

Deutsche Akkreditierungsstelle GmbH

Annex to the Accreditation Certificate D-PL-12148-01-00 according to DIN EN ISO/IEC 17025:2018

Valid from: 2020-09-08

Date of issue: 2020-09-08

Holder of certificate:

HARTING Stiftung & Co. KG
Marienwerder Straße 3, 32339 Espelkamp

With location:

HARTING Stiftung & Co. KG
Corporate Technology Services (CTS)
Marienwerder Straße 3, 32339 Espelkamp

Tests in the fields:

**Electrical, mechanical and environmental tests,
EMC- and SI- tests of electromechanical components and
tests of fibre optical components, also 1-, 2- and 3-dimensional measurements of lengths**

Applies to all areas except the geometrical measurements technology:

The testing laboratory is permitted, without being required to inform and obtain prior approval from DAkkS, to use standards or equivalent testing methods listed here with different issue dates.

The testing laboratory maintains a current list of all testing methods within the flexible scope of accreditation.

The management system requirements in DIN EN ISO/IEC 17025 are written in language relevant to operations of testing laboratories and operate generally in accordance with the principles of DIN EN ISO 9001.

*The certificate together with its annex reflects the status at the time of the date of issue. The current status of the scope of accreditation can be found in the database of accredited bodies of Deutsche Akkreditierungsstelle GmbH.
<https://www.dakks.de/en/content/accredited-bodies-dakks>*

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Type of test	Standard or test method / version	Title of the standard or test method	Restrictions to the test method
1. Electrical engineering			
1.1. Basic standards			
Electrical engineering, Environmental tests	IEC 60529 (08-2013) DIN EN 60529 (09-2014)	Degrees of protection provided by enclosures (IP Code) Degrees of protection provided by enclosures (IP Code)	except IPX1 and IPX2
Electrical engineering, Environmental tests	IEC 61373 (05-2010) DIN EN 61373 (04-2011)	Railway applications - Rolling stock equipment - Shock and vibration tests Railway applications - Rolling stock equipment - Shock and vibration tests	
Electrical engineering	DIN EN 50155 (05-2018) BS EN 50155 (10-2017)	Railway applications. Electronic equipment used on rolling stock Railway applications. Electronic equipment used on rolling stock	Only Kapitel 13.4.3 – 13.4.12 Limitation for Low temperature start-up test -> Test possible with induced air movement only restriction for Limitation for Low temperature start-up test -> Test possible with induced air movement only
Electrical engineering	DIN EN 50467 (10-2012)	Railway applications - Rolling stock - Electrical connectors, requirements and test methods	

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Electrical engineering	IEC 60999-1 (11-1999)	Connecting devices - Electrical copper conductors - Safety requirements for screw-type and screwless-type clamping units - Part 1: General requirements and particular requirements for clamping units for conductors from 0,2 mm ² up to 35 mm ² (included)	
	DIN EN 60999-1 (12-2000)	Connecting devices - Electrical copper conductors - Safety requirements for screw-type and screwless-type clamping units - Part 1: General requirements and particular requirements for clamping units for conductors from 0,2 mm ² up to 35 mm ² (included)	
Electrical engineering	DIN EN 60999-2 (05-2003)	Connecting devices - Electrical copper conductors - Safety requirements for screw-type and screwless-type clamping units - Part 2: Particular requirements for clamping units for conductors above 35 mm ² up to 300 mm ² (included)	
	DIN EN 60999-2 (04-2004)	Connecting devices - Electrical copper conductors - Safety requirements for screw-type and screwless-type clamping units - Part 2: Particular requirements for clamping units for conductors above 35 mm ² up to 300 mm ² (included)	
Electrical engineering	DIN EN 3497 (12-2001)	Metallic coatings - Measurement of coating thickness - X-ray spectrometric methods (ISO 3497:2000)	
Electrical engineering, Environmental tests	ISO 9227 (09-2017)	Corrosion tests in artificial atmospheres - Salt spray tests	Only test NSS
	DIN EN ISO 9227(07-2017)	Corrosion tests in artificial atmospheres - Salt spray tests (ISO 9227:2017); German version EN ISO 9227:2017	

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Electrical engineering	IEC 62137-1-2 (07-2007)	Surface mounting technology – Environmental and endurance test methods for surface mount solder joint – Part 1-2: Shear strength test	
	DIN EN 62137-1-2 (02-2008)	Surface mounting technology – Environmental and endurance test methods for surface mount solder joint – Part 1-2: Shear strength test	
Electrical engineering, Environmental tests	DIN EN ISO 6270-2 (04-2018)	Paints and varnishes - Determination of resistance to humidity - Part 2: Procedure for exposing test specimens in condensation-water atmospheres	
Electrical engineering	IEC 60512-1-1 (02-2002)	Connectors for electronic equipment - Tests and measurements - Part 1-1: General examination - Test 1a: Visual examination	
	DIN EN 60512-1-1 (01-2003)	Connectors for electronic equipment - Tests and measurements - Part 1-1: General examination - Test 1a: Visual examination	
Electrical engineering	IEC 60512-1-2 (02-2002)	Connectors for electronic equipment - Tests and measurements - Part 1-2: General examination - Test 1b: Examination of dimension and mass	
	DIN EN 60512-1-2 (01-2003)	Connectors for electronic equipment - Tests and measurements - Part 1-2: General examination - Test 1b: Examination of dimension and mass	
Electrical engineering	IEC 60512-1-3 (07-1997)	Electromechanical components for electronic equipment - Basic testing procedures and measuring methods - Part 1: General examination - Section 3: Test 1c - Electrical engagement length	
	DIN EN 60512-1-3 (02-1998)	Electromechanical components for electronic equipment - Basic testing procedures and measuring methods - Part 1: General examination - Section 3: Test 1c - Electrical engagement length	

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Electrical engineering	IEC 60512-1-4 (07-1997) DIN EN 60512-1-4 (04-1998)	Electromechanical components for electronic equipment - Basic testing procedures and measuring methods - Part 1: General - Section 4: Test 1d: Contact protection effectiveness (scoop-proof) Electromechanical components for electronic equipment - Basic testing procedures and measuring methods - Part 1: General - Section 4: Test 1d: Contact protection effectiveness (scoop-proof)	
Electrical engineering	IEC 60512-2-1 (02-2002) DIN EN 60512-2-1 (01-2003)	Connectors for electronic equipment - Tests and measurements - Part 2-1: Electrical continuity and contact resistance tests - Test 2a: Contact resistance - millivolt level method Connectors for electronic equipment - Tests and measurements - Part 2-1: Electrical continuity and contact resistance tests - Test 2a: Contact resistance - millivolt level method	
Electrical engineering	IEC 60512-2-2 (05-2003) DIN EN 60512-2-2 (01-2004)	Connectors for electronic equipment - Tests and measurements - Part 2-2: Electrical continuity and contact resistance tests, Test 2b: Contact resistance, Specified test current method Connectors for electronic equipment - Tests and measurements - Part 2-2: Electrical continuity and contact resistance tests, Test 2b: Contact resistance, Specified test current method	

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Electrical engineering	IEC 60512-2-3 (02-2002)	Connectors for electronic equipment - Tests and measurements - Part 2-3: Electrical continuity and contact resistance tests - Test 2c: Contact resistance variation	
	DIN EN 60512-2-3 (01-2003)	Connectors for electronic equipment - Tests and measurements - Part 2-3: Electrical continuity and contact resistance tests - Test 2c: Contact resistance variation	
Electrical engineering	IEC 60512-2-5 (05-2003)	Connectors for electronic equipment - Tests and measurements - Part 2-5: Electrical continuity and contact resistance tests - Test 2e: Contact disturbance	
	DIN EN 60512-2-5 (01-2004)	Connectors for electronic equipment - Tests and measurements - Part 2-5: Electrical continuity and contact resistance tests - Test 2e: Contact disturbance	
Electrical engineering	IEC 60512-2-6 (02-2002)	Connectors for electronic equipment - Tests and measurements - Part 2-6: Electrical continuity and contact resistance tests - Test 2f: Housing (shell) electrical continuity	only procedures according to DIN EN 60512-2-2
	DIN EN 60512-2-6 (01-2003)	Connectors for electronic equipment - Tests and measurements - Part 2-6: Electrical continuity and contact resistance tests - Test 2f: Housing (shell) electrical continuity	
Electrical engineering	IEC 60512-3-1 (02-2002)	Connectors for electronic equipment - Tests and measurements - Part 3-1: Insulation tests - Test 3a: Insulation resistance	
	DIN EN 60512-3-1 (01-2003)	Connectors for electronic equipment - Tests and measurements - Part 3-1: Insulation tests - Test 3a: Insulation resistance	

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Electrical engineering	IEC 60512-4-1 (05-2003)	Connectors for electronic equipment - Tests and measurements - Part 4-1: Voltage stress tests - Test 4a: Voltage proof	
	DIN EN 60512-4-1 (01-2004)	Connectors for electronic equipment - Tests and measurements - Part 4-1: Voltage stress tests - Test 4a: Voltage proof	
Electrical engineering	IEC 60512-5-1 (02-2002)	Connectors for electronic equipment - Tests and measurements - Part 5-1: Current-carrying capacity tests - Test 5a: Temperature rise	
	DIN EN 60512-5-1 (01-2003)	Connectors for electronic equipment - Tests and measurements - Part 5-1: Current-carrying capacity tests - Test 5a: Temperature rise	
Electrical engineering	IEC 60512-5-2 (02-2002)	Connectors for electronic equipment - Tests and measurements - Part 5-2: Current-carrying capacity tests - Test 5b: Current-temperature derating	
	DIN EN 60512-5-2 (01-2003)	Connectors for electronic equipment - Tests and measurements - Part 5-2: Current-carrying capacity tests - Test 5b: Current-temperature derating	
Electrical engineering, Environmental tests	IEC 60512-6-3 (02-2002)	Connectors for electronic equipment - Tests and measurements - Part 6-3: Dynamic stress tests - Test 6c: Shock	
	DIN EN 60512-6-3 (01-2003)	Connectors for electronic equipment - Tests and measurements - Part 6-3: Dynamic stress tests - Test 6c: Shock	
Electrical engineering, Environmental tests	IEC 60512-6-4 (02-2002)	Connectors for electronic equipment - Tests and measurements - Part 6-4: Dynamic stress tests - Test 6d: Vibration (sinusoidal)	
	DIN EN 60512-6-4 (01-2003)	Ste Connectors for electronic equipment - Tests and measurements - Part 6-4: Dynamic stress tests - Test 6d: Vibration (sinusoidal)	

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Electrical engineering, Environmental tests	IEC 60512-6-5 (10-1997)	Electromechanical components for electronic equipment - Basic testing procedures and measuring methods - Part 6: Dynamic stress tests - Section 5: Test 6e: Random vibration	
	DIN EN 60512-6-5 (10-2000)	Electromechanical components for electronic equipment - Basic testing procedures and measuring methods - Part 6: Dynamic stress tests - Section 5: Test 6e: Random vibration	
Electrical engineering, Environmental tests	IEC 60512-7-1 (03-2010)	Connectors for electronic equipment - Tests and measurements, Part 7-1: Impact tests (free connectors) - Test 7a: Free fall (repeated)	
	DIN EN60512-7-1 (12-2010)	Connectors for electronic equipment - Tests and measurements, Part 7-1: Impact tests (free connectors) - Test 7a: Free fall (repeated)	
Electrical engineering	IEC 60512-7-2 (11-2011)	Connectors for electronic equipment - Tests and measurements, Part 7-2: Impact tests (free connectors) - Test 7b: Mechanical strength impact	
	DIN EN60512-7-2 (09-2012)	Connectors for electronic equipment - Tests and measurements, Part 7-2: Impact tests (free connectors) - Test 7b: Mechanical strength impact	
Electrical engineering	IEC 60512-8-1 (06-2010)	Connectors for electronic equipment - Tests and measurement, Part 8-1: Static load tests (fixed connectors) - Test 8a: Static load, transverse	
	DIN EN 60512-8-1 (06-2011)	Connectors for electronic equipment - Tests and measurement, Part 8-1: Static load tests (fixed connectors) - Test 8a: Static load, transverse	

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Electrical engineering	IEC 60512-8-2 (04-2011)	Connectors for electronic equipment - Tests and measurements, Part 8-2: Static load tests (fixed connectors) - Test 8b: Static load, axial	
	DIN EN 60512-8-2 (02-2012)	Connectors for electronic equipment - Tests and measurements, Part 8-2: Static load tests (fixed connectors) - Test 8b: Static load, axial	
Electrical engineering	IEC 60512-8-3 (01-2018)	Connectors for electronic equipment - Tests and measurements, Part 8-3: Static load tests (fixed connectors) - Test 8c: Robustness of actuating lever	
	DIN EN 60512-8-3 (10-2018)	Connectors for electrical and electronic equipment - Tests and measurements - Part 8-3: Static load tests (fixed connectors) - Test 8c: Robustness of actuating lever (IEC 60512-8-3:2018);	
Electrical engineering	IEC 60512-9-1 (03-2010)	Connectors for electronic equipment - Tests and measurements, Part 9-1: Endurance tests - Test 9a: Mechanical operation	
	DIN EN 60512-9-1 (12-2010)	Connectors for electronic equipment - Tests and measurements, Part 9-1: Endurance tests - Test 9a: Mechanical operation	
Electrical engineering	IEC 60512-9-2 (11-2011)	Connectors for electronic equipment - Tests and measurements, Part 9-2: Endurance tests - Test 9b: Electrical load and temperature	
	DIN EN 60512-9-2 (09-2012)	Connectors for electronic equipment - Tests and measurements, Part 9-2: Endurance tests - Test 9b: Electrical load and temperature	
Electrical engineering	IEC 60512-9-3 (06-2011)	Connectors for electronic equipment - Tests and measurements, Part 9-3: Endurance tests - Test 9c: Mechanical operation (engaging/separating) with electrical load	
	DIN EN 60512-9-3 (04-2012)	Connectors for electronic equipment - Tests and measurements, Part 9-3: Endurance tests - Test 9c: Mechanical operation (engaging/separating) with electrical load	

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Electrical engineering	IEC 60512-9-4 (04-2011)	Connectors for electronic equipment - Tests and measurements, Part 9-4: Endurance tests - Test 9d: Durability of contact retention system and seals (maintenance, ageing)	
	DIN EN 60512-9-4 (02-2012)	Connectors for electronic equipment - Tests and measurements, Part 9-4: Endurance tests - Test 9d: Durability of contact retention system and seals (maintenance, ageing)	
Electrical engineering	IEC 60512-9-5 (03-2010)	Connectors for electronic equipment - Tests and measurements, Part 9-5: Endurance tests - Test 9e: Current loading, cyclic	
	DIN EN 60512-9-5 (12-2010)	Connectors for electronic equipment - Tests and measurements, Part 9-5: Endurance tests - Test 9e: Current loading, cyclic	
Electrical engineering	IEC 60512-10-4 (08-2003)	Connectors for electronic equipment - Tests and measurements - Part 10-4: Impact tests (free components), static load tests (fixed components), endurance tests and overload tests - Test 10d: Electrical overload (connectors)	switching time: from 1s
	DIN EN 60512-10-4 (06-2004)	Connectors for electronic equipment - Tests and measurements - Part 10-4: Impact tests (free components), static load tests (fixed components), endurance tests and overload tests - Test 10d: Electrical overload (connectors)	
Electrical engineering, Environmental tests	IEC 60512-11-1 (05-2019)	Electromechanical components for electronic equipment - Basic testing procedures and measuring methods - Part 11: Climatic tests - Section 1: Test 11a - Climatic sequence	
	DIN EN 60512-11-1 (08-1999)	Electromechanical components for electronic equipment - Basic testing procedures and measuring methods - Part 11: Climatic tests - Section 1: Test 11a - Climatic sequence	

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Electrical engineering, Environmental tests	IEC 60512-11-3 (02-2002)	Connectors for electronic equipment - Tests and measurements - Part 11-3: Climatic tests - Test 11c: Damp heat, steady state	
	DIN EN 60512-11-3 (01-2003)	Connectors for electronic equipment - Tests and measurements - Part 11-3: Climatic tests - Test 11c: Damp heat, steady state	
Electrical engineering, Environmental tests	IEC 60512-11-4 (02-2002)	Connectors for electronic equipment - Tests and measurements - Part 11-4: Climatic tests - Test 11d: Rapid change of temperature	
	DIN EN 60512-11-4 (01-2003)	Connectors for electronic equipment - Tests and measurements - Part 11-4: Climatic tests - Test 11d: Rapid change of temperature	
Electrical engineering, Environmental tests	IEC 60512-11-6 (02-2002)	Connectors for electronic equipment - Tests and measurements - Part 11-6: Climatic tests - Test 11f: Corrosion, salt mist	
	DIN EN 60512-11-6 (01-2003)	Connectors for electronic equipment - Tests and measurements - Part 11-6: Climatic tests - Test 11f: Corrosion, salt mist	
Electrical engineering, Environmental tests	IEC 60512-11-7 (05-2003)	Connectors for electronic equipment - Tests and measurements - Part 11-7: Climatic tests - Test 11g: Flowing mixed gas corrosion test	
	DIN EN 60512-11-7 (06-2004)	Connectors for electronic equipment - Tests and measurements - Part 11-7: Climatic tests - Test 11g: Flowing mixed gas corrosion test	
Electrical engineering, Environmental tests	IEC 60512-11-9 (02-2002)	Connectors for electronic equipment - Tests and measurements - Part 11-9: Climatic tests - Test 11i: Dry heat	
	DIN EN 60512-11-9 (01-2003)	Connectors for electronic equipment - Tests and measurements - Part 11-9: Climatic tests - Test 11i: Dry heat	

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Electrical engineering, Environmental tests	IEC 60512-11-10 (02-2002)	Connectors for electronic equipment - Tests and measurements - Part 11-10: Climatic tests - Test 11j: Cold	
	DIN EN 60512-11-10 (01-2003)	Connectors for electronic equipment - Tests and measurements - Part 11-10: Climatic tests - Test 11j: Cold	
Electrical engineering, Environmental tests	IEC 60512-11-11 (02-2002)	Connectors for electronic equipment - Tests and measurements - Part 11-11: Climatic tests - Test 11k: Low air pressure	
	DIN EN 60512-11-11 (01-2003)	Connectors for electronic equipment - Tests and measurements - Part 11-11: Climatic tests - Test 11k: Low air pressure	
Electrical engineering, Environmental tests	IEC 60512-11-12 (02-2002)	Connectors for electronic equipment - Tests and measurements - Part 11-12: Climatic tests - Test 11m: Damp heat, cyclic	
	DIN EN 60512-11-12 (01-2003)	Connectors for electronic equipment - Tests and measurements - Part 11-12: Climatic tests - Test 11m: Damp heat, cyclic	
Electrical engineering	IEC 60512-12-1 (03-2006)	Connectors for electronic equipment - Tests and measurements, Part 12-1: Soldering tests - Test 12a: Solderability, wetting, solder bath method	
	DIN EN 60512-12-1 (11-2006)	Connectors for electronic equipment - Tests and measurements, Part 12-1: Soldering tests - Test 12a: Solderability, wetting, solder bath method	

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Electrical engineering	IEC 60512-12-2 (02-2006)	Connectors for electronic equipment - Tests and measurements, Part 12-2: Soldering tests - Test 12b: Solderability, wetting, soldering iron method	
	DIN EN 60512-12-2 (11-2006)	Connectors for electronic equipment - Tests and measurements, Part 12-2: Soldering tests - Test 12b: Solderability, wetting, soldering iron method	
Electrical engineering	IEC 60512-12-3 (02-2006)	Connectors for electronic equipment - Tests and measurements, Part 12-3: Soldering tests - Test 12c: Solderability, de-wetting	
	DIN EN 60512-12-3 (11-2006)	Connectors for electronic equipment - Tests and measurements, Part 12-3: Soldering tests - Test 12c: Solderability, de-wetting	
Electrical engineering	IEC 60512-12-4 (02-2006)	Connectors for electronic equipment - Tests and measurements, Part 12-4: Soldering tests - Test 12d: Resistance to soldering heat, solder bath method	
	DIN EN 60512-12-4 (11-2006)	Connectors for electronic equipment - Tests and measurements, Part 12-4: Soldering tests - Test 12d: Resistance to soldering heat, solder bath method	
Electrical engineering	IEC 60512-12-5 (02-2006)	Connectors for electronic equipment - Tests and measurements, Part 12-5: Soldering tests - Test 12e: Resistance to soldering heat, soldering iron method	
	DIN EN 60512-12-5 (11-2006)	Connectors for electronic equipment - Tests and measurements, Part 12-5: Soldering tests - Test 12e: Resistance to soldering heat, soldering iron method	

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Electrical engineering	IEC 60512-12-7 (01-2001)	Connectors for electronic equipment - Tests and measurements - Part 12-7: Soldering tests - Test 12g: Solderability, wetting balance method	
	DIN EN 60512-12-7 (11-2001)	Connectors for electronic equipment - Tests and measurements - Part 12-7: Soldering tests - Test 12g: Solderability, wetting balance method	
Electrical engineering	IEC 60512-13-1 (02-2006)	Connectors for electronic equipment - Tests and measurements - Part 13-1: Mechanical operation tests - Test 13a: Engaging and separating forces	
	DIN EN 60512-13-1 (11-2006)	Connectors for electronic equipment - Tests and measurements - Part 13-1: Mechanical operation tests - Test 13a: Engaging and separating forces	
Electrical engineering	IEC 60512-13-2 (02-2006)	Connectors for electronic equipment - Tests and measurements - Part 13-2: Mechanical operation tests - Test 13b: Insertion and withdrawal forces	
	DIN EN 60512-13-2 (11-2006)	Connectors for electronic equipment - Tests and measurements - Part 13-2: Mechanical operation tests - Test 13b: Insertion and withdrawal forces	
Electrical engineering	IEC 60512-13-5 (02-2006)	Connectors for electronic equipment - Tests and measurements - Part 13-5: Mechanical operation tests - Test 13e: Polarizing and keying method	
	DIN EN 60512-13-5 (11-2006)	Connectors for electronic equipment - Tests and measurements - Part 13-5: Mechanical operation tests - Test 13e: Polarizing and keying method	

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Electrical engineering, Environmental tests	IEC 60512-14-7 (10-1997)	Electromechanical components for electronic equipment - Basic testing procedures and measuring methods - Part 14: Sealing tests - Section 7: Test 14g: Impacting water	
	DIN EN 60512-14-7 (07-1998)	Electromechanical components for electronic equipment - Basic testing procedures and measuring methods - Part 14: Sealing tests - Section 7: Test 14g: Impacting water	
Electrical engineering	IEC 60512-15-1 (05-2008)	Connectors for electronic equipment - Tests and measurements - Part 15-1: Connector tests (mechanical) - Test 15a: Contact retention in insert	
	DIN EN 60512-15-1 (03-2009)	Connectors for electronic equipment - Tests and measurements - Part 15-1: Connector tests (mechanical) - Test 15a: Contact retention in insert	
Electrical engineering	IEC 60512-15-2 (01-2018)	Connectors for electronic equipment - Tests and measurements - Part 15-2: Connector tests (mechanical) - Test 15b: Insert retention in housing (axial)	Method B (pressure) can not be carried out
	DIN EN 60512-15-2 (10-2018)	Connectors for electronic equipment - Tests and measurements - Part 15-2: Connector tests (mechanical) - Test 15b: Insert retention in housing (axial)	
Electrical engineering	IEC 60512-15-3 (05-2008)	Connectors for electronic equipment - Tests and measurements - Part 15-3: Connector tests (mechanical) - Test 15c: Insert retention in housing (torsional)	
	DIN EN 60512-15-3 (03-2009)	Connectors for electronic equipment - Tests and measurements - Part 15-3: Connector tests (mechanical) - Test 15c: Insert retention in housing (torsional)	

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Electrical engineering	IEC 60512-15-4 (05-2008)	Connectors for electronic equipment - Tests and measurements - Part 15-4: Connector tests (mechanical) - Test 15d: Contact insertion, release and extraction force	
	DIN EN 60512-15-4 (03-2009)	Connectors for electronic equipment - Tests and measurements - Part 15-4: Connector tests (mechanical) - Test 15d: Contact insertion, release and extraction force	
Electrical engineering	IEC 60512-15-5 (05-2008)	Connectors for electronic equipment - Tests and measurements - Part 15-5: Connector tests (mechanical) - Test 15e: Contact retention in insert, cable nutation	
	DIN EN 60512-15-5 (03-2009)	Connectors for electronic equipment - Tests and measurements - Part 15-5: Connector tests (mechanical) - Test 15e: Contact retention in insert, cable nutation	
Electrical engineering	IEC 60512-15-6 (05-2008)	Connectors for electronic equipment - Tests and measurements - Part 15-6: Connector tests (mechanical) - Test 15f: Effectiveness of connector coupling devices	
	DIN EN 60512-15-6 (03-2009)	Connectors for electronic equipment - Tests and measurements - Part 15-6: Connector tests (mechanical) - Test 15f: Effectiveness of connector coupling devices	
Electrical engineering	IEC 60512-15-7 (05-2008)	Connectors for electronic equipment - Tests and measurements - Part 15-7: Connector tests (mechanical) - Test 15g: Robustness of protective cover attachment	
	DIN EN 60512-15-7 (03-2009)	Connectors for electronic equipment - Tests and measurements - Part 15-3: Connector tests (mechanical) - Test 15c: Insert retention in housing (torsional) (IEC 60512-15-3:2008)	

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Electrical engineering	IEC 60512-16-1 (06-2008)	Connectors for electronic equipment - Tests and measurements - Part 16-1: Mechanical tests on contacts and terminations - Test 16a: Probe damage	
	DIN EN 60512-16-1 (03-2009)	Connectors for electronic equipment - Tests and measurements - Part 16-1: Mechanical tests on contacts and terminations - Test 16a: Probe damage	
Electrical engineering	IEC 60512-16-2 (06-2008)	Connectors for electronic equipment - Tests and measurements - Part 16-2: Mechanical tests on contacts and terminations - Test 16b: Restricted entry	
	DIN EN 60512-16-2 (03-2009)	Connectors for electronic equipment - Tests and measurements - Part 16-2: Mechanical tests on contacts and terminations - Test 16b: Restricted entry	
Electrical engineering	IEC 60512-16-3 (06-2008)	Connectors for electronic equipment - Tests and measurements - Part 16-3: Mechanical tests on contacts and terminations - Test 16c: Contact-bending strength	
	DIN EN 60512-16-3 (03-2009)	Connectors for electronic equipment - Tests and measurements - Part 16-3: Mechanical tests on contacts and terminations - Test 16c: Contact-bending strength	
Electrical engineering	IEC 60512-16-4 (06-2008)	Connectors for electronic equipment - Tests and measurements - Part 16-4: Mechanical tests on contacts and terminations - Test 16d: Tensile strength (crimped connections)	
	DIN EN 60512-16-4 (03-2009)	Connectors for electronic equipment - Tests and measurements - Part 16-4: Mechanical tests on contacts and terminations - Test 16d: Tensile strength (crimped connections)	

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Electrical engineering	IEC 60512-16-5 (07-2008)	Connectors for electronic equipment - Tests and measurements - Part 16-5: Mechanical tests on contacts and terminations - Test 16e: Gauge retention force (resilient contacts)	
	DIN EN 60512-16-5 (03-2009)	Connectors for electronic equipment - Tests and measurements - Part 16-5: Mechanical tests on contacts and terminations - Test 16e: Gauge retention force (resilient contacts)	
Electrical engineering	IEC 60512-16-6 (07-2008)	Connectors for electronic equipment - Tests and measurements - Part 16-6: Mechanical tests on contacts and terminations - Test 16f: Robustness of terminations	
	DIN EN 60512-16-6 (03-2009)	Connectors for electronic equipment - Tests and measurements - Part 16-6: Mechanical tests on contacts and terminations - Test 16f: Robustness of terminations	
Electrical engineering	IEC 60512-16-8 (05-2008)	Connectors for electronic equipment - Tests and measurements - Part 16-8: Mechanical tests on connections and terminations - Test 16h: Insulating grip effectiveness (crimped connections)	
	DIN EN 60512-16-8 (03-2009)	Connectors for electronic equipment - Tests and measurements - Part 16-8: Mechanical tests on connections and terminations - Test 16h: Insulating grip effectiveness (crimped connections)	

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Electrical engineering	IEC 60512-16-11 (05-2008)	Connectors for electronic equipment - Tests and measurements - Part 16-11: Mechanical tests on contacts and terminations - Test 16k: Stripping force, solderless wrapped connections	
	DIN EN 60512-16-11 (03-2009)	Connectors for electronic equipment - Tests and measurements - Part 16-11: Mechanical tests on contacts and terminations - Test 16k: Stripping force, solderless wrapped connections	
Electrical engineering	IEC 60512-16-13 (05-2008)	Connectors for electronic equipment - Tests and measurements - Part 16-13: Mechanical tests on contacts and terminations - Test 16m: Un-wrapping, solderless wrapped connections	
	DIN EN 60512-16-13 (03-2009)	Connectors for electronic equipment - Tests and measurements - Part 16-13: Mechanical tests on contacts and terminations - Test 16m: Un-wrapping, solderless wrapped connections	
Electrical engineering	IEC 60512-16-14 (07-2008)	Connectors for electronic equipment - Tests and measurements - Part 16-14: Mechanical tests on contacts and terminations - Test 16n: Bending strength, fixed male tabs	
	DIN EN 60512-16-14 (03-2009)	Connectors for electronic equipment - Tests and measurements - Part 16-14: Mechanical tests on contacts and terminations - Test 16n: Bending strength, fixed male tabs	

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Electrical engineering	IEC 60512-16-16 (07-2008) DIN EN 60512-16-16 (03-2009)	Connectors for electronic equipment - Tests and measurements - Part 16-16: Mechanical tests on contacts and terminations - Test 16p: Torsional strength, fixed male tabs Connectors for electronic equipment - Tests and measurements - Part 16-16: Mechanical tests on contacts and terminations - Test 16p: Torsional strength, fixed male tabs	
Electrical engineering	IEC 60512-16-17 (07-2008) DIN EN 60512-16-17 (03-2009)	Connectors for electronic equipment - Tests and measurements - Part 16-17: Mechanical tests on contacts and terminations - Test 16q: Tensile and compressive strength, fixed male tabs Connectors for electronic equipment - Tests and measurements - Part 16-17: Mechanical tests on contacts and terminations - Test 16q: Tensile and compressive strength, fixed male tabs	
Electrical engineering	IEC 60512-16-18 (05-2008) DIN EN 60512-16-18 (03-2009)	Connectors for electronic equipment - Tests and measurements - Part 16-18: Mechanical tests on contacts and terminations - Test 16r: Deflection of contacts, simulation Connectors for electronic equipment - Tests and measurements - Part 16-18: Mechanical tests on contacts and terminations - Test 16r: Deflection of contacts, simulation	

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Electrical engineering	IEC 60512-17-1 (06-2006)	Connectors for electronic equipment - Tests and measurements, Part 17-1: Cable clamping tests - Test 17a: Cable clamp robustness	
	DIN EN 60512-17-1 (06-2011)	Connectors for electronic equipment - Tests and measurements, Part 17-1: Cable clamping tests - Test 17a: Cable clamp robustness	
Electrical engineering	IEC 60512-17-2 (04-2011)	Connectors for electronic equipment - Tests and measurements, Part 17-2: Cable clamping tests - Test 17b: Cable clamp resistance to cable rotation	
	DIN EN 60512-17-2 (02-2012)	Connectors for electronic equipment - Tests and measurements, Part 17-2: Cable clamping tests - Test 17b: Cable clamp resistance to cable rotation	
Electrical engineering	IEC 60512-17-3 (06-2010)	Connectors for electronic equipment - Tests and measurements, Part 17-3: Cable clamping tests - Test 17c: Cable clamp resistance to cable pull (tensile)	
	DIN EN 60512-17-3 (06-2011)	Connectors for electronic equipment - Tests and measurements - Part 17-3: Cable clamping tests - Test 17c: Cable clamp resistance to cable pull (tensile) (IEC 60512-17-3:2010)	

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Electrical engineering	IEC 60512-17-4 (06-0210) DIN EN 60512-17-4 (06-2011)	Connectors for electronic equipment - Tests and measurements, Part 17-4: Cable clamping tests - Test 17d: Cable clamp resistance to cable torsion Connectors for electronic equipment - Tests and measurements, Part 17-4: Cable clamping tests - Test 17d: Cable clamp resistance to cable torsion	
Electrical engineering	IEC 60512-19-3 (07/1997) DIN EN 60512-19-3 (03-1998)	Electromechanical components for electronic equipment - Basic testing procedures and measuring methods - Part 19: Chemical resistance tests - Section 3: Test 19c - Fluid resistance Electromechanical components for electronic equipment - Basic testing procedures and measuring methods - Part 19: Chemical resistance tests - Section 3: Test 19c - Fluid resistance	
Electrical engineering	IEC 60512-16-20 (07-1996) DIN EN 60512-16-20 (03-1997)	Electromechanical components for electronic equipment - Basic testing procedures and measuring methods - Part 16: Mechanical tests on contacts and terminations - Section 20: Test 16t: Mechanical strength (wired termination of solderless connections) Electromechanical components for electronic equipment - Basic testing procedures and measuring methods - Part 16: Mechanical tests on contacts and terminations - Section 20: Test 16t: Mechanical strength (wired termination of solderless connections)	
Electrical engineering	UL 1977 (2016-07)	Component Connectors for Use in Data, Signal, Control and Power Applications	

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Electrical engineering	ISO 22309 (19-2011)	Microbeam analysis. Quantitative analysis using energy-dispersive spectrometry (EDS) for elements with an atomic number of 11 (Na) or above	
Electrical engineering	ISO 15632 (08-2012)	Microbeam analysis - Instrumental specification for energy dispersive X-ray spectrometers with semiconductor detectors	
Electrical engineering	DIN EN ISO 9220 (01-1995)	Metallic coatings - Measurement of coating thickness - Scanning electron microscope method (ISO 9220:1988)	
Electrical engineering	ISO14577-1 (07 2015)	Metallic materials - Instrumented indentation test for hardness and metallic parameters--Part 1:Test method	
Electrical engineering	Standard operating procedure (01-2017)	Working procedure for SEM-, FIB- and EDX analysis	No flexible accreditation Cat. 3
Electrical engineering	IEC 60512-99-001 (08-2012) DIN EN 60512-99-001 (05-2013)	Connectors for electronic equipment - Tests and measurements - Part 99-001: Test schedule for engaging and separating connectors under electrical load - Test 99a: Connectors used in twisted pair communication cabling with remote power Connectors for electronic equipment - Tests and measurements - Part 99-001: Test schedule for engaging and separating connectors under electrical load - Test 99a: Connectors used in twisted pair communication cabling with remote power	

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Electrical engineering	ISO 2409 (02-2013) DIN EN ISO 2409 (06-2013)	Paints and varnishes - Cross-cut test Paints and varnishes - Cross-cut test	
Electrical engineering, Environmental tests	ISO 6270-2 (11-2017)	Paints and varnishes - Determination of resistance to humidity - Part 2: Procedure for exposing test specimens in condensation-water atmospheres	
Electrical engineering, Environmental tests	ISO 4892-2 (03-2013)	Plastics - Methods of exposure to laboratory light sources - Part 2: Xenon-arc lamps	
Electrical engineering, Environmental tests	ISO 1431-1 (08-2012)	Rubber, vulcanized or thermoplastic - Resistance to ozone cracking - Part 1: Static and dynamic strain testing	

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Type of test	Standard or test method / version	Title of the standard or test method	Restrictions to the test method
1.2. Product family standards			
Electrical engineering	IEC 61984 (10-2008)	Connectors - Safety requirements and tests	
	DIN EN 61984 (11-2009)	Connectors - Safety requirements and tests	
Electrical engineering	IEC 60352-1 (08-1997)	Solderless connections - Part 1: Wrapped connections - General requirements, test methods and practical guidance	
	DIN EN 60352-1 (04-1998)	Solderless connections - Part 1: Wrapped connections - General requirements, test methods and practical guidance	
Electrical engineering	IEC 60352-2 (02-2006)	Solderless connections. Part 2: Solderless crimped connections - General requirements, test methods and practical guidance	
	IEC 60352-2 Amendment 1 (06-2013)	Crimped connections - General requirements, test methods and practical guidance	
	DIN EN 60352-2 (04-2014)	Solderless connections. Part 2: Solderless crimped connections - General requirements, test methods and practical guidance	
Electrical engineering	IEC 60352-3 (02-1993)	Solderless connections - Part 3: Solderless accessible insulation displacement connections - General requirements, test methods and practical guidance	
	DIN EN 60352-3 (05-1995)	Solderless connections - Part 3: Solderless accessible insulation displacement connections - General requirements, test methods and practical guidance	

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Electrical engineering	IEC 60352-4 (04-1994)	Solderless connections - Part 4: Solderless non-accessible insulation displacement connections - General requirements, test methods and practical guidance	
	DIN EN 60352-4 (09-2001)	Solderless connections - Part 4: Solderless non-accessible insulation displacement connections - General requirements, test methods and practical guidance	
Electrical engineering	IEC 60352-5 (02-2012)	Solderless connections - Part 5: Press-in connections - General requirements, test methods and practical guidance	
	DIN EN 60352-5 (10-2012)	Solderless connections - Part 5: Press-in connections - General requirements, test methods and practical guidance	
Electrical engineering	IEC 60352-6 (08-1997)	Solderless connections - Part 6: Insulation piercing connections - General requirements, test methods and practical guidance	
	DIN EN 60352-6 (03-1998)	Solderless connections - Part 6: Insulation piercing connections - General requirements, test methods and practical guidance	
Electrical engineering	IEC 60352-7 (08-2002)	Solderless connections - Part 7: Spring clamp connections - General requirements, test methods and practical guidance	
	DIN EN 60352-7 (07-2003)	Solderless connections - Part 7: Spring clamp connections - General requirements, test methods and practical guidance	
Electrical engineering	BS EN 50467 (01-2012)	Railway applications - Rolling stock - Electrical connectors, requirements and test methods	
	DIN EN 50467 (10-2012)	Railway applications - Rolling stock - Electrical connectors, requirements and test methods	

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Type of test	Standard or test method / version	Title of the standard or test method	Restrictions to the test method
2. Environmental tests			
2.1. Basic standards			
Environmental tests	IEC 60068-2-1 (03-2007)	Environmental testing - Part 2: Test A: Cold	
	DIN EN 60068-2-1 (01-2008)	Environmental testing - Part 2: Test A: Cold	
Environmental tests	IEC 60068-2-2 (07-2007)	Environmental testing - Part 2: Test B: Dry heat	
	DIN EN 60068-2-2 (05/2008)	Environmental testing - Part 2: Test B: Dry heat	
Environmental tests	IEC 60068-2-6 (12-2007)	Environmental testing - Part 2: Tests - Test Fc: Vibration (sinusoidal)	
	DIN EN 60068-2-6 (10-2008)	Environmental testing - Part 2: Tests - Test Fc: Vibration (sinusoidal)	
Environmental tests	IEC 60068-2-11 (01-1981)	Environmental testing - Part 2: Test Ka: Salt mist	
	DIN EN 60068-2-11 (02-2000)	Environmental testing - Part 2: Test Ka: Salt mist	
Environmental tests	IEC 60068-2-14 (01-2009)	Environmental testing - Part 2: Test N: Change of temperature	only methods Na and Nb
	DIN EN 60068-2-14 (04-2010)	Environmental testing - Part 2: Test N: Change of temperature	
Environmental tests	IEC 60068-2-20 (07-2008)	Environmental testing, Part 2-20: Tests - Test T: Test methods for solderability and resistance to soldering heat of devices with leads	
	DIN EN 60068-2-20 (02-2009)	Environmental testing, Part 2-20: Tests - Test T: Test methods for solderability and resistance to soldering heat of devices with leads	

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Environmental tests	IEC 60068-2-21 (06-2006)	Environmental testing - Part 2:Test U: Robustness of terminations and integral mounting devices	
	DIN EN 60068-2-21 (01-2007)	Environmental testing - Part 2:Test U: Robustness of terminations and integral mounting devices	
Environmental tests	IEC 60068-2-27 (02-2008)	Environmental testing - Part 2:Test Ea and guidance: Shock	
	DIN EN 60068-2-27 (02-2010)	Environmental testing - Part 2:Test Ea and guidance: Shock	
Environmental tests	IEC 60068-2-30 (08-2005)	Environmental testing - Part 2: Tests. Test Db and guidance: Damp heat, cyclic (12 + 12-hour cycle)	
	DIN EN 60068-2-30 (06-2006)	Environmental testing - Part 2: Tests. Test Db and guidance: Damp heat, cyclic (12 + 12-hour cycle)	
Environmental tests	IEC 60068-2-38 (01-2009)	Environmental testing - Part 2: Tests. Test Z/AD: Composite temperature/humidity cyclic test	
	DIN EN 60068-2-38 (06-2010)	Environmental testing - Part 2: Tests. Test Z/AD: Composite temperature/humidity cyclic test	
Environmental tests	IEC 60068-2-52 (11-2017)	Environmental testing - Part 2: Tests - Test Kb: Salt mist, cyclic (sodium, chloride solution)	excluded Test procedure for 7 and 8
	DIN EN 60068-2-52 (08-2018)	Environmental testing - Part 2: Tests - Test Kb: Salt mist, cyclic (sodium, chloride solution)	
Environmental tests	IEC 60068-2-60 (06-2015)	Environmental testing - Part 2: Tests - Test Ke: Flowing mixed gas corrosion test	
	DIN EN 60068-2-60 (06-2016)	Environmental testing - Part 2: Tests - Test Ke: Flowing mixed gas corrosion test	

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Environmental tests	IEC 60068-2-61 (07-1991)	Environmental testing - Part 2: Test methods - Test Z/ABDM: Climatic sequence	
	DIN EN 60068-2-61 (12-1993)	Environmental testing - Part 2: Test methods - Test Z/ABDM: Climatic sequence	
Environmental tests	IEC 60068-2-64 (04-2008)	Environmental testing - Part 2-64: Tests - Test Fh: Vibration, broadband random and guidance	Only Gaussian distribution (kurtosis = 3 & Skewness = 0)
	IEC 60068-2-64 Amendment 1 (10-2019)	Environmental testing - Part 2-64: Tests - Test Fh: Vibration, broadband random and guidance	
	DIN EN 60068-2-64 (04-2009)	Environmental testing - Part 2-64: Tests - Test Fh: Vibration, broadband random and guidance	
Environmental tests	IEC 60068-2-67 (12-1995)	Environmental testing - Part 2: Tests - Test Cy: Damp heat, steady state, accelerated test primarily intended for components	
	DIN EN 60068-2-67 (07-1996)	Environmental testing - Part 2: Tests - Test Cy: Damp heat, steady state, accelerated test primarily intended for components	
Environmental tests	IEC 60068-2-69 (03-2017)	Environmental testing - Part 2-69: Tests - Test Te: Solderability testing of electronic components for surface mounting devices (SMD) by the wetting balance method	Only chapter 8: Soldering method
	DIN EN 60068-2-69 (03-2020)	Environmental testing - Part 2-69: Tests - Test Te/Tc: Solderability testing of electronic components and printed boards by the wetting balance (force measurement) method (IEC 60068-2-69:2017 + COR1:2018 + A1:2019);	

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Environmental tests	IEC 60068-2-70 (12-1995)	Environmental testing - Part 2: Tests - Test Xb: Abrasion of marking and letterings caused by rubbing of fingers and hands	
	DIN EN 60068-2-70 (07-1996)	Environmental testing - Part 2: Tests - Test Xb: Abrasion of marking and letterings caused by rubbing of fingers and hands	
Environmental tests	IEC 60068-2-78 (10-2012)	Environmental testing - Part 2-78: Tests - Test Cab: Damp heat, steady state	
	DIN EN 60068-2-78 (02-2014)	Environmental testing - Part 2-78: Tests - Test Cab: Damp heat, steady state	
Environmental tests	IEC 60068-2-5 (04-2018)	Environmental testing - Part 2-5: Tests - Test Sa: Simulated solar radiation at ground level and guidance for solar radiation testing	
	DIN EN 60068-2-5 (02-2019)	Environmental testing - Part 2-5: Tests - Test Sa: Simulated solar radiation at ground level and guidance for solar radiation testing	
Environmental tests	DIN EN ISO 4892-1 (10-2016)	Plastics - Methods of exposure to laboratory light sources - Part 1: General guidance (ISO 4892-1:2016)	
Environmental tests	DIN EN ISO 4892-2 (06-2013)	Plastics - Methods of exposure to laboratory light sources - Part 2: Xenon-arc lamps (ISO 4892-2:2013)	
Environmental tests	DIN ISO 1431-1 (05-2011)	Rubber, vulcanized or thermoplastic - Resistance to ozone cracking - Part 1: Static and dynamic strain testing (ISO 1431-1:2004 + Amd 1:2009)	
Environmental tests	ASTM B117 (2016)	Standard Practice for Operating Salt Spray (Fog) Apparatus	

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3. Fibre optics			
3.1. Basic standards			
Fibre optics	IEC 61300-1 (07-2016)	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 1: General and guidance	No Multimode launch conditions for A3e fibre with encircled angular flux (EAF) metric
	DIN EN 61300-1 (09-2017)	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 1: General and guidance	
Fibre optics Environmental tests	IEC 61300-2-1 (08-2009)	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 2-1: Tests - Vibration (sinusoidal)	
	DIN EN 61300-2-1 (07-2010)	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 2-1: Tests - Vibration (sinusoidal)	
Fibre optics	IEC 61300-2-10 (08-2012)	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 2-10: Tests - Crush resistance	
	DIN EN 61300-2-10 (09-1998)	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 2-10: Tests - Crush resistance	
	DIN EN 61300-2-10 (04-2013)	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 2-10: Tests - Crush resistance	

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Fibre optics	IEC 61300-2-12 (07-2009)	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 2-12: Tests – Impact	
	DIN EN 61300-2-12 (07-2010)	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 2-12: Tests – Impact	
Fibre optics, Environmental tests	IEC 61300-2-17 (11-2010)	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 2-17: Tests - Cold	
	DIN EN 61300-2-17 (08-2011)	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 2-17: Tests – Cold	
Fibre optics, Environmental tests	IEC 61300-2-18 (07-2005)	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 2-18: Tests - Dry heat - High temperature endurance	
	DIN EN 61300-2-18 (04-2006)	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 2-18: Tests - Dry heat - High temperature endurance	
Fibre optics, Environmental tests	IEC 61300-2-19 (11-2012)	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 2-19: Tests - Damp heat (steady state)	
	DIN EN 61300-2-19 (08-2013)	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 2-19: Tests - Damp heat (steady state)	

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Fibre optics	IEC 61300-2-2 (01-2009)	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 2-2: Tests - Mating durability	
	DIN EN 61300-2-2 (09-2009)	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 2-2: Tests - Mating durability	
Fibre optics, Environmental tests	IEC 61300-2-21 (12-2009)	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 2-21: Tests - Composite temperature/humidity cyclic test	
	DIN EN 61300-2-21 (08-2010)	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 2-21: Tests - Composite temperature/humidity cyclic test	
Fibre optics, Environmental tests	IEC 61300-2-22 (02-2007)	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 2-22: Tests - Change of temperature	
	DIN EN 61300-2-22 (02-2008)	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 2-22: Tests - Change of temperature	
Fibre optics, Environmental tests	IEC 61300-2-26 (12-2006)	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 2-26: Tests - Salt mist	
	DIN EN 61300-2-26 (02-2008)	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 2-26: Tests - Salt mist	

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Fibre optics	IEC 61300-2-4 (01-2019)	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 2-4: Tests - Fibre/cable retention	
	DIN EN 61300-2-4 (10-2019)	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 2-4: Tests - Fibre/cable retention	
Fibre optics	IEC 61300-2-35 (03-2014)	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 2-35: Tests - Cable nutation	
	DIN EN 61300-2-35 (01-2015)	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 2-35: Tests - Cable nutation (IEC 61300-2-35:2014)	
Fibre optics	IEC 61300-2-42 (02-2014)	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 2-42: Tests - Static side load for strain relief	
	DIN EN 61300-2-42 (10-2014)	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 2-42: Tests - Static side load for strain relief	

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Fibre optics	IEC 61300-2-44 (07-2013) DIN EN 61300-2-44 (02-2014)	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 2-44: Tests - Flexing of the strain relief of fibre optic devices Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 2-44: Tests - Flexing of the strain relief of fibre optic devices	
Fibre optics	IEC 61300-2-5 (01-2009) DIN EN 61300-2-5 (10-2011)	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 2-5: Tests – Torsion Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 2-5: Tests – Torsion	
Fibre optics	IEC 61300-2-6 (12-2010) DIN EN 61300-2-6 (08-2011)	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 2-6: Tests - Tensile strength of coupling mechanism Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 2-6: Tests - Tensile strength of coupling mechanism	

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Fibre optics	IEC 61300-2-7 (05-2013)	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 2-7: Tests - Bending moment	
	DIN EN 61300-2-7 (03-2014)	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 2-7: Tests - Bending moment	
Fibre optics, Environmental tests	IEC 61300-2-9 (01-2017)	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 2-9: Tests – Shock	
	DIN EN 61300-2-9 (10-2017)	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 2-9: Tests – Shock	
Fibre optics	IEC 61300-3-1 (09-2005)	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 3-1: Examinations and measurements – Visual examination	
	DIN EN 61300-3-1 (06-2006)	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 3-1: Examinations and measurements – Visual examination	

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Type of test	Standard or test method / version	Title of the standard or test method	Restrictions to the test method
Fibre optics	IEC 61300-3-3 (03-2009) DIN EN 61300-3-3 (12-2009)	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 3-3: Examinations and measurements – Active monitoring of changes in attenuation and return loss Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 3-3: Examinations and measurements – Active monitoring of changes in attenuation and return loss	
Fibre optics	IEC 61300-3-6 (12-2008) DIN EN 61300-3-6 (09-2009)	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 3-6: Examinations and measurements - Return loss Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 3-6: Examinations and measurements - Return loss	
Fibre optics	IEC 61300-3-11 (05-1995) DIN EN 61300-3-11 (09-1998)	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 3-11: Examinations and measurements - Engagement and separation forces Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 3-11: Examinations and measurements; engagement and separation forces	

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Type of test	Standard or test method / version	Title of the standard or test method	Restrictions to the test method
Fibre optics	IEC 61300-3-22 (12-2010) DIN EN 61300-3-22 (08-2011)	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 3-22: Examinations and measurements – Ferrule compression force Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 3-22: Examinations and measurements – Ferrule compression force	
Fibre optics	IEC 61300-3-34 (01-2009) DIN EN 61300-3-34 (09-2009)	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 3-34: Examinations and measurements – Attenuation of random mated connectors Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 3-34: Examinations and measurements – Attenuation of random mated connectors	
Fibre optics	IEC 61300-3-4 (12-2012) DIN EN 61300-3-4 (11-2013)	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 3-4: Examinations and measurements – Attenuation Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 3-4: Examinations and measurements – Attenuation	
Fibre optics	JIS C 6863 (01-1990)	Test Methods for Attenuation of all Plastic Multimode Optical Fibres	

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Fibre optics	IEC 61280-4-1 (05-2019) DIN EN 61280-4-1 (07-2010)	Fibre-optic communication subsystem test procedures - Part 4-1: Installed cable plant - Multimode attenuation measurement Fibre-optic communication subsystem test procedures - Part 4-1: Installed cable plant - Multimode attenuation measurement	
Fibre optics	IEC 61280-4-2 (06-2014) DIN EN 61280-4-2 (05-2015)	Fibre-optic communication subsystem test procedures - Part 4-2: Installed cable plant - Single-mode attenuation and optical return loss measurement Fibre-optic communication subsystem test procedures - Part 4-2: Installed cable plant - Single-mode attenuation and optical return loss measurement	
Fibre optics	IEC 61300-3-28 (03-2012) DIN EN 61300-3-28 (10-2012)	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 3-28: Examinations and measurements – Transient loss Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 3-28: Examinations and measurements – Transient loss	

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Type of test	Standard or test method / version	Title of the standard or test method	Restrictions to the test method
Fibre optics	IEC 61300-3-35 (06-2015)	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 3-35: Examinations and measurements – Visual inspection of fibre optic connectors and fibre-stub transceivers	
	DIN EN 61300-3-35 (04-2016)	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 3-35: Examinations and measurements – Visual inspection of fibre optic connectors and fibre-stub transceivers	
Fibre optics, Environmental tests	IEC 61300-2-46 (03-2019)	Fibre optic interconnecting devices and passive components - Basic test and procedures - Part 2-46: Tests - Damp heat, cyclic	
	DIN EN 61300-2-46 (03-2007)	Fibre optic interconnecting devices and passive components - Basic test and procedures - Part 2-46: Tests - Damp heat, cyclic	
Fibre optics	IEC 60793-2-40 (11-2015)	Optical fibres - Part 2-40: Product specifications - Sectional specification for category A4 multimode fibres	Appendix I only
	DIN EN 60793-2-40 (10-2016)	Optical fibres - Part 2-40: Product specifications - Sectional specification for category A4 multimode fibres	
4. EMC			
4.1. Basic standards			
EMC	DIN EN 61000-4-2 (12-2009)	Electromagnetic compatibility (EMC) - Part 4-2: Testing and measurement techniques - Electrostatic discharge immunity test (IEC 61000-4-2:2008)	

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Type of test	Standard or test method / version	Title of the standard or test method	Restrictions to the test method
EMC	DIN EN 61000-4-3 (04-2011)	Electromagnetic compatibility (EMC) - Part 4-3: Testing and measurement techniques - Radiated, radio-frequency, electromagnetic field immunity test (IEC 61000-4-3:2006 + A1:2007 + A2:2010)	80 MHz – 1 GHz: 20 V/m 1GHz – 2,7 GHz: 10 V/m 2,7GHz – 6 GHz: 3 V/m Maximum dimensions of samples: 1.m x 1 m
EMC	DIN EN 61000-4-4 (04-2013)	Electromagnetic compatibility (EMC) - Part 4-4: Testing and measurement techniques - Electrical fast transient/burst immunity test (IEC 61000-4-4:2012)	
EMC	DIN EN 61000-4-5 (03-2019)	Electromagnetic compatibility (EMC) - Part 4-5: Testing and measurement techniques - Surge immunity test (IEC 61000-4-5:2014)	no test of connecting cables which are unshielded / symmetrically operated No test with pulse shape 10/700 µs
EMC	DIN EN 61000-4-6 (08-2014)	Electromagnetic compatibility (EMC) - Part 4-6: Testing and measurement techniques - Immunity to conducted disturbances, induced by radio-frequency fields (IEC 61000-4-6:2013)	
EMC	DIN EN 61000-4-11 (06-2019)	Electromagnetic compatibility (EMC) - Part 4-11: Testing and measurement techniques - Voltage dips, short interruptions and voltage variations immunity tests	1-phase only
EMC	DIN EN 50155 (05-2018) BS EN 50155 (10-2017)	Railway applications. Electronic equipment used on rolling stock Railway applications. Electronic equipment used on rolling stock	Only EMC

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Type of test	Standard or test method / version	Title of the standard or test method	Restrictions to the test method
EMC	DIN EN 55016-2-1 (11-2019)	Specification for radio disturbance and immunity measuring apparatus and methods - Part 2-1: Methods of measurement of disturbances and immunity - Conducted disturbance measurements (CISPR 16-2-1:2014)	1-phase only
EMC	DIN EN 55016-2-3 (06-2019)	Specification for radio disturbance and immunity measuring apparatus and methods - Part 2-3: Methods of measurement of disturbances and immunity - Radiated disturbance measurements (CISPR 16-2-3:2010 + A1:2010 + A2:2014)	1. No testing in Frequency range 9 KHz - 30MHz to Kap. 7.2; 2. Samples Volume, (Diameter x Height) 1m x 1m Not freestanding appliance
4.2. Generic standards			
EMC	DIN EN 61000-6-1 (10-2007)	Electromagnetic compatibility (EMC) - Part 6-1: Generic standards - Immunity for residential, commercial and light-industrial environments (IEC 61000-6-1:2005)	No testing of Magnetic field DIN EN 61000-4-8
EMC	DIN EN 61000-6-1 (11-2019)	Electromagnetic compatibility (EMC) - Part 6-1: Generic standards - Immunity for residential, commercial and light-industrial environments (IEC 61000-6-1:2005)	No testing of Magnetic field DIN EN 61000-4-8
EMC	DIN EN 61000-6-2 (03-2006) DIN EN 61000-6-2 (11-2019)	Electromagnetic compatibility (EMC) - Part 6-2: Generic standards - Immunity for industrial environments (IEC 61000-6-2:2005)	No testing of Magnetic field DIN EN 61000-4-8

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Type of test	Standard or test method / version	Title of the standard or test method	Restrictions to the test method
EMC	DIN EN 61000-6-3 (09-2011)	Electromagnetic compatibility (EMC) - Part 6-3: Generic standards - Emission standard for residential, commercial and light-industrial environments (IEC 61000-6-3:2006 + A1:2010)	
EMC	DIN EN 61000-6-4 (09-2011)	Electromagnetic compatibility (EMC) - Part 6-4: Generic standards - Emission standard for industrial environments (IEC 61000-6-4:2006 + A1:2010)	
4.3. Product family standards			
EMC	DIN EN 61000-3-2 (12-2019)	Electromagnetic compatibility (EMC) - Part 3-2: Limits - Limits for harmonic current emissions (equipment input current \leq 16 A per phase) (IEC 61000-3-2:2014)	1-phase only
EMC	DIN EN 61000-3-3 (03-2014)	Electromagnetic compatibility (EMC) - Part 3-3: Limits - Limitation of voltage changes, voltage fluctuations and flicker in public low-voltage supply systems, for equipment with rated current \leq 16 A per phase and not subject to conditional connection (IEC 61000-3-3:2013)	1-phase only

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Type of test	Standard or test method / version	Title of the standard or test method	Restrictions to the test method
EMC	DIN EN 55014-1 (08-2018)	Electromagnetic compatibility - Requirements for household appliances, electric tools and similar apparatus - Part 1: Emission (CISPR 14-1:2005 + A1:2008 + Cor.:2009 + A2:2011)	- No Measuring of the Interference power -No Measuring of the radiated magnetic interference emission - Samples Volume, (Diameter x Height) 1m x 1m - not a freestanding appliances - Frequency range 30 Mhz - 1 GHz:
EMC	DIN EN 55014-2 (01-2016)	Electromagnetic compatibility - Requirements for household appliances, electric tools and similar apparatus - Part 2: Immunity - Product family standard (CISPR 14-2:2015)	
EMC	DIN EN 50121-3-2 (11-2017)	Railway applications - Electromagnetic compatibility - Part 3-2: Rolling stock – Apparatus	
EMC	DIN EN 55032 (02-2016)	Electromagnetic compatibility of multimedia equipment - Emission Requirements (CISPR 32:2015)	without C4.2 and C4.3
EMC	DIN EN 55035 (04-2018)	Electromagnetic compatibility of multimedia equipment - Immunity requirements (CIS/I/412/CDV:2012)	

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Type of test	Standard or test method / version	Title of the standard or test method	Restrictions to the test method
4.4. EMC for telecommunication equipment			
EMC	DIN EN 302208-1 (06-2015)	Electromagnetic compatibility and Radio spectrum Matters (ERM) - Radio Frequency Identification Equipment operating in the band 865 MHz to 868 MHz with power levels up to 2 W and in the band 915 MHz to 921 MHz with power levels up to 4 W - Part 1: Technical requirements and methods of measurement	Only chapter 10.1 (procedure 10.2.2.2) and chapter 10.2
5. Radio Frequency			
5.1. Basic standards			
RF	IEC 60512-25-2 (03-2002)	Connectors for electronic equipment - Tests and measurements - Part 25-2: Test 25b – (Attenuation) Insertion loss	
	DIN EN 60512-25-2 (12-2002)	Connectors for electronic equipment - Tests and measurements - Part 25-2: Test 25b – (Attenuation) Insertion loss	
RF	IEC 60512-25-3 (07-2001)	Connectors for electronic equipment - Tests and measurements - Part 25-3: Test 25c - Rise time degradation	
	DIN EN 60512-25-3 (08-2002)	Connectors for electronic equipment - Tests and measurements - Part 25-3: Test 25c - Rise time degradation	
RF	IEC 60512-25-4 (07-2001)	Connectors for electronic equipment - Tests and measurements - Part 25-4: Test 25d - Propagation delay	
	DIN EN 60512-25-4 (08-2002)	Connectors for electronic equipment - Tests and measurements - Part 25-4: Test 25d - Propagation delay	

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Type of test	Standard or test method / version	Title of the standard or test method	Restrictions to the test method
RF	IEC 60512-25-5 (07-2004) DIN EN 60512-25-5 (05-2005)	Connectors for electronic equipment - Tests and measurements - Part 25-5: Test 25e – Return loss Connectors for electronic equipment - Tests and measurements - Part 25-5: Test 25e – Return loss	
RF	IEC 60512-25-6 (05-2004) DIN EN 60512-25-6 (12-2004)	Connectors for electronic equipment - Tests and measurements - Part 25-6: Test 25f: Eye pattern and jitter Connectors for electronic equipment - Tests and measurements - Part 25-6: Test 25f: Eye pattern and jitter	
RF	IEC 60512-25-7 (12-2004) DIN EN 60512-25-7 (12-2005)	Connectors for electronic equipment - Tests and measurements - Part 25-7: Test 25g - Impedance, reflection coefficient, and voltage standing wave ratio (VSWR) Connectors for electronic equipment - Tests and measurements - Part 25-7: Test 25g - Impedance, reflection coefficient, and voltage standing wave ratio (VSWR)	
RF	IEC 60512-25-9 (08-2008) DIN EN 60512-25-9 (08-2009)	Connectors for electronic equipment - Tests and measurements, Part 25-9: Signal integrity tests – Test 25i: Alien crosstalk Connectors for electronic equipment - Tests and measurements, Part 25-9: Signal integrity tests – Test 25i: Alien crosstalk	

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RF	IEC 60512-29-100 (03-2015) DIN EN 60512-29-100 (03-2016)	Connectors for electronic equipment - Tests and measurements – Part 29-100 Signal integrity tests up to 500 MHz on M12 style connectors – Tests 29a to 29g Connectors for electronic equipment - Tests and measurements – Part 29-100 Signal integrity tests up to 500 MHz on M12 style connectors – Tests 29a to 29g	
RF	IEC 60512-23-3 (12-2018) DIN EN 60512-23-3 (02-2020)	Electromechanical components for electronic equipment - Basic testing procedures and measuring methods, Part 23-3: Test 23c: Shielding effectiveness of connectors and accessories Electromechanical components for electronic equipment - Basic testing procedures and measuring methods, Part 23-3: Test 23c: Shielding effectiveness of connectors and accessories	
RF	IEC 60512-25-1 (07-2001) DIN EN 60512-25-1 (08-2002)	Connectors for electronic equipment - Tests and measurements - Part 25-1: Test 25a, Crosstalk ratio Connectors for electronic equipment - Tests and measurements - Part 25-1: Test 25a, Crosstalk ratio	

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RF	IEC 60512-23-7 (01-2005) DIN EN 60512-23-7 (10-2005)	Connectors for electronic equipment - Tests and measurements, Part 23-7: Screening and filtering tests - Test 23g: Effective transfer impedance of connectors Connectors for electronic equipment - Tests and measurements, Part 23-7: Screening and filtering tests - Test 23g: Effective transfer impedance of connectors	
RF	IEC 61156-1 (10-2009)	Multicore and symmetrical pair/quad cables for digital communication - Part 1: Generic specification	only chapters 6.2.7, 6.2.8, 6.3
RF	IEC 60512-26-100 (05-2011) DIN EN 60512-26-100 (12-2011)	Connectors for electronic equipment – Tests and measurements -Part 26-100: Measurement setup, test and reference arrangements and measurements for connectors according to IEC 60603-7 – Tests 26a to 26g Connectors for electronic equipment – Tests and measurements -Part 26-100: Measurement setup, test and reference arrangements and measurements for connectors according to IEC 60603-7 – Tests 26a to 26g	
RF	IEC 60512-27-100 (12-2011) DIN EN 60512-27-100 (09-2012)	Connectors for electronic equipment - Tests and measurements - Part 27-100: Signal integrity tests up to 500 MHz on IEC 60603-7 series connectors – Tests 27a to 27g Connectors for electronic equipment - Tests and measurements - Part 27-100: Signal integrity tests up to 500 MHz on IEC 60603-7 series connectors – Tests 27a to 27g	

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RF	IEC 60512-28-100 (11-2019) DIN EN 60512-28-100 (09-2013)	Connectors for electrical equipment - Tests and measurements - Part 28-100: Signal integrity tests up to 1000 MHz on 60603-7 and 61076-3 series connectors - Tests 28a to 28g Connectors for electrical equipment - Tests and measurements - Part 28-100: Signal integrity tests up to 1000 MHz on 60603-7 and 61076-3 series connectors - Tests 28a to 28g	
RF	IEC 61935-1 (09-2019)	Specification for the testing of balanced and coaxial information technology cabling – Part 1: Installed balanced cabling as specified in ISO/IEC 11801 and related standards	Only for the frequency range up to 1.3 GHz For the differential measuring with baluns, because CTS baluns (040-0229 from BH electronics) specify only up to 1300 MHz
RF	DIN EN 61935-1:2009+ corrigendum:2012	Specification for the testing of balanced and coaxial information technology cabling - Part 1: Installed balanced cabling as specified in the standards series EN 50173 (IEC 61935 1:2009, modified)	

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Type of test	Standard or test method / version	Title of the standard or test method	Restrictions to the test method
RF	IEC 61935-2 (07-2010)	Specification for the testing of balanced and coaxial information technology cabling – Part 2: Cords as specified in ISO/IEC 11801 and related standards	
	DIN EN 61935-2 (06-2011)	Specification for the testing of balanced and coaxial information technology cabling – Part 2: Cords as specified in ISO/IEC 11801 and related standards	
RF	DIN EN 50289-1-6 (12-2002)	Communication cables - Specifications for test methods - Part 1-6: Electrical test methods; Electromagnetic performance	
RF	DIN EN 50289-1-14 (12-2004)	Communication cables - Specifications for test methods - Part 1-14: Electrical test methods - Coupling attenuation or screening attenuation of connecting hardware	
RF EMC	IEC 62153-4-3 (10-2013)	Metallic communication cables test methods – Part 4-3: Electromagnetic compatibility (EMC) – Surface transfer impedance – Triaxial method	
RF EMC	IEC 62153-4-5 (03-2006)	Metallic communication cables test methods – Part 4-5: Electromagnetic compatibility (EMC) – Coupling or screening attenuation – Absorbing clamp method	
RF EMC	IEC 62153-4-6 (08-2017)	Metallic communication cable test methods – Part 4-6: Electromagnetic compatibility (EMC) – Surface transfer impedance – Line injection method	

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RF EMC	IEC 62153-4-7 (12-2015) DIN EN 62153-4-7 (12-2018)	Metallic communication cable test methods - Part 4-7: Electromagnetic compatibility (EMC) - Test method for measuring of transfer impedance ZT and screening attenuation aS or coupling attenuation aC of connectors and assemblies up to and above 3 GHz - Triaxial tube in tube method Metallic communication cable test methods - Part 4-7: Electromagnetic compatibility (EMC) - Test method for measuring of transfer impedance ZT and screening attenuation aS or coupling attenuation aC of connectors and assemblies up to and above 3 GHz - Triaxial tube in tube method	
RF EMC	IEC 62153-4-11 (08-2009)	Metallic communication cable test methods - Part 4-11: Electromagnetic compatibility (EMC) - Coupling attenuation or screening attenuation of patched cords, coaxial cable assemblies, pre-connectorised cables - Absorbing clamp method	
RF EMC	IEC 62153-4-12 (08-2009)	Metallic communication cable test methods, Part 4-12: Electromagnetic compatibility (EMC) - Coupling attenuation or screening attenuation of connecting hardware - Absorbing clamp method	
6. Geometrical measurements No flexible accreditation category 3			
Geometrical Measurements	Standard operating procedure (01-2017)	Test procedure for the documentation and doing of geometrical first article inspections	

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