) build revision against approved product
EN 14604:2005	20	Clause 4.19.1 Smoke alarm marking Clause 5.4 Initial sensitivity Verify hardware (and software where applicable) build revision against approved product

**Note 1:** The standard number indicated is the year of issue and all applicable amendments or corrigenda should be applied.

**Note 2:** Where changes are identified to the approved product, additional testing may be required to verify any such changes. Additional testing required will depend on the changes made and what effect the changes may have on the functions / output of the product.

## 5. Intrusion & Hold Up Alarm Systems and Products

Standard	Component	Security Grade	Requirement (clause)	Tests	Number of samples / configuration
-	All products	All	See relevant standard	Reduced functional tests; resistance to and detection of unauthorized access to the housing	1 sample Minimum configuration necessary to conduct test.
EN 50131-8	Security fog device		7.1	Performance test	1 sample Minimum configuration necessary to conduct this test.

## 6. Alarm Transmission Systems

Standard	Component	Requirement (clause)	Tests	Number of samples / configuration
EN 50136-2:2013	Requirements for Supervised Premises Transceiver (SPT)	9.3	Reduced functional tests.	1 sample Minimum configuration necessary to conduct this test.
EN 50136-3:2013	Requirements for Receiving Centre Transceiver (RCT)	7.3.9	Reduced functional tests.	1 sample Minimum configuration necessary to conduct this test.
CLC/TS 50136-4:2014	Alarm systems - Alarm transmission systems and equipment - Part 4: Annunciation equipment used in alarm receiving centres	tbd	Reduced functional tests.	1 sample Minimum configuration necessary to conduct this test.
EN 54-21	Alarm transmission and fault warning routing equipment	10.2	Functional tests.	1 sample Minimum configuration necessary to conduct this test.

## 7. Social Alarm Systems

<b>Standard</b>	<b>Component</b>	<b>Requirement (clause)</b>	<b>Tests</b>	<b>Number of samples / configuration</b>
EN 50134-2:2000	Social alarms trigger devices	TBA	TBA	
EN 50134-5:2004	Social alarms interconnection and communication	TBA	TBA	
EN 50134-3:2001	Social alarms local unit and controller	TBA	TBA	
EN 50134-5:2004	Social alarms – interconnection and communication	TBA	TBA	