Test Report issued under the responsibility of:

TEST REPORT
IEC 61984
Connectors – Safety requirements and tests

Report Number ..... :	250148-TL6-1
Date of issue ..... :	**2018-06-26**
Total number of pages ..... :	**23**
Name of Testing Laboratory preparing the Report ..... :	**VDE** Prüf- und Zertifizierungsinstitut GmbH **VDE** *Testing and Certification Institute*
Applicant's name ..... :	**Weidmüller Interface GmbH & Co. KG**
Address ..... :	Klingenbergstraße 16; 32758 Detmold; Germany
Test specification:	
Standard ..... :	IEC 61984:2008
Test procedure ..... :	CB Scheme
Non-standard test method ..... :	N/A
Test Report Form No. ..... :	IEC61984C
Test Report Form(s) Originator .... :	VDE Prüf- und Zertifizierungsinstitut GmbH
Master TRF ..... :	Dated 2017-06

If this Test Report Form is used by non-IECEE members, the IECEE/IEC logo and the reference to the CB Scheme procedure shall be removed.

This report is not valid as a CB Test Report unless signed by an approved CB Testing Laboratory and appended to a CB Test Certificate issued by an NCB in accordance with IECEE 02.

General disclaimer:

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Test item description..... :	Connector (COC)		
Trade Mark..... :			
Manufacturer ..... :	Weidmüller Interface GmbH & Co. KG; Klingenbergstraße 16; 32758 Detmold; Germany		
Model/Type reference..... :	BCZ 3.81 Buchsenteil / female part; SC 3.81 Stiftteil / male part		
Ratings..... :	160 V / 17,5 A		
Responsible Testing Laboratory (as applicable), testing procedure and testing location(s):			
☒ **CB Testing Laboratory:**	**VDE** Prüf- und Zertifizierungsinstitut GmbH **VDE** *Testing and Certification Institute*		
Testing location/ address ..... :	Merianstrasse 28, 63069 Offenbach, Germany		
Tested by (name, function, signature).....:	Sebastian Wendt (authorization of test report) test engineer		
Approved by (name, function, signature) ..:	Berthold Reinholz reviewer		
☐ **Testing procedure: CTF Stage 1:**			
Testing location/ address ..... :			
Tested by (name, function, signature).....:			
Approved by (name, function, signature) ..:			
☐ **Testing procedure: CTF Stage 2:**			
Testing location/ address ..... :			
Tested by (name + signature).....:	(authorization of test report)		
Witnessed by (name, function, signature) .:			
Approved by (name, function, signature) ..:			
☐ **Testing procedure: CTF Stage 3:**			
☐ **Testing procedure: CTF Stage 4:**			
Testing location/ address ..... :			
Tested by (name, function, signature).....:			
Witnessed by (name, function, signature) .:			
Approved by (name, function, signature) ..:			
Supervised by (name, function, signature) :			

List of Attachments (including a total number of pages in each attachment):

Summary of testing: All tests passed with positive results

Tests performed (name of test and test clause):	**Testing location:**
Complete test according to IEC 61984	VDE Testing and Certification Institute Merianstrasse 28, 63069 Offenbach, Germany

Summary of compliance with National Differences (List of countries addressed):

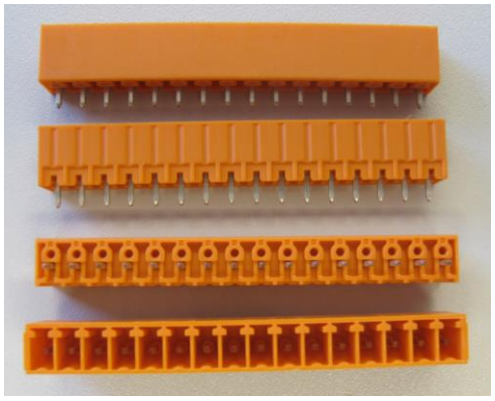
☒ **The product fulfils the requirements of**

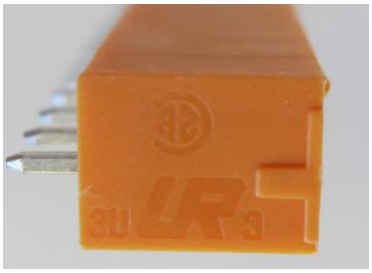
DIN EN 61984 (VDE 0627):2009-11; EN61984:2009
DIN EN 61984 Berichtigung 1 (VDE 0627 Berichtigung 1):2012-03

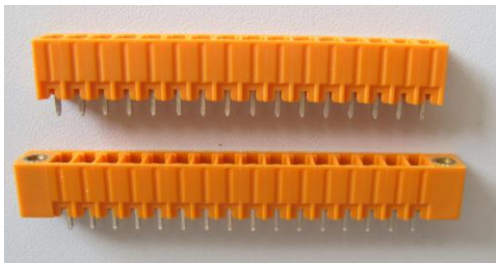
Copy of marking plate:

The artwork below may be only a draft. The use of certification marks on a product must be authorized by the respective NCBs that own these marks.

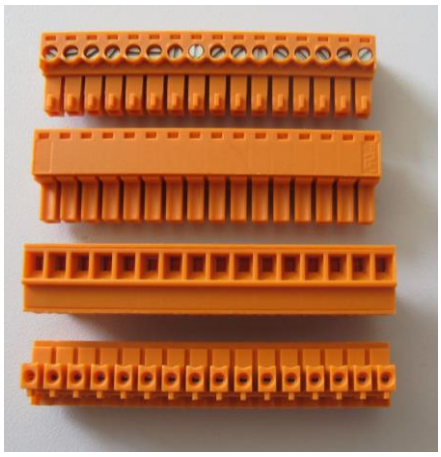
BCZ 3.81

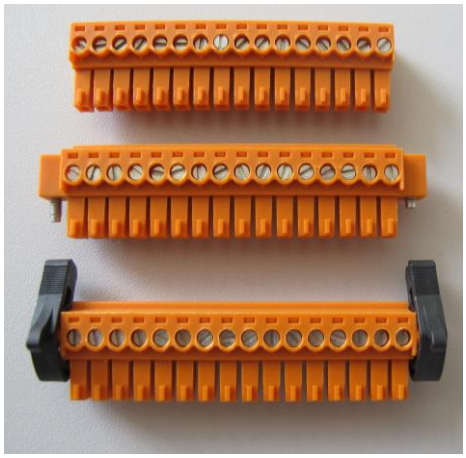


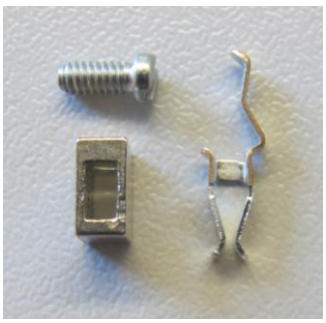




SC 3.81







Test item particulars .....:	
Classification of installation and use .....:	Build in
Supply Connection.....:	
.....:	
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 .....:	2018-05-07
Date (s) of performance of tests.....:	2018-05-30…2018-06-26

General remarks:

"(See Enclosure #)" refers to additional information appended to the report.
"(See appended table)" refers to a table appended to the report.

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

Manufacturer's Declaration per sub-clause 4.2.5 of IECEE 02:

The application for obtaining a CB Test Certificate includes more than one factory location and a declaration from the Manufacturer stating that the sample(s) submitted for evaluation is (are) representative of the products from each factory has been provided .....:	☐ **Yes** ☒ **Not applicable**

When differences exist; they shall be identified in the General product information section.

Name and address of factory (ies) ..: Weidmüller Interface (Suzhou) Co., Ltd., OEM-Business; 81 Xiangyang Road Suzhou New District; 215011 SUZHOU CITY; Jiangsu; China / Reference 30017348

General product information and other remarks:

See table 0.1 and pictures.

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	MECHANICAL TEST GROUP A (TABLE 10)		
A1	VISUAL EXAMINATION: IEC 60512 Test 1a		
6.2.2	Marking indelible and easily legible		P
	Minimum marking on the connector a) trademark		P
	Markings a) trademark and b) type identification on smallest unit of packaging		P
	All other markings (c – k) given in the technical documentation or catalogue of the manufacturer		P
	c) Rated current .....:	17,5 A	P
	c) Rated voltage .....:	160 V	P
	e) Over voltage category .....:	2,5 kV	P
	f) Pollution degree .....:	3	P
	g) Protection degree .....:	IP00	P
	h) Range of temperature .....:	-50°C up to +120°C	P
	i) Type of terminals .....:	Solder termination (male part) Screw type clamping units (female parts)	P
	j) Connectable conductors .....:	0,08 – 1,5 mm² Solid and flexible	P
	k) Reference to this standard or to the DS	IEC 61984	P
6.2.3	Position for the contacts and protective earthing contacts clearly indicated. Marking of protective earthing contacts applies symbol ⏚ or “PE”. This requirement is not necessary for non rewirable connectors.	The definite marking of the contacts has to be guaranteed by overprint or the build-in conditions.	P
6.9.2	Fixing means not used to fix live parts.		P
6.9.3	Termination without damage possible.		P
6.10	CBC has adequate breaking capacity.		N/A
6.11	Free connector: Wires protected against shear and tensile stress at the termination and secured to prevent twisting.		N/A
	The above requirement does not apply to:		
	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		N/A

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	provisions in the end-use product		
	DIMENSIONAL EXAMINATION: IEC 60512		
6.19	Clearances and creepage distances according to IEC 60664.	see table 0.2	P
	Connector dimensions comply with the DS or manufacturer's specification.		N/A
A2	DURABILITY OF MARKING		
7.3.2	Test liquid: water Test piston size 1; force 5 N; 10 cycles IEC 60068-2-70 Test Xb „Abrasion of marking“		P
	VISUAL EXAMINATION: IEC 60512 Test 1a		
	Visible with the naked eye		P

A3	POLARISATION AND CODING: IEC 60512 / Test [13e]		
	- For unenclosed connectors (internal connections) 20 N		P
	- For enclosed connectors (external connections) 1,5 x mating force, but not higher than 80 N		N/A
6.3	Multipole connector: Contact between protective earthing contacts and live contacts is not possible by engagement.		N/A
6.9.1	Multipole connector: Polarisation prevents improper connection of mating parts.		P
	VISUAL EXAMINATION: IEC 60512 Test 1a		
	No damage likely to impair function		P

A4	PROVISIONS FOR EARTHING		
6.5.1	For a CBC the earthing contact is a “first make - last break” contact.		N/A
7.3.3	No electrical contact indication between earth contact and the other contacts.		N/A
6.5.4	CONNECTION OF THE PROTECTIVE EARTH CONNECTOR		N/A
	VISUAL EXAMINATION: IEC 60512 Test 1a		N/A
	Remove any available covers if required.		N/A
6.5.4.1	The protective conductor terminal accepts a conductor with a minimum cross-section as specified in Table 1, Column 2:		N/A

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	Minimum cross- section according to Table 1.....:	mm²	—
6.5.4.2	With regard to design and type of construction, the protective conductor terminations are at least equivalent to the other terminations according to clause 6.:		N/A

A5	INTERLOCK		
7.3.4	The specimens are engaged by hand over their full engagement distance. All other contacts are wired in series. The interlock contacts “make last and break first”, before any other contact does.		N/A
6.7	The connector with an interlock cannot be engaged or disengaged as long as the contacts are live.		N/A

A6	TERMINATIONS		
6.6	Range of connectable conductor(s) .....:	0,08 – 1,5 mm² Solid and flexible	—
6.6.1 a)	Test acc. to: IEC 60352-1 Wrapped connections		N/A
6.6.1 b)	Test acc. to: IEC 60352-2 Crimped connections		N/A
6.6.1 c)	Test acc. to: IEC 60352-3 or IEC 60998-2-3 Accessible insulation displacement connections		N/A
6.6.1 d)	Test acc. to: IEC 60352-4 or IEC 60998-2-3 Non-accessible insulation displacement connections		N/A
6.6.1 e)	Test acc. to: IEC 60352-5 Press-in connections		N/A
6.6.1 f)	Test acc. to: IEC 60352-6 or IEC 60998-2-3 Insulation piercing connections		N/A
6.6.1 g)	Test acc. to: IEC 60999-1 or IEC 60999-2 or IEC 60352-7 Screwless-type clamping units		N/A
6.6.1 h)	Test acc. to: IEC 60999-1 or IEC 60999-2 Screw-type clamping units	Female part	P
6.6.1 i)	Test acc. to: IEC 60760 or IEC 61210 Flat, quick-connect terminations		N/A
	Test acc. to: IEC 60068-2-20 Solder terminations	Male part	P
	Other terminations, not mentioned above, acc. to IEC standard .....:		N/A

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A7	CONTACT RETENTION IN INSERT: IEC 60512 Test 15a		
	Test load shall be three times the specified insertion force (mating) of one contact or the specified insertion force of one contact plus 50 N, whichever is less. Minimum test load 20 N.	insertion force of one contact: 3,4 N Test load 20 N	—
	VISUAL EXAMINATION: IEC 60512 Test 1a		
6.18.2	Contacts safety retained		P
	No axial displacement likely to impair normal operation		P

A8	CABLE CLAMP: IEC 60512		
6.17	The cable clamp is made of insulating material or metal.		N/A
6.17	Metal cable clamps meet one of the following requirements:		
	a) Provided with a covering of insulating material to prevent any accessible metal part becoming live in case of a fault.		N/A
	b) No contact possible with the IEC test finger according to IEC 60529.		N/A
	c) Be connected to protective earth.		N/A
	Cable clamping range (6.17 Table 6 or manufacturer's specification) .....:	from: mm to: mm	—
A8.1	CABLE CLAMP (PULL) IEC 60512 Test 17c		
	VISUAL EXAMINATION: IEC 60512 Test 1a		
	Covers mounted / contacts not connected	See appended table A8.1	N/A
A8.2	CABLE CLAMP (TORSION): IEC 60512 Test 17d		
	VISUAL EXAMINATION: IEC 60512 Test 1a		
	Covers mounted	See appended table A8.2	N/A

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A9	MECHANICAL STRENGTH IMPACT (Only free Connectors and CBC): IEC 60512 Test 7b		
	Dropping cycles: 8 positions in 45° steps		—
	Dropping height .....:	mm	—
	VISUAL EXAMINATION: IEC 60512 Test 1a		
6.18.1	No damage likely to impair safety		N/A
6.18.3	Internal insulations not damaged		N/A
	Parts against electric shock not damaged		N/A
	Clearances and creepage distances not reduced		N/A

	SERVICE LIFE TEST GROUP B (TABLE 11)		
B1	INITIAL MEASUREMENTS (CONTACT RESISTANCE): IEC 60512 Test 2b		
	Reference value for subsequent measurement:	See appended table B1	—
	Test current .....:	1 A	—

B2	BREAKING CAPACITY (ONLY FOR CBCs)		
7.3.5	Operating cycles .....:		—
	Speed of insertion/ withdrawal .....:	0,8 m/s	—
	Test voltage .....:	V	—
	Test current .....:	A	—
	Power factor / cos(φ) .....:	0,9 ± 0,05	—
	Time constant	1 ms ± 15%	—
	VISUAL EXAMINATION: IEC 60512 Test 1a		
6.14.2	No damage occurred, which could impair normal use		N/A

B3	MECHANICAL OPERATIONS: IEC 60512 Test 9a		
7.3.9	Operating cycles .....:	25	—
	Insertion speed .....:	0,01 m/s	—
	Rest .....:	30 s	—
	VISUAL EXAMINATION: IEC 60512 Test 1a		
6.14.1	No damage occurred, which could impair normal use		P

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B4	FINAL MEASUREMENTS (CONTACT RESISTANCE): IEC 60512 Test 2b		
	Test current .....:	1 A	—
	R2 ≤ 1,5 R1 or R2 ≤ 5 mΩ + R1.....:	See appended table B4.1	P
	DIELECTRIC STRENGTH: IEC 60512 Test 4a		
	a) Impulse withstand voltage .....:	--	—
	b) r.m.s. withstand voltage .....:	1,39kV	—
6.13	No breakdown or flashover occurred	See appended table B4.2	P

B5	BENDING (FLEXING) TEST (To be performed on new specimen)		
7.3.10	Only non-rewirable connectors		
	Rated current .....:	A	—
	Rated voltage .....:	V	—
	Wire cross section .....:	mm²	—
	Load: > 0,75 mm² / 20 N ; ≤ 0,75 mm² / 10 N	N	—
	Numbers of bending .....:		—
	DURING THE TEST		
	No interruption of the test current		N/A
	No short-circuit between the conductors		N/A
	AFTER THE TEST		
	Cable support sleeve not loosened from the body		N/A
	Insulation shows no signs of abrasion or of wear and tear.		N/A
	Broken strands do not pierce the insulation.		N/A
	VISUAL EXAMINATION: IEC 60512 Test 1a		
6.14.3	No damage occurs, which could impair normal use.		N/A

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	THERMAL TEST GROUP C (TABLE 12)		
C1	TEMPERATURE RISE TEST: IEC 60512 Test 5A		
	Test conductor length according Table 7.....:	Female part: 250 mm Male part: direct bridged	—
	Test conductor cross-section .....:	1,5 mm²	—
7.3.7	Mated specimen .....:	BCZ 3.81 + SC 3.81	—
	Test current .....:	17,5 A	—
	Ambient temperature – components .....:	20°C	—
	Upper limit temperature – components .....:	120°C	—
6.16	The upper limiting temperature specified for the specimen is not exceeded	See appended table C1	P

	CLIMATIC TEST GROUP D (TABLE 13)		
D1	INITIAL MEASUREMENTS (CONTACT RESISTANCE): IEC 60512 Test 2b		
	Reference value for subsequent measurement..:	See appended table D1	—
	Test current .....:	1 A	—

D2	COLD: IEC 60512 Test 11j		
	Mated specimen .....:	BCZ 3.81 + SC 3.81	—
	Test duration .....:	2 h	—
	Lower temperature limit .....:	-50°C	—
	VISUAL EXAMINATION: IEC 60512 Test 1a		
6.6.3	Sufficient contact pressure through insulation		N/A
6.8 / 6.15	No visual damage, no cracks on insulations parts likely to impair safety		P
6.18.3	Internal insulation shows no damage likely to impair safety		P
	No damage occurred, which could impair normal use		P

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D3	DRY HEAT: IEC 60512 Test 11i		
	Mated specimen.....:	BCZ 3.81 + SC 3.81	—
	Test duration .....:	7 days	—
	Upper temperature limit .....:	120°C	—
	VISUAL EXAMINATION: IEC 60512 Test 1a		
6.6.3	Sufficient contact pressure through insulation		N/A
6.8 / 6.15	No visual damage, no cracks on insulations parts likely to impair safety		P
6.18.3	Internal insulation shows no damage likely to impair safety		P
	No damage occurred, which could impair normal use		P

D4	PROTECTION AGAINST CORROSION: IEC 60512 Test 11g		
7.3.14 Test 1	Flowing mixed gas corrosion according to IEC 60512-11-7, test 11g Method 1 or alternatively Method 4 (Table 1 of IEC 60512-11-7)). Test duration is 4 days.		N/A
7.3.14 Test 2 alternative	Sulphur dioxide test with general condensation of moisture according to ISO 6988 . Test duration is 24h (1 test cycle)		P
	VISUAL EXAMINATION: IEC 60512 Test 1a		
6.21	Function guaranteed		P
	No damage occurred, which could impair normal use		P

D5	FINAL MEASUREMENT (CONTACT RESISTANCE): IEC 60512 Test 2b		
	Test current .....:	1 A	—
	$R2 \leq 1{,}5\ R1$ or $R2 \leq 5\ m\Omega + R1$ .....:	See appended table D5	P

D6	DIELECTRIC STRENGTH: IEC 60512 Test 4a		
	Mated specimen .....:	BCZ 3.81 + SC 3.81	—
	Impulse withstand voltage .....:	--	—
	r.m.s. withstand voltage .....:	1,39 kV	—
6.13	No breakdown or flashover occurred	See appended table D6	P

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	DEGREE OF PROTECTION TEST GROUP E (TABLE 14)		
E1	PROTECTION AGAINST ELECTRIC SHOCK		
	Unenclosed connectors (for use inside an enclosure):		
	5.4 c1) COC classified as IP0X, no test required	IP00	P
6.4.2.2	5.4 c2) COC Hand back safety (IP1X or IPXXA) 50 mm sphere pressed with 20 N against mated specimen. No live parts accessible.		N/A
6.4.2.3	5.4 c3) COC Finger safety (IP2X or IPXXB) Jointed test finger pressed with 20 N against mated specimen. No live parts accessible.		N/A
6.4.2.3	5.4 d) CBC finger safety (IP2X or IPXXB) Jointed test finger pressed with 20 N against mated and unmated specimen. No live parts accessible.		N/A
	Enclosed connectors (COCs and CBCs)		
6.4.1	Test at mated and unmated specimen. Jointed IEC test finger pressed with 20 N against the surface except the mating face of the male part of the connector. Creepages and clearances ensured between live parts and test finger.		N/A
	All parts necessary to ensure protection against electric shock only removable with a tool.		N/A
6.4.3	For a CBC, protection against electric shock is ensured also during insertion and withdrawal. This is proved by use of the jointed IEC test with a test force of 20 N. Creepages and clearances ensured between live parts and test finger.		N/A

E2	PROVISION FOR EARTHING		
7.3.13 6.5.3	Resistance between accessible metal parts and the earthing contact ≤ 100 mΩ.....:	mΩ	N/A

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E3	DEGREE OF PROTECTION IP CODE: IEC 60529		
7.3.6.3	Tests for IP Codes higher than IP2X or IPXXB		
6.12 7.3.7.1	IP code according to IEC 60529 in mated condition or according manufacturers conditions.....:	IP	—
	Maximum and minimum cross-section wiring or cable diameter connected.....:	mm² / ∅ mm mm² / ∅ mm	—
7.3.7.2	Protection against ingress of foreign solid objects, tested according to IEC 60529		N/A
7.3.7.3	Protection against harmful ingress of water, tested according to IEC 60529		N/A

A8.1	**TABLE: Covers mounted / contacts not connected**				
Nominal size (mm):	∅ [mm]		Tensible force [N]	Displacement [mm]	—
	Min.			≤	N/A
	Max.				
	Min.			≤	N/A
	Max.				
	Min.			≤	N/A
	Max.				

A8.2	**TABLE: Covers mounted**				
Nominal size (mm):	∅ [mm]		Torque [Nm]	Twist [°]	—
	Min.			≤ ±	N/A
	Max.				
	Min.			≤ ±	N/A
	Max.				
	Min.			≤ ±	N/A
	Max.				

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B1	**TABLE: Initial measurements (Contact resistance)**						
Test current ..... :		1 A					—
Test sample	Contact	1	2	3	PE	—
1	ΔU1 [mV]	1,4	2,6	1,3	--	
	R1 [mΩ]	1,4	2,6	1,3	--	
	Contact	1	2	3	PE	
2	ΔU1 [mV]	1,2	1,4	1,4	--	
	R1 [mΩ]	1,2	1,4	1,4	--	
	Contact	1	2	3	PE	
3	ΔU1 [mV]	1,2	1,3	1,2	--	
	R1 [mΩ]	1,2	1,3	1,2	--	
supplementary information: BCZ 3.81 + SC 3.81						

B4.1	**TABLE: Final measurements (Contact resistance)**						
Test current..... :			1 A				—
Number of cycles..... :			25				—
Condition..... :			R2max ≤ 1,5R1 or R2max ≤ 5 mΩ + R1				—
Test sample	Contact	1	2	3	PE	—
1	R2max [mΩ]	6,4	7,6	6,3	--	P
	ΔU2 [mV]	1,1	1,1	1,5	--	
	R2 [mΩ]	1,1	1,1	1,5	--	
	Contact	1	2	3	PE	—
2	R2max [mΩ]	6,2	6,4	6,4	--	P
	ΔU2 [mV]	1,2	1,4	1,4	--	
	R2 [mΩ]	1,2	1,4	1,4	--	
	Contact	1	2	3	PE	—
3	R2max [mΩ]	6,2	6,3	6,2	--	P
	ΔU2 [mV]	1,4	1,3	1,0	--	
	R2 [mΩ]	1,4	1,3	1,0	--	
supplementary information: BCZ 3.81 + SC 3.81						

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B4.2	**TABLE: Dielectric strength (mated specimen)**		
Test voltage applied between:	a) Impulse withstand voltage applied	b) r.m.s withstand voltage applied	Breakdown / flashover (Yes/No)
Contact – Contact	--	1,39 kV	No
Contact – Earth	--	--	--
Contact – Surface	--	--	--
supplementary information: BCZ 3.81 + SC 3.81			

C1	**TABLE: Temperature rise test**			
	Ambient temperature (°C) ..... :	20 °C		—
Thermocouple Locations	Test current (A)	Upper temperature limit (ULT) (°C)	Temperature measured (°C)	—
Female part	17,5	120	75,4	P
Female part			73,1	P
Male part			84,9	P
Male part			83,9	P
supplementary information: BCZ 3.81 + SC 3.81				

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D1	**TABLE: Initial measurements (Contact resistance)**					
Test current.....:		1 A				—
Test sample	Contact	1	2	3	PE	—
1	ΔU1 [mV]	0,77	1,0	1,2	--	
	R1 [mΩ]	0,77	1,0	1,2	--	
supplementary information: BCZ 3.81 + SC 3.81						

D5	**TABLE: Final measurements (Contact resistance)**					
Test current.....:		1 A				—
Condition.....:		R2max ≤ 1,5R1 or R2max ≤ 5 mΩ + R1				—
Test sample	Contact	1	2	3	PE	—
1	R2max [mΩ]	5,77	6,0	6,2	--	P
	ΔU2 [mV]	1,7	1,4	1,5	--	
	R2 [mΩ]	1,7	1,4	1,5	--	
supplementary information: BCZ 3.81 + SC 3.81						

D6	**TABLE: Dielectric strength (mated specimen)**		
Test voltage applied between:	a) Impulse withstand voltage applied	b) r.m.s withstand voltage applied	Breakdown / flashover (Yes/No)
Contact – Contact	--	1,39 kV	No
Contact - Earth	--	--	--
Contact - Surface	--	--	--
supplementary information: BCZ 3.81 + SC 3.81			

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0.1	**TABLE: Characteristic features**	
Example ..... :	X	Please mark relevant line with "X"
Kind of equipment	X	Connector without breaking capacity (COC)
		Connector with breaking capacity (CBC)
Existence of an enclosure	X	Unenclosed connector
		Enclosed connector
Design of the connector	X	Fixed connector
		Free connector
Additional characteristics		Connector with protective earthing contact
	X	Connector without protective earthing contact
		Connector with cable clamp
	X	Connector without cable clamp
		Connectors (COC) with protection against electric shock for hand back safety, when mated
		Connectors (COC) with protection against electric shock for finger safety
		CBC with protection against electric shock for finger safety, both in mated and unmated condition
		Degree of protection of a connector
		Connector for class II equipment
	X	Connector with interlock
		Connector without interlock
		Non-rewirable connector
	X	Rewirable connector
Pollution degree		1
		2
	X	3
		4
Over voltage category		I
		II
	X	III
		IV

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0.1	**TABLE: Characteristic features**	
Operating cycles		10
		50
		100
		500
		1000
		2000
		5000
	X	According manufacturer's: 25
Bendings		10
		50
		100
		500
		1000
		2000
		5000
		20000
	X	According manufacturer's: N/a
Upper temperature limit		70°C
		85°C
		100°C
		125°C
	X	According manufacturer's: 120°C
Lower temperature limit		-10°C
		-25°C
		-40°C
		-55°C
		0°C
	X	According manufacturer's: -50°C

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0.1	**TABLE: Characteristic features**		
Type of conductor		X	Solid
		X	Flexible
Termination and connection			Wrapped connection
			Crimped connection
			IDC Accessible
			IDC Non-accessible
			Press in connections
			Insulation piercing connections
	Male part	X	Solder termination
			Screwless-type clamping units
	Female part	X	Screw-type clamping units
			Flat, quick-connect terminations
			According manufacturer's:
Values for cable clamp			[4–9 mm]
			[9-12 mm]
			[12-20 mm]
			[20-32 mm]
			[33-42 mm]
			[≥ 42 mm]
		X	According manufacturer's: N/A
Rated voltage(s) ..... :		160 V	
Rated current ..... :		17,5 A	
Rated impulse voltage(s) ..... :		2500 V	
Rated insulation voltage(s) ..... :		--	
Number of poles ..... :		2-24	
Protection degree (IP-Code) .... :		IP 00	
Mounting ..... :		For built in	
Wire cross section area or cross section range ..... :		0,08 – 1,5 mm² Solid and flexible	
Material and coating of female contact ..... :		Copper alloy, tin plated	
Material and coating of male contact:		Copper alloy, tin plated	

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0.2	**TABLE: Clearance and creepage distance measurements** **Pitch 5 mm**	
Type / Shell-size / etc. .....:	BCZ	SC
Clearances measured .....:	3,9 mm	3,1 mm
Creepage distances measured :	3,9 mm	4,4 mm
Impulse withstand voltage [kV] .:	2,5	
Test voltage [kV] .....:	1,39~	
Clearances required .....:	1,5 mm	
Isolation material group .....:	I	I
Rated voltage [V] .....:	3	3
Pollution degree .....:	160	160
Creepage distances required ...:	2,0 mm	2,0 mm
Supplementary information: --		

0.3.1	**TABLE: IEC 60112 / Tracking test**						
Specimen				Erosion depth [mm]			
Part	Material	Material-thickness [mm]	Colour	PTI Test solution [A]	CTI	PTI Test solution [B]	Result
Specimen plates	Wellamid PA66-GV30	2,7	green	600	--	--	P
Supplementary information:							

0.3.2	**TABLE: IEC 60695-2-11 / Glow-wire-test [60 s]**								
Specimen				Flame					
Part	Material	Material-thickness [mm]	Colour	[°C]	Start [s]	End [s]	Height [mm]	Ignition of tissue paper	Result
---	---	---	---	---	---	---	---	---	---
Supplementary information:									

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0.3.3	**TABLE: IEC 89/336/CD / Ball-pressure test**						
Specimen				Ball-pressure test			
Part	Material	Material-thickness [mm]	Colour	[C°]	Measured [mm]	Required [mm]	Result
---	---	---	---	---	---	---	---
Supplementary information:							

0.3.4	**TABLE: IEC 60695-2-2 / Needle-flame test**						
Specimen				Flame			
Part	Material	Material-thickness [mm]	Colour	Burning duration [s]	Start [s]	End [s]	Result
---	---	---	---	---	---	---	---
Supplementary information:							