Deutsche Akkreditierungsstelle

Annex to the Partial Accreditation Certificate D-PL-11165-04-03 according to DIN EN ISO/IEC 17025:2018

Valid from: **10.06.2024**

Date of issue: 10.06.2024

This annex is a part of the accreditation certificate D-PL-11165-04-00.

Holder of partial accreditation certificate:

TÜV Rheinland Kraftfahrt GmbH
Am Grauen Stein, 51105 Köln

With the location

TÜV Rheinland Kraftfahrt GmbH
Lichttechnisches Labor
Rhinstraße 46, 12681 Berlin

The testing laboratory meets the requirements of DIN EN ISO/IEC 17025:2018 to carry out the conformity assessment activities listed in this annex. The testing laboratory meets additional legal and normative requirements, if applicable, including those in relevant sectoral schemes, provided that these are explicitly confirmed below.

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

Tests in the field of:

Testing the changes of materials in relation to air humidity and temperature; Testing for protection against foreign objects; Testing for protection against water; Testing the corrosion resistance

The testing laboratory is permitted, without being required to inform and obtain prior approval from DAkkS, the free choice of standard or equivalent testing methods.
The testing laboratory maintains a current list of all testing within the flexible scope of accreditation.

1. Testing the changes of materials in relation to air humidity and temperature – Static and dynamic tests of air humidity and temperature using a climate chamber

IEC 60068-2-1 2007-03 DIN EN 60068-2-1 2008-01	Environmental testing - Part 2-1: Tests – Test A: Cold
IEC 60068-2-2 2007-07 DIN EN 60068-2-2 2008-05	Environmental testing - Part 2-2: Tests – Test B: Dry heat
IEC 60068-2-14 2009-01 DIN EN 60068-2-14 2010-04	Environmental testing - Part 2-14: Tests – Test N: Change of temperature
IEC 60068-2-30 2005-08 DIN EN 60068-2-30 2006-06	Environmental testing - Part 2-30: Tests – Test Db: Damp heat, cyclic (12 h + 12 h cycle)

IEC 60068-2-38 2009-01 DIN EN 60068-2-38 2010-06	Environmental testing - Part 2-38: Tests – Test Z/AD: Composite temperature/humidity cyclic test
IEC 60068-2-67 1995-12 DIN EN 60068-2-67 1996-07	Environmental testing - Part 2: Tests – Test Cy: Damp heat, steady state, accelerated test primarily intended for components
IEC 60068-2-78 2012-10 DIN EN 60068-2-78 2010-10	Environmental testing - Part 2-78: Tests – Test Cab: Damp heat, steady state

**2. Testing for protection against foreign objects –
Examination of enclosures of technical equipment regarding the ingress of solid foreign objects, as well as examination of optically active surfaces for damage caused by small particles**

IEC 60068-2-68 1994-08 DIN EN 60068-2-68 1997-02	Environmental testing - Part 2: Tests - Test L: Dust and sand
DIN EN 60529 2019-06	Degrees of protection provided by enclosures (IP Code)
ISO 20653 2013	Road vehicles - Degrees of protection (IP code) - Protection of electrical equipment against foreign objects, water and access
SAE J575 2018-08	Test Methods and Equipment for Lighting Devices for Use on Vehicles Less than 2032 mm in Overall Width
DIN EN 168 2002-04	Non-optical tests on viewing glasses

3. Testing for protection against water – Examination of enclosures of technical equipment regarding the ingress of water

IEC 60068-2-18 2017-03	Environmental testing - Part 2: Tests - Test R and guidance: Water
DIN EN 60068-2-18 (VDE 0468-2-18) 2018-01	
DIN EN 60529 2019-06	Degrees of protection provided by enclosures (IP Code)
DIN EN 168 2002-04	Non-optical tests on viewing glasses
ISO 20653 2013	Road vehicles - Degrees of protection (IP code) - Protection of electrical equipment against foreign objects, water and access
SAE J575 2018-08	Test Methods and Equipment for Lighting Devices for Use on Vehicles Less than 2032 mm in Overall Width

4. Testing the corrosion resistance – Examination of enclosures of technical equipment and respective mountings regarding their susceptibility to corrosion

DIN EN ISO 9227 2017-07	Corrosion tests in artificial atmospheres - Salt spray tests
DIN EN 60068-2-11 2000-02	Environmental testing - Part 2: Tests - Test Ka: Salt mist
SAE J575 2018-08	Test Methods and Equipment for Lighting Devices for Use on Vehicles Less than 2032 mm in Overall Width
ASTM B117-19 2019-10	Standard Practice for Operating Salt Spray (Fog) Apparatus

Abbreviations used:

ASTM	American Society for Testing and Materials
DIN	German institut for standardisation
EN	European Standard
ISO	International Organization for Standardisation
IEC	International Electrotechnical Commission
SAE	Society of Automotive Engineers