European Fire and Security Group
EFSG Secretariat
Amsterdamer Straße 172 – 174
D-50735 Köln, GERMANY.

MUTUAL RECOGNITION AGREEMENT
INTRUSION ALARM COMPONENTS

Participants:

Certification Body	**Signatory**
AFNOR Certification	afnor CERTIFICATION 11 rue Francis de Pressensé F-93571 La Plaine Saint Denis Cedex
BRE Global Ltd	bre BRE Global Ltd Bucknalls Lane Watford, Herts, WD25 9XX
CNPP Cert.	CNPP CNPP Cert. Route de la Chapelle Réanville F-27950 La Chapelle-Longueville
IMQ S.p.A	IMQ IMQ S.p.A Via Quintiliano 43 20138 Milano Italy
VdS Schadenverhütung GmbH	VdS VdS Schadenverhütung GmbH Amsterdamer Str. 174 D-50735 Köln
Associated Testing Laboratories	**Signatory**
BRE Global Ltd	bre BRE Global Ltd Bucknalls Lane Watford, Herts, WD25 9XX
CNPP Entreprise	CNPP CNPP Entreprise Route de la Chapelle Réanville F-27950 Saint-Marcel
IMQ S.p.A	IMQ IMQ S.p.A Via Quintiliano 43 20138 Milano Italy
VdS Schadenverhütung GmbH	VdS VdS Schadenverhütung GmbH Amsterdamer Str. 174 D-50735 Köln

The certification bodies (CB), which are members in the European Fire and Security Group (EFSG) and associated testing laboratories (ATL) signing this mutual recognition agreement (MRA), agree to accept the following terms and conditions. Each party undertakes to communicate the conditions of this MRA to the market (i.e. the customer base).

1 GENERAL

This agreement specifies the conditions for the mutual recognition of test results used for certification for components of intruder alarm systems according to the standards and tables listed in the technical part (ANNEX 1) of this agreement, for the purposes of granting permission to use the certification marks of the certification body signatories.

The agreement has been made on the understanding that the participating certification bodies are accredited in accordance with EN ISO/IEC 17065 by a member of EA (European co-operation for Accreditation) with a scope covering the relevant equipment.

Attention is drawn to the EN ISO/IEC 17065 requirements related to conflicts of interest. Each member certification body and each ATL must require its personnel involved in the execution of this mutual recognition agreement to disclose any situation of which they are aware that may confront them with a conflict of interest. In the event of such a disclosure the other signatories to this agreement must be informed at the earliest convenience.

This MRA agreement is based on the Terms of Reference of EFSG, Revision 26.

2 OBJECT

It is the object of this agreement on the mutual recognition of test results to make it easier for manufacturers to obtain authorisation to use the mark of each Certification Body (CB). To achieve this, test results as specified below, will be considered to be acceptable for all CBs within this MRA.

3 SCOPE

This MRA applies to components of intrusion alarm systems in accordance with the standards listed in the technical part of this agreement.

This MRA covers initial type testing of the product.

Each ATL will have been successfully audited and will have met the requirements of the applicable inter-laboratory comparison testing programme(s) before signing the MRA.

4 APPLICATION PROCEDURE

If a manufacturer wants to be licensed for the certification mark of another party of this MRA, the manufacturer shall apply to that certification body and shall agree to abide by its rules.

For comparison of test results, it is necessary, that the manufacturer gives permission to the CB and its ATL, to exchange information (e.g. test results) between the signatories of this agreement.

The test results from any one of the ATL according to the technical part of this MRA (see ANNEX 1 defining the relevant tests), shall be mutually accepted by the CB who have, by endorsement of this MRA confirmed such agreement, within the bounds of the respective regulations.

5 ASSOCIATED TESTING LABORATORY (ATL)

The ATL shall operate in conformity with standards and tables listed in the technical part (ANNEX 1) of this MRA.

It shall be accredited in accordance with EN ISO/IEC 17025 by a member of the EA for the relevant testing.

The ATL shall be capable of conducting at least the entire product specific Key Performance Tests (KPT *), identified in the tables in the technical ANNEX 1 in its own premises.

The results of the tests shall be given in a test report issued at least in English. Translations may be provided for better understanding by the manufacturer or CB but the original report shall be used in case of dispute.

The ATL shall participate in the inter-laboratory comparison programmes set up by EFSG and agree to exchange experiences.

* Key performance tests are those tests that demonstrate the primary function(s) and operational parameters of the device under test.

6 COMMON COMMITTEES

At least, once a year or at the request of one signatory of the agreement, the CBs and ATLs will meet for a review regarding the implementation of the EFSG agreement.

The review will consider but need not be limited to, the suitability of the MRA to meet the needs of the market, changes to standards and/or testing practices.

Unless otherwise agreed, one representative respectively for each signatory of this MRA will participate at the review. This representative can participate with consultative participants. The resolutions of the meetings shall be recorded.

The place and date of the review shall be discussed and agreed by the signatories of this MRA.

7 DISPUTES

In case of a breach of the EFSG agreement, the signatories are obliged to attempt to resolve the problem in a fair discussion before terminating this MRA.

8 TERMINATION OF OR WITHDRAWAL FROM THE MRA

Termination of this MRA will occur when a simple majority of the signatories give 12 months notice, to all the signatories, of their request to terminate this MRA.

Withdrawal from the MRA by one signatory will occur when that organisation gives 12 months notice to all the signatories of its intention to withdraw from this MRA. Upon receipt of the notification by one ATL signatory to withdraw from the MRA the TAG must conduct a review of the impact upon existing product certifications. If/when requested, the ATL shall provide any additional information necessary in order that the product certifications can continue.

A termination of, or withdrawal from, this MRA does not invalidate certifications, based on mutually accepted results, that have been granted before the date of termination or withdrawal.

9 IMPLEMENTATION

This MRA is valid for a period of **3 years** commencing from the date of publication. It supersedes the MRA on components of intrusion alarm systems, version 9, June 2025.

Tests results issued after the date of publication are fully valid for implementation: those issued before the date of publication shall be scrutinised individually for acceptance by the members.

After this period, this MRA will be renewed automatically for a further 3 years unless the signatories decide otherwise.

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ANNEX 1 to the mutual recognition agreement of intrusion alarm system components TESTING

EFSG Members (certification bodies) involved in the certification of the components of intrusion alarm systems accept test results as indicated in the following tables from any associated testing laboratory.

A certification body may request additional testing for the certification of a product, e.g. where a higher severity for a certain test may be required, etc…

The following product standards are under consideration:

EN 50131-2-2:2021	Alarm systems - Intrusion and hold-up systems - Part 2-2: Requirements for passive infrared detectors
EN 50131-2-3:2021	Alarm systems - Intrusion systems - Part 2-3: Requirements for microwave detectors
EN 50131-2-4:2020	Alarm systems - Intrusion and hold-up systems - Part 2-4: Requirements for combined passive infrared and microwave detectors
EN 50131-2-6:2008	Alarm systems - Intrusion and hold-up systems - Part 2-6: Requirements for Opening contacts (magnetic)
EN 50131-3:2009	Alarm systems - Intrusion and hold-up systems - Part 3: Control and indicating equipment
EN 50131-4:2019	Alarm systems - Intrusion and hold-up systems - Part 3: Warning Devices
EN 50131-5-3:2017	Alarm systems - Intrusion and hold-up systems - Part 5-3: Requirements for interconnections equipment using radio frequency techniques
EN 50131-6:2017+A1-2021	Alarm systems - Intrusion and hold-up systems - Part 6: Power supplies
EN 50131-10:2014	Alarm systems – Intrusion and hold-up systems - Part 10: Application specific requirements for Supervised Premises Transceiver (SPT)
EN 50136-2:2013	Alarm systems – Alarm transmission systems and equipment Part 2: Requirements for Supervised Premises Transceiver (SPT)

For the purposes of the IAS agreement the standards listed above include all applicable amendments.

Mutual recognition is based on the fact, that the products to be certified are identical to those tested and the test reports issued by any of the associated test laboratories contain the same level of detailed information (i.e. a harmonised form of test report).

As stated in the EFSG Terms of Reference, the associated test laboratories shall have taken part in the inter-laboratory testing programme and/or expert exchange that has satisfactorily confirmed the test methods and test results.

1 CERTIFICATION BODIES AND THEIR ASSOCIATED TESTING LABORATORIES

The table below identifies the certification bodies, their nominated associated laboratories and their testing capabilities.

			Certification bodies				
Certification bodies and their associated testing laboratories			**AFNOR Certification**	**BRE**	**VdS**	**CNPP Cert.**	**IMQ**
Associated testing laboratories	**Standards**	**Remarks / Limitations to tests**					
BRE Global Ltd	**EN 50131-2-2:2021**	See Note 1		●			
	EN 50131-2-3:2021	-- None --		●			
	EN 50131-2-4:2020	See Note 1		●			
	EN 50131-2-6:2008	-- None --		●			
	EN 50131-3:2009	-- None --		●			
	EN 50131-4:2019	See Note 2		●			
	EN 50131-5-3:2017	-- None --					
	EN 50131-6:2017 +A1-2021	-- None --		●			
	EN 50131-10:2014	-- None --		●			
	EN 50136-2:2013	-- None --		●			
CNPP	**EN 50131-2-2:2021**	-- None --	●			●	
	EN 50131-2-3:2021	-- None --	●			●	
	EN 50131-2-4:2020	-- None --	●			●	
	EN 50131-2-6:2008	-- None --	●			●	
	EN 50131-3:2009	-- None --	●			●	
	EN 50131-4:2019	-- None --	●			●	
	EN 50131-5-3:2017	-- None --	●			●	
	EN 50131-6:2017 +A1-2021	-- None --	●			●	
	EN 50131-10:2014	-- None --	●			●	
	EN 50136-2:2013	-- None --	●			●	
IMQ	**EN 50131-3:2009**	-- None --					●
	EN 50131-4:2019	-- None --					●
	EN 50131-5-3:2017	-- None --					●
	EN 50131-6:2017 +A1-2021	-- None --					●

Certification bodies and their associated testing laboratories			Certification bodies				
			AFNOR Certification	BRE	VdS	CNPP Cert.	IMQ
Associated testing laboratories	**Standards**	**Remarks / Limitations to tests**					
VdS Schadenverhütung	**EN 50131-2-2:2021**	See Note 1			●		
	EN 50131-2-3:2021	-- None --			●		
	EN 50131-2-4:2020	See Note 1			●		
	EN 50131-2-6:2008	-- None --			●		
	EN 50131-3:2009	-- None --			●		
	EN 50131-4:2019	-- None --			●		
	EN 50131-5-3:2017	-- None --			●		
	EN 50131-6:2017 +A1-2021	-- None --			●		
	EN 50131-10:2014	-- None --			●		
	EN 50136-2:2013	-- None --			●		

Note 1. Immunity to turbulent warm air flow subcontracted to another EFSG recognised associated testing laboratory.

Note 2 . Water ingress and impact testing is subcontracted to another EFSG recognised associated testing laboratory.

Each certification body (CB) participating in the agreement is responsible for its certification decisions and remains autonomous in respect of its certification decisions. The CBs issue the certificate related to their own mark.

An associated testing laboratory must fulfil witness testing and/or the ‘round robin’ test programmes based on the content of the standards listed in the EFSG Agreement. Test reports published by an associated testing laboratory shall be considered acceptable only if the results of the ‘round robin’ test programmes and/or the witness testing are found to satisfactory following peer review in the corresponding EFSG Technical Advisory Group.

2 SUBCONTRACTING

Where it is necessary to subcontract testing it is preferred that an EFSG Associated Testing Laboratory (ATL) is used, e.g. In the event that specific test apparatus or instrumentation needed to conduct the key performance tests* is temporarily out of service (e.g. due to a fault), the tests shall be subcontracted to another associated testing laboratory provided the requirements prescribed by the EFSG Terms of Reference are met.

* Key performance tests are those tests that demonstrate the primary function(s) and operational parameters of the device under test. An associated testing laboratory, expert in the particular field of activity covered by this EFSG agreement must be able to perform these tests in order to be signatory to the agreement.

If a test is subcontracted to another ATL, it shall be performed completely in the other ATL, e.g. climatic testing including initial assessment, monitoring during conditioning and measurement after conditioning.

If an associated testing laboratory that is party to this EFSG agreement needs to use a subcontractor other than an EFSG ATL that is signatory to this MRA to deliver a test covered by the MRA outside of the key performance tests, the subcontractor shall be audited by the other ATLs before being recognised under the EFSG rules, otherwise the subcontracted tests will not be recognised by the other CB(s) and will then be repeated.

All subcontracted tests shall be declared in the test report and if known at the time, within the test schedule created at the start of a project requiring multiple certification.

Only test laboratories accredited to ISO 17025 (by a national accreditation body) for the relevant test method shall be used for subcontract test work, however the basic functional test(s) must be performed by the EFSG member's associated laboratory. Tests identified as key performance tests and which are denoted in the following tables by '✓', shall not be subcontracted.

3 PROCEDURE FOR TESTING AND CERTIFICATION

An applicant shall apply for certification at those CBs from which the applicant wishes to obtain a certificate. The applicant can indicate to the CB a preference for the associated testing laboratory that is able to perform the product testing.

Taking the product specifications and the test specimen(s) as a basis, the laboratory proceeds as follows:

- Examination of specimen(s) and documentation
- Define and agree the test programme with the applicant and the CB
- Perform the test programme
- Issue the test report(s).

The CB studies the test report and issues a certificate that clearly identifies the security grade and environmental classification of the product.

When the applicant has not informed all the relevant CBs prior to testing and the certificates of the other CBs are sought after the testing has been completed, it may be necessary for the other CBs to request additional tests to be carried by an associated testing laboratory that is party to this mutual agreement. The reasons for the additional tests shall be justified in writing to the applicant and the first CB notified by the CB that requires them.

4 MUTUAL RECOGNITION OF TEST RESULTS

This agreement includes the mutual recognition of the results of tests performed by an associated testing laboratory to the clauses of the EN standards identified in table(s) of this Annex. The mutual recognition of the results of tests that are outside of the scope of the EN standards is not covered by this agreement.

No entry (i.e. blank) in the ‘Mutual Recognition’ columns of the following tables means that the certification body is free to accept or not to accept results from the associated testing laboratory in question.

An 'x' means that the certification body has to accept the result.

In the unlikely event that the results of a test lead to uncertainty when assessing compliance against the criteria of the test standard, a participating CB can request further information and/or testing.

Unless specifically stated in this EFSG agreement, the environmental tests and EMC tests shall be conducted in accordance with the most recent version of the standards especially once the date of withdrawal (DOW) has been reached, irrespective of the publication date of the standard being explicitly stated in the product standard. Alternatively, the previous version of those standards shall be accepted by the EFSG members provided testing has been completed prior to the date of withdrawal.

PASSIVE INFRA RED DETECTORS

TESTS ACCORDING TO EN 50131-2-2:2021	CLAUSE	Notes	Key Performance Tests	Mutual Recognition			
				CNPP	BRE	VdS	
FUNCTIONAL REQUIREMENTS	4	a					
MARKING, IDENTIFICATION AND DOCUMENTATION	5						
BASIC DETECTION TEST	6.2			x	x	x	
WALK TESTING	6.3		✓	x	x	x	
SWITCH-ON DELAY, TIME INTERVAL BETWEEN SIGNALS AND INDICATION OF DETECTION	6.4		✓	x	x	x	
SELF TESTS	6.5	b	✓	x	x	x	
IMMUNITY TO INCORRECT OPERATION	6.6		✓	x	d	d	
TAMPER SECURITY	6.7		✓	x	x	x	
ELECTRICAL TESTS	6.8	c		x	x	x	
ENVIRONMENTAL CLASSIFICATION AND CONDITIONS	6.9						
Dry Heat	6.9	1		x	x	x	
Cold (Operational)	6.9	1		x	x	x	
Damp Heat ,Steady State (Operational)	6.9	1		x	x	x	
Damp Heat , Cyclic (Operational)	6.9	1		x	x	x	
Impact (Operational)	6.9	2		x	x	x	
Water Ingress	6.9	3		x	x	x	
Mechanical Shock (Operational)	6.9	1		x	x	x	
Vibration, Sinusoidal (Operational)	6.9	1		x	x	x	
Electrostatic Discharge (Operational)	6.9	4		x	x	x	
Radiated Electromagnetic Fields (Operational)	6.9	5		x	x	x	
Fast Transient Bursts (Operational)	6.9	6		x	x	x	

TESTS ACCORDING TO EN 50131-2-2:2021	CLAUSE	Notes	Key Performance Tests	Mutual Recognition			
				CNPP	BRE	VdS	
Slow High Energy Voltage Surges (Operational)	6.9	6		x	x	x	
Mains Voltage Dips And Interruptions (Operational)	6.9			x	x	x	
Conducted Disturbances Induced By Electromagnetic Fields (Operational)	6.9	5,7		x	x	x	
Damp Heat Steady State (Endurance)	6.9			x	x	x	
Damp Heat Cyclic (Endurance)	6.9			x	x	x	
Vibration, Sinusoidal (Endurance)	6.9			x	x	x	
SO_2 Corrosion (Endurance)	6.9			x	x	x	
MARKING, IDENTIFICATION AND DOCUMENTATION	6.10						

Note a) The results of tests performed in accordance with the previous standards (EN 50131-2-2:2008 & EN 50131-2-2:2017) can be used to support multiple certification provided the requirements and test methods are identical to those of the current standard. Where a requirement or test method differs between the current standard and the previous standard, further validation testing might be necessary to confirm compliance with the current requirements.

b) A description (or a photograph) of the location where the short circuit condition(s) are applied shall be included in the test report.

c) The test laboratory shall show in the test report the test values of the electrical parameters measured during the test.

d) Voluntary suspension of the mutual recognition of test results for the Immunity to turbulent warm air flow test (Clause 6.7.1) pending alignment of test data under the rules of this MRA. The mutual recognition of test results for the Immunity to visible and near infrared radiation (Clause 6.7.2) is unaffected.

MICROWAVE DETECTORS

TESTS ACCORDING TO EN 50131-2-3:2021	CLAUSE	Notes	Key Performance Tests	Mutual Recognition			
				CNPP	BRE	VdS	
FUNCTIONAL REQUIREMENTS	4	a					
MARKING, IDENTIFICATION AND DOCUMENTATION	5						
BASIC DETECTION TEST	6.3			x	x	x	
WALK TESTING	6.4		✓	x	x	x	
SWITCH-ON DELAY, TIME INTERVAL BETWEEN SIGNALS AND INDICATION OF DETECTION	6.5		✓	x	x	x	
SELF TESTS	6.6	b	✓	x	x	x	
IMMUNITY TO INCORRECT OPERATION - Immunity to microwave signal interference by fluorescent lights	6.7		✓	x	x	x	
TAMPER SECURITY	6.8		✓	x	x	x	
ELECTRICAL TESTS	6.9	c		x	x	x	
ENVIRONMENTAL CLASSIFICATION AND CONDITIONS	6.10						
Dry Heat	6.10	1		x	x	x	
Cold (Operational)	6.10	1		x	x	x	
Damp Heat ,Steady State (Operational)	6.10	1		x	x	x	
Damp Heat , Cyclic (Operational)	6.10	1		x	x	x	
Impact (Operational)	6.10	2		x	x	x	
Water Ingress	6.10	3		x	x	x	
Mechanical Shock (Operational)	6.10	1		x	x	x	
Vibration, Sinusoidal (Operational)	6.10	1		x	x	x	
Electrostatic Discharge (Operational)	6.10	4		x	x	x	
Radiated Electromagnetic Fields (Operational)	6.10	5		x	x	x	
Fast Transient Bursts (Operational)	6.10	6		x	x	x	

TESTS ACCORDING TO EN 50131-2-3:2021	CLAUSE	Notes	Key Performance Tests	Mutual Recognition			
				CNPP	BRE	VdS	
Slow High Energy Voltage Surges (Operational)	6.10	6		x	x	x	
Mains Voltage Dips And Interruptions (Operational)	6.10			x	x	x	
Conducted Disturbances Induced By Electromagnetic Fields (Operational)	6.10	5,7		x	x	x	
Damp Heat Steady State (Endurance)	6.10			x	x	x	
Damp Heat Cyclic (Endurance)	6.10			x	x	x	
Vibration, Sinusoidal (Endurance)	6.10			x	x	x	
SO_2 Corrosion (Endurance)	6.10			x	x	x	
MARKING, IDENTIFICATION AND DOCUMENTATION	6.11						

Note a) The results of tests performed in accordance with the previous standard (EN 50131-2-3:2008) can be used to support multiple certification provided the requirements and test methods are identical to those of the current standard. Where a requirement or test method differs between the current standard and the previous standard, further validation testing might be necessary to confirm compliance with the current requirements.

b) A description (or a photograph) of the location where the short circuit condition(s) are applied shall be included in the test report.

c) The test laboratory shall show in the test report the test values of the electrical parameters measured during the test.

COMBINED PASSIVE INFRA RED AND MICROWAVE DETECTORS

TESTS ACCORDING TO EN 50131-2-4:2020	CLAUSE	Notes	Key Performance Tests	Mutual Recognition			
				CNPP	BRE	VdS	
FUNCTIONAL REQUIREMENTS	4	a					
MARKING, IDENTIFICATION AND DOCUMENTATION	5						
BASIC DETECTION TEST	6.3			x	x	x	
WALK TESTING	6.4		✓	x	x	x	
SWITCH-ON DELAY, TIME INTERVAL BETWEEN SIGNALS AND INDICATION OF DETECTION	6.5		✓	x	x	x	
SELF TESTS	6.6	b	✓	x	x	x	
IMMUNITY TO INDIVIDUAL TECHNOLOGIES TO INCORRECT OPERATION	6.7		✓	x	d	d	
TAMPER SECURITY	6.8		✓	x	x	x	
ELECTRICAL TESTS	6.9	c		x	x	x	
ENVIRONMENTAL CLASSIFICATION AND CONDITIONS	6.10						
Dry Heat	6.10	1		x	x	x	
Cold (Operational)	6.10	1		x	x	x	
Damp Heat ,Steady State (Operational)	6.10	1		x	x	x	
Damp Heat , Cyclic (Operational)	6.10	1		x	x	x	
Impact (Operational)	6.10	2		x	x	x	
Water Ingress	6.10	3		x	x	x	
Mechanical Shock (Operational)	6.10	1		x	x	x	
Vibration, Sinusoidal (Operational)	6.10	1		x	x	x	
Electrostatic Discharge (Operational)	6.10	4		x	x	x	
Radiated Electromagnetic Fields (Operational)	6.10	5		x	x	x	

TESTS ACCORDING TO EN 50131-2-4:2020	CLAUSE	Notes	Key Performance Tests	Mutual Recognition			
				CNPP	BRE	VdS	
Fast Transient Bursts (Operational)	6.10	6		x	x	x	
Slow High Energy Voltage Surges (Operational)	6.10	6		x	x	x	
Mains Voltage Dips And Interruptions (Operational)	6.10			x	x	x	
Conducted Disturbances Induced By Electromagnetic Fields (Operational)	6.10			x	x	x	
Damp Heat Steady State (Endurance)	6.10			x	x	x	
Damp Heat Cyclic (Endurance)	6.10			x	x	x	
Vibration, Sinusoidal (Endurance)	6.10			x	x	x	
SO_2 Corrosion (Endurance)	6.10			x	x	x	
MARKING, IDENTIFICATION AND DOCUMENTATION	6.11						

Note a) The results of tests performed in accordance with the previous standard (EN 50131-2-4:2008) can be used to support multiple certification provided the requirements and test methods are identical to those of the current standard. Where a requirement or test method differs between the current standard and the previous standard, further validation testing might be necessary to confirm compliance with the current requirements.

b) A description (or a photograph) of the location where the short circuit condition(s) are applied shall be included in the test report.

c) The test laboratory shall show in the test report the test values of the electrical parameters measured during the test.

d) Voluntary suspension of the mutual recognition of test results for the Immunity to turbulent warm air flow test (Clause 6.7.1) pending alignment of test data under the rules of this MRA. The mutual recognition of test results for the Immunity to visible and near infrared radiation (Clause 6.7.2) and Immunity to microwave signal interference by fluorescent lights (Clause 6.7.3) are unaffected.

Table notes relating to EN 50131-2-2, EN 50131-2-3 and EN 50131-2-4

1. During the conditioning, attempts shall be made to ensure the detector is not influenced by the unwanted effects of the climatic conditioning, (i.e. air turbulence, vibration etc.), or by the unwanted effects of the vibration and/or mechanical shock conditioning (i.e. changes in background surface temperature). Where it is not possible to mask the detector without influencing the anti-masking function the test may be performed without shielding the detector from the unwanted effects, however in the event of a 'false' alarm during the conditioning the test laboratory must investigate to determine the cause of the alarm.

2. The material upon which the detector is mounted shall be concrete. The test laboratory shall show in the test report the positions of the impacts applied to the detector under test. The test laboratory shall visually examine the detector prior to the test to determine the areas likely to be most susceptible to the impacts.
3. The test report shall state if water was able to penetrate the detector enclosure following exposure to the water ingress conditioning.
4. The test laboratory shall show in the test report the positions where the ESD was applied to the detector under test. The test laboratory shall visually examine the detector prior to the test to determine the areas likely to be most susceptible to the ESD energy. The test report shall state if any air discharges occurred and their position with respect to the specimen.
5. The test laboratory shall consider the dwell time required, taking account of any delay, integration or processing times of the detector under test. The dwell time and any modification of the test specimen necessary to reduce the overall response time shall be stated in the test report.

   The test report shall show (by means of a drawing or photograph) the position of the EUT and it's cabling in the field and the position of the antenna in all tested orientations of the Radiated Electromagnetic Fields test.

6. The test laboratory shall show in the test report the coupling method for each tested interface which was used to inject the transients into the cable. (i.e. CDN, capacitive coupling clamp etc…)
7. The test laboratory shall show in the test report the test setup, identifying all the specific CDN's or clamps used in the test.

OPENING CONTACTS (MAGNETIC)

TESTS ACCORDING TO EN 50131-2-6:2008	CLAUSE	Notes	Key Performance Tests	Mutual Recognition			
				CNPP	BRE	VdS	
FUNCTIONAL REQUIREMENTS	4						
MARKING, IDENTIFICATION AND DOCUMENTATION	5						
BASIC TEST OF DETECTION CAPABILITY	6.3			x	x	x	
VERIFICATION OF DETECTION PERFORMANCE	6.4		✓	x	x	x	
SWITCH-ON DELAY, TIME INTERVAL BETWEEN SIGNALS AND INDICATION OF DETECTION	6.5		✓	x	x	x	
TAMPER SECURITY	6.6		✓	x	x	x	
ELECTRICAL TESTS	6.7	1		x	x	x	
ENVIRONMENTAL CLASSIFICATION AND CONDITIONS	6.8						
Dry Heat	6.8			x	x	x	
Cold (Operational)	6.8			x	x	x	
Damp Heat ,Steady State (Operational)	6.8			x	x	x	
Damp Heat , Cyclic (Operational)	6.8			x	x	x	
Water Ingress	6.8	2		x	x	x	
Mechanical Shock (Operational)	6.8			x	x	x	
Vibration, Sinusoidal (Operational)	6.8			x	x	x	
Impact (Operational)	6.8	3		x	x	x	
Electrostatic Discharge (Operational)	6.8	4		x	x	x	
Radiated Electromagnetic Fields (Operational)	6.8	5		x	x	x	
Fast Transient Bursts (Operational)	6.8	6		x	x	x	
Slow High Energy Voltage Surges (Operational)	6.8	6		x	x	x	

TESTS ACCORDING TO EN 50131-2-6:2008	CLAUSE	Notes	Key Performance Tests	Mutual Recognition			
				CNPP	BRE	VdS	
Mains Voltage Dips And Interruptions (Operational)	6.8			x	x	x	
Conducted Disturbances Induced By Electromagnetic Fields (Operational)	6.8	5,7		x	x	x	
Damp Heat Steady State (Endurance)	6.8			x	x	x	
Damp Heat Cyclic (Endurance)	6.8			x	x	x	
Vibration, Sinusoidal (Endurance)	6.8			x	x	x	
SO_2 Corrosion (Endurance)	6.8			x	x	x	
MARKING, IDENTIFICATION AND DOCUMENTATION	6.10						

Table notes relating to EN 50131-2-6

1. The test laboratory shall show in the test report the test values of the electrical parameters measured during the test.
2. The test report shall state if water was able to penetrate the detector enclosure following exposure to the water ingress conditioning.
3. The material upon which the detector is mounted shall be concrete. The test laboratory shall show in the test report the positions of the impacts applied to the detector under test. The test laboratory shall visually examine the detector prior to the test to determine the areas likely to be most susceptible to the impacts.
4. The test laboratory shall show in the test report the positions where the ESD was applied to the detector under test. The test laboratory shall visually examine the detector prior to the test to determine the areas likely to be most susceptible to the ESD energy. The test report shall state if any air discharges occurred and their position with respect to the specimen.
5. Applicable to active opening detectors (i.e. those with in-built processing electronics). The test laboratory shall consider the dwell time required, taking account of any delay, integration or processing times of the detector under test. The dwell time and any modification of the test specimen necessary to reduce the overall response time shall be stated in the test report.

   The test report shall show (by means of a drawing or photograph) the position of the EUT and it's cabling in the field and the position of the antenna in all tested orientations of the Radiated Electromagnetic Fields test.
6. Applicable to active opening detectors (i.e. those with in-built processing electronics). The test laboratory shall show in the test report the coupling method for each tested interface which was used to inject the transients into the cable. (i.e. CDN, capacitive coupling clamp etc…).
7. Applicable to active opening detectors (i.e. those with in-built processing electronics). The test laboratory shall show in the test report the test setup, identifying all the specific CDN's or clamps used in the test.

CONTROL AND INDICATING EQUIPMENT

TESTS ACCORDING TO EN 50131-3:2009	CLAUSE	Notes	Key Performance Tests	Mutual Recognition			
				CNPP	BRE	VdS	IMQ
FUNCTIONAL REQUIREMENTS	4 - 8			x	x	x	x
TESTS	11						
TEST CONDITIONS	11.1	1					
TEST PROCEDURES	11.2						
REDUCED FUNCTIONAL TEST	11.3		✓	x	x	x	x
FUNCTIONAL TESTS	11.4		✓	x	x	x	x
ACCESS LEVEL	11.5		✓	x	x	x	x
AUTHORIZATION REQUIREMENTS	11.6		✓	x	x	x	x
OPERATIONAL TESTS	11.7		✓	x	x	x	x
TAMPER SECURITY TESTS	11.8		✓	x	x	x	x
SUBSTITUTION TESTS	11.9		✓	x	x	x	x
TESTING OF I&HAS TIMING PERFORMANCE	11.10		✓	x	x	x	x
TESTING FOR INTERCONNECTIONS	11.11		✓	x	x	x	x
EVENT LOG	11.12	2	✓				
MARKING AND DOCUMENTATION	11.13						
ENVIRONMENTAL AND EMC TESTS	11.14						
Dry heat (Operational)	11.14	3.4		x	x	x	x
Dry heat (Endurance)	11.14	3.4		x	x	x	x
Cold (Operational)	11.14	3.4		x	x	x	x
Damp heat, steady state (Operational)	11.14	3.4		x	x	x	x
Damp heat, steady state (Endurance)	11.14	3,4		x	x	x	x
Temperature change (Operational)	11.14	4		x	x	x	x

TESTS ACCORDING TO EN 50131-3:2009	CLAUSE	Notes	Key Performance Tests	Mutual Recognition			
				CNPP	BRE	VdS	IMQ
Damp heat, cyclic (Operational)	11.14	3,4		x	x	x	x
Damp heat, cyclic (Endurance)	11.14	3,4		x	x	x	x
Water ingress (Operational)	11.14	5		x	x	x	x
Sulphur Dioxide (S02) (Endurance)	11.14			x	x	x	x
Salt mist, cyclic (Endurance)	11.14						
Impact (Operational)	11.14	6		x	x	x	x
Shock (Operational)	11.14	7		x	x	x	x
Vibration, sinusoidal (Operational)	11.14			x	x	x	x
EMC Tests Operational	11.14						
Electrostatic Discharge (Operational)	11.14	8		x	x	x	x
Radiated Electromagnetic Fields (Operational)	11.14	9		x	x	x	x
Fast Transient Bursts (Operational)	11.14	10		x	x	x	x
Slow High Energy Voltage Surges (Operational)	11.14	10		x	x	x	x
Mains Voltage Dips And Interruptions (Operational)	11.14			x	x	x	x
Conducted Disturbances Induced By Electromagnetic Fields (Operational)	11.14	9,11		x	x	x	x

Table notes relating to EN 50131-3

1. The configuration of the test system shall be documented and details included in the test report.

2. The minimum resolution of the time stamp associated with events recorded in the event log of an I&HAS CIE shall be in accordance with the requirement as specified in EN 50131-3 clause 8.10.1, i.e. hours and minutes, unless the CIE under test incorporates a SPT with a combined event log. In this situation the SPT requirements for minimum resolution and accuracy of EN 50136-2 clause 5.10 take precedence and the minimum resolution of the event time stamp recorded becomes 1 second and it shall be accurate to the coordinated universal time within +/- 5s.

3. Power supplies of CIE shall be tested with the Storage Device (SD) connected and fitted inside the enclosure of the EUT during the environmental conditioning, including climatic and whilst the reduced functional test is applied when the PS is integrated into the cabinet of the CIE

4. All technology types of portable ancillary control equipment shall be used to check the correct operation of the CIE during the reduced functional tests before, during and after environmental and climatic conditioning. However, unless specifically requested by the client, environmental and climatic conditioning need not to be applied to passive portable ancillary control equipment (PACE) such as swipe cards and tokens used in the setting and unsetting procedure.

5. The test report shall state if any water was able to penetrate the enclosure of the specimen following exposure to the water ingress conditioning.

6. The material upon which the CIE and/or ancillary equipment is mounted shall be concrete. The test laboratory shall show in the test report the positions of the impacts applied to the specimen under test. The test laboratory shall visually examine the specimen prior to the test to determine the areas likely to be most susceptible to the impacts.

7. The shock conditioning shall be conducted using the 'shaker table' method.

8. The test laboratory shall show in the test report the positions where the ESD was applied to the CIE and/or ancillary equipment under test. The test laboratory shall visually examine the specimen(s) prior to the test to determine the areas likely to be most susceptible to the ESD energy. The test report shall state if any air discharges occurred and their position with respect to the specimen(s).

9. The test laboratory shall consider the dwell time required, taking account of any delay, integration or processing times of the equipment under test. The dwell time and any modification of the test specimen necessary to reduce the overall response time shall be stated in the test report.

   The test report shall show (by means of a drawing or photograph) the position of the equipment under test and it's cabling in the field and the position of the antenna in all tested orientations of the Radiated Electromagnetic Fields test.

10. The test laboratory shall show in the test report the coupling method for each tested interface which was used to inject the transients into the cable. (i.e. CDN, capacitive coupling clamp etc…)

11. The test laboratory shall show in the test report the test setup, identifying all the specific CDN's or clamps used in the test.

WARNING DEVICES

TESTS ACCORDING TO EN 50131-4:2019	CLAUSE	Notes	Key Performance Tests	Mutual Recognition			
				CNPP	BRE	VdS	IMQ
FUNCTIONAL REQUIREMENTS	5			x	x	x	x
TESTS	6	1					
GENERAL	6.1						
FUNCTIONAL	6.2						
REDUCED FUNCTIONAL TEST	6.3		✓	x	x	x	x
RESPONSE TO EVENTS	6.4		✓	x	x	x	x
ACOUSTIC OUTPUT LEVEL	6.5	2	✓	x	x	x	x
TAMPER	6.6		✓	x	x	x	x
ELECTRICAL TESTS	6.7	3	✓	x	x	x	x
MARKING	6.8						
DOCUMENTATION	6.9						
ENVIRONMENTAL AND EMC TESTS	6.10						
Impact	6.10.1	4		x		x	x
Dry heat (Operational)	6.10.2			x	x	x	x
Dry heat (Endurance)	6.10.2			x	x	x	x
Cold (Operational)	6.10.2			x	x	x	x
Damp heat, steady state (Operational)	6.10.2			x	x	x	x
Damp heat, steady state (Endurance)	6.10.2			x	x	x	x
Damp heat, cyclic (Operational)	6.10.2			x	x	x	x
Damp heat, cyclic (Endurance)	6.10.2			x	x	x	x
Water ingress (Operational)	6.10.2	5		x		x	x
Sulphur Dioxide (S02) (Endurance)	6.10.2			x	x	x	x

TESTS ACCORDING TO EN 50131-4:2019	CLAUSE	Notes	Key Performance Tests	Mutual Recognition			
				CNPP	BRE	VdS	IMQ
Salt mist, cyclic (Endurance)	6.10.2			x	x	x	x
Shock (Operational)	6.10.2	6		x	x	x	x
Vibration, sinusoidal (Operational)	6.10.2			x	x	x	x
Vibration, sinusoidal (Endurance)	6.10.2			x	x	x	x
EMC Tests	6.10.2						
Electrostatic Discharge (Operational)	6.10.2	7		x	x	x	x
Radiated Electromagnetic Fields (Operational)	6.10.2	8		x	x	x	x
Fast Transient Bursts (Operational)	6.10.2	9		x	x	x	x
Slow High Energy Voltage Surges (Operational)	6.10.2	9		x	x	x	x
Mains Voltage Dips And Interruptions (Operational)	6.10.2			x	x	x	x
Conducted Disturbances Induced By Electromagnetic Fields (Operational)	6.10.2	9,10		x	x	x	x

Table notes relating to EN 50131-4

1. Configuration settings of the warning device shall be documented and included in the test report.

2. When performing the acoustic output level tests at the minimum and maximum rated supply voltage specified by the manufacturer, the supply voltage shall be measured at the terminals of the warning device when it is in the alarm condition.

3. The method used to verify that the storage device has sufficient capacity to operate the warning device in accordance with clause 6.7.5. Storage device operating time shall be documented and included in the test report.

4. The test laboratory shall show in the test report the positions of the impacts applied to the specimen under test. The test laboratory shall visually examine the specimen prior to the test to determine the areas likely to be most susceptible to the impacts.

5. The test report shall state if any water was able to penetrate the enclosure of the specimen following exposure to the water ingress conditioning.

6. The shock conditioning shall be conducted using the 'shaker table' method.

7. The test laboratory shall show in the test report the positions where the ESD was applied to the warning device under test. The test laboratory shall visually examine the specimen prior to the test

to determine the areas likely to be most susceptible to the ESD energy. The test report shall state if any air discharges occurred and their position with respect to the specimen(s).

8. The test laboratory shall consider the dwell time required, taking account of any delay, integration or processing times of the equipment under test. The dwell time and any modification of the test specimen necessary to reduce the overall response time shall be stated in the test report.

   The test report shall show (by means of a drawing or photograph) the position of the equipment under test and it's cabling in the field and the position of the antenna in all tested orientations of the Radiated Electromagnetic Fields test.

9. The test laboratory shall show in the test report the coupling method for each tested interface which was used to inject the transients into the cable. (i.e. CDN, capacitive coupling clamp etc…).

10. The test laboratory shall show in the test report the test setup, identifying all the specific CDN's or clamps used in the test.

REQUIREMENTS FOR INTERCONNECTIONS EQUIPMENT USING RADIO FREQUENCY TECHNIQUES

TESTS ACCORDING TO EN 50131-5-3:2017	CLAUSE	Notes	Key Performance Tests	Mutual Recognition			
				CNPP	BRE	VdS	IMQ
GENERAL	5.1	a					
Determination of reference level RL	5.1.2	1					
Test for immunity to attenuation	5.2	2,3,4		x		x	x
VERIFICATION OF IMMUNITY TO COLLISION	5.3						
Calculation of the occupation rate	5.3.1	5		x		x	x
Test for throughput ratio	5.3.2	6		x		x	x
TEST FOR IMMUNITY TO SUBSTITUTION	5.4						
Test for immunity to unintentional messages and components substitution	5.4.1			x		x	x
Test for immunity to intentional messages and components substitution	5.4.2			x		x	x
TESTS FOR IMMUNITY TO INTERFERENCE	5.5						
Test for interference outside of the assigned band (for all grades)	5.5.2	7		x		x	x
Test for interference within the assigned band (for all grades)	5.5.3	7		x		x	x
Test for interference within the assigned band for grade 3 and grade 4 equipment	5.5.4	7		x		x	x
TESTS FOR RF LINK MONITORING	5.6						
Tests for the detection of a failure of periodic communication on a link	5.6.1			x		x	x
Periodic communication before setting	5.6.2			x		x	x
Tests for detection of interference	5.6.3	8		x		x	x
TESTS FOR ANTENNA	5.7			x		x	x

Note a) The results of tests performed in accordance with the previous standard (EN 50131-5-3:2005 +A1 2008) can be used to support multiple certification provided the requirements and test methods are identical to those of the current standard. Where a requirement or test method differs between the current standard and the previous standard, further validation testing might be necessary to confirm compliance with the current requirements.

Table notes relating to EN 50131-5-3:2017

1. The reference level must be found separately in each band (for multiband systems). If possible, this should be done at one frequency in each band. Other bands must be disabled during this procedure.
2. Tools and methods used by the installer to check the margin must be submitted to the ATL by the manufacturer.
3. The manufacturer must provide appropriate equipment to check the attenuation between the RF linked components.
4. The attenuation level must be determined separately of each band of a multiband system. If possible, this should be done at one frequency in each band. Other bands must be disabled during this procedure.
5. The collision rate shall be calculated. Preference is to demonstrate the requirement has been made by performing a physical collision test, however it this is not possible reference to the manufacturer's documentation shall be made to justify why the messages cannot collide. A description of the maximum configurable system at the time of evaluation must be delivered by the manufacturer and should be listed in the report.
6. The manufacturer must describe the timing of the communication (e.g. response times, handshake). The test frequencies used must be listed in the test report.
7. Compliance to be confirmed by the assessment of information provided by the manufacturer. Manufacturer must show that there is an identifier within the message to know that the message received belongs to their system. Furthermore, the unset message must be unique within a long period by using a rolling code.
8. EUT is used which is fixed at one frequency in the middle of the frequencies (of each band) used by the device under test and an interference signal of CW. The parameters used must be described in the test report.
9. The test report must describe in detail the test setup and include photographs and a schematic of the setup. The test report must also include a list of the test equipment.
10. Any deviations between the actual test setup and that required by the standard shall be described within the test report.

POWER SUPPLIES

TESTS ACCORDING TO EN 50131-6:2017+A1:2021	CLAUSE	Notes	Key Performance Tests	Mutual Recognition			
				CNPP	BRE	VdS	IMQ
FUNCTIONAL REQUIREMENTS	4 - 6	a		x	x	x	x
TESTS	7						
GENERAL	7.1						
GENERAL TEST CONDITIONS	7.2						
REDUCED FUNCTIONAL TEST	7.3	1		x	x	x	x
MONITORING: LOSS OF EPS	7.4		✓	x	x	x	x
MONITORING: STORAGE DEVICE – LOW RESIDUAL ENERGY	7.5		✓	x	x	x	x
MONITORING: STORAGE DEVICE – FAILURE	7.6		✓	x	x	x	x
MONITORING: LOW OUTPUT VOLTAGE	7.7		✓	x	x	x	x
MONITORING: POWER UNIT FAILURE – LOSS OF PU POWER OUTPUT	7.8		✓	x	x	x	x
MONITORING: POWER UNIT FAILURE - SD CHARGING	7.9		✓	x	x	x	x
TEST ON DEMAND	7.10		✓	x	x	x	x
APS CAPABILITY	7.11		✓	x	x	x	x
RECHARGING FOR PS TYPE A	7.12		✓	x	x	x	x
OVER VOLTAGE PROTECTION	7.13		✓	x	x	x	x
SHORT CIRCUIT PROTECTION	7.14		✓	x	x	x	x
OVERLOAD PROTECTION	7.15		✓	x	x	x	x
DEEP DISCHARGE PROTECTION	7.16		✓	x	x	x	x
TAMPER SECURITY - PROTECTION	7.17	2	✓	x	x	x	x
TAMPER DETECTION – ACCESS TO INSIDE OF THE HOUSING	7.18	2	✓	x	x	x	x
TAMPER DETECTION – REMOVAL FROM MOUNTING	7.19	2	✓	x	x	x	x

TESTS ACCORDING TO EN 50131-6:2017+A1:2021	CLAUSE	Notes	Key Performance Tests	Mutual Recognition			
				CNPP	BRE	VdS	IMQ
TAMPER DETECTION – PENETRATION OF THE HOUSING	7.20		✓	x	x	x	x
ENVIRONMENTAL AND EMC TESTS	7.21						
Dry heat (Operational)	7.21			x	x	x	x
Dry heat (Endurance)	7.21			x	x	x	x
Cold (Operational)	7.21			x	x	x	x
Damp heat, steady state (Operational)	7.21			x	x	x	x
Damp heat, steady state (Endurance)	7.21			x	x	x	x
Temperature change (Operational)	7.21			x	x	x	x
Damp heat, cyclic (Operational)	7.21			x	x	x	x
Damp heat, cyclic (Endurance)	7.21			x	x	x	x
Water ingress (Operational)	7.21	3		x	x	x	x
Sulphur Dioxide (SO_2) (Endurance)	7.21			x	x	x	x
Salt mist, cyclic (Endurance)	7.21						
Impact (Operational)	7.21	4		x	x	x	x
Shock (Operational)	7.21			x	x	x	x
Vibration, sinusoidal (Operational)	7.21			x	x	x	x
EMC Tests Operational	7.21						
Electrostatic Discharge (Operational)	7.21	5		x	x	x	x
Radiated Electromagnetic Fields (Operational)	7.21	6		x	x	x	x
Fast Transient Bursts (Operational)	7.21	7		x	x	x	x
Slow High Energy Voltage Surges (Operational)	7.21	7		x	x	x	x
Mains Voltage Dips And Interruptions (Operational)	7.21			x	x	x	x
Conducted Disturbances Induced By Electromagnetic Fields (Operational)	7.21	6,8		x	x	x	x

TESTS ACCORDING TO EN 50131-6:2017+A1:2021	CLAUSE	Notes	Key Performance Tests	Mutual Recognition			
				CNPP	BRE	VdS	IMQ
PS RATING	7.22		✓	x	x	x	x
OUTPUT VOLTAGE STABILITY - GRADUAL LOAD VARIATION	7.23		✓	x	x	x	x
OUTPUT VOLTAGE STABILITY – SWITCHED LOAD VARIATION	7.24		✓	x	x	x	x
MARKING AND DOCUMENTATION	7.25						

Note a) The results of tests performed in accordance with the previous standard (EN 50131-6 :2008+A1-2014) can be used to support multiple certification provided the requirements and test methods are identical to those of the current standard. Where a requirement or test method differs between the current standard and the previous standard, further validation testing might be necessary to confirm compliance with the current requirements.

Table notes relating to EN 50131-6

1. Power supplies shall be tested with the Storage Device (SD) connected and fitted inside the enclosure of the EUT during the environmental conditioning, including climatic and whilst the reduced functional test is applied.

2. The attack test tools of EN 50131-3 are used to assess the Tamper Security requirements of Clauses 7.19, 7.20 and 7.21.

3. The test report shall state if water was able to penetrate the enclosure of the specimen following exposure to the water ingress conditioning.

4. The material upon which the CIE and/or ancillary equipment is mounted shall be concrete. The test laboratory shall show in the test report the positions of the impacts applied to the specimen under test. The test laboratory shall visually examine the specimen prior to the test to determine the areas likely to be most susceptible to the impacts.

5. The test laboratory shall show in the test report the positions where the ESD was applied to the power supply under test. The test laboratory shall visually examine the specimen prior to the test to determine the areas likely to be most susceptible to the ESD energy. The test report shall state if any air discharges occurred and their position with respect to the specimen.

6. The test laboratory shall consider the dwell time required, taking account of any delay, integration or processing times of the equipment under test. The dwell time and any modification of the test specimen necessary to reduce the overall response time shall be stated in the test report.

   The test report shall show (by means of a drawing or photograph) the position of the equipment under test and it's cabling in the field and the position of the antenna in all tested orientations of the Radiated Electromagnetic Fields test.

7. The test laboratory shall show in the test report the coupling method for each tested interface which was used to inject the transients into the cable. (i.e. CDN, capacitive coupling clamp etc…).

8. The test laboratory shall show in the test report the test setup, identifying all the specific CDN's or clamps used in the test.

Application specific requirements for Supervised Premises Transceivers

TESTS ACCORDING TO EN 50131-10:2014	CLAUSE	Notes	Key Performance Tests	Mutual Recognition			
				CNPP	BRE	VdS	
REDUCED FUNCTIONAL TEST	10.2.3			x	x	x	
TAMPER SECURITY TESTS	10.3						
TAMPER PROTECTION	10.3.1	1,2		x	x	x	
TAMPER DETECTION – ACCESS TO THE INSIDE OF THE HOUSING	10.3.2	1		x	x	x	
TAMPER DETECTION – REMOVAL FROM MOUNTING	10.3.3	1		x	x	x	
SUBSTITUTION TESTS	10.4						
TEST FOR MONITORING OF SUBSTITUTION OF COMPONENTS	10.4.1	3		x	x	x	
TEST FOR MONITORING OF SUBSTITUTION – TIMING REQUIREMENTS	10.4.2	3		x	x	x	
POWER SUPPLY	10.5						
GENERAL	10.5.1			x	x	x	
AVERAGE CURRENT CONSUMPTION	10.5.2			x	x	x	
TEST OF SPT WITH TYPE C POWER SUPPLY	10.5.3	4		x	x	x	
PEAK CURRENT CONSUMPTION	10.5.4			x	x	x	
DOCUMENTATION AND MARKING	10.6						
ENVIRONMENTAL AND EMC TESTS	10.7	5,6,7,8,9 ,10		x	x	x	

Table notes relating to EN 50131-10

1. The attack test tools of EN 50131-3 are used to assess the Tamper Security requirements of Clause 10.3.

2. The material upon which the SPT is mounted shall be concrete. The test laboratory shall show in the test report the positions of the impacts applied to the specimen under test. The test laboratory shall visually examine the specimen prior to the test to determine the areas likely to be most susceptible to the impacts.

3. The tests for monitoring of substitution of components (i.e. the CIE being to detect the substitution of SPT) and the associated timing requirements shall consist of confirmation by test where practicable of the information provided by the manufacturer.

4. The test procedure used to confirm type C power supplies have adequate capacity to power the SPT for a minimum of one year shall be documented in the test report.

5. SPT with integral power supplies shall be tested with the Storage Device (SD) connected and fitted inside the enclosure of the EUT during the environmental conditioning, including climatic and whilst the reduced functional test is applied.

6. The test report shall state if water was able to penetrate the enclosure of the specimen following exposure to the water ingress conditioning.

7. The test laboratory shall show in the test report the positions where the ESD was applied to the SPT under test. The test laboratory shall visually examine the specimen prior to the test to determine the areas likely to be most susceptible to the ESD energy. The test report shall state if any air discharges occurred and their position with respect to the specimen.

8. The test laboratory shall consider the dwell time required, taking account of any delay, integration or processing times of the equipment under test. The dwell time and any modification of the test specimen necessary to reduce the overall response time shall be stated in the test report.

   The test report shall show (by means of a drawing or photograph) the position of the equipment under test and it's cabling in the field and the position of the antenna in all tested orientations of the Radiated Electromagnetic Fields test.

9. The test laboratory shall show in the test report the coupling method for each tested interface which was used to inject the transients into the cable. (i.e. CDN, capacitive coupling clamp etc…).

10. The test laboratory shall show in the test report the test setup, identifying all the specific CDN's or clamps used in the test.

11. The configuration of the test system shall be documented and details included in the test report.

Requirements for Supervised Premises Transceiver (SPT)

TESTS ACCORDING TO EN 50136-2:2013	CLAUSE	Notes	Key Performance Tests	Mutual Recognition			
				CNPP	BRE	VdS	
REDUCED FUNCTIONAL TEST	9.3			x	x	x	
FUNCTIONAL TESTS	9.4						
GENERAL	9.4.1	1		x	x	x	
ACCESS LEVELS	9.4.2			x	x	x	
UPLOAD AND DOWNLOAD OF SOFTWARE AND FIRMWARE	9.4.3			x	x	x	
PARAMETER STORAGE	9.4.4			x	x	x	
TEST OF ATS FAULT REPORTING TO AS	9.4.5	2					
STANDARDIZED SERIAL INTERFACE TO THE AS	9.4.6			x	x	x	
STANDARDIZED PARALLEL INTERFACE TO THE AS	9.4.7	3					
PROPRIETARY INTERFACE TO THE AS	9.4.8			x	x	x	
MONITORING OF THE TRANSMISSION NETWORK INTERFACE	9.4.9			x	x	x	
EVENT LOGGING	9.4.10			x	x	x	
PROTECTION OF THE LOG	9.4.11	3					
EVENT LOG CAPACITY AND ENDURANCE	9.4.12	4		x	x	x	
CLOCK RESOLUTION	9.4.13			x	x	x	
STORE-AND-FORWARD OPERATION	9.4.14			x	x	x	
PASS-THROUGH OPERATION	9.4.15			x	x	x	
SPT ALARMS	9.4.16			x	x	x	
INFORMATION AND SUBSTITUTION SECURITY	9.4.17	3					
DOCUMENTATION	9.4.18	5		x	x	x	

Table notes relating to EN 50136-2

1. If more than one single and/or dual path category is supported the choice of the category tested shall be decided by the associated testing laboratory/certification body. The reasons of the choice shall be explained in the test report.

2. Awaiting clarification from CLC TC79 WG5 on the intended method of test.

3. Procedure to be written and agreed by PDG-IAS prior to acceptance of test results.

4. Where the memory of the SPT event log is shared with the CIE the capacity shall meet the highest requirement of the applicable EN standards. The capacity requirements of the SPT and CIE are not added together.

5. It is agreed that the reference in the documentation requirements under methodology to achieve compliance with EN 50136-1:2012, 6.7.2 and 6.7.3 should read as 6.8.2 and 6.8.3 respectively.

Test report requirements

To ensure the basic requirements of the certification bodies can be met the test reports from the associated test laboratories shall adhere to the following:

The test reports shall;

a) be in accordance with the requirements of ISO 17025,
b) contain a list of drawings identifying the build status of the products tested,
c) incorporate a photograph of the product(s) tested,
d) include a description of the basic functional test carried out before, during (where applicable), and after the environmental conditioning,
e) CIE test reports shall include details of the configuration of the test system, i.e. the type and number of peripherals / ancillary equipment connected,
f) power supply test reports shall include details of the configuration of the test system, i.e. the connections to loads etc,
g) contain a clear statement that the product has met the requirements of the test(s),
h) include information regarding the specific requirements identified in the notes of this annex,
i) include information about the subcontract test laboratory (where applicable).