Test Report

Report No.: DN20260306-KLS22-CE-S

Applicant: Ningbo KLS Electronic Co., Ltd.

Product: PLUG Terminal Block

Standard(s): EN 61984:2009

Ningbo Dano Youxin Testing Service Co., Ltd.

TEST REPORT
EN 61984:2009
Connectors
Safety requirements and tests

Report Number.....:	DN20260306-KLS22-CE-S
Tested by (name + signature).....:	Gary Zhong
Approved by (+ signature).....:	Benjamin Song
Date of issue.....:	2026-03-06
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Name of Testing Laboratory preparing the Report.....:	Ningbo Dano Youxin Testing Service Co., Ltd.
Address.....:	4-4, NO.2 Building, Shangdong Business Center, Yinzhou District, Ningbo City, China, 315000
Tel.....:	+86-574-89117153
E-mail.....:	info@danotest.com
Website.....:	www.danotest.com

Applicant's name.....:	Ningbo KLS Electronic Co., Ltd.
Address.....:	NO. 8-1, Rongxia Rd. Xiapu Shanqian Industrial Zone, Beilun, Ningbo, Zhejiang, China

Manufacturer's name.....:	Ningbo KLS Electronic Co., Ltd.
Address.....:	NO. 8-1, Rongxia Rd. Xiapu Shanqian Industrial Zone, Beilun, Ningbo, Zhejiang, China

Test specification:	
Standard.....:	EN 61984:2009
Test procedure.....:	CE
Non-standard test method.....:	N/A

Test item description.....:	PLUG Terminal Block
Trade Mark.....:	--
Model/Type reference.....:	See page 4 for details
Ratings.....:	See page 4 for details

General disclaimer:

The test results presented in this report relate only to the object tested.

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The related testing projects have not been qualified by CMA and in China can only be used for scientific research, teaching or internal quality control.

Summary of testing:

Tests performed (name of test and test clause):

Full tests of the following standards were conducted:

- EN 61984:2009

All the relevant tests are performed on models L-KLS2-EDGK-350, L-KLS2-EDGR-350.

The submitted samples were found to comply with the requirements of above standards.

Copy of marking plate:

PLUG Terminal Block
L-KLS2-EDGK-350, L-KLS2-EDGR-350
AC 250V, 7A, 50Hz

Ningbo KLS Electronic Co., Ltd.

Test item particulars..... :	
Style of connector..... :	☑unenclosed connector ☐enclosed connector ☐connector for class II equipment
Supply Connection..... :	☑fixed connector ☐free connector
Breaking capacity..... :	☑COC ☐CBC
Possible test case verdicts:	
- test case does not apply to the test object..... :	N/A
- test object does meet the requirement..... :	P (Pass)
- test object does not meet the requirement..... :	F (Fail)
Testing..... :	
Date of receipt of test item..... :	2026-02-28
Date (s) of performance of tests..... :	2026-02-28 to 2026-03-06

General remarks:

Throughout this report a ☒ comma / ☐ point is used as the decimal separator.

General product information:

1. This product is designed as PLUG Terminal Block for general use.
2. The model list is shown below:

No.	Model	Rated voltage	Rated current	Freq. (Hz)
1	L-KLS2-EDGK-350, L-KLS2-EDGR-350	AC 250V	7A	50Hz
2	L-KLS2-EDGK-350, L-KLS2-EDGV-350	AC 250V	7A	50Hz
3	L-KLS2-EDGK-381, L-KLS2-EDGR-381	AC 250V	7A	50Hz
4	L-KLS2-EDGK-381, L-KLS2-EDGV-381	AC 250V	7A	50Hz
5	L-KLS2-EDGKM-350, L-KLS2-EDLRM-350	AC 250V	7A	50Hz
6	L-KLS2-EDGKM-350, L-KLS2-EDLVM-350	AC 250V	7A	50Hz
7	L-KLS2-EDGKM-381, L-KLS2-EDLRM-381	AC 250V	7A	50Hz
8	L-KLS2-EDGKM-381, L-KLS2-EDLVM-381	AC 250V	7A	50Hz
9	L-KLS2-EDGKA-350, L-KLS2-EDGR-350	AC 250V	7A	50Hz
10	L-KLS2-EDGKA-350, L-KLS2-EDGV-350	AC 250V	7A	50Hz
11	L-KLS2-EDGKA-381, L-KLS2-EDGR-381	AC 250V	7A	50Hz
12	L-KLS2-EDGKA-381, L-KLS2-EDGV-381	AC 250V	7A	50Hz
13	L-KLS2-EDGKB-350, L-KLS2-EDGR-350	AC 250V	7A	50Hz
14	L-KLS2-EDGKB-350, L-KLS2-EDGV-350	AC 250V	7A	50Hz
15	L-KLS2-EDGKB-381, L-KLS2-EDGR-381	AC 250V	7A	50Hz
16	L-KLS2-EDGKB-381, L-KLS2-EDGV-381	AC 250V	7A	50Hz
17	L-KLS2-EDGKAM-350, L-KLS2-EDLRM-350	AC 250V	7A	50Hz
18	L-KLS2-EDGKAM-350, L-KLS2-EDLVM-350	AC 250V	7A	50Hz
19	L-KLS2-EDGKAM-381, L-KLS2-EDLRM-381	AC 250V	7A	50Hz
20	L-KLS2-EDGKAM-381, L-KLS2-EDLVM-381	AC 250V	7A	50Hz
21	L-KLS2-EDGKBM-350, L-KLS2-EDLRM-350	AC 250V	7A	50Hz
22	L-KLS2-EDGKBM-350, L-KLS2-EDLVM-350	AC 250V	7A	50Hz
23	L-KLS2-EDGKBM-381, L-KLS2-EDLRM-381	AC 250V	7A	50Hz
24	L-KLS2-EDGKBM-381, L-KLS2-EDLVM-381	AC 250V	7A	50Hz
25	L-KLS2-EDK-750, L-KLS2-EDR-750	AC 400V	20A	50Hz
26	L-KLS2-EDK-750, L-KLS2-EDV-750	AC 400V	20A	50Hz
27	L-KLS2-EDK-750, L-KLS2-EDRC-750	AC 400V	20A	50Hz
28	L-KLS2-EDK-750, L-KLS2-EDR-750	AC 400V	20A	50Hz
29	L-KLS2-EDK-762, L-KLS2-EDR-762	AC 400V	20A	50Hz
30	L-KLS2-EDK-762, L-KLS2-EDV-762	AC 400V	20A	50Hz
31	L-KLS2-EDK-762, L-KLS2-EDRC-762	AC 400V	20A	50Hz
32	L-KLS2-EDK-762, L-KLS2-EDVC-762	AC 400V	20A	50Hz
33	L-KLS2-EDKM-750, L-KLS2-EDRM-750	AC 400V	20A	50Hz
34	L-KLS2-EDKM-750, L-KLS2-EDVM-750	AC 400V	20A	50Hz
35	L-KLS2-EDKM-762, L-KLS2-EDRM-762	AC 400V	20A	50Hz
36	L-KLS2-EDKM-762, L-KLS2-EDVM-762	AC 400V	20A	50Hz

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Clause	Requirement + Test	Result - Remark	Verdict

Table 10 – Mechanical test group A

1	2	3	4	5	6	7	8
Test phase	Designation or title	IEC 60512 test no.	Test accor-ding to	Severity or conditions	Measurements to be performed		Requirements
					Designation or title	IEC 60512 test no.	
A1	Visual and dimensional examination	-	7.3.11	Any existing cover shall be removed, if required	Visual and dimensional examination	1a, 1b	6.2; 6.9.2; 6.9.3 6.11; 6.19 Dimensions shall comply with the DS or manufacturer's specification
A2	Durability of marking	-	7.3.2	With the naked eye	Visual examination	1a	Markings according to 6.2
A3	Polarisation and coding	13e	-	For unenclosed connectors (internal connections) 20 N For enclosed connectors (external connections) 1,5 × mating force, but not higher than 80 N	-	-	6.3; 6.9.1
					Visual examination	1a	No damage likely to impair function
A4	Provisions for earthing	-	7.3.3	-	First make last break	-	6.5.1
				Any existing covers shall be removed, if required	Visual examination	1a	6.5.4
A5	Interlock	-	7.3.4	-	-	-	6.7
A6	Terminations	-	-	-	-	-	6.6
A7	Contact retention in insert	15a	-	Test load shall be three times the specified insertion force (mating) of one contact or the specified insertion force of one contact plus	-	-	6.18.2

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Clause	Requirement + Test	Result - Remark	Verdict

Table 10 – Mechanical test group A

1	2	3	4	5	6	7	8
Test phase	Designation or title	IEC 60512 test no.	Test accor-ding to	Severity or conditions	Measurements to be performed		Requirements
					Designation or title	IEC 60512 test no.	
				50 N, whichever is less. The minimum test load shall not be less than 20 N.	Visual examination	1a	No axial displacement likely to impair normal operation
A8.1	Cable clamp resistance to cable pull	17c	-	With cables having the largest and smallest diameter suitable for clamping specified in the DS or by the manufacturer. Any existing covers associated with the cable anchorage shall be mounted as specified.	Visual examination	1a	6.17, Table 6
A8.2	Cable clamp resistance to cable torsion	17d	-		Visual examination	1a	6.17, Table 6
A9	Mechanical strength impact	7b	-	Only free connectors and CBCs Dropping height: •750 mm for specimens of mass ≤250 g •500 mm for specimens of mass >250 g	-	-	6.18.1 6.18.3
				Dropping cycles: 8	Visual examination	1a	Parts used for protection against electric shock shall

EN 61984:2009			
Clause	Requirement + Test	Result - Remark	Verdict

Table 10 – Mechanical test group A

1	2	3	4	5	6	7	8
Test phase	Designation or title	IEC 60512 test no.	Test accor-ding to	Severity or conditions	Measurements to be performed		Requirements
					Designation or title	IEC 60512 test no.	
				Positions in 45° steps, one cycle per position.			not be damaged. A reduction of clearances and creepage distances is not allowed

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Clause	Requirement + Test	Result - Remark	Verdict

Table 11 – Service life test group B

1	2	3	4	5	6	7	8
Test phase	Designation or title	IEC 60512 test no.	Test accor-ding to	Severity or conditions	Measurements to be performed		Requirements
					Designation or title	IEC 60512 test no.	
B1	Initial measure-ment	-	-	Test current: 1 A or the rated current. Measuring points: At the end of the termination. Maximum three contacts per specimen plus protective earthing contact, if any.	Contact resistance	2b	Reference value for subsequent measurement
B2	Breaking capacity	-	7.3.5	For CBCs only Breaking capacity with operating cycles according to manufacturer's pecification	-	-	6.14.2
					Visual examination	1a	No damage shall occur which could impair normal use
B3	Mechanical operation	9a	7.3.9	-	-	-	6.14.1
				Number of operating cycles according to manufacturer's specification	Visual examination	1a	No damage shall occur which could impair normal use
B4	Final measure-ment	-	-	Same conditions as for test phase B1	Contact resistance	2b	The change of contact resistance shall be no more than 50 % of the reference value or ≤ 5 mΩ. The higher value is

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Clause	Requirement + Test	Result - Remark	Verdict

Table 11 – Service life test group B

1	2	3	4	5	6	7	8
Test phase	Designation or title	IEC 60512 test no.	Test accor-ding to	Severity or conditions	Measurements to be performed		Requirements
					Designation or title	IEC 60512 test no.	
							permissible
			7.3.12 b) or a) and b)	Same conditions as for test phase D6	a) Impulse withstand voltage	-	6.13 There shall be no breakdown or flashover
					b) Voltage proof	4a	
B5	Bending test	-	7.3.10	Only non-rewirable connectors	Visual examination	1a	6.14.3 No damage shall occur which could impair normal use

Table 12 – Thermal test group C

1	2	3	4	5	6	7	8
Test phase	Designation or title	IEC 60512 test no.	Test accor-ding to	Severity or conditions	Measurements to be performed		Requirements
					Designation or title	IEC 60512 test no.	
C1	Temperature rise	5a	7.3.8	Mated specimen	-	-	6.16 The specified upper limiting temperature (ULT) shall not be exceeded

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Clause	Requirement + Test	Result - Remark	Verdict

Table 13 – Climatic test group D

1	2	3	4	5	6	7	8
Test phase	Designation or title	IEC 60512 test no.	Test accor-ding to	Severity or conditions	Measurements to be performed		Requirements
					Designation or title	IEC 60512 test no.	
D1	Initial measure-ment	-	-	Mated specimen Test current: 1 A or the rated current Measuring points: At the end of the termination Maximum three contacts per specimen plus protective earth contact, if any	Contact resistance	2b	Reference value for subsequent measurement
D2	Cold	11j	-	Mated specimen Test temperature: lower limiting temperature specified for the specimen Test duration 2 h	-	-	6.6.3, 6.8; 6.15; 6.18.3
					Visual examination	1a	No damage shall occur which could impair normal use
D3	Dry heat	11i	-	Mated specimen Test temperature: Upper limiting temperature specified for the specimen Test duration: 7 days	-	-	6.6.3, 6.8; 6.15; 6.18.3
					Visual examination	1a	No damage shall occur which could impair normal use

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Clause	Requirement + Test	Result - Remark	Verdict

Table 13 – Climatic test group D

1	2	3	4	5	6	7	8
Test phase	Designation or title	IEC 60512 test no.	Test accor-ding to	Severity or conditions	Measurements to be performed		Requirements
					Designation or title	IEC 60512 test no.	
D4	Flowing mixed gas corrosion	11g	7.3.14	Test 1 – Specimen mated	-	-	6.21
	Alternative: Corrosion test according to ISO 6988		7.3.14	Test 2 – Specimen mated	Visual examination	1a	No damage shall occur which could impair normal use
D5	Final measure-ment	-	-	Same conditions as for test phase D1	Contact resistance	-	No damage shall occur which could impair normal use
						2b	The contact resistance rise shall be no more than 50 % of the reference value or ≤ 5 mΩ. The higher value is permissible
D6	Dielectric strength	-	7.3.12 b)	Mated specimen Measuring points: contact/ contact contact/ earth	a) Impulse withstand voltage	-	6.13 There shall be no breakdown or flashover
				Test voltage (impulse withstand voltage or the r.m.s. withstand voltage) according to Table 7 shall be applied	b) Voltage proof	4a	-

EN 61984:2009			
Clause	Requirement + Test	Result - Remark	Verdict

Table 14 – Degree of protection, test group E

1	2	3	4	5	6	7	8
Test phase	Designation or title	IEC 60512 test no.	Test accor-ding to	Severity or conditions	Measurements to be performed		Requirements
					Designation or title	IEC 60512 test no.	
E1	Protection against electric shock (for clarification)	-	7.3.6.1	Unenclosed connectors. Test finger or 50 mm sphere pressed with 20 N against the surfaces as specified by the manufacturer. Mated specimen	-	-	No live part shall be accessible 6.4.2.2 or 6.4.2.3
			7.3.6.2	Enclosed connectors. Mated and unmated specimen. Test finger pressed with 20 N against the surfaces except the mating face of the male part of the connector.	Visual examination	1a	Required clearances and creepage distances shall be ensured between all live parts and the test finger 6.4.1 6.4.3
E2	Provision for earthing	-	7.3.13	Resistance between accessible metal parts and the earthing contact	-	-	6.5.3
E3	Degree of protection IP code	-	7.3.6.3 7.3.7	IP code as specified by the manufacturer or by the DS	-	-	6.12

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Clause	Requirement + Test	Result - Remark	Verdict
4	**Technical information (electrical ratings)**		**P**
	In this standard, no particular values have been specified for electrical ratings such as voltage, current and breaking capacity of connectors.		P
	Values for these characteristics shall be specified in conjunction with mechanical and environmental conditions given in the detail specification or in the manufacturer's specification, where no detail specification exists.		P
5	**Classification**		P
5.1	Connectors shall be classified by the manufacturer's specification or the detail specification (DS), if any, according to their characteristics and intended use in accordance with 5.2, 5.3 and 5.4 as appropriate.	By the manufacturer's specification.	P
5.2	Classification according to protection against electric shock		P
	The classification according to protection against electric shock is as follows:		P
	a)..... nenclosed connector	☑Yes ☐No	-
	b)..... nclosed connector	☐Yes ☑No	-
	c)..... onnector for class II equipment	☐Yes ☑No	-
5.3	Classification according to the style of connector		P
	The classification according to the style of connector is a s follows:		P
	a)..... ixed connector	☑Yes ☐No	-
	b)..... ree connector	☐Yes ☑No	-
5.4	Classification according to additional characteristics of connectors		P
	The classification according to additional characteristics of connectors is as follows:		P
	a)..... onnector with protective earthing contact,	Without protective earthing contact.	N/A
	b)..... onnector without protective earthing contact,		P
	c)..... onnector without breaking capacity (COC),		P
	1)..... nprotected (IP0X),	IP00	P
	2)..... ith protection against electric shock by		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	back of hand safety (IP1X or IPXXA), when mated,		
	3)..... with protection against electric shock by finger safety (IP2X or IPXXB), when mated,		N/A
	d)..... connector with breaking capacity (CBC) (as defined in 3.8) for protection against electric shock by finger safety only (IP2X or IPXXB), both in mated and in unmated condition,	COC	N/A
	e)..... egree of protection of a connector (IP code),	IP00	N/A
	f)..... onnector with interlock,	Without interlock	N/A
	g)..... onnector without interlock,		P
	h)..... on-rewirable connector,	Rewirable connector.	N/A
	i)..... ewirable connector,		P
	j)..... erminations and connection methods.		P

6	**Constructional requirements and performance**		P
6.1	Connectors shall be so designed and dimensioned that they can withstand the electrical, mechanical, thermal and corrosive stresses which occur in their intended use and present no danger to the user or the environment.		P
	Compliance with this requirement is verified by the specified tests of this standard.		P
6.2	Marking and identification		P
6.2.1	Identification		P
	Connectors shall be identified and characterised by the following markings:		P
	a)..... anufacturer's name, trademark or mark of origin;	Ningbo KLS Electronic Co., Ltd.	P
	b)..... ype identification;	L-KLS2-EDGK-350, L-KLS2-EDGR-350	P
	c)..... ated current in ampere (A);	7 A	P
	d)..... ated voltages or rated insulation voltages	A C 250V	P

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Clause	Requirement + Test	Result - Remark	Verdict
	between line to earth and line to line in volt (V);		
	e)....r ated impulse voltage in kilovolt (kV), if specified;		N/A
	f)....p ollution degree;		P
	g)....d egree of protection by enclosure according to IEC 60529, if applicable;	IP00	N/A
	h)....t emperature range (°C), (LLT – ULT);		P
	i)....t ype of terminals;		P
	j)....c onnectable conductors;		P
	k)....r eference to this standard or to the DS, if applicable.		N/A
6.2.2	Marking		P
	The marking shall be indelible and easily legible.	Indelible and easily legible.	P
	The minimum marking on the connector shall be that of item a) of 6.2.1.		P
	Markings a) and b) of 6.2.1 shall be found on the smallest unit of packaging.		P
	All markings of 6.2.1 shall be given in the technical documentation or catalogue of the manufacturer; for the rated values, follow the examples given hereinafter.		P
	Examples of markings for rated current, rated voltages, rated impulse voltage and pollution degree:		P
	a)....M arking of a connector with rated current 16 A, rated voltage 400 V, rated impulse voltage 6 kV and pollution degree 3, 2 and 1 for use in any system, preferably unearthed or deltaearthed systems:		N/A
	16 / 400 / 6 / 3 or 16A 400V 6kV 3 or 16A/400V/6kV/3		N/A
	b)....M arking of a connector with rated current 16 A, rated insulation voltages line-to-earth 250 V, line-to-line 400 V, rated impulse voltage 4 kV and pollution degree 3, 2 and 1 for use in earthed systems, only:	7A	P
	16 / 250 / 400 / 4 / 3 or 16A 250V 400V 4kV 3		P
6.2.3	Marking of position for contacts		P

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Clause	Requirement + Test	Result - Remark	Verdict
	The positions for the contacts and protective earthing contacts shall be clearly indicated.		P
	Marking of the first contact and first row by a letter, number or another clear symbol is sufficient.		P
	This requirement does not apply to a connector in which contact identification is ensured in the end-use product. Relevant information shall be given in the technical documentation of the manufacturer.		P
	Marking of protective earthing contacts shall apply: •.....t he symbol ⏚ •.....o r PE.	Without protective earthing.	N/A
	This requirement is not necessary for non rewirable connectors.		N/A
	Marking shall not be applied to screws or other removable parts.		N/A
	Symbols are given in IEC 60417.		N/A
	⧈ is reserved for end-use-equipment.	Dependent upon the equipment in which they are used.	N/A
	The protection class of components is dependent upon the equipment in which they are used.	Dependent upon the equipment in which they are used.	N/A
	Therefore, components shall not be marked with the symbol.		N/A
	A connector without earth contact may be designated so as to read "Connector for class II equipment", if the connector itself meets the requirements of double and/or reinforced insulation.	Dependent upon the equipment in which they are used.	N/A
6.3	Provision against incorrect mating (non-intermateable)		P
	A multipole connector shall be so designed that contact between protective earthing contacts and live contacts is not possible by engagement.		P
	Compliance is checked by a polarisation test.		P
6.4	Protection against electric shock		P
6.4.1	Non accessibility of live parts	Unenclosed connector	P
	A connector shall be so designed that, after mounting, its live parts are not accessible by the IEC test finger in accordance with Clause 5 of IEC 60529:1989 using a test force of 20 N.		N/A
	All parts which are necessary to ensure protection against electric shock shall only be removable by the aid of a tool.		N/A
	This requirement does not apply to a connector in		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	which protection against electric shock is ensured by its mounting provisions or by the use of safety extra-low voltage (SELV, according to IEC 60364-4-41) in the end-use product.		
6.4.2	Non applicability of protection requirement to unenclosed connectors		P
6.4.2.1	A connector intended for use inside an enclosure which ensures protection against electric shock is not required to have its own protection against electric shock.		P
	If protection is claimed by the manufacturer, the requirements of 6.4.2.2 or 6.4.2.3 apply.		P
6.4.2.2	Back of hand safety		P
	For a COC with protection against electric shock according to characteristic c2) of 5.4, protective provisions shall be tested by using the access probe:		P
	• .....5 0 mm sphere		P
	• .....a ccording to Clause 5 of IEC 60529:1989 with a test force of 20 N, without consideration of clearances and creepage distances.		P
6.4.2.3	Finger safety	COC; Tested by using the test finger with a test force of 20 N without consideration of clearances and creepage distances.	P
	For a COC and a CBC with protection against electric shock respectively according to characteristic c3) and d) of 5.4, protective provision shall be tested according to Clause 5 of IEC 60529:1989 by using the test finger with a test force of 20 N without consideration of clearances and creepage distances.		P
6.4.3	Protection against electric shock during insertion and withdrawal	COC	N/A
	For a CBC, protection against electric shock shall be ensured also during insertion and withdrawal.		N/A
	Compliance is checked in accordance with Clause 5 of IEC 60529:1989 by the IEC test finger with a test force of 20 N with consideration of clearances and creepage distances according to the manufacturer specification.		N/A
6.5	Provisions for earthing	Without earthing.	N/A
6.5.1	First make, last break PE contact		N/A
	For a CBC with a protective earthing contact according to characteristic a) of 5.4, the earthing		N/A

EN 61984:2009			
Clause	Requirement + Test	Result - Remark	Verdict
	contact shall be a “first make, last break” contact.		
6.5.2	PE contacts on connector for class II equipment		N/A
	A connector for class II equipment according to characteristic c) of 5.2 may be equipped with protective earthing contacts, provided that these contacts are considered as live parts and are equally protected against electric shock by double or reinforced insulation.		N/A
6.5.3	Reliability of connection to PE contacts		N/A
	Accessible metal parts of a connector with an earthing contact which may become live in the event of an insulation fault shall be reliably connected to the earthing contact.		N/A
	In no case shall the resistance of this connection exceed 0,1 Ω.		N/A
	Compliance is checked by the test of 7.3.13.		N/A
6.5.4	Connection of the protective conductor		N/A
6.5.4.1	PE conductor terminal capacity		N/A
	The protective conductor terminal shall be able to accept a conductor with a minimum cross-sectional area.		N/A
6.5.4.2	Design of PE termination		N/A
	The design and type of construction of the protective conductor terminations shall be at least equivalent in performance to the types of termination given in 6.6.		N/A
6.6	Terminations and connection methods		P
6.6.1	The terminations and connection methods listed in Table 2 meet the requirements of this standard.		P
	Other terminations and connection methods shall be tested in accordance with the relevant IEC standards to ensure adequate performance.		P
	Electrical and thermal tests on terminations shall be carried out in conjunction with the test on the connector.		P
	Other terminations and connection methods have to be tested in accordance with the relevant standards.		P
6.6.2	Type and range of conductor cross-sectional areas	According to the manufacturer's information.	P
	Terminations shall be suitable for the type and range of conductor cross-sectional areas according to the DS or the manufacturer's information.		P
6.6.3	Design of electrical connections	Contact pressure is not transmitted through insulating material.	P

EN 61984:2009			
Clause	Requirement + Test	Result - Remark	Verdict
	Electrical connections shall be so designed that the contact pressure is not transmitted through insulating material other than ceramic, pure mica or other material with characteristics not less suitable, unless there is sufficient resiliency in the metallic parts to compensate for any shrinkage or yielding of the insulating material.		P
	On the basis of the tests according to IEC 60352-6 or IEC 60998-2-3 of Table 3, insulation piercing connections are excluded from the above requirement.		P
6.7	Interlock	Without interlock.	P
	A connector with an interlock shall be so designed that it cannot be engaged or disengaged as long as the contacts are live.		P
6.8	Resistance to ageing		P
	Parts which, due to ageing, might impair safety shall be so resistant that the specified characteristics such as dielectric strength, contact resistance or degree of protection are maintained.		P
6.9	General design		P
6.9.1	Polarisation	Improper connection of mating parts is prevented.	P
	Multipole connectors shall be so polarised that improper connection of mating parts is prevented.		P
	This requirement does not apply to connectors (for example two-part connectors for printed boards and rack-and-panel connectors) where mismating is prevented by their mounting provisions or by additional accessories, if necessary and available.		P
6.9.2	Fixing of live parts		P
	Mechanisms which are used for mounting the connector and/or termination of conductors shall not be used to fix live parts in the connector housing, if it may impair the proper function of the mechanism or reduce the clearance and creepage distances below the requirements according to 6.19.		P
6.9.3	Connection of conductors	According to the manufacturer's information.	P
	Connectors shall be so designed that connection of conductors of the type and cross-sectional areas as specified by the DS or the manufacturer shall be possible.		P
	Besides the termination of the conductor, care shall be taken that no damage of the insulation is possible, e.g. by avoiding of sharp edges.		P
6.9.4	Design of non rewirable connectors	Rewirable connector	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	Non-rewirable connectors shall be so designed that		N/A
	•.....the flexible cable cannot be separated from the connector without making it permanently useless;		N/A
	•.....the connector cannot be opened by hand or by using a general purpose tool, for example a screwdriver, as intended;		N/A
	•.....reans are provided to prevent live parts, e.g. free strands of a conductor, from reducing the minimum insulation distance between such live parts and all accessible external surfaces of the connector, with the exception of the engagement face of the male connector.		N/A
	If this cannot be granted by the design or manufacturing process itself, the in-process test schedule according to 7.4 or another test of the same safety level shall be carried out.		N/A
6.10	Design of a CBC	COC	N/A
	A CBC shall have an adequate breaking capacity.		N/A
6.11	Design of a free connector	Not free connector	N/A
	In a free connector, the wires shall be protected against shear and tensile stress at the termination and be secured to prevent twisting.		N/A
	This requirement does not apply to:		N/A
	a).....free connectors for termination to cables in fixed mountings (plug connection in the sense of a detachable connection);		N/A
	b).....free connectors in which the terminations are protected against pull and twisting by mounting provisions in the end-use product.		N/A
6.12	Degree of protection (IP Code)	IP00	N/A
	A connector shall have a degree of protection according to IEC 60529, if specified by the DS or the manufacturer's specification according to classification of 5.4 e).		N/A
6.13	Dielectric strength	U_{imp}=6,0 kV	P
	A connector shall withstand the specified test voltage, preferably the impulse withstand voltage (1,2/50 µs) or the r.m.s. withstand voltage (50/60 Hz) alternatively.	Impulse withstand voltage = 4,8 kV	P
	The connector shall withstand the test voltage specified in Table 8, in accordance with 7.3.12.		P
6.14	Mechanical and electrical durability		P

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Clause	Requirement + Test	Result - Remark	Verdict
6.14.1	Mechanical endurance (COC and CBC)	COC	P
	A connector, either COC or CBC, shall meet the mechanical operations without load as specified in the DS or in the manufacturer's specification.		P
6.14.2	Electrical endurance (CBC)	COC	N/A
	A CBC shall meet the specified breaking capacity taking into account the severity as specified in the DS or in the manufacturer's specification.		N/A
6.14.3	Bendings (non-rewirable connectors)	Rewirable connectors	N/A
	A non-rewirable connector shall meet the numbers of bendings (flexings) specified in the relevant DS or in the manufacturer's specification.		N/A
6.15	Temperature limits		P
	A connector shall comply with the upper and lower values of the temperature range as specified in the DS or in the manufacturer's specification.		P
6.16	Temperature rise		P
	The sum of the ambient temperature and the temperature rise of a connector shall not exceed the upper limiting temperature given in Table 5b.	< 100 °C	P
	Compliance shall be checked by the test of 7.3.8.		P
6.17	Cable clamp	No cable clamp.	N/A
	The cable clamp, if any, shall be suitable for the cable to be connected.		N/A
	The range of acceptable cable diameters shall be specified in the DS or by the manufacturer's specification.		N/A
	Tensile and torsion requirements shall be as specified in Table 6.		N/A
	Loose parts inserted to obtain clamping of the cable are permitted if they are fixed in the connector in the assembled state.		N/A
	The cable clamp can be made of insulating material or metal.		N/A
	If it consists of metal, it shall meet one of the following requirements:		N/A
	a).....b e provided with an insulating means so as to prevent any accessible metal part becoming live in case of a fault;		N/A
	b).....n o contact shall be possible with the test finger according to IEC 60529;		N/A
	c).....b e connected to the protective earth.		N/A
	If metric cable glands according to EN 50262 are used, the above mentioned tests shall not be		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	performed.		
6.18	Mechanical strength		P
6.18.1	Robustness of connectors		P
	A connector shall show no damage likely to impair safety after exposure to mechanical stress according to the test programme.	No damage.	P
6.18.2	Retention of contacts	Not for for final use	P
	In a connector assembled for final use, the contacts shall be securely retained in the contact insert.		N/A
6.18.3	Integrity of internal insulation		P
	After exposure to the stresses according to the test schedule, the internal insulation shall show no damage which could impair normal use.	No damage.	P
6.19	Clearances and creepage distances		P
	Clearances and creepage distances shall be dimensioned according to the following specifications, unless otherwise specified by the application or the manufacturer.		P
6.19.1	Clearances		P
6.19.1.1	Clearances shall be in accordance with IEC 60664-1 and/or IEC 60664-5.		P
	Clearances through slots and openings in enclosures of insulating material shall meet the values of case A of Table F.2 of IEC 60664-1:2007 and/or Table 2 of IEC 60664-5:2007.		P
6.19.1.2	Rated impulse voltage		P
	The rated impulse voltage shall be selected according to the nominal voltage of the supply system and the overvoltage category, as specified in table B.2 of IEC 60664-1:2007.		P
6.19.1.3	Overvoltage category	Carried out according to the rules as given in IEC 60664-1.	P
	The assignment of connectors shall be carried out according to the rules as given in IEC 60664-1.		P
6.19.2	Creepage distances		P
6.19.2.1	Creepage distances shall be dimensioned according to the rated voltage according to IEC 60664-1 and/or Table 4 of IEC 60664-5:2007, the pollution degree and insulating material as specified according to IEC 60664-1 and/or Table 4 of IEC 60664-5:2007.		P
	If the rated voltage is not derived from the nominal voltage of the supply system but from the working voltage, interpolation is permissible.		N/A
	For the relationship between creepage distance and clearances see 5.2.2.6 of IEC 60664-1:2007		P

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Clause	Requirement + Test	Result - Remark	Verdict
	and/or 5.3.2.6 of IEC 60664-5:2007.		
	For a connector with a degree of protection IP54 or higher according to IEC 60529, the insulating parts inside the enclosure may be dimensioned for a lower pollution degree.	IP00	N/A
	This lower pollution degree also applies to mated connectors where the enclosure is ensured by the connector housing and which may only be disengaged for test and maintenance purposes.		P
6.19.2.2	Pollution degree		P
	The pollution degree shall be specified according to IEC 60664-1.		P
6.19.2.3	Dimensioning of creepage distances for connectors with IP54 or higher	IP00	N/A
	For a connector with a degree of protection IP54 or higher according to IEC 60529, the insulating parts inside the enclosure may be dimensioned for a lower pollution degree.		N/A
	This also applies to mated connectors where the enclosure is ensured by the connector housing and which may only be disengaged for test and maintenance purposes.		N/A
6.19.2.4	Shape of insulating surfaces		P
	Insulating surfaces may include transverse ridges and grooves to break the continuity of conductive layers.		P
	a).....R ibs shall be dimensioned so that they withstand the mechanical stresses according to the test sequence without damage.		P
	If the height of the ribs is at least 2 mm the creepage distances may be dimensioned in accordance with one insulating material group level lower.		N/A
	b).....I n the case where there are grooves across the creepage distance, the groove walls shall be included in the creepage distance if the width X of the groove complies with 4.2 of IEC 60664-1:2007.	Groove walls have considered.	P
	If the associated clearance, measured on the component, is less than 3 mm, the minimum groove width may be reduced to one-third of this clearance.		P
	In all other cases, the groove walls shall not be taken into account.	Groove walls were not taken into account.	P
	Methods of measuring clearances and creepage distances are given in 6.2 of IEC 60664-1:2007.		P

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Clause	Requirement + Test	Result - Remark	Verdict
6.20	Insulation		P
6.20.1	Functional and basic insulation	Functional insulation: > 3,1 mm; basic insulation: > 3,1 mm.	P
	Functional and basic insulation shall be so designed that it withstands the impulse withstand voltage or the r.m.s. withstand voltage as specified in the DS or by the manufacturer's specification, as derived from the rated insulation voltage of the connector.		P
6.20.2	Supplementary insulation		N/A
	For the supplementary insulation, the same requirements are valid as for the basic insulation.		N/A
6.20.3	Double insulation		N/A
	Double insulation shall be so designed that the breakdown of one part (basic or supplementary insulation) does not impair the protective function of the other part.		N/A
	It shall not be possible to remove the supplementary insulation without using a tool.		N/A
	For double insulation, where basic and supplementary insulation cannot be tested separately, the insulation system shall be considered as reinforced insulation.		N/A
6.20.4	Reinforced insulation	> 7,5 mm.	P
	For the assessment of clearances for reinforced insulation, the rated impulse voltage shall be selected from the next higher overvoltage category in comparison to basic insulation.		P
	The creepage distances shall be doubled in comparison with the basic insulation.		P
	Insulation material of group IIIb (100 ≤ CTI < 175) shall not be used at pollution degrees 3 and 4.		P
6.21	Protection against corrosion		P
	Metal parts shall be so designed that corrosion shall not impair safety with regard to electrical and mechanical characteristics.	No corrosion.	P
	Compliance is checked by the test of 7.3.14.		P

7	**Tests**		P
7.1	General		P
7.1.1	Test sequence and number of specimens		P
	The tests shall be carried out in the sequence specified for each test group using the number of specimens as given in Table 9.		P
	For each test group, a separate set of new	New specimens are used.	P

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Clause	Requirement + Test	Result - Remark	Verdict
	specimens shall be used.		
	If the testing has to be made on free contacts (e.g. crimp contacts), a minimum of three specimens shall be used.		N/A
7.1.2	Specimens condition		P
	Unless otherwise specified, the condition used in the test schedule is unmated.	Unmated specimens.	P
7.1.3	Atmospheric conditions		P
	The tests shall be made under the standard atmospheric conditions of IEC 60068-1, unless otherwise specified in the test schedule.		P
7.1.4	Number of specimens for tests on terminations		P
	The tests on the terminations according to the relevant standard shall be made on three terminations per specimen, if available.		P
7.1.5	Failure criteria		P
	The product is deemed not to comply with this standard if the product fails in more than one of the tests of any test group.		P
	If the product fails in only one of the tests, this test and the preceding tests which have affected the result shall be repeated on a new set of specimens.		N/A
	The new set of specimens shall pass the repeated tests, otherwise the product is deemed not to comply.		P
7.1.6	Visual examination tests	All visual examination tests are performed with the naked eye.	P
	All visual examination tests should be performed with the naked eye, unless otherwise specified.		P
7.2	Preparation of specimens		P
7.2.1	Pre-conditioning		P
	Specimens shall be pre-conditioned under standard conditions for testing, for a period of 24 h, in accordance with IEC 60512-1.	24 h	P
7.2.2	Conductors		P
	The tests shall be carried out with copper conductors unless otherwise specified by the manufacturer and with the type of conductor specified for the connector.		P
	If terminations are provided for all types of conductors, solid, stranded and flexible, the tests shall be carried out only with flexible conductors according to Class 5 of IEC 60228.		P
7.2.3	Torque for screw-type clamping units	Tightened with the value of the torque stipulated	P

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Clause	Requirement + Test	Result - Remark	Verdict
		according to IEC 60999-1 and IEC 60999-2.	
	Screw-type clamping units shall be tightened with the value of the torque stipulated according to IEC 60999-1 and IEC 60999-2, unless otherwise specified by the manufacturer.		P
7.2.4	Assembly conditions		P
	Unless otherwise specified in the test schedule, all tests shall be made on the specimen completely assembled according to the manufacturer's instructions.	Assembled in accordance with the manufacturer's instructions.	P
7.3	Performance of tests		P
7.3.1	In accordance with the test schedule given in 7.5, the general test methods specified in Tables 10 to 14, columns 3 and 7, shall be applied according to IEC 60512.		P
	Other tests are indicated in column 4.		P
7.3.2	Durability of marking		P
	The test of the durability of marking shall be done as a wet test according to test Xb (abrasion of marking) of IEC 60068-2-70.	Test Xb in accordance with IEC 60068-2-70.	P
	For the test piston, size 1 shall be used and the test liquid shall be water.		P
	A force of 5 N shall be applied for a duration of 10 cycles.		P
	After the test, the marking shall be still readable.		P
	Markings made by impression, moulding, pressing or engraving or the like are not subjected to this test.		P
7.3.3	"First make, last break" protective earthing contact	Without protective earthing contact.	N/A
	The specimens shall be engaged and disengaged by hand in every possible position.		N/A
	To indicate contact, an electrical device (for example a lamp) shall be used.		N/A
	It shall be checked that the protective earthing contact will first make and last break relative to any other contact.		N/A
	For this test, all other contacts shall be wired in parallel.		N/A
7.3.4	Interlock	Without interlock.	N/A
	The specimens are engaged by hand over their full engagement distance.		N/A
	The requirement that interlock contacts will make last and break first before any other contact shall be checked.		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	An electric device, i.e. a lamp, shall be used to indicate contact.		N/A
	For this test, all other contacts shall be wired in series.		N/A
7.3.5	Breaking capacity of a CBC	COC	N/A
	The specimens of a CBC shall be electrically operated at the indicated breaking capacity and at the rated voltage for a.c. with cos ϕ = (0,9 ± 0,05) or for d.c. with a time constant of 1 ms ± 15 %, depending on manufacturer's specifications.		N/A
	Any existing protective earthing contact shall not be loaded.		N/A
	The specimens shall be engaged and disengaged by means of a device simulating normal insertion and withdrawal.		N/A
	The number of operating cycles shall be specified by the DS or by the manufacturer, preferred values being given in Table 4a.		N/A
	The test position shall be horizontal or, if not possible, as in normal use.		N/A
	The specimen is inserted into and withdrawn from its counterpart at a rate of three to four cycles per minute.		N/A
	The speed of insertion and withdrawal of the specimen shall be (0,8 ± 0,1) m/s. s.		N/A
	Electrical contact shall be maintained for no more than 4 s and no less than 2		N/A
	During the test, no sustained arcing shall occur.		N/A
	After the test, the samples shall show no damage impairing their further use and the entry holes for the plug contacts shall not show any serious damage.		N/A
7.3.6	Protection against electric shock		P
7.3.6.1	Unenclosed connectors		P
	For unenclosed connectors, with the exception of classification IP00, protection against electric shock shall be tested with the relevant test probe in accordance with the IP code claimed by the manufacturer.		P
	Creepage and clearance distances are not taken into consideration for the test.		P
7.3.6.2	Enclosed connectors	Unenclosed connectors	N/A
	Enclosed connectors shall be tested with the IEC jointed test finger taking into consideration clearances and creepage distances between live parts and the test finger.		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	This does not apply to the contact openings (lead-in) in the mating face:		N/A
	•.....F or a CBC, clearance and creepage distances according to IEC 60664-1 shall be measured through the openings between the live parts and the plane of the mating face.		N/A
	•.....F or a connector without breaking capacity (COC), clearance and creepage distances through the openings are disregarded.		N/A
7.3.6.3	Tests for connectors with IP Code higher than IP2X or IPXXB	IP00	N/A
	If the manufacturer claims a protection against access to hazardous parts higher than IP2X or IPXXB, the relevant tests shall be carried out according to IEC 60529.		N/A
7.3.7	Protection against solid foreign objects and against ingress of water	IP00	N/A
7.3.7.1	IP code is measured in mated condition or according to the manufacturer´s specification.		N/A
7.3.7.2	Protection against foreign solid objects		N/A
	If the manufacturer claims a degree of protection against ingress of foreign solid objects, the relevant tests shall be carried out according to IEC 60529.		N/A
	Compliance is checked according to IEC 60529.		N/A
7.3.7.3	Protection against harmful ingress of water		N/A
	If the manufacturer claims a degree of protection against harmful ingress of water, the relevant tests shall be carried out according to IEC 60529.		N/A
	Compliance is checked according to IEC 60529.		N/A
	For numeral 3 and 4, unless otherwise specified in the detail specification or by the manufacturer, the oscillating tube, Figure 4 of IEC 60529:1989 is used.		N/A
7.3.8	Temperature rise		P
	The object of this test is to assess the ability of a connector to continuously carry its rated current without exceeding the upper limiting temperature.		P
	The test shall be carried out according to test 5a of IEC 60512-5-1, unless otherwise specified, under the following test conditions.		P
	Any existing PE contact is not involved in the test.	No PE contact.	N/A
	Test conditions:		P
	•.....M aximum permissible conductor cross-sectional area used for the test shall be in accordance with the detail specification DS or	Maximum permissible conductor used for the test.	P

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Clause	Requirement + Test	Result - Remark	Verdict
	manufacturer's information.		
	•..... he length of the connecting cable and conductor loops (see Figures 1a, 1b and 1c) is given in Table 7.	500 ± 50 mm	P
	The test shall be carried out with a rated current selected from the current-carrying capacity curve according to IEC 60512-5-2, test 5b depending on the ambient temperature.	Carried out with a rated current	P
	For this purpose, the test arrangement according to IEC 60512-5-2 shall be used.		P
	The test shall be continued until a constant temperature is obtained.	Continued until a constant temperature is obtained.	P
	For two-part printed board connectors, the connection on the printed board side is made by wire jumpers corresponding to the cross sectional area of the connecting cable of the connector.		P
	According to the agreement with the manufacturer, a printed board can be used for fixing.		P
	For edge-socket connectors, the wire jumpers are soldered as close to the contact zone of the printed board as possible corresponding to the cross sectional area of the connecting cables.		P
	For both conductor versions, the wire jumpers shall be produced as short as possible, i.e. in pitch dimension.		P
7.3.9	Mechanical operation		P
	The object of this test is to assess the mechanical operational endurance of a connector either CBC or COC in the normal operational mode without electrical load.		P
	The test shall be carried out according to test 9a of IEC 60512, under the following conditions, unless otherwise specified.		P
	Test conditions:		P
	•..... he specimens shall be engaged and disengaged by means of a device simulating normal operating conditions.		P
	•..... he preparation and mounting of the specimen shall be as in normal use.		P
	•..... he type and cross sectional area of the cable/wire bundle to be used shall be specified by the manufacturer or by the DS.		P
	•..... he number of operating cycles shall be		P

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Clause	Requirement + Test	Result - Remark	Verdict
	specified by the manufacturer or by the DS.		
	•.....T he speed of insertion and withdrawal shall be approximately 0,01 m/s with a rest in the unmated position of approximately 30 s.	Insertion and withdrawal at: 0,01 m/s.	P
7.3.10	Bending (flexing) test	Rewirable connectors	N/A
	Non-rewirable connectors shall be subjected to a bending test.		N/A
	The specimen is fixed to the oscillating member of the apparatus so that, when this is at the midpoint of its travel, the axis of the flexible cable, where it enters the specimen, is vertical and passes through the axis of oscillation.		N/A
	The oscillating member is so positioned that the flexible cable makes a minimum lateral movement when the oscillating member of the test apparatus is moved over its full travel.		N/A
	The cable is loaded with a weight such that the force applied is:		N/A
	•.....2 0 N for non-rewirable connectors with a conductor cross-sectional area > 0,75 mm^2;		N/A
	•.....1 0 N for non-rewirable connectors with a conductor cross-sectional area ≤ 0,75 mm^2.		N/A
	A current equal to the rated current of the connector is passed through the conductors, the voltage between them being the rated voltage.		N/A
	The protective conductor, if any, shall be loaded with a sufficient current to perform the continuity test.		N/A
	The oscillating member is moved backwards and forwards through an angle of 90° (45° on either side of the vertical).		N/A
	The number of bendings shall be specified by the DS or the manufacturer's specification.		N/A
	The rate of bendings shall be 60 per minute. One bending is one movement, either backwards or forwards.		N/A
	Specimens with cables of circular cross-sectional area shall be rotated approximately 90° around the vertical axis within the oscillating part after 50 % of flexings;		N/A
	Specimens with flat flexible cables are only bent in a direction perpendicular to the plane containing the axis of the conductor.		N/A
	During this test, there shall be no interruption of the test current and no short-circuit between the conductors, including the protective conductor, if		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	any.		
	After the test there shall be no damage; the cable support sleeve shall not be loosened from the body and the insulation shall show no signs of abrasion or of wear and tear.		N/A
	Broken strands shall not pierce the insulation.		N/A
7.3.11	Measurement of clearances and creepage distances		P
	Clearances and creepage distances shall be measured according to IEC 60664-1 with the following additional requirements.		P
	For connectors without breaking capacity (COC), clearances and creepage distances to the accessible surface shall be measured only in the mated position.	Measured in the mated position.	P
	The surface of an unenclosed connector to be incorporated into an equipment or a device shall not be regarded as accessible, unless otherwise claimed by the manufacturer.		P
7.3.12	Dielectric strength		P
	If the manufacturer or the DS specifies a value for the rated impulse voltage, test a) shall be conducted.		P
	Otherwise, test b) shall be conducted.		P
	For the verification of the solid insulation, test b) shall be used.		P
	a).....I mpulse withstand test	Impulse withstand voltage: 4,8 kV.	P
	The impulse withstand test shall be carried out with a voltage having a 1,2/50 µs waveform according to IEC 60060-1 with three impulses of each polarity and an interval of at least 1 s between pulses.		P
	The output impedance of the impulse generator should not be higher than 500 Ω.		P
	The test voltage shall be taken from Table 8.	Impulse withstand voltage: 4,8 kV.	P
	b).....V oltage proof		P
	The voltage proof test shall be performed by applying a r.m.s. withstand voltage with values as specified in Table 8 according to test 4a of IEC 60512.		P
	The test duration shall be 1 min.	1 min.	P
7.3.13	Resistance between accessible metal parts and the protective earthing contact	Without protective earthing contact.	N/A
	A current of 1,5 times the rated current with a		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	maximum of 25 A derived from a source having an open voltage not exceeding 12 V is passed through the protective earthing contact and each of the accessible metal parts in sequence.		
	The voltage drop between the protective earthing contact and the accessible metal part is measured after steady conditions have been established and the resistance is calculated from the current and this voltage drop.		N/A
	This test shall be carried out on the engaged specimen only.		N/A
	In no case shall the resistance exceed the maximum value given in 6.5.3.		N/A
7.3.14	Corrosion test		P
	For testing the protection of contacts against the influence of a corrosion atmosphere, one of the two alternative tests shall be selected.		P
	In both cases, the specimens shall be mated.		P
	Test 1: Flowing mixed gas corrosion according to test 11g of IEC 60512, with a choice ofmethod 1 or method 4. The test duration shall be four days.	Test duration: 4 days	P
	Test 2: Sulfur dioxide test with general condensation of moisture according to ISO 6988. The test duration shall be 24 h (1 test cycle).	Test duration: 24 h (1 test cycle).	P
7.4	In-process test schedule (routine test) for non-rewirable free connectors		N/A
7.4.1	For non-rewirable free connectors, it shall be verified that live parts, e.g. free strands, cannot become accessible.		N/A
	If this cannot be ensured by construction or by the production process, the following tests shall be made on 100 % of the production.		N/A
7.4.2	Impulse withstand voltage test		N/A
	The accessible external surface of the connector, with the exception of the engagement face of the male connector, shall be scanned by plane electrodes according to IEC 61032 and each time the specified impulse withstand voltage of the connector shall be applied between all live parts and these electrodes.		N/A
	Alternatively, the specified r.m.s. withstand voltage according to Table 8 shall be applied for a minimum of three full cycles (i.e. 60 ms at a frequency of 50 Hz).		N/A
	No breakdown or flashover shall occur.		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
7.4.3	Continuity of PE path test		N/A
	For connectors with protective earthing contacts, an electrical continuity test with Safety Extra-Low Voltage (SELV) shall not show any interruption or wrong connection of the protective earth.		N/A
7.4.4	AC power-frequency voltage withstand test		N/A
	A dielectric strength test using the test voltage according to Table 8, applied between all live contacts connected together and the protective earthing contact shall show no breakdown.		N/A

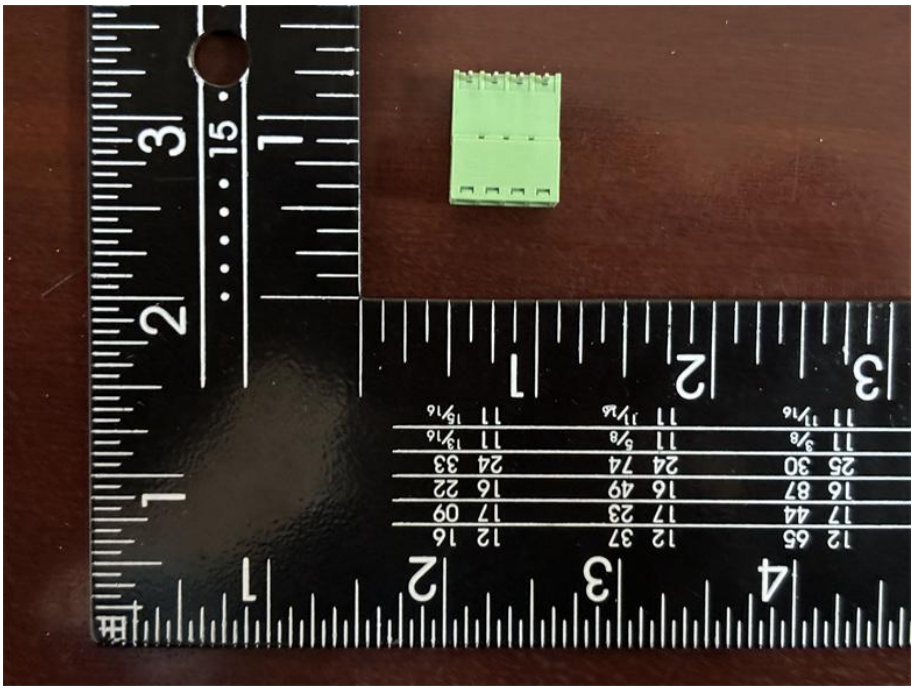

Figure 1 L-KLS2-EDGK-350, L-KLS2-EDGR-350

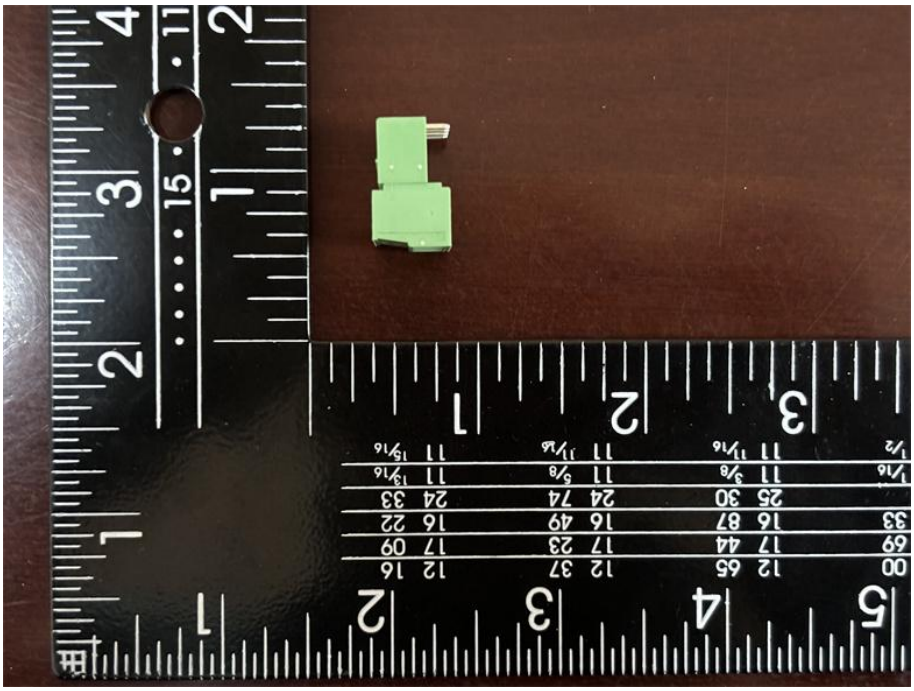

Figure 2 L-KLS2-EDGK-350, L-KLS2-EDGR-350

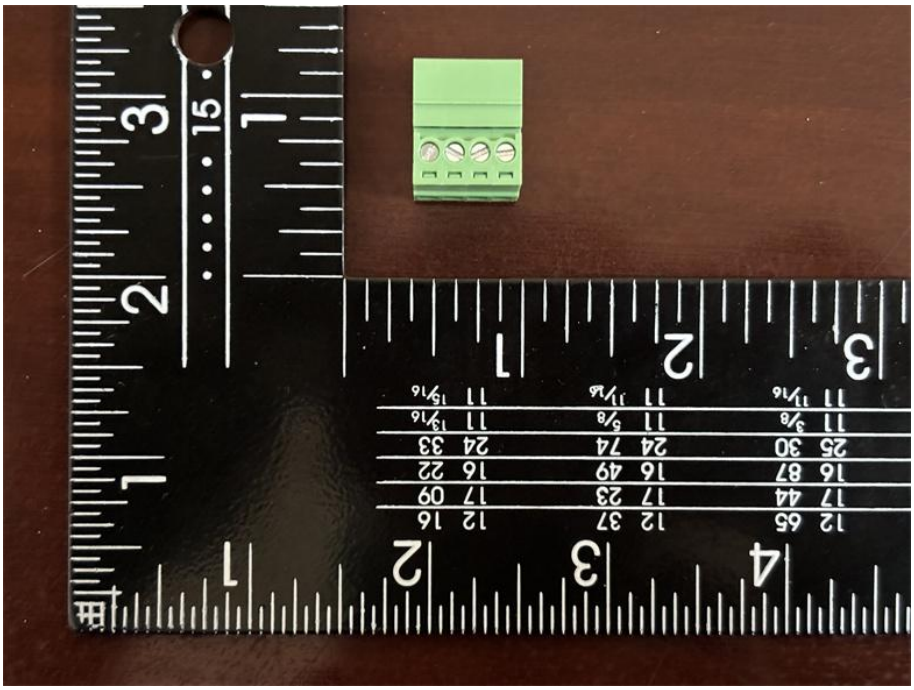

Figure 3 L-KLS2-EDGK-350, L-KLS2-EDGR-350

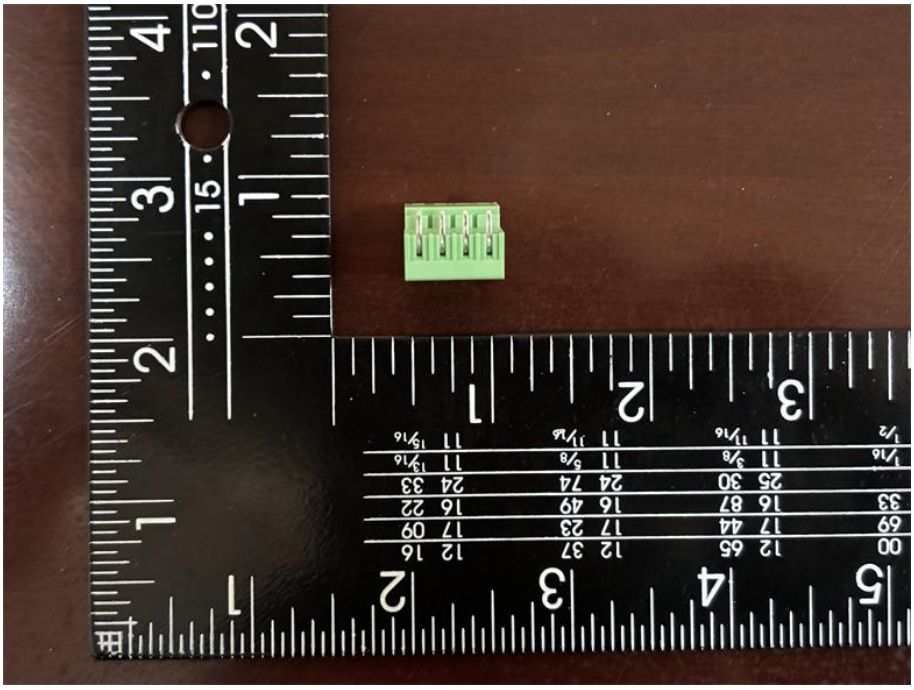

Figure 4 L-KLS2-EDGK-350, L-KLS2-EDGR-350

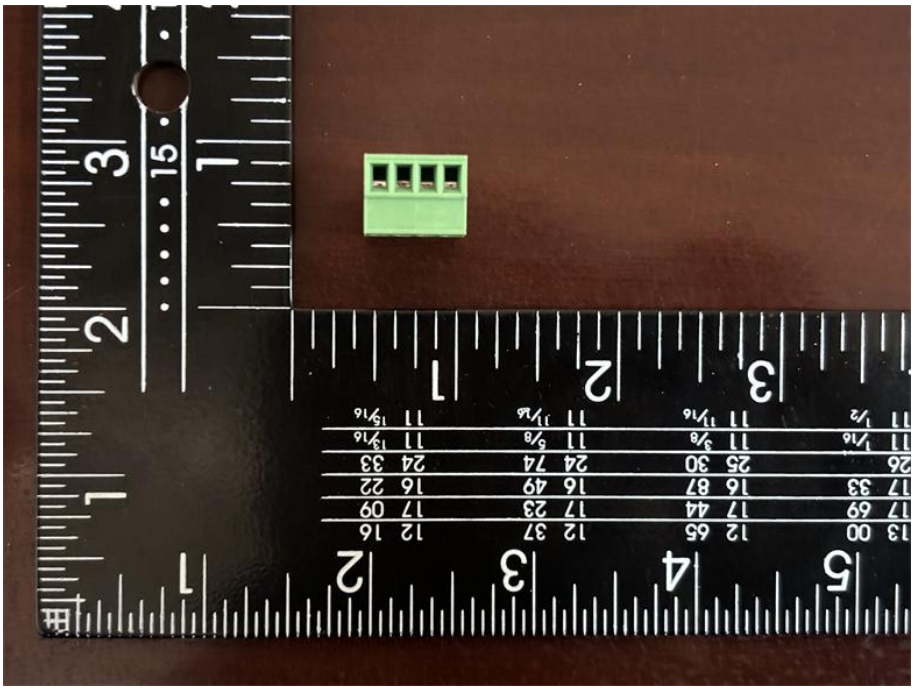

Figure 5 L-KLS2-EDGK-350, L-KLS2-EDGR-350

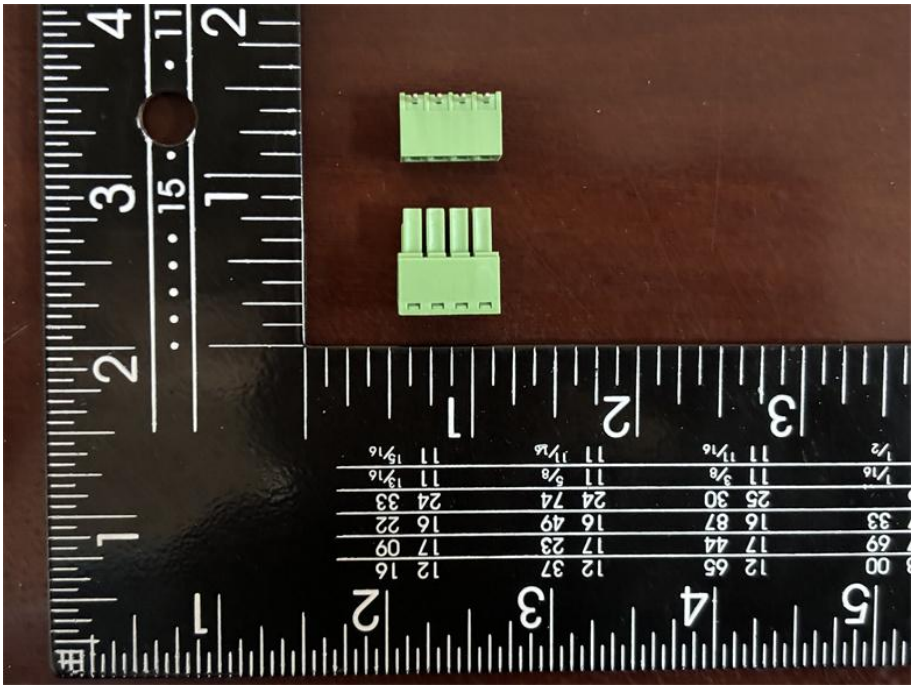

Figure 6 L-KLS2-EDGK-350, L-KLS2-EDGR-350

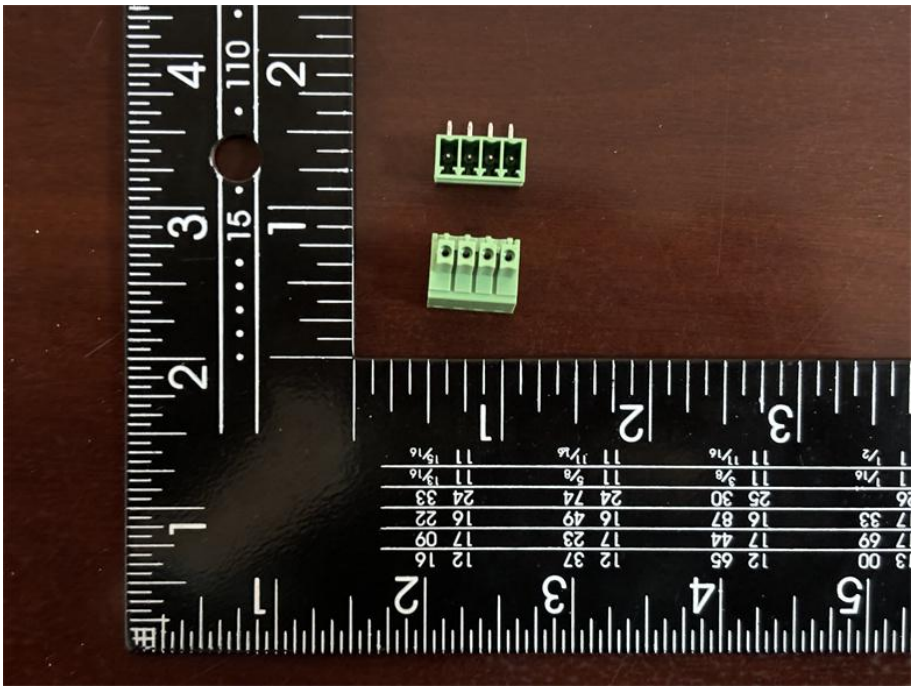

Figure 7 L-KLS2-EDGK-350, L-KLS2-EDGR-350

Ningbo Dano Youxin Testing Service Co., Ltd.

Add：4-4, NO.2 Building, Shangdong Business Center, Yinzhou District, Ningbo City, China, 315000

Tel：+86-574-89117153

E-mail：info@danotest.com

Website: www.danotest.com