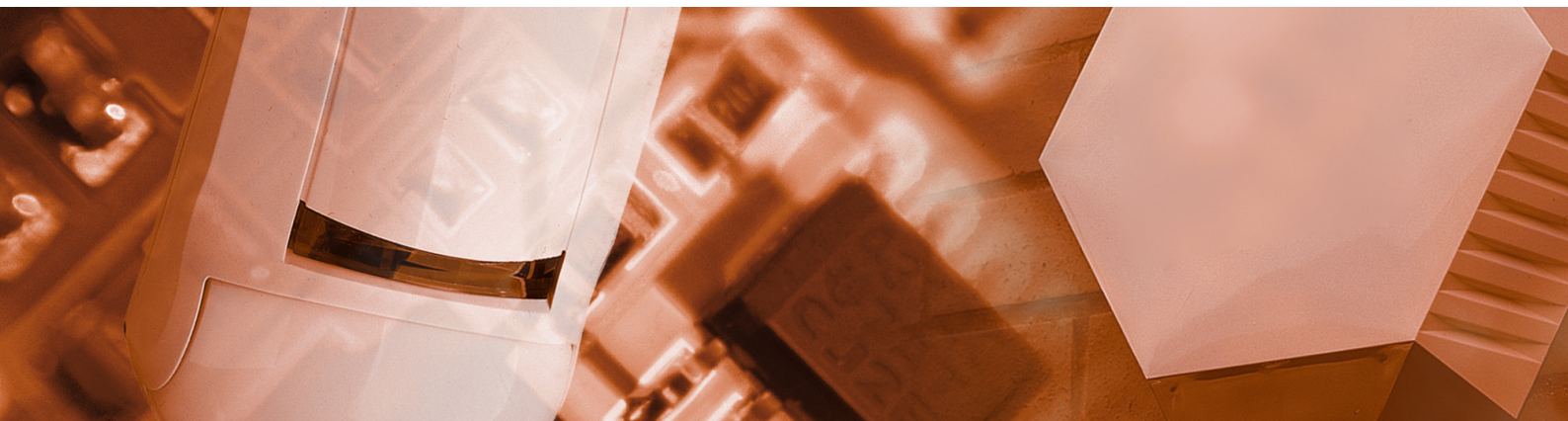


comparison of changes between  
**BS5979:2007 and EN50518-1:2010**  
– a guide



September 2011

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For other information please contact:

British Security Industry Association  
t: **0845 389 3889**  
f: 0845 389 0761  
e: [info@bsia.co.uk](mailto:info@bsia.co.uk)  
[www.bsia.co.uk](http://www.bsia.co.uk)

# COMPARISON OF THE CHANGES BETWEEN BS5979:2007 AND EN50518-1:2010

## Monitoring and Alarm Receiving Centres – Part 1 Location and Construction requirements

### Introduction

#### Key to table:

The comparison has been undertaken in a clause-by-clause basis to highlight changes in the requirements to EN50518-1. This will give an easy reference to those reading this guideline.

**New:** Denotes an additional clause in EN50518-1

BS5979 2007 Clause ref.	BS50518-1 2010 Clause ref.	Content change detail
		<p><b>Title</b></p> <p>EN50518-1 is Part 1 of a three-part suite of European standards. Part 1 specifically covers location &amp; construction requirements relevant only to signals from I&amp;HAS</p>
		<p><b>Foreword</b></p> <p>Reference is made to the other parts of the Monitoring and alarm receiving centre (MARC) suite.</p> <p><b>Note:</b> A UK National foreword has been added stating the standard is applicable only to I&amp;HAS systems.</p>
		<p><b>Introduction</b></p> <p>The Introduction has caused some serious concern in the UK and other EU Countries as it implies the standard is written for any alarm signals that require an emergency response and can originate from alarm systems other than I&amp;HAS.</p>
<b>1</b>	<b>1</b>	<p><b>Scope</b></p> <p>The scope differs to that of BS5979 in so much as EN50518-1 is solely for construction &amp; location requirements (other parts of the suite cover technical facilities and operational procedures).</p> <p>Clarification about the scope has been received from TC79 to suggest it is for I&amp;HAS only. However, this is still being challenged.</p>
<b>2</b>	<b>2</b>	<p><b>Normative references</b></p> <p>As required in European standards, the references are all "EN's". It is not acceptable to use national standards. UK legislative requirements still apply where appropriate.</p>

BS5979 2007 Clause ref.	BS50518-1 2010 Clause ref.	Content change detail
<b>3</b>	<b>3</b>	<b>Terms, Definitions and Abbreviations</b> A lot of the definitions used in EN50518 have been taken in the main from those used in BS5979. Terminology has been updated to reflect other European standards, such as those used in EN50131-1.
<b>4 &amp; 4.2.1</b>	<b>4</b>	<b>Site selection (formally called Planning in BS5979)</b> Covers the main location requirements, similar to those in BS5979 clause 4.2.
<b>4.1</b>	<b>n/a</b>	<b>Categorisation</b> EN50518 suite does not recognise categories of ARC's (i.e. Cat I or Cat II) as it is based on requirements for signals from I&HAS.
<b>4.3</b>	<b>4.1 &amp; 4.2</b>	<b>Risk assessment</b> The requirements here focus on the need to carry out a structured and continuous risk assessment and document the results accordingly. It does not specifically make reference to consultation with relevant interested parties such as planning authorities, utilities, telecom providers and the emergency services. Although it could be argued these would form part of the risk assessment.
<b>4.2.3</b>	<b>n/a</b>	<b>Satellites</b> EN50518-1 does not make reference to a "satellite" as defined in BS5979. An ARC is defined as a "continuously manned centre..." as it does in BS5979. Therefore satellites are not permitted by the EN50518 standard.
<b>5</b> 5.1.1 5.1.1.3	<b>5</b> 5.1.1 5.1.1.3	<b>Construction</b> <b>ARC structure</b> <b>ARC physical attack</b> resistance examples are given but are slightly higher in their requirements to that of BS5979 Cat II; there is no dispensation for walls not exposed to vehicular attack.  Alternatives are allowed so long as the attack resistance can be guaranteed in line with the examples cited.  There is no provision to rely on "layered security" as per the earlier BS5979:2000.
5.1.4.2	5.1.2	<b>Construction requirements against bullet attack</b> makes reference to compliance with EN1522 FB3. (bullet resistance in windows, doors, shutters and blinds). BS5979 referenced British standards BS5051-1:1998.
5.1.1.1	5.1.3	<b>ARC resistance against fire</b> The standard calls up EN13501-2 (fire classification of construction products) and also states a minimum of 30 minutes fire resistance. BS5979 required 60 minutes fire resistance.

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4.2.1	5.1.4	<p><b>Construction requirements against lightning</b> draws reference to the EN62305 standards suite (as did BS5979), which requires a risk analysis to be carried out determining whether surge protection is required and gives applicable solutions.</p>
5.1.12	5.2	<p><b>Facilities</b> Similar requirements exist to that in BS5979.</p>
	5.3	<p><b>Openings</b> The same openings as defined in BS5979 are permitted in this standard. The summary is listed below:</p>
5.1.2.3	5.4	<p><b>Entrance lobby</b> The maximum lobby floor space remains at 6m<sup>2</sup>, however there was an exception to exceeding the floor space under BS5979. There is a restriction that the lobby doors shall not exceed 1.1m wide and 2.5m high. BS5979 did not specify width or height, but gave attack resistant requirements.</p> <p>The requirement to provide an override to the interlocked lobby doors should be available “under controlled circumstances”. These circumstances are not defined. BS5979 allowed external entry via a high security locking system, which the key / code should be kept in a safe or vault protected by a PD6662 I&amp;HAS.</p> <p>One of the lobby doors is required to fulfil RC4 according to EN1627. The standard also identifies the requirements for locks &amp; latches, cylinders, lever handles and knob furniture to EN standards.</p>
5.1.2.3	5.5	<p><b>Lock mechanisms</b> There are requirements for both mechanical / electromechanical locks with regards to their classification and some practical requirements such as mechanical override, protection against tampering of the door fixing screws and protection of electrical cabling to the lock.</p>
5.1.2.3	5.6	<p><b>Emergency exit</b> Requirements have been separated from entrance lobby requirements. The unlocking devices are to be in accordance with BS EN 179 (as BS5979).</p>

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5.1.4	5.7	<p><b>Glazed areas</b></p> <p>There is a requirement to ensure glazing is resistant to both bullet and physical attack using EN1063 &amp; EN356 respectively. BS5979 called up BS5051-1 (Firearms attack) for bullet attack and gave specific requirements with regards to physical attack, such as maximum glazed area, non-openable.</p>
5.1.5	5.8	<p><b>Ventilation</b></p> <p>There is now a requirement to comply with EN13779, which contains provisions for indoor air quality &amp; sound pressure levels. There were no specific requirements in BS5979.</p> <p>The standard requires that inlet / outlet openings shall be “physically protected” whereas BS5979 specified two options of protection methods.</p>
5.1.6	5.9	<p><b>Service inlets / outlets</b></p> <p>Similar requirements exist for service cables / pipes breaching the shell of the ARC.</p>
5.1.3	5.10	<p><b>Transfer hatch / chute</b></p> <p>The term “Transfer hatch” has been expanded to include the transfer of items in addition to keys (as described in BS5979). It also contains the same requirements for a “chute”.</p> <p>There is no maximum dimension for the hatch / chute, only that it should be constructed to a standard similar to that of the shell of the ARC. The standard requires the outer entrance to open away from the ARC, so it is not clear whether a barrel type system would be acceptable.</p>
5.1.11	Not included	<p><b>Safety equipment</b></p> <p>There are no requirements in the standard for Fire extinguishers as in BS5979. This would be a legal requirement under the fire regulatory reform order to provide safety equipment as part of the premises risk assessment.</p> <p>There are no requirements to provide a supply of torches for emergency use.</p>
5.2	Not included	<p><b>ARC Satellites</b></p> <p>The standard does not recognise ARC satellites.</p>

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5 5.1.8	6 6.1	<p><b>Alarm systems of the ARC</b></p> <p><b>External attack</b></p> <p>Whilst specifying the need to install an IAS to EN50131-1, grade 3, in the main the extent of the protection is to be determined by the risk assessment as part of the design of the IAS. There are some requirements stated, such as the need to protect the ARC shell floor if above ground floor level or a basement is present and where ventilation openings exceed 0.02m<sup>2</sup>, but it is not as specific as BS5979.</p>
5.1.8.3	6.2	<p><b>Fire alarm</b></p> <p>The standard requires installation and components used to be in accordance with EN54-14 series. However, there is no requirement to signal fire to another ARC.</p>
5.1.8.2	6.3	<p><b>Entry / Exit</b></p> <p>Similar requirements exist for an audible warning to be given if both ARC entry doors are opened at the same time or a fire exit is opened, however, there is not a requirement to signal these indications to another ARC.</p>
5.1.8.2	6.4	<p><b>Gas attack</b></p> <p>The need remains to detect carbon monoxide, however the stated need to detect smoke (from BS5979) has been removed; it is deemed this would be covered in the fire alarm design.</p>
5.1.8.2	6.5	<p><b>Communications</b></p> <p>The need to protect cables and their connections within the premises where the ARC is located shall ensure that interference is detected in accordance with EN50136-1. There is no specific detail as to how this is achieved, such as cable routing, cable type, use of personal phones, music devices etc. There is no requirement for a maintenance contract for telecoms services, which might affect the monitoring of alarm messages.</p> <p>There is no individual requirement for incoming and outgoing comms lines, i.e. two independent voice lines and a radio comms path as an additional voice line.</p>
5.1.8.2	6.6	<p><b>Hold-up alarms</b></p> <p>Similar requirements exist to that in BS5979.</p>

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5.1.8.1	6.7	<p><b>Personnel safety monitoring</b></p> <p>The standard clearly states the need for an activity monitor to operate at a maximum of 60 minute intervals.</p>
5.1.8.2/ 5.1.8.3	6.8	<p><b>Signals from the protection systems</b></p> <p>The standard refers to types of alarm system (that protect the ARC) that shall send alarm messages to another ARC. Fire signals are not included in this requirement.</p>
5.1.7	6.9	<p><b>Closed circuit television surveillance</b></p> <p>Reference is made to EN50132-7 for the application of CCTV systems, therefore specific issues such as lighting requirements are no longer mentioned. There is no mention of CCTV viewing comms junction boxes or local cabinets.</p>
<b>5.1.10</b> 5.1.10.1	<b>7</b> 7.1	<p><b>Electrical power supplies</b></p> <p><b>Mains supply</b></p> <p>Similar requirements exist to that in BS5979.</p>
5.1.10.2	7.2	<p><b>Standby power supplies</b></p> <p>The standard refers to EN62040-1 (Uninterruptible power supply systems – General requirements) as part of the requirement for supporting a generator. A UPS is required as opposed to stand-by batteries.</p>
5.1.10.3	7.2.1	<p><b>UPS</b></p> <p>Battery installation shall conform to EN50272-2 (Safety requirements for secondary batteries and battery installations – Part 2 Stationary batteries).</p> <p>Where a generator is used, the UPS only needs to power the ARC equipment for 10 minutes (BS5979 required 4hrs).</p>
5.1.10.4	7.2.2	<p><b>Standby generators</b></p> <p>Where generators are situated within the shell of the ARC, a minimum 30 minutes of fire resistance shall be afforded. (BS5979 required 1hr).</p>

BS5979 2007 Clause ref.	BS50518-1 2010 Clause ref.	Content change detail
NEW	Annex A Clause A.1	<p><b>Lock code requirements</b></p> <p><b>Electromechanical locks</b></p> <p>The lock code requirements for locks complying with EN14846 are provided.</p>
NEW	Clause A.2	<p><b>Mechanical locks</b></p> <p>The lock code requirements for locks complying with EN12209 are provided.</p>
NEW	Annex B	<p><b>Typical ARC layout</b></p> <p>There is an example drawing of a typical ARC layout to assist in understanding the terminology used in the standard.</p>
Annex A	Not included	<p><b>Notes for guidance of inspectorates</b></p> <p>As a European standard, there are no notes for inspection as this is a UK specific requirement.</p>