

Deutsche Akkreditierungsstelle GmbH

Entrusted according to Section 8 subsection 1 AkkStelleG in connection with Section 1 subsection 1 AkkStelleGBV

Signatory to the Multilateral Agreements of
EA, ILAC and IAF for Mutual Recognition

Accreditation



The Deutsche Akkreditierungsstelle GmbH attests that the testing laboratory

K. A. Schmersal GmbH & Co. KG
Möddinghofe 30, 42279 Wuppertal

is competent under the terms of DIN EN ISO/IEC 17025:2005 to carry out tests in the
following fields:

**Low-voltage switchgear and controlgear, Electromagnetic Compatibility
and Environmental Simulation**

The accreditation certificate shall only apply in connection with the notice of accreditation of 2015-12-16 with the accreditation number D-PL-12119-01 and is valid until 2020-12-15. It comprises the cover sheet, the reverse side of the cover sheet and the following annex with a total of 05 pages.

Registration number of the certificate: **D-PL-12119-01-00**

Deutsche Akkreditierungsstelle GmbH

Annex to the Accreditation Certificate D-PL-12119-01-00 according to DIN EN ISO/IEC 17025:2005

Period of validity: 2015-12-16 to 2020-12-15 Date of issue: 2015-12-16

Holder of certificate:

K. A. Schmersal GmbH & Co. KG
Möddinghofe 30, 42279 Wuppertal

Tests in the fields:

**Low-voltage switchgear and controlgear, Electromagnetic Compatibility
and Environmental Simulation**

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
INSpG	DIN EN 60947-1:2011-10 IEC 60947-1/A1: 2011-01 VDE 0660-100:2011-10	Low-voltage switchgear and controlgear - Part 1: General rules	
INSpG	DIN EN 60947-5-1:2010-04 IEC 60947-5-1:2003-11 + IEC 60947-5-1, AMD1: 2009- 04 VDE 0660-200:2010-04	Low-voltage switchgear and controlgear - Part 5-L: Control circuit devices and switching elements – Electromechanical control circuit devices	
INSpG	DIN EN 60947-5-2:2014-01 IEC 60947-5-2:2007-10 + IEC 60947-5-2 AMD1:2012- 09 VDE 0660-208:2014-01	Low-voltage switchgear and controlgear - Part 5-2: Control circuit devices and switching elements – Proximity switches	

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INSpG	DIN EN 60947-5-3:2014-12 IEC 60947-5-3: 2013-08 VDE 0660-214:2014-12	Low-voltage switchgear and controlgear – Part 5-3: Control circuit devices and switching elements – Requirements for proximity devices with defined behavior under fault conditions	
INSpG	DIN EN 60947-5-4:2005-03 IEC 60947-5-4: 2002-10 VDE 0660-211:2005-03	Low-voltage switchgear and controlgear – Part 5-4: Control circuit devices and switching elements – Method of assessing the performance of low-energy contacts – Special tests	
INSpG	DIN EN 60947-5-5:2005-11 IEC 60947-5-5:1997-11 + IEC 60947-5-5, AMD 1: 2005-01 VDE 0660-210:2005-11	Low-voltage switchgear and controlgear – Part 5-5: Control circuit devices and switching elements – Electrical emergency stop device with mechanical latching function	
INSpG	BG GS ET 14: 2011-06	Supplementary requirements for the testing and certification of proximity devices for safety functions	
INSpG	BG GS ET 15: 2011-02	Principles for the testing and certification of position switches with direct opening operation	
INSpG	BG GS ET 19: 2011-02	Principles for the testing and certification of interlocks with solenoid guard locking devices	
INSpG	BG GS ET 20: 2014-10	Supplementary requirements for the testing and certification of safety switchgear	
INSpG	BG GS ET 26: 2014-03	Bus systems for the transmission of safety messages	
UMW	DIN EN 60529 IEC 60529 VDE 0470-1	Degrees of protection provided by enclosures (IP Code)	
UMW	DIN EN 60068-2-2 IEC 60068-2-2	Environmental testing – Part 2-2: Tests – Test B: Dry heat	
UMW	DIN EN 60068-2-6 IEC 60068-2-6	Environmental testing – Part 2-6: Tests – Test Fc: Vibration (sinusoidal)	
UMW	DIN EN 60068-2-14 IEC 60068-2-14	Environmental testing – Part 2-14: Tests - Test N: Change of temperature	
UMW	DIN EN 60068-2-18 IEC 60068-2-18	Environmental testing – Part 2-L8: Tests - Test R and guidance: Water	

Annex to the accreditation certificate D-PL-12119-01-00

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UMW	DIN EN 60068-2-27 IEC 60068-2-27	Environmental testing – Part 2-27: Tests - Test Ea and guidance: Shock	
UMW	DIN EN 60068-2-29 IEC 60068-2-29	Environmental testing – Part 2-29: Tests Tests - Eb: Bump	
UMW	DIN EN 60068-2-30 IEC 60068-2-30	Environmental testing – Part 2-30: Tests - Test Db: Damp heat, cyclic	
UMW	DIN EN 60068-2-38 IEC 60068-2-38	Environmental testing * Part 2-38: Tests - Test Z/AD: Composite temperature / humidity cyclic test	
UMW	DIN EN 60068-2-64 IEC 60068-2-64	Environmental testing – Part 2-64: Tests – Test Fh: Vibration, broadband random and guidance	
UMW	DIN EN 60068-2-68 IEC 60068-2-68	Environmental testing – Part 2: Tests – Test L: Dust and sand	
UMW	DIN EN 60068-2-75 IEC 60068-2-75	Environmental testing – Part 2: Tests – Test Eh: Hammer tests	
UMW	DIN EN 60695-2-10 DIN EN 60695-2-11 DIN EN 60695-2-12	Fire hazard testing: Glowing / hot-wire based test methods Glow-wire flammability test, end-products Glow-wire flammability test method, materials	
UMW	DIN EN 60068-2-11:2000-02 Deutsche Fassung EN 60068-2-11:1999 IEC 60068-2-11:1981	Environmental testing – Part 2: Tests; Test Ka: Salt mist (IEC 60068-2-11:1981);	
UMW	DIN EN 60068-2-52:1996-10 Deutsche Fassung EN 60068-2-52:1996 IEC 60068-2-52:1996	Environmental testing – Part 2: Tests, Test Kb: Salt mist, cyclic (sodium chloride solution) (IEC 60068-2-52:1996)	
UMW	DIN EN ISO 9227:2012-09 ISO 9227:2012	Corrosion tests in artificial atmospheres – Salt spray tests	
EMV	DIN EN 61000-4-2 IEC 61000-4-2 VDE 0847-4-2	Testing and measurement techniques – Electrostatic discharge immunity test	
EMV	DIN EN 61000-4-3 IEC 61000-4-3 VDE 0847-4-3	Testing and measurement techniques – Radiated, radio-frequency, electromagnetic field immunity test	Only in subcontract

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EMV	DIN EN 61000-4-4 IEC 61000-4-4 VDE 0847-4-4	Testing and measurement techniques – Electrical fast transient / burst immunity test	
EMV	DIN EN 61000-4-5 IEC 61000-4-5 VDE 0847-4-5	Testing and measurement techniques – Surge immunity test	
EMV	DIN EN 61000-4-6 IEC 61000-4-6 VDE 0847-4-6	Testing and measurement techniques – Immunity to conducted disturbances, induced by radio-frequency fields	
EMV	DIN EN 61000-4-8 IEC 61000-4-8 VDE 0847-4-8	Testing and measurement techniques – Power frequency magnetic field immunity test	
EMV	DIN EN 61000-4-11 IEC 61000-4-11 VDE 0847-4-11	Testing and measurement techniques – Voltage dips, short interruptions and voltage variations immunity tests	
EMV	DIN EN 61000-4-16 IEC 61000-4-16 VDE 0847-4-16	Testing and measurement techniques – Test for immunity to conducted, common mode disturbances in the frequency range 0 Hz to 150 kHz	Partial test At0Hz
EMV	DIN EN 61000-4-20 IEC 61000-4-20 VDE 0847-4-20	Testing and measurement techniques – Emission and immunity testing in transverse electromagnetic (TEM) waveguides	Partial test Immunity
EMV	DIN EN 61000-4-29 IEC 61000-4-29 VDE 0847-4-29	Testing and measurement techniques – Voltage dips, short interruptions and voltage variations on d.c. input power port immunity tests	
EMV	DIN EN 61000-6-1 IEC 61000-6-1 VDE 0839-6-1	Generic standards – Immunity for residential, commercial and light-industrial environments	DIN EN 61000-4-3 Only in subcontract
EMV	DIN EN 61000-6-2 IEC 61000-6-2 VDE 0839-6-2	Generic standards – Immunity for industrial environments	DIN EN 61000-4-3 Only in subcontract
EMV	DIN EN 55011 VDE 0875-11	Industrial, scientific and medical equipment – Radio-frequency disturbance characteristics – Limits and methods of measurement Industrial, scientific and medical equipment – Radio-frequency disturbance characteristics – Limits and methods of measurement	Partial test Radio interference voltage

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EMV	DIN EN 55022 VDE 0878-22	Information technology equipment – Radio disturbance characteristics- Limits and methods of measurement	Partial test Radio interference voltage

Technical responsibility for the test reports:

Herr Jacobi (EMV, INSpG, UMW)

Herr Schäfer (INSpG, UMW)

Herr Görsch (EMV)

Herr Müller (EMV)

Herr Braune (UMW, INSpG)