

## Deutsche Akkreditierungsstelle GmbH

### Annex to the Accreditation Certificate D-PL-12095-01-00 according to DIN EN ISO/IEC 17025:2005

Period of validity: 2015-07-16 to 2019-03-06

Date of issue: 2015-07-16

Holder of certificate:

**Weidmüller Interface GmbH & Co. KG**  
**Zentrallabor**  
**Orbker Straße 48, 32758 Detmold**

Tests in the fields:

**Safety of electronic equipment , Electromagnetic Compatibility (EMC), Industrial Low-voltage devices, Connectors, Environmental testing**

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.

Testing field	Standard / In-House Procedure / Version	Title of Standard or In-House Procedure (Deviations / Modifications of Standard)	Test Range / Restrictions
Safety of electronic equipment	DIN EN 50178 (VDE 0160)/04.98	Electronic equipment for use in power installations	
	DIN EN 61131-2 (VDE 0411-500)/04.08 DIN EN 61131-2 (2008 COR 1 2009) /01.09 IEC 61131-2/07.07	Programmable controllers – Part 2: Equipment requirements and tests	Exclude the test of safety coatings acc sect. 12.1.6
Low-voltage switchgear and controlgear	DIN EN 60947-7-1 (VDE 0611-1)/03.10 IEC 60947-7-1/04.09	Low-voltage switchgear and controlgear – Part 7-1: Ancillary equipment - Terminal blocks for copper conductors	

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	DIN EN 60947-7-2 (VDE 0611-3)/03.10 IEC 60947-7-2/04.09	Low-voltage switchgear and controlgear – Part 7-2: Ancillary equipment - Protective conductor terminal blocks for copper conductors	
	DIN EN 60947-7-3 (VDE 0611-6)/05.10 IEC 60947-7-3/04.09	Low-voltage switchgear and controlgear – Part 7-3: Ancillary equipment - Safety requirements for fuse terminal blocks	
	DIN EN 60947-7-4 (VDE 0611-7-4)/07.12 IEC/CLC 17B/1822/FDIS:IEC 60947-7-4/08.13	Low-voltage switchgear and controlgear – Part 7-4: Ancillary equipment - PCB terminal blocks for copper conductors	
	DIN EN 62208 (VDE 0660-500)/06.12 IEC 62208/08.11	Empty enclosures for low-voltage switchgear and controlgear assemblies - General requirements	
	DIN VDE 0611-4/02.91	Terminal blocks for connecting copper conductors; distribution terminal blocks up to 6 mm <sup>2</sup>	
Connectors	DIN EN 61984 (VDE 0627)/11.09 DIN EN 61984 (2009 COR1 2012) /03.12 IEC 61984/10.08	Connectors - Safety requirements and tests	
	DIN EN 60512-1/11.01 IEC 60512-1/01.01	Connectors for electronic equipment - Tests and measurements - Part 1: General	
	DIN EN 60512-1- 1/01.03 IEC 60512-1-1/02.02	Connectors for electronic equipment - Tests and measurements - Part 1-1: General examination; Test 1a: Visual examination	
	DIN EN 60512-2- 1/01.03 IEC 60512-2-1/02.02	Connectors for electronic equipment - Tests and measurements - Part 2-1: Electrical continuity and contact resistance tests; Test 2a: Contact resistance - Millivolt level method	
	DIN EN 60512-3- 1/01.03 IEC 60512-3-1/02.02	Connectors for electronic equipment - Tests and measurements - Part 3-1: Insulation tests; Test 3a: Insulation resistance	

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	DIN EN 60512-4-1/01.04 IEC 60512-4-1/05.03	Connectors for electronic equipment - Tests and measurements - Part 4-1: Voltage stress tests; Test 4a: Voltage proof	
	DIN EN 60512-5-1/01.03 IEC 60512-5-1/02.02	Connectors for electronic equipment - Tests and measurements - Part 5-1: Current-carrying capacity tests; Test 5a: Temperature rise	
	DIN EN 60512-5-2/01.03 IEC 60512-5-2/02.02	Connectors for electronic equipment - Tests and measurements - Part 5-2: Current-carrying capacity tests; Test 5b: Current-temperature derating	
	DIN EN 60512-6-2/01.03 IEC 60512-6-2/02.02	Connectors for electronic equipment - Tests and measurements - Part 6-2: Dynamic stress tests; Test 6b: Bump	
	DIN EN 60512-6-3/01.03 IEC 60512-6-3/02.02	Connectors for electronic equipment - Tests and measurements - Part 6-3: Dynamic stress tests; Test 6c: Shock	
	DIN EN 60512-6-4/01.03 IEC 60512-6-4/02.02	Connectors for electronic equipment - Tests and measurements - Part 6-4: Dynamic stress tests; Test 6d: Vibration (sinusoidal)	
	DIN EN 60512-6-5/10.00 IEC 60512-6-5/10.97	Electromechanical components for electronic equipment - Basic testing procedures and measuring methods - Part 6: Dynamic stress tests; section 5: Test 6e: Random vibration	
	DIN EN 60512-8-1/06.11 IEC 60512-8-1/06.10	Connectors for electronic equipment - Tests and measurements - Part 8-1: Static load tests (fixed connectors) - Test 8a: Static load, transverse	
	DIN EN 60512-8-2/02.12 IEC 60512-8-2/04.11	Connectors for electronic equipment - Tests and measurements - Part 8-2: Static load tests (fixed connectors) - Test 8b: Static load, axial	
	DIN EN 60512-8-3/02.12 IEC 60512-8-3/04.11	Connectors for electronic equipment - Tests and measurements - Part 8-3: Static load tests (fixed connectors) - Test 8c: Robustness of actuating lever	
	IEC 60512-9/04.92	Electromechanical components for electronic equipment; basic testing procedures and measuring methods; part 9: miscellaneous tests	

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	DIN EN 60512-9-1/12.10 IEC 60512-9-1/03.10	Connectors for electronic equipment - Tests and measurements - Part 9-1: Endurance tests - Test 9a: Mechanical operation	
	DIN EN 60512-9-2/09.12 IEC 60512-9-2/08.11	Connectors for electronic equipment - Tests and measurements - Part 9-2: Endurance tests - Test 9b: Electrical load and temperature	
	DIN EN 60512-9-5/12.10 IEC 60512-9-5/03.10	Connectors for electronic equipment - Tests and measurements - Part 9-5: Endurance tests - Test 9e: Current loading, cyclic	
	DIN EN 60512-12-1/11.06 IEC 60512-12-1/03.06	Connectors for electronic equipment - Tests and measurements - Part 12-1: Soldering tests - Test 12a: Solderability, wetting, solder bath method	
	DIN EN 60512-12-4/11.06 DIN EN 60512-12-4 (2006 COR1 2008) /11.08 IEC 60512-12-4/02.06	Connectors for electronic equipment - Tests and measurements - Part 12-4: Soldering tests - Test 12d: Resistance to soldering heat, solder bath method	
	DIN EN 60512-12-7/11.01 IEC 60512-12-7/01.01	Connectors for electronic equipment - Tests and measurements - Part 12-7: Soldering tests; Test 12g: Solderability, wetting balance method	
	DIN EN 60512-13-2/11.06 DIN EN 60512-13-2 (2006 COR 1 2008) /11.08 IEC 60512-13-2/02.06	Connectors for electronic equipment - Tests and measurements - Part 13-2: Mechanical operation tests - Test 13b: Insertion and withdrawal force	
	DIN EN 60512-13-5/11.06 DIN EN 60512-13-5 (2006 COR 1 2008) /11.08 IEC 60512-13-5/02.06	Connectors for electronic equipment - Tests and measurements - Part 13-5: Mechanical operation tests - Test 13e: Polarizing and keying method	

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	DIN EN 60695-2-11/11.01 IEC 60695-2-11/10.00	Fire hazard testing - Part 2-11: Glowing/hot-wire based test methods - Glow-wire flammability test method for end-products (GWEPT)	
	DIN EN 60695-11-5/11.05 IEC 60695-11-5/12.04	Fire hazard testing - Part 11-5: Test flames - Needle-flame test method - Apparatus, confirmatory test arrangement and guidance	

Testing field	Standard / In-House Procedure / Version	Title of Standard or In-House Procedure (Deviations / Modifications of Standard)	Test Range / Restrictions
Environmental testing	DIN EN 60068-1/03.95 IEC 60068-1/10.13	Environmental testing – Part 1: General and guidance	
	DIN EN 60068-2-1/01.08 IEC 60068-2-1/03.07	Environmental testing – Part 2-1: Tests - Test A: Cold	
	DIN EN 60068-2-2/05.08 IEC 60068-2-2/07.07	Environmental testing – Part 2-2: Tests - Test B: Dry heat	
	DIN EN 60068-2-6/10.08 IEC 60068-2-6/12.07	Environmental testing – Part 2-6: Tests - Test Fc: Vibration (sinusoidal)	
	DIN EN 60068-2-20/02.09 DIN EN 60068-2-20 (2009 COR1 2009) /05.09 IEC 60068-2-20/07.08	Environmental testing – Part 2: Tests - Test T: Test methods for solderability and resistance to soldering heat of devices with leads	
	DIN EN 60068-2-27/02.10 IEC 60068-2-27/02.08	Environmental testing – Part 2-27: Tests - Test Ea and guidance: Shock	
	DIN EN 60068-2-31/04.09 IEC 60068-2-31/05.08	Environmental testing – Part 2-31: Tests - Test Ec: Rough handling shocks, primarily for equipment-type specimens	
	DIN EN 60068-2-52/10.96 IEC 60068-2-52/01.96	Environmental testing – Part 2: Tests - Test Kb: Salt mist, cyclic (sodium chloride solution)	
	DIN EN 60068-2-78/02.14 IEC 60068-2-78/10.12	Environmental testing – Part 2-78: Tests - Test Cab: Damp heat, steady state	
	DIN EN ISO 9227/09.12 ISO 9227/05.12	Corrosion tests in artificial atmospheres - Salt spray tests	

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	DIN EN 60529/09.00 IEC 60529/10.13	Degrees of protection provided by enclosures (IP Code)	
	DIN EN 60512-11-4/01.03 IEC 60512-11-4/02.02	Connectors for electronic equipment - Tests and measurements – Part 11-4: Climatic tests; Test 11d: Rapid change of temperature	
	DIN EN 60068-2-11/02.00 IEC 60068-2-11/01.81 IEC 60068-2-11 (1981 COR 1999) /01.81	Environmental testing – Part 2: Tests; test Ka: Salt mist	
	DIN EN 60068-2-30/06.06 IEC 60068-2-30/08.05	Environmental testing – Part 2-30: Tests - Test Db: Damp heat, cyclic (12 h + 12 h cycle)	
	DIN EN 60512-11-14/06.04 IEC 60512-11-14/07.03	Connectors for electronic equipment - Tests and measurements – Part 11-14: Climatic tests; Test 11p: Flowing single gas corrosion test	
	DIN EN 60512-11-7/06.04 IEC 60512-11-7/05.03	Connectors for electronic equipment - Tests and measurements – Part 11-7: Climatic tests; Test 11g: Flowing mixed gas corrosion test	
	DIN EN 60068-2-60/09.96 IEC 60068-2-60/12.95	Environmental testing – Part 2: Tests - Test Ke: Flowing mixed gas corrosion test	
	DIN EN 60068-2-42/04.04 IEC 60068-2-42/05.03	Environmental testing – Part 2-42: Tests; Test Kc: Sulphur dioxide test for contacts and connections	
	DIN EN 60068-2-43/04.04 IEC 60068-2-43/05.03	Environmental testing – Part 2-43: Tests; Test Kd: Hydrogen sulphide test for contacts and connections	
	DIN EN 60068-2-14/04.10 IEC 60068-2-14/01.09	Environmental testing – Part 2-14: Tests - Test N: Change of temperature	Only test Na

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	DIN EN 60068-2-64 (VDE 0468-2-64)/04.09 IEC 60068-2-64/04.08	Environmental testing – Part 2-64: Tests - Test Fh: Vibration, broadband random and guidance	
	DIN EN 61373 (VDE 0 115-106)/04.11 IEC 61373/05.10 IEC 61373 (2010 COR 1 2011) /10.11	Railway applications - Rolling stock equipment - Shock and vibration tests	
EMC	DIN EN 61000-4-2 (VDE 0847-4-2)/12.09 IEC 61000-4-2/12.08	Electromagnetic compatibility (EMC) - Part 4-2: Testing and measurement techniques - Electrostatic discharge immunity test	
	DIN EN 61000-4-3 (VDE 0847-4-3)/04.11 IEC 61000-4-3/02.06 IEC 61000-4-3 (2010 CON ED 3.2) /04.10	Electromagnetic compatibility (EMC) - Part 4-3: Testing and measurement techniques - Radiated, radio-frequency, electromagnetic field immunity test	Frequency range 80MHz to 4GHz, test field intensity 10V/m up to 2GHz, 3V/m up to 4GHz (each at 3m test distance)
	DIN EN 61000-4-4 (VDE 0847-4-4)/04.13 IEC 61000-4-4/04.12	Electromagnetic compatibility (EMC) - Part 4-4: Testing and measurement techniques - Electrical fast transient/burst immunity test	
	DIN EN 61000-4-5 (VDE 0847-4-5)/07.13 IEC 61000-4-5/11.05 IEC 61000-4-5 (2005 COR 1 2009) /10.09	Electromagnetic compatibility (EMC) - Part 4-5: Testing and measurement techniques - Surge immunity test	
	DIN EN 61000-4-6 (VDE 0847-4-6)/11.12 IEC 61000-4-6/10.13	Electromagnetic compatibility (EMC) - Part 4-6: Testing and measurement techniques - Immunity to conducted disturbances, induced by radio-frequency fields	



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	DIN EN 55016-2-1 (VDE 0877-16-2-1)/01.14 IEC/CISPR 16-2-1/10.08 IEC/CISPR 16-2-1 (2013 CON ED 2.3) /03.13	Specification for radio disturbance and immunity measuring apparatus and methods - Part 2-1: Methods of measurement of disturbances and immunity - Conducted disturbance measurements	exclude CDNE procedure acc. Section 9
	DIN EN 55016-2-3 (VDE 0877-16-2-3)/03.11 IEC/CISPR 16-2-3/07.06 IEC/CISPR 16-2-3 (2010 CON ED 3.1) /08.10	Specification for radio disturbance and immunity measuring apparatus and methods - Part 2-3: Methods of measurement of disturbances and immunity - Radiated disturbance measurements	
	DIN EN 55014-1 (VDE 0875-14-1)/05.12 IEC/CISPR 14-1/11.05 IEC/CISPR 14-1 (2011 CON ED 5.2) /11.11	Electromagnetic compatibility - Requirements for household appliances, electric tools and similar apparatus - Part 1: Emission	
	DIN EN 61131-2 (VDE 0411-500)/04.08 DIN EN 61131-2 (2008 COR 1 2009) /01.09 IEC 61131-2/07.07	Programmable controllers - Part 2: Equipment requirements and tests	exclude IEC 61000-4-18 and without damped sinusoidal sweep (ringwave) acc. IEC 61000-4-12