

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

Phoenix Contact GmbH & Co. KG
Laboratory Industrial Cabinet Connectivity
Flachmarktstraße 8, 32825 Blomberg

is competent under the terms of DIN EN ISO/IEC 17025:2018 to carry out tests in the following fields:

Safety of industrial low-voltage switchgear and connectors, connection material for low-voltage circuits, solderless electrical connections and environmental simulation tests


The accreditation certificate shall only apply in connection with the notice of accreditation of 11.08.2020 with the accreditation number D-PL-12161-02. It comprises the cover sheet, the reverse side of the cover sheet and the following annex with a total of 13 pages.

Registration number of the certificate: **D-PL-12161-02-00**

Frankfurt am Main,
11.08.2020

Dipl.-Ing. (FH) Ralf Egnér
Head of Division

Translation issued:
11.08.2020


Head of Division

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>

This document is a translation. The definitive version is the original German accreditation certificate.

See notes overleaf.

Deutsche Akkreditierungsstelle GmbH

Office Berlin
Spittelmarkt 10
10117 Berlin

Office Frankfurt am Main
Europa-Allee 52
60327 Frankfurt am Main

Office Braunschweig
Bundesallee 100
38116 Braunschweig

The publication of extracts of the accreditation certificate is subject to the prior written approval by Deutsche Akkreditierungsstelle GmbH (DAkKS). Exempted is the unchanged form of separate disseminations of the cover sheet by the conformity assessment body mentioned overleaf.

No impression shall be made that the accreditation also extends to fields beyond the scope of accreditation attested by DAkKS.

The accreditation was granted pursuant to the Act on the Accreditation Body (AkkStelleG) of 31 July 2009 (Federal Law Gazette I p. 2625) and the Regulation (EC) No 765/2008 of the European Parliament and of the Council of 9 July 2008 setting out the requirements for accreditation and market surveillance relating to the marketing of products (Official Journal of the European Union L 218 of 9 July 2008, p. 30). DAkKS is a signatory to the Multilateral Agreements for Mutual Recognition of the European co-operation for Accreditation (EA), International Accreditation Forum (IAF) and International Laboratory Accreditation Cooperation (ILAC). The signatories to these agreements recognise each other's accreditations.

The up-to-date state of membership can be retrieved from the following websites:

EA: www.european-accreditation.org

ILAC: www.ilac.org

IAF: www.iaf.nu

Deutsche Akkreditierungsstelle GmbH

Annex to the Accreditation Certificate D-PL-12161-02-00 according to DIN EN ISO/IEC 17025:2018

Valid from: 11.08.2020

Date of issue: 31.08.2020

Holder of certificate:

Phoenix Contact GmbH & Co. KG
Laboratory Industrial Cabinet Connectivity
Flachmarktstraße 8, 32825 Blomberg

Tests in the fields:

Safety of industrial low-voltage switchgear and connectors, connection material for low-voltage circuits, solderless electrical connections and environmental simulation tests

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 standards / equivalent testing procedures within the flexible scope of accreditation.

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/ISO 6988:1997-03 EN/ISO 6988:1994-10	Metallic and other non -organic coatings - Sulfur dioxide test with general condensation of moisture (ISO 6988 :1985)	

This document is a translation. The definitive version is the original German annex to the accreditation certificate.

Annex to the accreditation certificate D-PL-12161-02-00

Testing field	Standard / In-House Procedure / Version	Title of Standard or In-House Procedure (Deviations / Modifications of Standard)	Test Range / Restrictions
Electrical Engineering	DIN 41611-4:1986:04	Solderless electrical connections; clip connections; terminology, requirements, testing	
Environmental testing	DIN 50018:2013-05	Testing in a saturated atmosphere in the presence of sulfur dioxide	
Environmental testing	DIN EN 50155 (VDE 0115-200):2018-05 EN 50155:2017-10	Railway applications Rolling stock – Electronic equipment	Only tests No. 4, 5, 6, 7, 8 and 12 from table 12
Electrical Engineering	DIN EN 50274 (VDE 0660-514):2002-11 EN 50274:2002-04	Low voltage switchgear and controlgear assemblies - Protection against electric shock - Protection against unintentional direct contact with hazardous live parts	
Electrical Engineering	DIN 57635 (VDE 0635):1984-02	Low voltage fuses; D-fuses E 16 up to 25 A, 500 V; D-fuses up to 100 A, 750 V; D-fuses up to 100 A, 500 V	
Environmental testing	DIN EN 60068-2-1:2008-01 EN 60068-2-1:2007-04 IEC 60068-2-1:2007-03	Environmental testing – Part 2-1: Tests – Test A: Cold	

-Translation-

Valid from: 11.08.2020

Date of issue: 31.08.2020

Annex to the accreditation certificate D-PL-12161-02-00

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 60068-2-14:2010-04 EN 60068-2-14:2009-06 IEC 60068-2-14:2009-01	Environmental testing – Part 2-14: Tests – test N: Change of temperature	Except tests to Acc. 9 Tests Nc Two Bath- method
Environmental testing	DIN EN 60068-2-2:2008-05 EN 60068-2-2:2007-09 IEC 60068-2-2:2007-07	Environmental testing – Part 2-2: Tests – Test B: Dry heat	
Environmental testing	DIN EN 60068-2-27:2010-02 EN 60068-2-27:2009-05 IEC 60068-2-27:2008-02	Environmental testing – Part 2-27: Tests – Test Ea and guidance: Shock	
Environmental testing	DIN EN 60068-2-30:2006-06 EN 60068-2-30:2005-12 IEC 60068-2-30:2005-08	Environmental testing – Part 2-30: Tests – Test Db: Damp heat, cyclic (12 h + 12 h cycle)	
Environmental testing	DIN EN 60068-2-31:2009-04 EN 60068-2-31:2008-09 IEC 60068-2-31:2008-08	Environmental testing – Part 2-31: Tests – test Ec: Rough handling shocks, primarily for equipment-type specimens	Only tests to Acc. 5.3 Repeated free falling procedure 2

-Translation-

Valid from: 11.08.2020

Date of issue: 31.08.2020

Annex to the accreditation certificate D-PL-12161-02-00

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 60068-2-38: 2010-06 EN 60068-2-38:2009-11 IEC 60068-2-38:2009-01	Environmental testing – Part 2-38: Tests – test Z/AD: Composite temperature/humidity cyclic test	
Environmental testing	DIN EN 60068-2-6:2008-10 EN 60068-2-6:2008-02 IEC 60068-2-6:2007-12	Environmental testing – Part 2-6: Tests – Test Fc: Vibration (sinusoidal)	
Environmental testing	DIN EN 60068-2-64:2009-04 EN 60068-2-64:2008-09 IEC 60068-2-64:2008-04	Environmental testing – part 2-64: Test methods – Test Fh: Vibration, broad band random (digital control) and guidance	
Environmental testing	DIN EN 60068-2-78:2014-02 EN 60068-2-78:2013-06 IEC 60068-2-78:2012-10	Environmental testing - Part 2-78: Tests – Test Cab: Damp heat, steady state	
Environmental testing	DIN EN 60079-0 (VDE 0170-1):2019-09 EN 60079-0:2018 IEC 60079-0:2017	Explosive atmospheres – Part 0: Equipment – General requirements	Only tests 26.8 heat resistance and 26.9 cold resistance

-Translation-

Valid from: 11.08.2020

Date of issue: 31.08.2020

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 60079-7 (VDE 0170-6):2016-08 EN 60079-7:2015 IEC 60079-7: 2015	Explosive atmospheres – Part 7: Equipment protection by increased safety „e“	Only tests 6.10 Test on insulating materials of the connection terminals
Electrical Engineering	DIN EN 60269-1 (VDE 0636-1):2015-05 EN 60269-1:2007-05 + A1:2009-07 + A2:2014-09 IEC 60269-1:2006-11 + A1:2009-04 + A2:2014-06	Low-voltage fuses – Part 1: General requirements	Only tests to Acc. 7.3: heating, power output and consumption of the fuse holder and Abs. 8.11.2.2 heat resistance at elevated temperatures and fire
Electrical Engineering	DIN VDE 0636-3:2013-12 IEC 60269-3:2010-05 + A1:2013 + Corrigendum 2013-03	Low-voltage fuses – Part 3: Supplementary requirements for fuses for use by unskilled persons (fuses mainly for household or similar applications) – Examples of standardized systems of fuses A to F	Only tests to Acc. 7.3: heating, power output and consumption of the fuse holder and paragraph 8.11.2.4 heat storage strength

-Translation-

Valid from: 11.08.2020

Date of issue: 31.08.2020

Annex to the accreditation certificate D-PL-12161-02-00

Testing field	Standard / In-House Procedure / Version	Title of Standard or In-House Procedure (Deviations / Modifications of Standard)	Test Range / Restrictions
Electrical Engineering	DIN EN 60352-1:1998-04 EN 60352-1:1997-10 IEC 60352-1:1997-08	Solderless connections – Part 1: Wrapped connections; general requirements, test methods and practical guidance	Except for test to Acc. 5.2.4.2 gas tightness
Electrical Engineering	DIN EN 60352-2:2014-04 EN 60352-2:2006-05 + A1:2013-09 IEC 60352-2:2006-02 + A1:2013-06	Solderless connections –Part 2: Crimped connections; general requirements, test methods and practical guidance	Except for testing Acc. to 5.2.5.1 Resistance to liquids
Electrical Engineering	DIN EN 60352-3:1995-05 EN 60352-3:1994-10 IEC 60352-3:1993-02	Solderless connections – Part 3: Solderless accessible insulation displacement connections; general requirements, test methods and practical guidance	Except for testing Acc. to 12.4.3 Corrosion, industrial atmosphere
Electrical Engineering	DIN EN 60352-4:2001-09 EN 60352-4:1994-10 + A1:2000-12 IEC 60352-4:1994-08 + A1:2000-07	Solderless connections – Part 4: Solderless non-accessible insulation displacement connections; General requirements, test methods and practical guidance	Except for testing Acc. to 12.4.3 Corrosion, industrial atmosphere

-Translation-

Valid from: 11.08.2020

Date of issue: 31.08.2020

Testing field	Standard / In-House Procedure / Version	Title of Standard or In-House Procedure (Deviations / Modifications of Standard)	Test Range / Restrictions
Electrical Engineering	DIN EN 60352-7:2003-07 EN 60352-7:2002-10 IEC 60352-7:2002-08	Solderless connections – Part 7: Spring clamp connections; General requirements, test methods and practical guidance	Except for testing Acc. to 5.2.4.3 Corrosion, industrial atmosphere
Electrical Engineering	DIN EN 60512-2-1:2003-01 EN 60512-2-1:2002-04 IEC 60512-2-1:2002-02	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	DIN EN 60512-2-2:2004-01 EN 60512-2-2:2003-07 IEC 60512-2-2:2003-05	Connectors for electronic equipment – Tests and measurements – Part 2-2: Electrical continuity and contact resistance tests – Test 2b: Contact resistance – Specified test current method	
Electrical Engineering	DIN EN 60512-3-1:2003-01 EN 60512-3-1:2002-04 IEC 60512-3-1:2002-02	Connectors for electronic equipment – Tests and measurements – Part 3-1: Insulation tests – Test 3a: Insulation resistance	
Electrical Engineering	DIN EN 60512-4-1:2004-01 EN 60512-4-1:2003-07 IEC 60512-4-1:2003-05	Connectors for electronic equipment – Tests and measurements – Part 4-1: Voltage stress tests – Test 4a: Voltage proof	
Electrical Engineering	DIN EN 60512-5-1:2003-01 + Berichtigung 1:2015-06 EN 60512-5-1:2002-04 IEC 60512-5-1:2002-02	Connectors for electronic equipment – Tests and measurements – Part 5-1: Current-carrying capacity tests – Test 5a: Temperature rise	

-Translation-

Annex to the accreditation certificate D-PL-12161-02-00

Testing field	Standard / In-House Procedure / Version	Title of Standard or In-House Procedure (Deviations / Modifications of Standard)	Test Range / Restrictions
Electrical Engineering	DIN EN 60512-5-2:2003-01 EN 60512-5-2:2002-04 IEC 60512-5-2:2002-02	Connectors for electronic equipment – Tests and measurements – Part 5-2: Current-carrying capacity tests – Test 5b: Current-temperature derating	
Electrical Engineering	DIN EN 60512-9-1 (VDE 0687-512-9-1): 2010-12 IEC 60512-9-1:2010-03	Connectors for electronic equipment – Basic testing procedures and measuring methods – Part 9-1: Endurance tests – Test 9a: Mechanical endurance	
Electrical Engineering	DIN EN 60512-13-5: 2006-11 EN 60512-13-5:2006-03 IEC 60512-13-5:2006-02	Connectors for electronic equipment – Tests and measurements – Part 13-5: Mechanical operation tests – Test 13e: Polarizing and keying method	
Electrical Engineering	DIN EN 60512-15-1: 2009-03 EN 60512-15-1:2008-07 IEC 60512-15-1:2008-05	Connectors for electronic equipment – Tests and measurements – Part 15-1: Connector tests (mechanical) – Test 15a: Contact retention in insert	
Environmental testing	DIN EN 60529 (VDE 0470-1):2014-09 EN 60529:1991-10 + A1:2000-02 + A2:2013-10 IEC 60529:1989-11 + A1:1999-11 + A2:2013-08	Degrees of protection provided by enclosures (IP code)	Only protection class IP20

-Translation-

Valid from: 11.08.2020

Date of issue: 31.08.2020

Annex to the accreditation certificate D-PL-12161-02-00

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 60695-2-10 (VDE 0471-2-10):2014-04 EN 60695-2-10:2013-04 IEC 60695-2-10:2013-04	Fire hazard testing – Part 2-10: Glowing/hot-wire based test method – Glow-wire apparatus and common test procedure	
Environmental testing	DIN EN 60695-2-11 (VDE 0471-2-11):2014-11 EN 60695-2-11:2014-02 IEC 60695-2-11:2014-02	Fire hazard testing – Part 2-11: Glowing/hot-wire based test method – Glow-wire flammability test method for end-products	
Environmental testing	DIN EN 60695-10-2 (VDE 0471-10-2):2016-01 EN 60695-10-2:2014-06 IEC 60695-10-2:2014-02	Fire hazard testing – Part 10-2: Abnormal heat - Ball pressure test	
Environmental testing	DIN EN 60695-11-5 (VDE 0471-11-5):2017-12 EN 60695-11-5:2017-06 IEC 60695-11-5:2016-12	Fire hazard testing – Part 11-5: Test flames – Needle-flame test method – Apparatus, confirmatory test arrangement and guidance	
Electrical Engineering	DIN EN 60947-1 (VDE 0660-100):2015-09 EN 60947-1:2007-07 + A1:2011 + A2:2014 IEC 60947-1:2007-06 + A1:2010 + A2:2014	Low-voltage switchgear and controlgear – Part 1: General rules	

-Translation-

Testing field	Standard / In-House Procedure / Version	Title of Standard or In-House Procedure (Deviations / Modifications of Standard)	Test Range / Restrictions
Electrical Engineering	DIN EN 60947-7-1 (VDE 0611-1):2010-03 EN 60947-7-1:2009-06 IEC 60947-7-1:2009-04	Low-voltage switchgear and controlgear – Part 7-1: Ancillary equipment – Terminal blocks for copper conductors	
Electrical Engineering	DIN EN 60947-7-2 (VDE 0611-3):2010-03 EN 60947-7-2:2009-06 IEC 60947-7-2:2009-04	Low-voltage switchgear and controlgear – Part 7-2: Ancillary equipment – Protective conductor terminal blocks for copper conductors	
Electrical Engineering	DIN EN 60947-7-3 (VDE 0611-6):2010-05 EN 60947-7-3:2009-11 IEC 60947-7-3:2009-04	Low-voltage switchgear and controlgear – Part 7-3: Ancillary equipment – Safety requirements for fuse terminal blocks	
Electrical Engineering	DIN EN 60998-1 (VDE 0613-1):2005-03 EN 60998-1:2004-04 IEC 60998-1:2002-12	Connecting devices for low-voltage circuits for household and similar purposes – Part 1: General requirements	Except testing the tracking resistance

-Translation-

Valid from: 11.08.2020

Date of issue: 31.08.2020

Testing field	Standard / In-House Procedure / Version	Title of Standard or In-House Procedure (Deviations / Modifications of Standard)	Test Range / Restrictions
Electrical Engineering	DIN EN 60998-2-1 (VDE 0613-2-1):2005-03 EN 60998-2-1:2004-04 IEC 60998-2-1:2002-12	Connecting devices for low-voltage circuits for household and similar purposes – Part 2-1: Particular requirements for connecting devices as separate entities with screw-type clamping units	Except testing the tracking resistance
Electrical Engineering	DIN EN 60998-2-2 (VDE 0613-2-2):2005-03 EN 60998-2-2:2004-04 IEC 60998-2-2:2002-12	Connecting devices for low-voltage circuits for household and similar purposes – Part 2-2: Particular requirements for connecting devices as separate entities with screwless-type clamping units	Except testing the tracking resistance
Electrical Engineering	DIN EN 60998-2-3 (VDE 0613-2-3):2005-03 EN 60998-2-3:2004-04 IEC 60998-2-3:2002-12	Connecting devices for low-voltage circuits for household and similar purposes – Part 2-3: Particular requirements for connecting devices as separate entities with insulation-piercing clamping units	Except testing the tracking resistance
Electrical Engineering	DIN EN 60999-1 (VDE 0609-1):2000-12 EN 60999-1:2000-03 IEC 60999-1:1999-11	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 0,2 mm ² up to 35 mm ² (included)	

-Translation-

Annex to the accreditation certificate D-PL-12161-02-00

Testing field	Standard / In-House Procedure / Version	Title of Standard or In-House Procedure (Deviations / Modifications of Standard)	Test Range / Restrictions
Electrical Engineering	DIN EN 60999-2 (VDE 0609-101):2004-04 EN 60999-2:2003-07 IEC 60999-2:2003-05	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 61210 (VDE 0613-6):2011-06 EN 61210:2010-11 IEC 61210:2010	Connecting devices – Flat quick-connect terminations for electrical copper conductors – Safety requirements	
Environmental testing	DIN EN 61373 (VDE 0155-106):2011-04 EN 61373:2010-09 IEC 61373:2010-08	Railway applications – Rolling stock equipment – Shock and vibration tests	Only Category 1A, 1B and 2
Electrical Engineering	IEC 61545 (CEI 61545): 1996-01	Connecting devices – Devices for the connection of aluminium conductors in clamping units of any material and copper conductors in aluminium bodied clamping units	
Electrical Engineering	DIN EN 61984 (VDE 0627):2009-11 EN 61984:2009-06 IEC 61984:2008-10	Connectors – Safety requirements and tests	

-Translation-

Annex to the accreditation certificate D-PL-12161-02-00

Testing field	Standard / In-House Procedure / Version	Title of Standard or In-House Procedure (Deviations / Modifications of Standard)	Test Range / Restrictions
Product safety	DNVGL-CG-0339:2019-12	Guideline Environmental test specification for electrical, electronic and programmable equipment and systems	Only tests No. 6, 7, 8, 9, 12, 13 and 16.1 from Section 3

-Translation-