



## Table of Contents

### *PPAP Package for:*

**Newark Electronics  
Customer Part Number: 11H2679  
(TE Connectivity Part Number): 1355717-1  
June-2020**

Section A	<u>Nondisclosure Agreement</u>
Section □ 1	<u>Design Records</u>
Section □ 2	<u>Engineering Change Documents</u>
Section □ 3	<u>Customer Engineering Approval</u>
Section □ 4	<u>Design FMEA</u>
Section □ 5	<u>Process Flow Diagrams</u>
Section □ 6	<u>Process FMEA</u>
Section □ 7	<u>Control Plan</u>
Section □ 8	<u>Measurement Systems Analysis Studies</u>
Section □ 9	<u>Dimensional Results</u>
Section □ 10	<u>Material, Performance Test Results</u>
Section □ 11	<u>Initial Process Study</u>
Section □ 12	<u>□ualified Laboratory Documentation</u>
Section □ 13	<u>Appearance Approval Report</u>
Section □ 14	<u>Sample Product</u>
Section □ 15	<u>Master Sample</u>
Section □ 16	<u>Checking Aids</u>
Section □ 17	<u>Records Of Compliance □ ith Customer-Specific Requirements</u>
Section □ 18	<u>Part Submission □ arrant</u>
Section □ 18a	<u>Bulk Material Requirements</u>



## **Nondisclosure Agreement**

If a nondisclosure agreement has been reached with your company, it will be included on the following page(s). Please review the terms of this agreement to ensure that further actions associated with information contained within this PPAP package do not violate these terms.

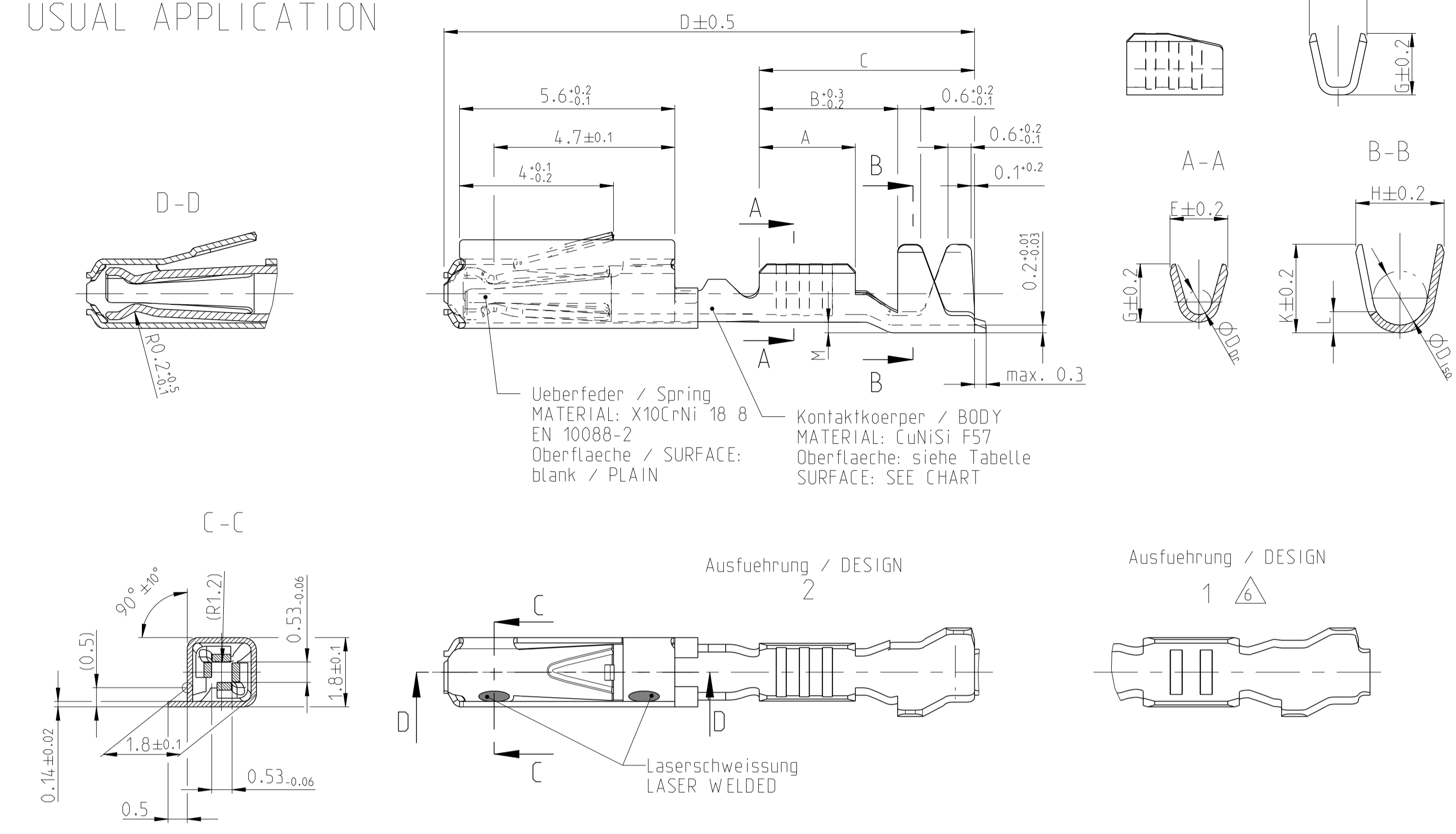
If a nondisclosure agreement HAS NOT been reached, certain documents deemed confidential by TE Connectivity will not be included in this PPAP package. These documents include but are not limited to the Design FMEA, the Process Flow Diagram, the Process FMEA and the Control Plan. These documents can be reviewed by you company but cannot be retained.



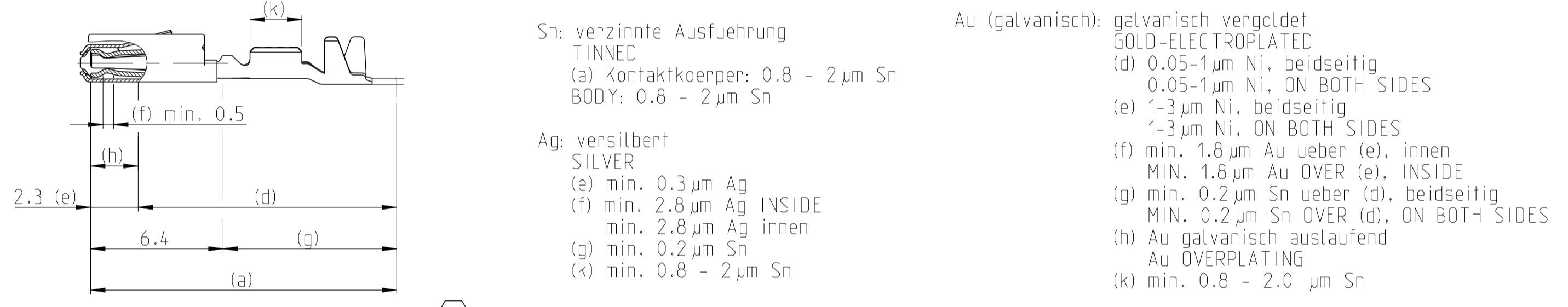
# Section 1

# Design Records

# Normale Anwendung USUAL APPLICATION

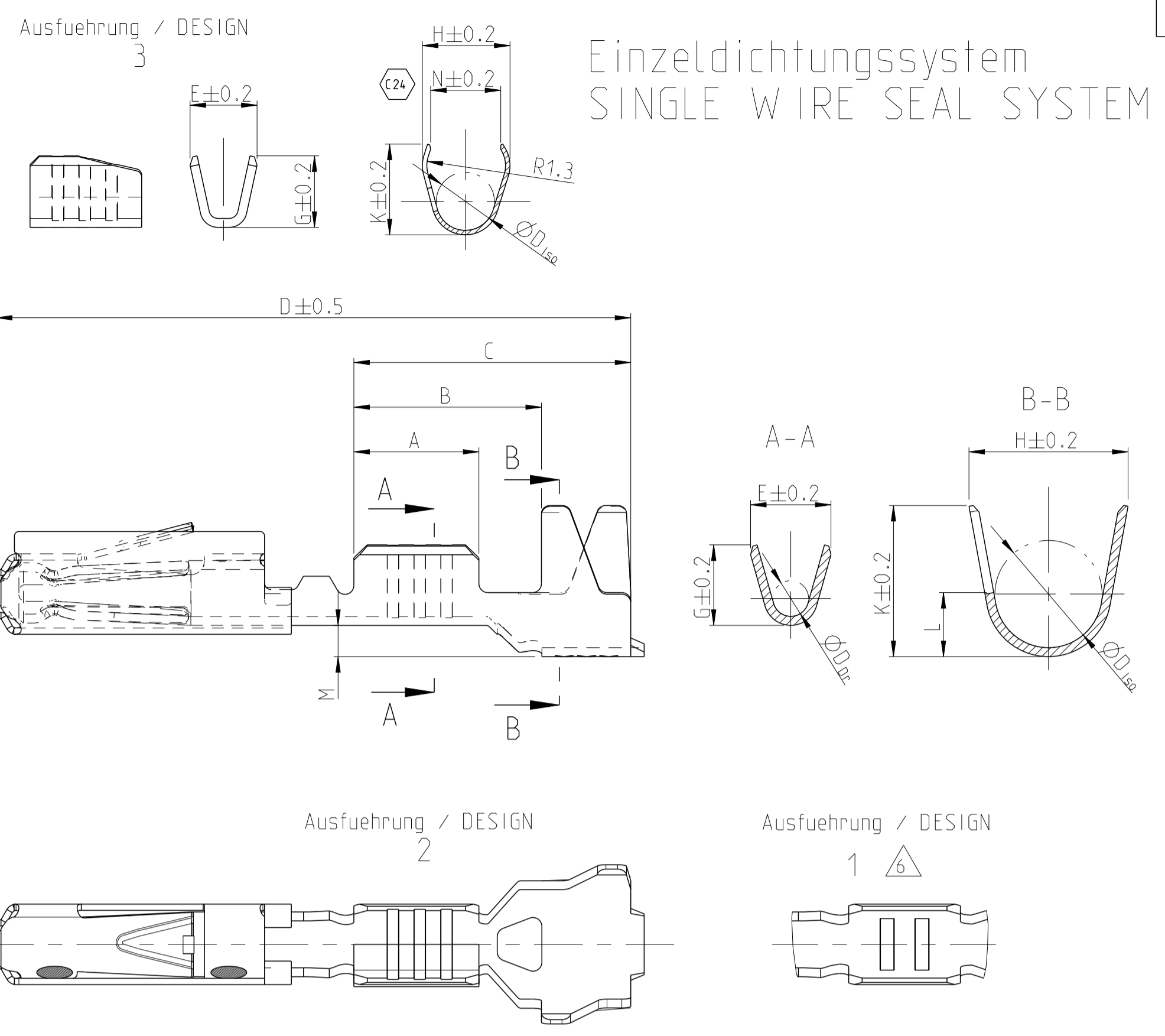


# Oberflaeche / FINISH



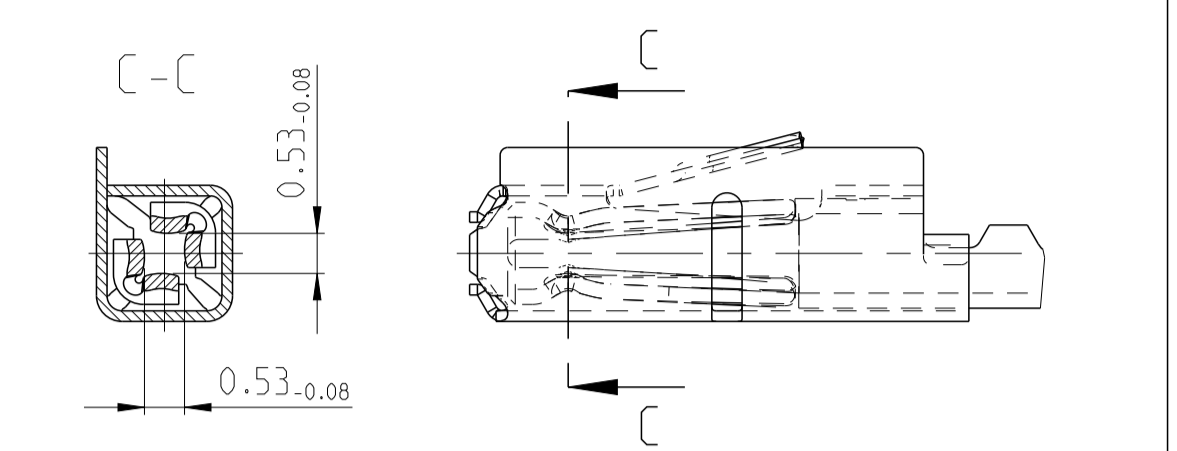
# Ausfuehrung / DESIGN 3

# Einzeldichtungssystem SINGLE WIRE SEAL SYSTEM

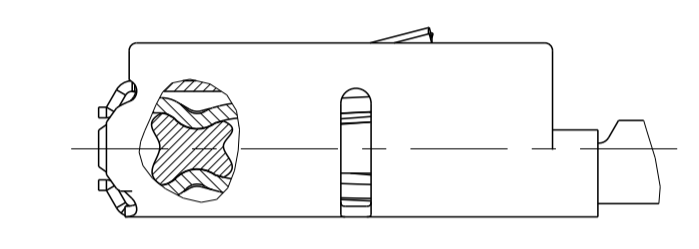


LOC	DIST	REV	DESCRIPTION	DATE	DMN	APVD
A1	-	-	-	-	-	-
C21			NOTE 7 moved to right position 0.13/0.17	09JAN2019	MAH.	BRUN
C22			Tolerance changed to +/-0.1; surface corrected	10JAN2019	MAH.	BERG
C23			Definition of measurement point f. contact height	30APR2019	FRAN	BERG
C24			See PLN E-19-011079	09DEC2019	MAH.	BERG

# versilberte/vergoldete Ausfuehrung SILVER/GOLD VERSION



# GEL VERSION



### Bemerkungen

- Datumscode (Woche/Jahr z.B. KW 38/Jahr2009) und TE-Revision (z.B. Rev.A) DATE CODE (WEEK/YEAR E.G. WEEK NUMBER 38/YEAR2009) AND TE REVISION (E.G. REV. A)
- Passend zu Stiftkontakt siehe Zeichnung 929453 SUITABLE FOR PIN CONTACT SEE DRAWING 929453
- Einzelheiten der Ausfuehrung bleiben dem Hersteller ueberlassen DETAILS OF DESIGN ARE LEFT TO MANUFACTURER
- Nur fuer FLR-Leitung nach DIN 72551 Teil 6 FOR FLR-CONDUCTOR ACCORDING TO DIN 72551-6 ONLY
- 
- nicht fuer Neuanwendung NOT FOR NEW APPLICATION
- zugverstaerkte Leitung nach LV 112-4 REINFORCED WIRE ACCORDING LV 112-4
- Bei doppelt fallenden Werkzeugen wird die erste Ueberfeder mit einer Kennzeichnung "-" versehen WITH DOUBLE OUT DIES THE FIRST SPRING WILL BE PROVIDED WITH AN INDICATION "-"
- Varianten von Design1 werden durch die entsprechenden Versionen von Design2 ersetzt VARIANTS OF DESIGN1 ARE SUPERSEDED BY CORRESPONDING VERSIONS OF DESIGN2

6-965906-5	E	1-965906-5	D	Einzeldichtungssystem SINGLE WIRE SEAL SYSTEM	0.50-0.75	Au-Gel	A = 2.8 B = 4.2 C = 6.2 D = 14.3 M = 0.7	E = 2 G = 2.1 D <sub>Dr</sub> = 1	H = 3.5 K = 3.4 L = 1.5 D <sub>150</sub> = 2.4	0.13	1.4-1.9	967067-1	gruen GREEN	963142-1	schwarz BLACK		
5-965906-6	D	965906-6	C		0.25-0.35	Ag	A = 2.5 B = 3.9 C = 5.9 D = 14 M = 0.7	E = 1.8 G = 1.8 D <sub>Dr</sub> = 0.8	H = 3.5 K = 3.4 L = 1.5 D <sub>150</sub> = 2.4	0.13	114-18025	0.35	0.9-1.4	967067-2	gelb YELLOW	963142-2	grau GREY
5-965906-5	E	965906-5	D			Au	A = 2.5 B = 4.3 C = 6.2 D = 13.7 M = 0.6	E = 1.5 G = 1.4	H = 4 K = 4.1 N = 3.1 D <sub>150</sub> = 2.6	0.1				967067-2	gelb YELLOW	963142-2	grau GREY
5-965906-1	D	965906-1	C			Sn											
5-962885-6	J	962885-6	H	normale Anwendung USUAL APPLICATION	0.50-0.75	Au-Gel	A = 2.8 B = 3.8 C = 5.6 D = 13.7 M = 0.2	E = 2 G = 2.1 D <sub>Dr</sub> = 1	H = 2.7 K = 2.9 L = 0.7 D <sub>150</sub> = 1.6	0.11	114-18021	0.13	0.85-1.25	967067-2	gelb YELLOW	963142-2	grau GREY
5-962885-5	K	962885-5	J			Ag	A = 2.5 B = 3.6 C = 5.6 D = 13.7 M = 0.2	E = 1.8 G = 1.8 D <sub>Dr</sub> = 0.8	H = 2.3 K = 2.3 L = 0.6 D <sub>150</sub> = 1.4	0.11							
5-962885-1	J	962885-1	H			Au	A = 2.5 B = 3.7 C = 5.4 D = 13.7 M = 0	E = 1.5 G = 1.5 D <sub>Dr</sub> = 0.65	H = 2 K = 2 D <sub>150</sub> = 1.1	0.1							
2141826-6	A			0.13 / 0.17	Ag					114-18025	0.13	0.85-1.25	967067-2	gelb YELLOW	963142-2	grau GREY	
2141826-5	A				Au												
2141826-1	A				Sn												
6-963715-5	K	1-963715-5	J	normale Anwendung USUAL APPLICATION	0.50-0.75	Au-Gel	A = 2.8 B = 3.8 C = 5.6 D = 13.7 M = 0.2	E = 2 G = 2.1 D <sub>Dr</sub> = 1	H = 2.7 K = 2.9 L = 0.7 D <sub>150</sub> = 1.6	0.11	114-18021	0.13	0.85-1.25	967067-2	gelb YELLOW	963142-2	grau GREY
5-963715-6	J	963715-6	H			Ag	A = 2.5 B = 3.6 C = 5.6 D = 13.7 M = 0.2	E = 1.8 G = 1.8 D <sub>Dr</sub> = 0.8	H = 2.3 K = 2.3 L = 0.6 D <sub>150</sub> = 1.4	0.11							
5-963715-5	K	963715-5	J			Au	A = 2.5 B = 3.7 C = 5.4 D = 13.7 M = 0	E = 1.5 G = 1.5 D <sub>Dr</sub> = 0.65	H = 2 K = 2 D <sub>150</sub> = 1.1	0.1							
5-963715-1	J	963715-1	H			Sn											
6-928999-5	T	1-928999-5	S	normale Anwendung USUAL APPLICATION	0.25-0.35	Au-Gel	A = 2.8 B = 3.8 C = 5.6 D = 13.7 M = 0.2	E = 2 G = 2.1 D <sub>Dr</sub> = 1	H = 2.7 K = 2.9 L = 0.7 D <sub>150</sub> = 1.6	0.11	114-18021	0.13	0.85-1.25	967067-2	gelb YELLOW	963142-2	grau GREY
5-928999-6	S	928999-6	R			Ag	A = 2.5 B = 3.6 C = 5.6 D = 13.7 M = 0.2	E = 1.8 G = 1.8 D <sub>Dr</sub> = 0.8	H = 2.3 K = 2.3 L = 0.6 D <sub>150</sub> = 1.4	0.11							
5-928999-5	T	928999-5	S			Au	A = 2.5 B = 3.7 C = 5.4 D = 13.7 M = 0	E = 1.5 G = 1.5 D <sub>Dr</sub> = 0.65	H = 2 K = 2 D <sub>150</sub> = 1.1	0.1							
5-928999-1	S	928999-1	R			Sn											
2141824-6	A			0.08-0.22	Ag					114-18021	0.13	0.85-1.25	967067-2	gelb YELLOW	963142-2	grau GREY	
2141824-5	A				Au												
2141824-1	A				Sn												
1355717-6	A			0.08-0.22	Ag					114-18021	0.13	0.85-1.25	967067-2	gelb YELLOW	963142-2	grau GREY	
1355717-5	C				Au												
1355717-1	C				Sn												

Bestell-Nr. Ausfuehrung ORDER NO. DESIGN 2	Bestell-Nr. Ausfuehrung ORDER NO. DESIGN 3	Rev.	Bestell-Nr. Ausfuehrung ORDER NO. DESIGN 1	Rev.	VERSION	DGB Wire Size Range mm <sup>2</sup>	Oberflaeche SURFACE	Laenge LENGTH mm	Drahtcrimp WIRE CRIMP mm	Iso-crimp INSU-CRIMP mm	Gewicht WEIGHT g	Vergaehrung Spez. APPLICATION SPEC.	DGB Wire Size Range mm <sup>2</sup>	Isolations Ø INSULATIN DIA. mm	fuer Kammer Ø3.45 FOR CAVITY DIA. 3.45 mm	Blindstopfen RUBBER PLUG	fuer Kammer Ø4 FOR CAVITY DIA. 4 mm	Blindstopfen RUBBER PLUG

zugehoerige Einzeldichtung / SUITABLE SINGLE WIRE SEAL

THIS DRAWING IS A CONTROLLED DOCUMENT. DWN S. Garcia 05JAN1999  
 CHK M. Jetter 05JAN1999  
 APVD M. Bleicher 13AUG2003

TE Connectivity

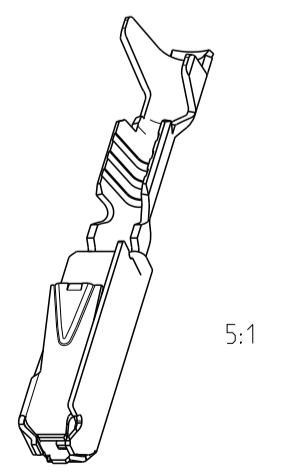
NAME: MQS  
 Tabellenzeichnung Buchsenkontakt  
 TABLE SOCKET CONTACT

108-18030  
 APPLICATION SPEC

114-18021 / 114-18025  
 WEIGHT -

A1 00779 ©=929454

SCALE 10:1 SHEET 1 OF 1 REV C.24





## **Section 2**

# **Engineering Change Documents**



# Product Change Notification

Current Date: 19-Feb-2020

## TE Connectivity

Product Change Notification: P-20-018657

PCN Date: 11-FEB-20

TE would like to inform you of the following change(s) to the listed TE Connectivity Product. In case of any further questions about this change(s), please contact your TE Connectivity Sales Engineer. Affected part, drawing and/or specification numbers are listed on the attached sheet(s).

**General Product Description:**

Shipping location change ONLY FOR NORTH AND SOUTH AMERICA CUSTOMERS

**Description of Changes**

For North and South America Customers Only: Shipping point will change from PADC (PA01) to NCDC (NC01).

**Reason for Changes:**

Product improvement.For North and South America Customers Only / Shipping Point Change. AMEND WITH PCNs P-20-018478, P-20-018479, P-20-018480

**Estimated Dates:**

Last Order Date (Obsolete Parts Only):

First Date To Ship (Changed Parts Only):

28-FEB-2020

Last Ship Date (Obsolete Parts Only):

Last Date for Mixed Shipments: (Changed Parts Only):

No Mixed Shipments

**Part Number(s) being Modified:**

Part Number	Part Discontinued per PCN	Customer Drawing	Alias Part Number(s)	Substitute Part Number	Substitute Alias Part Number(s)	Description Of Difference
<a href="#">1355717-1</a>	NO					
<a href="#">2141824-1</a>	NO					
<a href="#">928999-1</a>	NO		"0-0928999-1", "0-928999-1"			



# Product Change Notification

Current Date: 19-Feb-2020

## TE Connectivity

Product Change Notification: P-20-018478

PCN Date: 14-JAN-20

TE would like to inform you of the following change(s) to the listed TE Connectivity Product. In case of any further questions about this change(s), please contact your TE Connectivity Sales Engineer. Affected part, drawing and/or specification numbers are listed on the attached sheet(s).

**General Product Description:**

MQS SOCKET CONTACT

**Description of Changes**

Manufacturing location change. Following Part Numbers will be transferred from TE Connectivity Woert (D) to TE Connectivity Greensboro (USA): 1355717-1 2141824-1 928999-1

**Reason for Changes:**

Dear Customer, we hereby inform you about a transfer of tools and/or processes. The transfer follows a strict procedure, which fully maintains quality, ability to supply and form-fit-function of the concerned products. The new manufacturing location operates under a certified quality management system in accordance with standard automotive requirements. A TE-internal release test based on the relevant part specifications will be executed before delivery. Upon request, a PPAP Level 2 will be available if it concerns a transfer of a tool which produces a finished TE-product. A PPAP Level 1 will be available if it concerns a component of a TE-product, where the production location of the finished TE-product remains unchanged. If you require such a PPAP, please notify the responsible TE Sales Contact within 14 calendar days after receipt of this PCN

**Estimated Dates:**

<b>Last Order Date</b> (Obsolete Parts Only):	<b>First Date To Ship</b> (Changed Parts Only):
	01-MAY-2020
<b>Last Ship Date</b> (Obsolete Parts Only):	<b>Last Date for Mixed Shipments:</b> (Changed Parts Only):
	No Mixed Shipments

**Part Number(s) being Modified:**

Part Number	Part Discontinued per PCN	Customer Drawing	Alias Part Number(s)	Substitute Part Number	Substitute Alias Part Number(s)	Description Of Difference
<a href="#">1-1203004-7</a>	NO					
<a href="#">1-1203004-8</a>	NO					
<a href="#">1-1203322-1</a>	NO					
<a href="#">1-1203322-2</a>	NO					
<a href="#">1-1203322-3</a>	NO					
<a href="#">1-1203322-4</a>	NO					
<a href="#">1-1203322-8</a>	NO					
<a href="#">1-1299453-1</a>	NO					
<a href="#">1-1557871-1</a>	NO					
<a href="#">1-1557871-2</a>	NO					
<a href="#">1-1557871-3</a>	NO					
<a href="#">1-1957152-1</a>	NO					
<a href="#">1-2188254-4</a>	NO					
<a href="#">1-2188254-5</a>	NO					
<a href="#">1-2286869-0</a>	NO					
<a href="#">1-2286869-1</a>	NO					
<a href="#">1-2286869-3</a>	NO					
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<a href="#">1-2286870-0</a>	NO					
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<a href="#">1-2286870-8</a>	NO					
<a href="#">1-2320513-0</a>	NO					
<a href="#">1-2325246-1</a>	NO					
<a href="#">1-2350919-1</a>	NO					
<a href="#">1203003-1</a>	NO					
<a href="#">1203039-6</a>	NO					
<a href="#">1203039-8</a>	NO					
<a href="#">1203070-1</a>	NO					
<a href="#">1203070-2</a>	NO					
<a href="#">1203070-3</a>	NO					

Part Number	Part Discontinued per PCN	Customer Drawing	Alias Part Number(s)	Substitute Part Number	Substitute Alias Part Number(s)	Description Of Difference
<a href="#">1203071-1</a>	NO					
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<a href="#">1203956-1</a>	NO					



Part Number	Part Discontinued per PCN	Customer Drawing	Alias Part Number(s)	Substitute Part Number	Substitute Alias Part Number(s)	Description Of Difference
<a href="#">1203957-1</a>	NO					
<a href="#">1203963-1</a>	NO					
<a href="#">1203964-1</a>	NO					
<a href="#">1203967-1</a>	NO					
<a href="#">1203967-2</a>	NO					
<a href="#">1203968-1</a>	NO					
<a href="#">1203975-1</a>	NO					
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<a href="#">1295038-1</a>	NO					
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<a href="#">1296008-7</a>	NO					
<a href="#">1296011-2</a>	NO					

Part Number	Part Discontinued per PCN	Customer Drawing	Alias Part Number(s)	Substitute Part Number	Substitute Alias Part Number(s)	Description Of Difference
<a href="#">1296011-3</a>	NO					
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<a href="#">1296473-3</a>	NO					
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<a href="#">1296497-2</a>	NO					
<a href="#">1296497-3</a>	NO					
<a href="#">1296498-3</a>	NO					
<a href="#">1296498-4</a>	NO					
<a href="#">1296532-1</a>	NO					
<a href="#">1296532-2</a>	NO					
<a href="#">1296532-3</a>	NO					
<a href="#">1296533-2</a>	NO					
<a href="#">1296586-3</a>	NO					
<a href="#">1296587-3</a>	NO					
<a href="#">1296603-2</a>	NO					
<a href="#">1296665-2</a>	NO					
<a href="#">1296681-2</a>	NO					
<a href="#">1296903-1</a>	NO					
<a href="#">1296903-2</a>	NO					
<a href="#">1296905-1</a>	NO					
<a href="#">1296905-2</a>	NO					
<a href="#">1296909-1</a>	NO					
<a href="#">1296909-2</a>	NO					
<a href="#">1296909-3</a>	NO					
<a href="#">1296941-1</a>	NO					
<a href="#">1296977-1</a>	NO					
<a href="#">1296984-1</a>	NO					
<a href="#">1296984-2</a>	NO					
<a href="#">1296987-1</a>	NO					
<a href="#">1296988-1</a>	NO					
<a href="#">1296988-2</a>	NO					
<a href="#">1296990-1</a>	NO					
<a href="#">1296990-2</a>	NO					
<a href="#">1296994-1</a>	NO					
<a href="#">1296994-2</a>	NO					
<a href="#">1296995-1</a>	NO					
<a href="#">1296995-2</a>	NO					
<a href="#">1296998-1</a>	NO					
<a href="#">1296998-2</a>	NO					
<a href="#">1296999-1</a>	NO					

Part Number	Part Discontinued per PCN	Customer Drawing	Alias Part Number(s)	Substitute Part Number	Substitute Alias Part Number(s)	Description Of Difference
<a href="#">1296999-2</a>	NO					
<a href="#">1297002-1</a>	NO					
<a href="#">1297002-2</a>	NO					
<a href="#">1297003-1</a>	NO					
<a href="#">1297003-2</a>	NO					
<a href="#">1297006-1</a>	NO					
<a href="#">1297006-2</a>	NO					
<a href="#">1297007-1</a>	NO					
<a href="#">1297007-2</a>	NO					
<a href="#">1297010-1</a>	NO					
<a href="#">1297010-2</a>	NO					
<a href="#">1297013-1</a>	NO					
<a href="#">1297054-1</a>	NO					
<a href="#">1297054-2</a>	NO					
<a href="#">1297058-1</a>	NO					
<a href="#">1297058-2</a>	NO					
<a href="#">1297058-3</a>	NO					
<a href="#">1297061-1</a>	NO					
<a href="#">1297061-2</a>	NO					
<a href="#">1297061-3</a>	NO					
<a href="#">1297062-1</a>	NO					
<a href="#">1297062-2</a>	NO					
<a href="#">1297062-3</a>	NO					
<a href="#">1297063-1</a>	NO					
<a href="#">1297063-2</a>	NO					
<a href="#">1297068-1</a>	NO					
<a href="#">1297068-2</a>	NO					
<a href="#">1297069-1</a>	NO					
<a href="#">1297069-2</a>	NO					
<a href="#">1297128-1</a>	NO					
<a href="#">1297129-1</a>	NO					
<a href="#">1297130-1</a>	NO					
<a href="#">1297166-1</a>	NO					
<a href="#">1297166-2</a>	NO					
<a href="#">1297167-1</a>	NO					
<a href="#">1297170-1</a>	NO					
<a href="#">1297170-2</a>	NO					
<a href="#">1297171-1</a>	NO					
<a href="#">1297171-2</a>	NO					
<a href="#">1297172-1</a>	NO					
<a href="#">1297173-1</a>	NO					
<a href="#">1297174-1</a>	NO					
<a href="#">1297214-1</a>	NO					
<a href="#">1297218-1</a>	NO					
<a href="#">1297219-1</a>	NO					
<a href="#">1297220-1</a>	NO					
<a href="#">1297224-1</a>	NO					
<a href="#">1297239-1</a>	NO					
<a href="#">1297253-1</a>	NO					
<a href="#">1297253-2</a>	NO					
<a href="#">1297278-1</a>	NO					
<a href="#">1297280-1</a>	NO					
<a href="#">1297281-1</a>	NO					
<a href="#">1297285-1</a>	NO					
<a href="#">1297289-1</a>	NO					
<a href="#">1297330-1</a>	NO					
<a href="#">1297359-1</a>	NO					
<a href="#">1297381-1</a>	NO					
<a href="#">1297493-1</a>	NO					
<a href="#">1297493-2</a>	NO					
<a href="#">1297494-1</a>	NO					
<a href="#">1297494-2</a>	NO					
<a href="#">1297494-3</a>	NO					
<a href="#">1297497-1</a>	NO					
<a href="#">1297497-2</a>	NO					

Part Number	Part Discontinued per PCN	Customer Drawing	Alias Part Number(s)	Substitute Part Number	Substitute Alias Part Number(s)	Description Of Difference
<a href="#">1297498-1</a>	NO					
<a href="#">1297498-2</a>	NO					
<a href="#">1297498-3</a>	NO					
<a href="#">1297500-1</a>	NO					
<a href="#">1297503-1</a>	NO					
<a href="#">1297503-2</a>	NO					
<a href="#">1297504-1</a>	NO					
<a href="#">1297504-2</a>	NO					
<a href="#">1297508-1</a>	NO					
<a href="#">1297508-2</a>	NO					
<a href="#">1297510-1</a>	NO					
<a href="#">1297575-1</a>	NO					
<a href="#">1297576-1</a>	NO					
<a href="#">1297579-1</a>	NO					
<a href="#">1297582-1</a>	NO					
<a href="#">1297582-2</a>	NO					
<a href="#">1297583-1</a>	NO					
<a href="#">1297586-1</a>	NO					
<a href="#">1297587-1</a>	NO					
<a href="#">1297587-2</a>	NO					
<a href="#">1297657-1</a>	NO					
<a href="#">1297657-2</a>	NO					
<a href="#">1297660-1</a>	NO					
<a href="#">1297661-1</a>	NO					
<a href="#">1297661-2</a>	NO					
<a href="#">1297705-1</a>	NO					
<a href="#">1297706-1</a>	NO					
<a href="#">1297729-1</a>	NO					
<a href="#">1297732-1</a>	NO					
<a href="#">1297815-1</a>	NO					
<a href="#">1297829-1</a>	NO					
<a href="#">1297934-1</a>	NO					
<a href="#">1297935-1</a>	NO					
<a href="#">1297945-2</a>	NO					
<a href="#">1297946-1</a>	NO					
<a href="#">1297946-2</a>	NO					
<a href="#">1297953-1</a>	NO					
<a href="#">1297956-1</a>	NO					
<a href="#">1297956-2</a>	NO					
<a href="#">1297956-3</a>	NO					
<a href="#">1297956-4</a>	NO					
<a href="#">1297964-1</a>	NO					
<a href="#">1297964-2</a>	NO					
<a href="#">1297964-3</a>	NO					
<a href="#">1297964-4</a>	NO					
<a href="#">1297967-1</a>	NO					
<a href="#">1297968-1</a>	NO					
<a href="#">1297968-2</a>	NO					
<a href="#">1297968-3</a>	NO					
<a href="#">1297968-4</a>	NO					
<a href="#">1298030-1</a>	NO					
<a href="#">1298045-1</a>	NO					
<a href="#">1298050-1</a>	NO					
<a href="#">1298055-1</a>	NO					
<a href="#">1298055-2</a>	NO					
<a href="#">1298055-3</a>	NO					
<a href="#">1298059-1</a>	NO					
<a href="#">1298060-1</a>	NO					
<a href="#">1298060-2</a>	NO					
<a href="#">1298060-3</a>	NO					
<a href="#">1298063-1</a>	NO					
<a href="#">1298064-1</a>	NO					
<a href="#">1298064-2</a>	NO					
<a href="#">1298064-3</a>	NO					
<a href="#">1298065-1</a>	NO					

Part Number	Part Discontinued per PCN	Customer Drawing	Alias Part Number(s)	Substitute Part Number	Substitute Alias Part Number(s)	Description Of Difference
<a href="#">1298065-2</a>	NO					
<a href="#">1298065-3</a>	NO					
<a href="#">1298068-1</a>	NO					
<a href="#">1298069-1</a>	NO					
<a href="#">1298069-2</a>	NO					
<a href="#">1298069-3</a>	NO					
<a href="#">1298070-1</a>	NO					
<a href="#">1298070-2</a>	NO					
<a href="#">1298070-3</a>	NO					
<a href="#">1298071-1</a>	NO					
<a href="#">1298074-1</a>	NO					
<a href="#">1298074-2</a>	NO					
<a href="#">1298074-3</a>	NO					
<a href="#">1298075-1</a>	NO					
<a href="#">1298075-2</a>	NO					
<a href="#">1298075-3</a>	NO					
<a href="#">1298076-1</a>	NO					
<a href="#">1298076-2</a>	NO					
<a href="#">1298076-3</a>	NO					
<a href="#">1298096-1</a>	NO					
<a href="#">1298096-2</a>	NO					
<a href="#">1298096-3</a>	NO					
<a href="#">1298097-1</a>	NO					
<a href="#">1298097-2</a>	NO					
<a href="#">1298097-3</a>	NO					
<a href="#">1298102-1</a>	NO					
<a href="#">1298102-2</a>	NO					
<a href="#">1298102-3</a>	NO					
<a href="#">1298103-1</a>	NO					
<a href="#">1298103-2</a>	NO					
<a href="#">1298103-3</a>	NO					
<a href="#">1298106-1</a>	NO					
<a href="#">1298106-2</a>	NO					
<a href="#">1298106-3</a>	NO					
<a href="#">1298107-1</a>	NO					
<a href="#">1298107-2</a>	NO					
<a href="#">1298107-3</a>	NO					
<a href="#">1298111-1</a>	NO					
<a href="#">1298111-2</a>	NO					
<a href="#">1298111-3</a>	NO					
<a href="#">1298115-1</a>	NO					
<a href="#">1298115-2</a>	NO					
<a href="#">1298115-3</a>	NO					
<a href="#">1298119-1</a>	NO					
<a href="#">1298119-2</a>	NO					
<a href="#">1298122-1</a>	NO					
<a href="#">1298122-2</a>	NO					
<a href="#">1298122-3</a>	NO					
<a href="#">1298123-1</a>	NO					
<a href="#">1298123-2</a>	NO					
<a href="#">1298123-3</a>	NO					
<a href="#">1298126-1</a>	NO					
<a href="#">1298126-2</a>	NO					
<a href="#">1298127-1</a>	NO					
<a href="#">1298127-2</a>	NO					
<a href="#">1298304-1</a>	NO					
<a href="#">1298305-1</a>	NO					
<a href="#">1298305-2</a>	NO					
<a href="#">1298306-1</a>	NO					
<a href="#">1298309-1</a>	NO					
<a href="#">1298309-2</a>	NO					
<a href="#">1298309-3</a>	NO					
<a href="#">1298310-1</a>	NO					
<a href="#">1298313-1</a>	NO					
<a href="#">1298313-2</a>	NO					

Part Number	Part Discontinued per PCN	Customer Drawing	Alias Part Number(s)	Substitute Part Number	Substitute Alias Part Number(s)	Description Of Difference
<a href="#">1298314-1</a>	NO					
<a href="#">1298314-2</a>	NO					
<a href="#">1298409-1</a>	NO					
<a href="#">1298410-1</a>	NO					
<a href="#">1298413-1</a>	NO					
<a href="#">1298415-1</a>	NO					
<a href="#">1298418-1</a>	NO					
<a href="#">1298418-2</a>	NO					
<a href="#">1298418-3</a>	NO					
<a href="#">1298419-1</a>	NO					
<a href="#">1298419-2</a>	NO					
<a href="#">1298419-3</a>	NO					
<a href="#">1298421-1</a>	NO					
<a href="#">1298421-2</a>	NO					
<a href="#">1298421-3</a>	NO					
<a href="#">1298424-1</a>	NO					
<a href="#">1298424-2</a>	NO					
<a href="#">1298424-3</a>	NO					
<a href="#">1298446-1</a>	NO					
<a href="#">1298447-1</a>	NO					
<a href="#">1298452-1</a>	NO					
<a href="#">1298522-1</a>	NO					
<a href="#">1298522-2</a>	NO					
<a href="#">1298522-3</a>	NO					
<a href="#">1298522-4</a>	NO					
<a href="#">1298538-1</a>	NO					
<a href="#">1298538-2</a>	NO					
<a href="#">1298538-3</a>	NO					
<a href="#">1298538-4</a>	NO					
<a href="#">1298541-1</a>	NO					
<a href="#">1298541-2</a>	NO					
<a href="#">1298541-3</a>	NO					
<a href="#">1298541-4</a>	NO					
<a href="#">1298590-1</a>	NO					
<a href="#">1298598-1</a>	NO					
<a href="#">1298598-2</a>	NO					
<a href="#">1298598-3</a>	NO					
<a href="#">1298598-4</a>	NO					
<a href="#">1298600-1</a>	NO					
<a href="#">1298603-1</a>	NO					
<a href="#">1298603-2</a>	NO					
<a href="#">1298654-1</a>	NO					
<a href="#">1298658-1</a>	NO					
<a href="#">1298658-2</a>	NO					
<a href="#">1298668-1</a>	NO					
<a href="#">1298669-1</a>	NO					
<a href="#">1298694-1</a>	NO					
<a href="#">1298703-1</a>	NO					
<a href="#">1298708-1</a>	NO					
<a href="#">1298710-1</a>	NO					
<a href="#">1298711-1</a>	NO					
<a href="#">1298714-1</a>	NO					
<a href="#">1298715-1</a>	NO					
<a href="#">1298718-1</a>	NO					
<a href="#">1298719-1</a>	NO					
<a href="#">1298720-1</a>	NO					
<a href="#">1298770-1</a>	NO					
<a href="#">1298773-1</a>	NO					
<a href="#">1298774-1</a>	NO					
<a href="#">1298777-1</a>	NO					
<a href="#">1298778-1</a>	NO					
<a href="#">1298779-1</a>	NO					
<a href="#">1298780-1</a>	NO					
<a href="#">1298781-1</a>	NO					
<a href="#">1298784-1</a>	NO					

Part Number	Part Discontinued per PCN	Customer Drawing	Alias Part Number(s)	Substitute Part Number	Substitute Alias Part Number(s)	Description Of Difference
<a href="#">1298785-1</a>	NO					
<a href="#">1298788-1</a>	NO					
<a href="#">1298790-1</a>	NO					
<a href="#">1298794-1</a>	NO					
<a href="#">1298797-1</a>	NO					
<a href="#">1298798-1</a>	NO					
<a href="#">1298800-1</a>	NO					
<a href="#">1298968-1</a>	NO					
<a href="#">1298973-1</a>	NO					
<a href="#">1298973-2</a>	NO					
<a href="#">1298973-3</a>	NO					
<a href="#">1298979-1</a>	NO					
<a href="#">1298979-2</a>	NO					
<a href="#">1299003-1</a>	NO					
<a href="#">1299006-1</a>	NO					
<a href="#">1299007-1</a>	NO					
<a href="#">1299008-1</a>	NO					
<a href="#">1299009-1</a>	NO					
<a href="#">1299010-1</a>	NO					
<a href="#">1299013-1</a>	NO					
<a href="#">1299014-1</a>	NO					
<a href="#">1299017-1</a>	NO					
<a href="#">1299018-1</a>	NO					
<a href="#">1299021-1</a>	NO					
<a href="#">1299031-1</a>	NO					
<a href="#">1299036-1</a>	NO					
<a href="#">1299040-1</a>	NO					
<a href="#">1299054-1</a>	NO					
<a href="#">1299055-1</a>	NO					
<a href="#">1299056-1</a>	NO					
<a href="#">1299117-1</a>	NO					
<a href="#">1299118-1</a>	NO					
<a href="#">1299123-1</a>	NO					
<a href="#">1299126-1</a>	NO					
<a href="#">1299133-1</a>	NO					
<a href="#">1299134-1</a>	NO					
<a href="#">1299137-1</a>	NO					
<a href="#">1299138-1</a>	NO					
<a href="#">1299140-1</a>	NO					
<a href="#">1299144-1</a>	NO					
<a href="#">1299145-1</a>	NO					
<a href="#">1299155-1</a>	NO					
<a href="#">1299156-1</a>	NO					
<a href="#">1299172-1</a>	NO					
<a href="#">1299182-1</a>	NO					
<a href="#">1299186-1</a>	NO					
<a href="#">1299214-1</a>	NO					
<a href="#">1299217-1</a>	NO					
<a href="#">1299229-1</a>	NO					
<a href="#">1299238-1</a>	NO					
<a href="#">1299248-1</a>	NO					
<a href="#">1299249-1</a>	NO					
<a href="#">1299253-1</a>	NO					
<a href="#">1299254-1</a>	NO					
<a href="#">1299264-1</a>	NO					
<a href="#">1299265-1</a>	NO					
<a href="#">1299268-1</a>	NO					
<a href="#">1299281-1</a>	NO					
<a href="#">1299281-2</a>	NO					
<a href="#">1299282-1</a>	NO					
<a href="#">1299282-2</a>	NO					
<a href="#">1299306-1</a>	NO					
<a href="#">1299306-2</a>	NO					
<a href="#">1299317-1</a>	NO					
<a href="#">1299317-2</a>	NO					

Part Number	Part Discontinued per PCN	Customer Drawing	Alias Part Number(s)	Substitute Part Number	Substitute Alias Part Number(s)	Description Of Difference
<a href="#">1299318-1</a>	NO					
<a href="#">1299318-2</a>	NO					
<a href="#">1299358-4</a>	NO					
<a href="#">1299358-5</a>	NO					
<a href="#">1299428-1</a>	NO					
<a href="#">1355717-1</a>	NO					
<a href="#">1355718-1</a>	NO					
<a href="#">1437280-5</a>	NO		"2450161-007"			
<a href="#">1475178-1</a>	NO					
<a href="#">1475178-2</a>	NO					
<a href="#">1475178-5</a>	NO					
<a href="#">1475178-8</a>	NO					
<a href="#">1475179-1</a>	NO					
<a href="#">1475179-2</a>	NO					
<a href="#">1475179-5</a>	NO					
<a href="#">1475179-8</a>	NO					
<a href="#">1475290-1</a>	NO					
<a href="#">1475462-4</a>	NO					
<a href="#">1557061-1</a>	NO					
<a href="#">1557121-1</a>	NO					
<a href="#">1557128-2</a>	NO					
<a href="#">1557129-2</a>	NO					
<a href="#">1557162-1</a>	NO					
<a href="#">1557328-1</a>	NO					
<a href="#">1557328-2</a>	NO					
<a href="#">1557328-3</a>	NO					
<a href="#">1557328-4</a>	NO					
<a href="#">1557454-1</a>	NO					
<a href="#">1557456-1</a>	NO					
<a href="#">1557544-1</a>	NO					
<a href="#">1557746-1</a>	NO					
<a href="#">1557746-2</a>	NO					
<a href="#">1557818-1</a>	NO					
<a href="#">1557918-1</a>	NO					
<a href="#">1557918-2</a>	NO					
<a href="#">1557918-3</a>	NO					
<a href="#">1563174-1</a>	NO					
<a href="#">1563368-1</a>	NO					
<a href="#">1563368-2</a>	NO					
<a href="#">1563506-1</a>	NO					
<a href="#">1563506-2</a>	NO					
<a href="#">1563640-1</a>	NO					
<a href="#">1563640-2</a>	NO					
<a href="#">1563640-3</a>	NO					
<a href="#">1563640-4</a>	NO					
<a href="#">1563700-1</a>	NO					
<a href="#">1563701-1</a>	NO					
<a href="#">1564334-1</a>	NO					
<a href="#">1564334-2</a>	NO					
<a href="#">1564439-1</a>	NO					
<a href="#">1564497-1</a>	NO					
<a href="#">1564908-1</a>	NO					
<a href="#">1564910-1</a>	NO					
<a href="#">1569562-1</a>	NO					
<a href="#">1670044-1</a>	NO					
<a href="#">1670227-1</a>	NO					
<a href="#">1670524-1</a>	NO					
<a href="#">1670524-2</a>	NO					
<a href="#">1670566-1</a>	NO					
<a href="#">1670777-1</a>	NO					
<a href="#">1670778-1</a>	NO					
<a href="#">1670779-1</a>	NO					
<a href="#">1703552-1</a>	NO					
<a href="#">1719131-1</a>	NO					
<a href="#">1719373-1</a>	NO					



Part Number	Part Discontinued per PCN	Customer Drawing	Alias Part Number(s)	Substitute Part Number	Substitute Alias Part Number(s)	Description Of Difference
<a href="#">1719374-1</a>	NO					
<a href="#">1719996-1</a>	NO					
<a href="#">1719996-9</a>	NO					
<a href="#">1719997-1</a>	NO					
<a href="#">1719997-9</a>	NO					
<a href="#">1801086-1</a>	NO					
<a href="#">1801319-1</a>	NO					
<a href="#">1813361-1</a>	NO					
<a href="#">1813429-1</a>	NO					
<a href="#">1813467-1</a>	NO					
<a href="#">1813571-1</a>	NO					
<a href="#">1823328-1</a>	NO					
<a href="#">1823454-1</a>	NO					
<a href="#">1823455-1</a>	NO					
<a href="#">1823648-4</a>	NO					
<a href="#">1823844-1</a>	NO					
<a href="#">1823906-1</a>	NO					
<a href="#">1832001-5</a>	NO					
<a href="#">1832129-2</a>	NO					
<a href="#">1832452-2</a>	NO					
<a href="#">1832453-1</a>	NO					
<a href="#">1832712-3</a>	NO					
<a href="#">1832817-1</a>	NO					
<a href="#">1939486-1</a>	NO					
<a href="#">1952007-1</a>	NO					
<a href="#">1952007-2</a>	NO					
<a href="#">1952044-2</a>	NO					
<a href="#">1957102-1</a>	NO					
<a href="#">1957102-2</a>	NO					
<a href="#">1957102-6</a>	NO					
<a href="#">1957109-6</a>	NO					
<a href="#">1957152-3</a>	NO					
<a href="#">1997828-1</a>	NO					
<a href="#">2-1203034-9</a>	NO					
<a href="#">2-2151493-1</a>	NO					
<a href="#">2-2151541-1</a>	NO					
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<a href="#">2066844-2</a>	NO					
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Part Number	Part Discontinued per PCN	Customer Drawing	Alias Part Number(s)	Substitute Part Number	Substitute Alias Part Number(s)	Description Of Difference
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<a href="#">2151493-1</a>	NO					
<a href="#">2151493-2</a>	NO					
<a href="#">2151493-5</a>	NO					
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<a href="#">2177051-1</a>	NO					
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<a href="#">2265046-1</a>	NO					
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<a href="#">2286561-1</a>	NO					
<a href="#">2286596-1</a>	NO					
<a href="#">2286602-1</a>	NO					
<a href="#">2286862-1</a>	NO					
<a href="#">2286863-1</a>	NO					
<a href="#">2288911-1</a>	NO					
<a href="#">2289605-1</a>	NO					
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<a href="#">2296161-1</a>	NO					
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<a href="#">2296165-1</a>	NO					
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Part Number	Part Discontinued per PCN	Customer Drawing	Alias Part Number(s)	Substitute Part Number	Substitute Alias Part Number(s)	Description Of Difference
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<a href="#">2305384-1</a>	NO					
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<a href="#">2311420-1</a>	NO					
<a href="#">2311562-1</a>	NO					
<a href="#">2311562-2</a>	NO					
<a href="#">2311565-1</a>	NO					
<a href="#">2311566-1</a>	NO					
<a href="#">2312551-1</a>	NO					
<a href="#">2315026-2</a>	NO					
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<a href="#">3-2327926-1</a>	NO					
<a href="#">3-2351893-1</a>	NO					
<a href="#">3-2354113-1</a>	NO					
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<a href="#">3-2360463-1</a>	NO					
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<a href="#">960443-1</a>	NO					
<a href="#">960454-1</a>	NO					



## **Section 3**

# **Customer Engineering Approval**



**Not Applicable**





# Section 4

## Design FMEA

**See Section A for nondisclosure conditions.  
The Design FMEA, if included, is a Class II confidential document  
belonging to TE Connectivity. A class II document may not be  
further distributed and is subject to the conditions of the  
nondisclosure agreement.**



## **Section 5**

# **Process Flow Diagram**

**See Section A for nondisclosure conditions.**

**The Process Flow Diagram, if included, is a Class II confidential document belonging to TE Connectivity. A class II document may not be further distributed and is subject to the conditions of the nondisclosure agreement.**



## **Section 6**

# **Process FMEA**

**See Section A for nondisclosure conditions.**

**The Process FMEA, if included, is a Class II confidential document belonging to TE Connectivity. A class II document may not be further distributed and is subject to the conditions of the nondisclosure agreement.**



# Section 7

# Control Plan

**See Section A for nondisclosure conditions.  
The Control Plan, if included, is a Class II confidential document  
belonging to TE Connectivity. A class II document may not be  
further distributed and is subject to the conditions of the  
nondisclosure agreement.**



## **Section 8**

# **Measurement System Analysis**

**Gage R&R Study - ANOVA Method**

Misc:

**Two-Way ANOVA Table With Interaction**

Source	DF	SS	MS	F	P
Parts	9	15343.8	1704.87	5568.32	0.000
Operators	2	0.3	0.13	0.44	0.654
Parts * Operators	18	5.5	0.31	0.84	0.653
Repeatability	60	22.0	0.37		
Total	89	15371.6			

 $\alpha$  to remove interaction term = 0.05**Two-Way ANOVA Table Without Interaction**

Source	DF	SS	MS	F	P
Parts	9	15343.8	1704.87	4833.68	0.000
Operators	2	0.3	0.13	0.38	0.686
Repeatability	78	27.5	0.35		
Total	89	15371.6			

**Gage R&R****Variance Components**

Source	VarComp	95% CI	%Contribution (of VarComp)	95% CI
Total Gage R&R	0.353	(0.267, 0.573)	0.19	(0.05, 0.40)
Repeatability	0.353	(0.264, 0.496)	0.19	(0.05, 0.42)
Reproducibility	0.000	(0.000, 0.171)	0.00	(0.00, 0.08)
Operators	0.000	(0.000, 0.171)	0.00	(0.00, 0.08)
Part-To-Part	189.391	(89.583, 631.302)	99.81	(99.60, 99.95)
Total Variation	189.743	(89.936, 631.656)	100.00	

Process tolerance = 50

**Gage Evaluation**

Source	StdDev (SD)	95% CI	Study Var (6 × SD)	95% CI	%Study Var (%SV)
Total Gage R&R	0.5939	(0.516, 0.757)	3.5633	(3.098, 4.541)	4.31
Repeatability	0.5939	(0.514, 0.704)	3.5633	(3.081, 4.226)	4.31
Reproducibility	0.0000	(0.000, 0.413)	0.0000	(0.000, 2.479)	0.00
Operators	0.0000	(0.000, 0.413)	0.0000	(0.000, 2.479)	0.00
Part-To-Part	13.7619	(9.465, 25.126)	82.5716	(56.789, 150.754)	99.91
Total Variation	13.7747	(9.483, 25.133)	82.6484	(56.901, 150.797)	100.00

Source	95% CI	%Tolerance (SV/Toler)	95% CI
Total Gage R&R	(2.31, 6.35)	7.13	(6.20, 9.08)
Repeatability	(2.33, 6.51)	7.13	(6.16, 8.45)
Reproducibility	(0.48, 2.92)	0.00	(0.00, 4.96)
Operators	(0.48, 2.92)	0.00	(0.00, 4.96)
Part-To-Part	(99.80, 99.97)	165.14	(113.58, 301.51)
Total Variation		165.30	(113.80, 301.59)

Number of Distinct Categories = 32

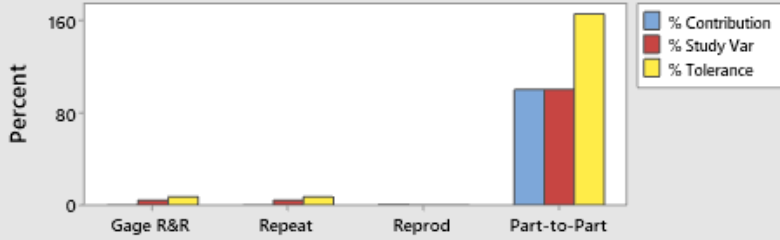
95% CI = (22.2281, 61.2551)

# Camber MSA

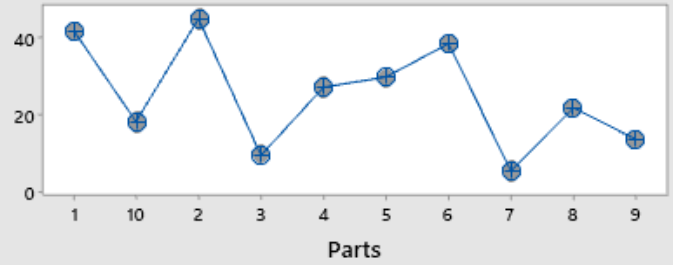
Gage name: Camber  
 Date of study: May 21, 2019

Reported by: Ituriel Rodriguez  
 Tolerance: 0-50 mm  
 Misc:

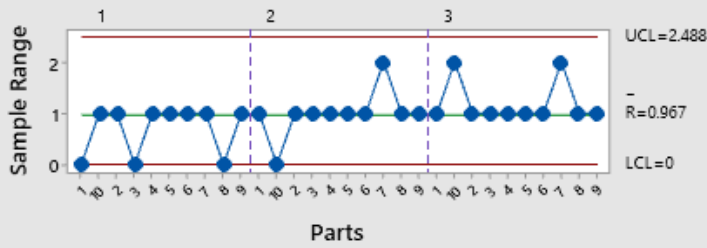
Components of Variation



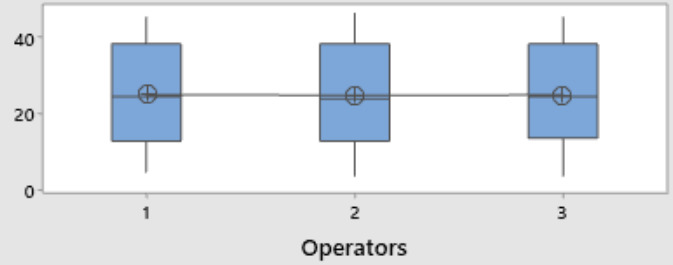
Measurement by Parts



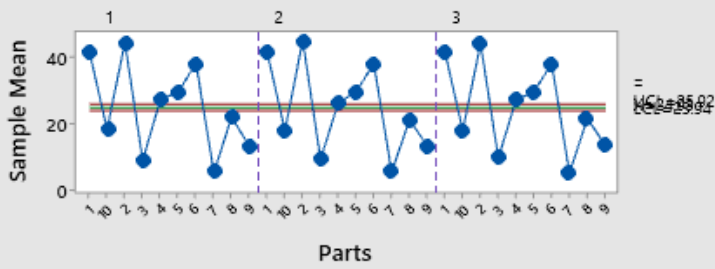
R Chart by Operators



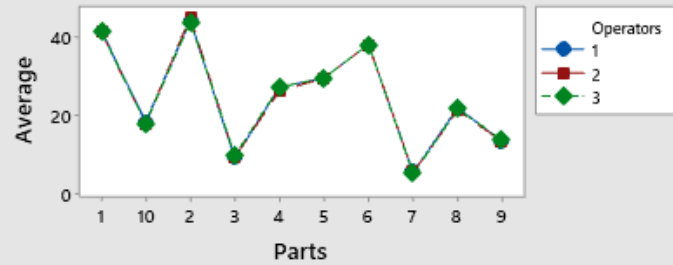
Measurement by Operators



Xbar Chart by Operators

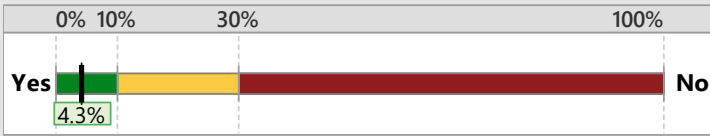


Parts \* Operators Interaction



# Gage R&R Study for Measurement Summary Report

Can you adequately assess process performance?



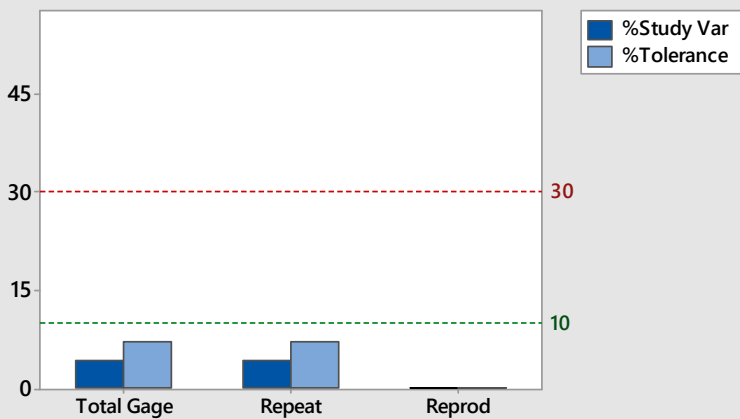
The measurement system variation equals 4.3% of the process variation. The process variation is estimated from the parts in the study.

Can you sort good parts from bad?



The measurement system variation equals 7.1% of the tolerance.

Variation by Source



## Study Information

Number of parts in study	10
Number of operators in study	3
Number of replicates	3

(Replicates: Number of times each operator measured each part)

## Comments

General rules used to determine the capability of the system:

- < 10%: acceptable
- 10% - 30%: marginal
- > 30%: unacceptable

Examine the bar chart showing the sources of variation. If the total gage variation is unacceptable, look at repeatability and reproducibility to guide improvements:

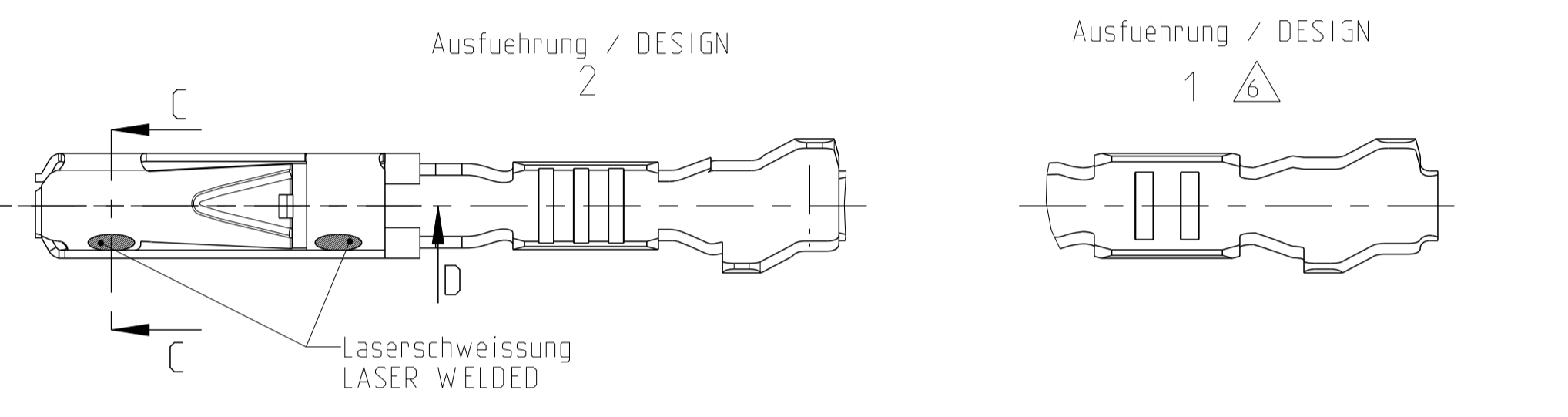
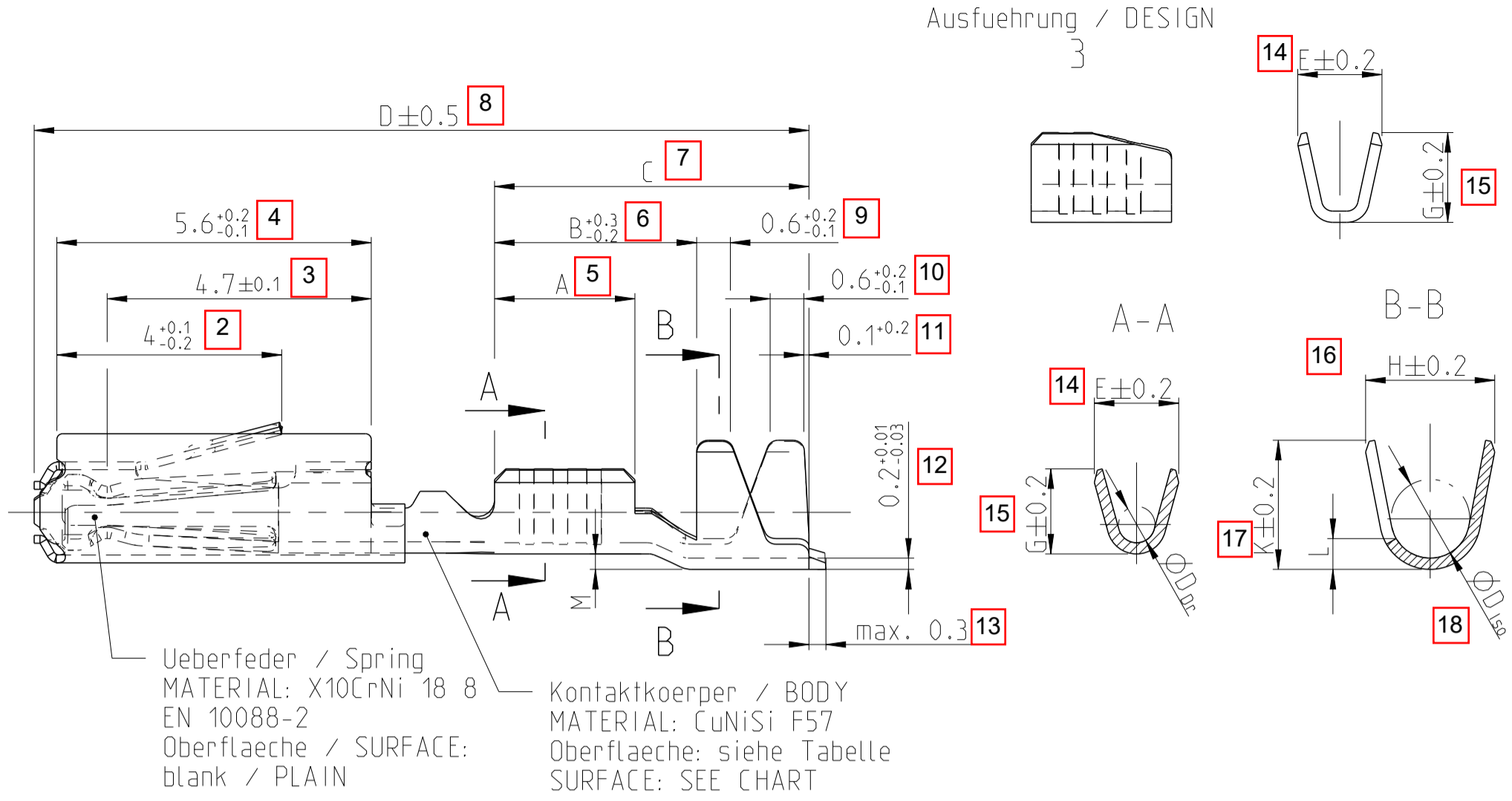
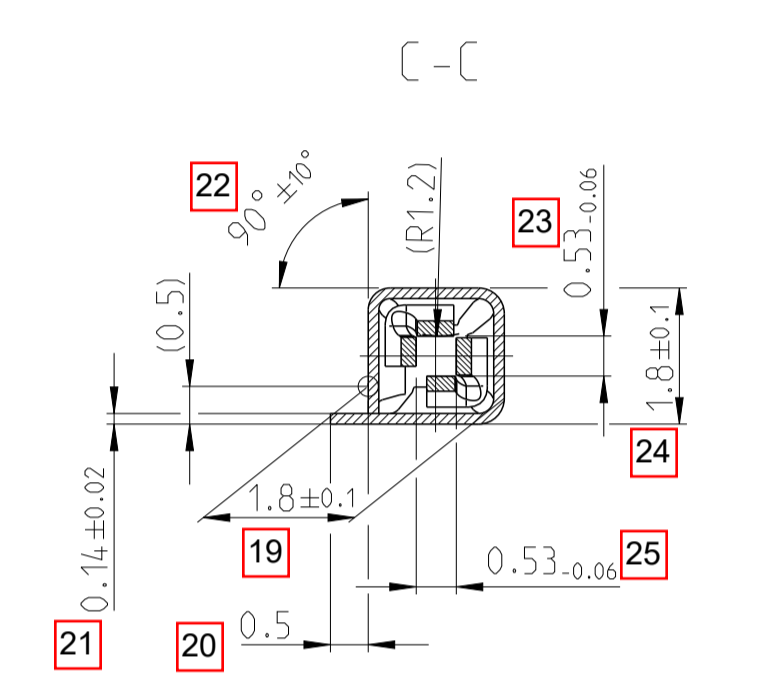
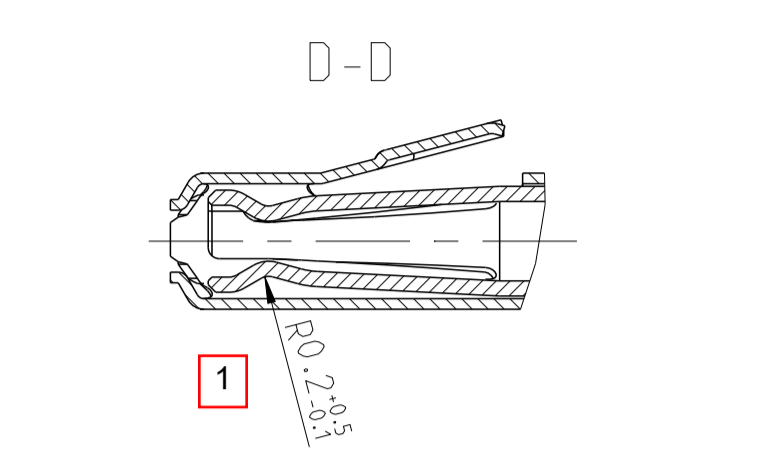
- Test-Retest component (Repeatability): The variation that occurs when the same person measures the same item multiple times. This equals 100.0% of the measurement variation and is 4.3% of the total variation in the process.
- Operator component (Reproducibility): The variation that occurs when different people measure the same item. This equals 0.0% of the measurement variation and is 0.0% of the total variation in the process.



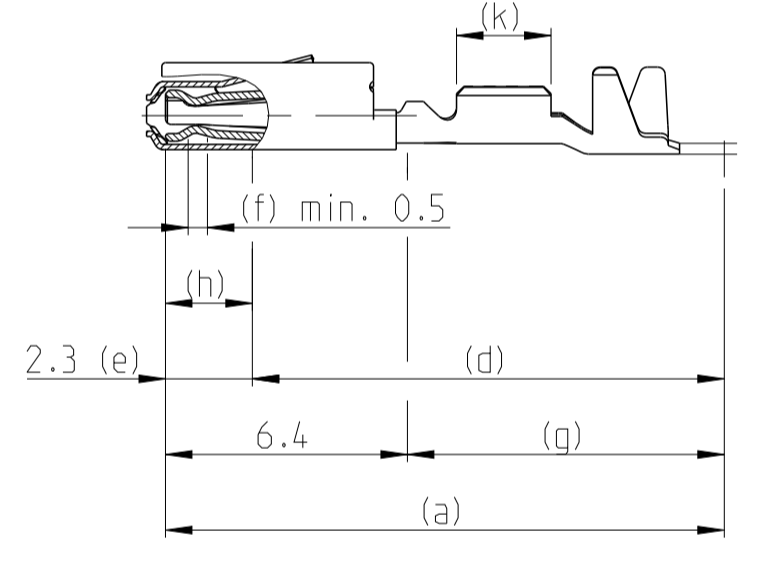
# Section 9

# Dimensional Results

# Normale Anwendung USUAL APPLICATION



# Oberflaeche / FINISH

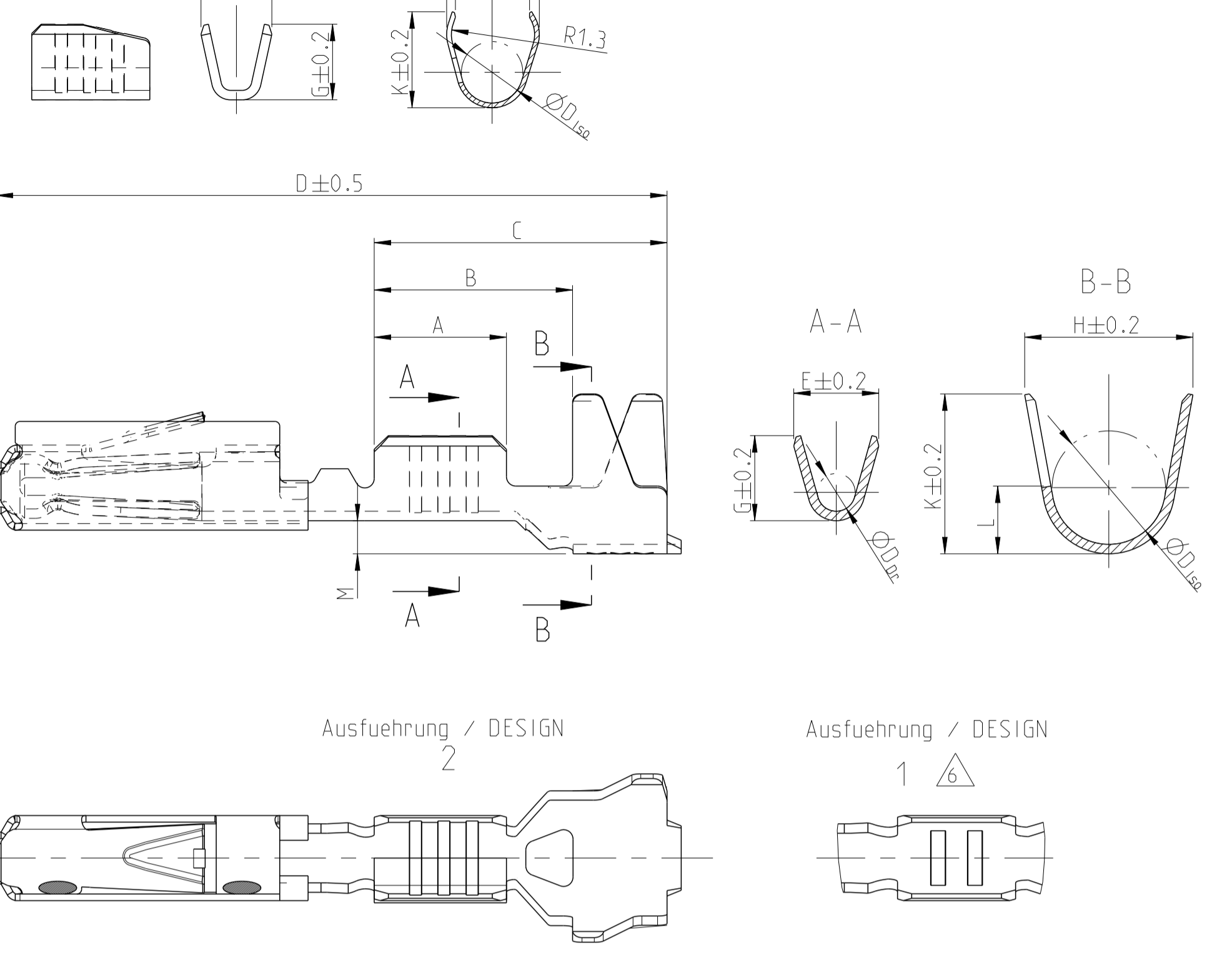


Sn: verzinnete Ausfuehrung  
TINNED  
(a) Kontaktkoerper: 0.8 - 2 µm Sn  
BODY: 0.8 - 2 µm Sn

Ag: versilbert  
SILVER  
(e) min. 0.3 µm Ag  
(f) min. 2.8 µm Ag INSIDE  
min. 2.8 µm Ag innen  
(g) min. 0.2 µm Sn  
(k) min. 0.8 - 2 µm Sn

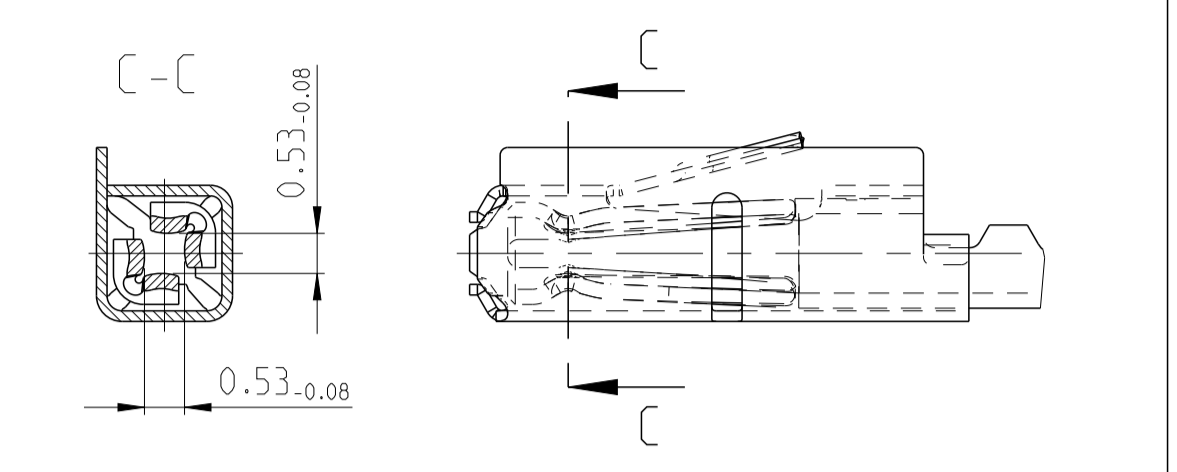
Au (galvanisch): galvanisch vergoldet  
GOLD-ELECTROPLATED  
(d) 0.05-1 µm Ni, beidseitig  
0.05-1 µm Ni, ON BOTH SIDES  
(e) 1-3 µm Ni, beidseitig  
1-3 µm Ni, ON BOTH SIDES  
(f) min. 1.8 µm Au ueber (e), innen  
MIN. 1.8 µm Au OVER (e), INSIDE  
(g) min. 0.2 µm Sn ueber (d), beidseitig  
MIN. 0.2 µm Sn OVER (d), ON BOTH SIDES  
(h) Au galvanisch auslaufend  
Au OVERPLATING  
(k) min. 0.8 - 2.0 µm Sn

# Einzeldichtungssystem SINGLE WIRE SEAL SYSTEM

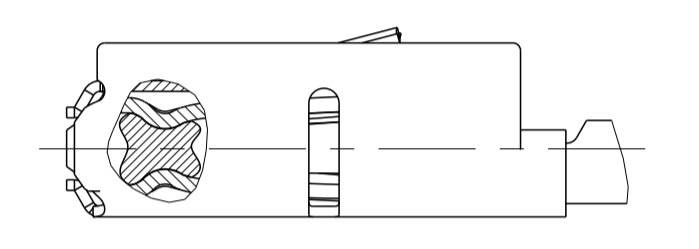


REV	DATE	BY	CHK	DESCRIPTION
C21	09JAN2019	MAH. BRUN		NOTE 7 moved to right position 0.13/0.17
C22	10JAN2019	MAH. BERG		Tolerance changed to +/-0.1; surface corrected
C23	30APR2019	FRAN. BERG		Definition of measurement point f. contact height
C24	09DEC2019	MAH. BERG		See PLN E-19-011079

# versilberte/vergoldete Ausfuehrung SILVER/GOLD VERSION



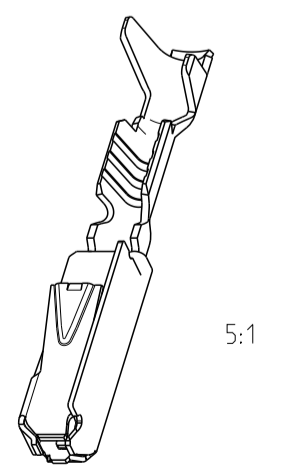
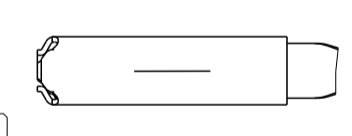
# GEL VERSION



### Bemerkungen

- Datumscode (Woche/Jahr z.B. KW 38/Jahr2009) und TE-Revision (z.B. Rev.A) DATE CODE (WEEK/YEAR E.G. WEEK NUMBER 38/YEAR2009) AND TE REVISION (E.G. REV. A)
- Passend zu Stiftkontakt siehe Zeichnung 929453 SUITABLE FOR PIN CONTACT SEE DRAWING 929453
- Einzelheiten der Ausfuehrung bleiben dem Hersteller ueberlassen DETAILS OF DESIGN ARE LEFT TO MANUFACTURER
- Nur fuer FLR-Leitung nach DIN 72551 Teil 6 FOR FLR-CONDUCTOR ACCORDING TO DIN 72551-6 ONLY
- nicht fuer Neuanwendung NOT FOR NEW APPLICATION
- zugverstaerkte Leitung nach LV 112-4 REINFORCED WIRE ACCORDING LV 112-4
- Bei doppelt fallenden Werkzeugen wird die erste Ueberfeder mit einer Kennzeichnung "-" versehen WITH DOUBLE OUT DIES THE FIRST SPRING WILL BE PROVIDED WITH AN INDICATION "-"
- Varianten von Design1 werden durch die entsprechenden Versionen von Design2 ersetzt VARIANTS OF DESIGN1 ARE SUPERSEDED BY CORRESPONDING VERSIONS OF DESIGN2

Bestell-Nr. Ausfuehrung ORDER NO. DESIGN	Bestell-Nr. Ausfuehrung ORDER NO. DESIGN	Rev.	Bestell-Nr. Ausfuehrung ORDER NO. DESIGN	Rev.	VERSION	DGB Wire Size Range mm <sup>2</sup>	Oberflaeche SURFACE	Laenge LENGTH mm	Drahtcrimp WIRE CRIMP mm	Iso-crimp INSU-CRIMP mm	Gewicht WEIGHT g	Vergaerung Spez. APPLICATION SPEC.	DGB Wire Size Range mm <sup>2</sup>	Isolations Ø INSULATIN DIA. mm	fuer Kammer Ø3.45 FOR CAVITY DIA. 3.45 mm	Blindstopfen RUBBER PLUG	fuer Kammer Ø4 FOR CAVITY DIA. 4 mm	Blindstopfen RUBBER PLUG	zugehoerige Einzeldichtung / SUITABLE SINGLE WIRE SEAL
6-965906-5	E		1-965906-5	D	Einzeldichtungssystem SINGLE WIRE SEAL SYSTEM	0.50-0.75	Au-Gel	A = 2.8 B = 4.2 C = 6.2 D = 14.3 M = 0.7	E = 2 G = 2.1 D <sub>Dr</sub> = 1	H = 3.5 K = 3.4 L = 1.5 D <sub>ISO</sub> = 2.4	0.13	114-18025	0.75	1.4-1.9	967067-1 gruen GREEN	967056-1 blau / BLUE	963142-1 schwarz BLACK	967056-1 blau / BLUE	
5-965906-6	D		965906-6	C		0.25-0.35	Ag	A = 2.5 B = 3.9 C = 5.9 D = 14 M = 0.7	E = 1.8 G = 1.8 D <sub>Dr</sub> = 0.8	H = 3.5 K = 3.4 L = 1.5 D <sub>ISO</sub> = 2.4	0.13		0.35	0.9-1.4	967067-2 gelb YELLOW		963142-2 grau GREY		
5-965906-5	E		965906-5	D		0.13 / 0.17	Au	A = 2.5 B = 4.3 C = 6.2 D = 13.7 M = 0.6	E = 1.5 G = 1.4	H = 4 K = 4.1 N = 3.1 D <sub>ISO</sub> = 2.6	0.1		0.13	0.85-1.25	967067-2 gelb YELLOW		963142-2 grau GREY		
5-965906-1	D		965906-1	C			Sn												
5-962885-6	J		962885-6	H	normale Anwendung USUAL APPLICATION	0.50-0.75	Au-Gel	A = 2.8 B = 3.8 C = 5.6 D = 13.7 M = 0.2	E = 2 G = 2.1 D <sub>Dr</sub> = 1	H = 2.7 K = 2.9 L = 0.7 D <sub>ISO</sub> = 1.6	0.11	114-18021							
5-962885-5	K		962885-5	J		0.25-0.35	Ag	A = 2.5 B = 3.6 C = 5.6 D = 13.7 M = 0.2	E = 1.8 G = 1.8 D <sub>Dr</sub> = 0.8	H = 2.3 K = 2.3 L = 0.6 D <sub>ISO</sub> = 1.4	0.11								
5-962885-1	J		962885-1	H		0.13 / 0.17	Au	A = 2.5 B = 3.7 C = 5.4 D = 13.7 M = 0	E = 1.5 G = 1.4	H = 2 K = 1.9 D <sub>ISO</sub> = 1.1	0.1								
2141826-6	A						Sn												
2141826-5	A																		
2141826-1	A																		
6-963715-5	K		1-963715-5	J	normale Anwendung USUAL APPLICATION	0.50-0.75	Au-Gel	A = 2.8 B = 3.8 C = 5.6 D = 13.7 M = 0.2	E = 2 G = 2.1 D <sub>Dr</sub> = 1	H = 2.7 K = 2.9 L = 0.7 D <sub>ISO</sub> = 1.6	0.11	114-18021							
5-963715-6	J		963715-6	H		0.25-0.35	Ag	A = 2.5 B = 3.6 C = 5.6 D = 13.7 M = 0.2	E = 1.8 G = 1.8 D <sub>Dr</sub> = 0.8	H = 2.3 K = 2.3 L = 0.6 D <sub>ISO</sub> = 1.4	0.11								
5-963715-5	K		963715-5	J		0.13 / 0.17	Au	A = 2.5 B = 3.7 C = 5.4 D = 13.7 M = 0	E = 1.5 G = 1.4	H = 2 K = 1.9 D <sub>ISO</sub> = 1.1	0.1								
5-963715-1	J		963715-1	H			Sn												
6-928999-5	T		1-928999-5	S	normale Anwendung USUAL APPLICATION	0.50-0.75	Au-Gel	A = 2.8 B = 3.8 C = 5.6 D = 13.7 M = 0.2	E = 2 G = 2.1 D <sub>Dr</sub> = 1	H = 2.7 K = 2.9 L = 0.7 D <sub>ISO</sub> = 1.6	0.11	114-18021							
5-928999-6	S		928999-6	R		0.25-0.35	Ag	A = 2.5 B = 3.6 C = 5.6 D = 13.7 M = 0.2	E = 1.8 G = 1.8 D <sub>Dr</sub> = 0.8	H = 2.3 K = 2.3 L = 0.6 D <sub>ISO</sub> = 1.4	0.11								
5-928999-5	T		928999-5	S		0.13 / 0.17	Au	A = 2.5 B = 3.7 C = 5.4 D = 13.7 M = 0	E = 1.5 G = 1.4	H = 2 K = 1.9 D <sub>ISO</sub> = 1.1	0.1								
5-928999-1	S		928999-1	R			Sn												
2141824-6	A																		
2141824-5	A																		
2141824-1	A																		
1355717-6	A																		
1355717-5	C																		
1355717-1	C																		



THIS DRAWING IS A CONTROLLED DOCUMENT.		OWN S. Garcia 05JAN1999	TE Connectivity	
DIMENSIONS: mm		CHK M. Jetter 05JAN1999		
TOLERANCES UNLESS OTHERWISE SPECIFIED:		APVD M. Bleicher 13AUG2003	NAME MQS	
		PRODUCT SPEC 108-18030	Tabellenzeichnung Buchsenkontakt TABLE SOCKET CONTACT	
MATERIAL: -		APPLICATION SPEC 114-18021 / 114-18025	SIZE A1	RESTRICTED TO -
FINISH: -		WEIGHT: -	CAGE CODE 00779	DRAWING NO. 929454
		CUSTOMER DRAWING	SCALE 10:1	SHEET 1 OF 1
				REV. C.24



## Production Part Approval Dimensional Test Results

ORGANIZATION: TE Connectivity SUPPLIER/VENDOR CODE: INSPECTION FACILITY: TE Connectivity - <input type="checkbox"/> Inston-Salem Dimensional Inspection 3900 Reidsville Rd. <input type="checkbox"/> Inston-Salem, NC 27101	PART NUMBER: 1355717-1 PART NAME: M□S0,63 Sn rec LL unseal. 0,08-0,22 DESIGN RECORD CHANGE LEVEL: C ENGINEERING CHANGE DOCUMENTS:
-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------

ITEM	DIM./SPEC	SPEC. / LIMITS		UNITS	DATE inspec	□TY. inspec	ORGANIZATIONAL MEASUREMENT RESULTS (DATA)	OK	NOT OK
		TOL □	TOL -						
1	0.2	0.50	0.10	mm	2/7/2020	1	0.17	✓	
2	4	0.10	0.20	mm	2/7/2020	1	4.01	✓	
3	4.7	0.10	0.10	mm	2/7/2020	1	4.63	✓	
4	5.6	0.20	0.10	mm	2/7/2020	1	5.64	✓	
5	2.5	0.20	0.20	mm	2/7/2020	1	2.50	✓	
6	3.7	0.30	0.20	mm	2/7/2020	1	3.75	✓	
7	5.4	0.20	0.20	mm	2/7/2020	1	5.49	✓	
8	13.7	0.50	0.50	mm	2/7/2020	1	13.72	✓	
9	0.60	0.20	0.10	mm	2/7/2020	1	0.61	✓	
10	0.60	0.2	0.10	mm	2/7/2020	1	0.60	✓	
11	0.10	0.2	0	mm	2/7/2020	1	0.11	✓	
12	0.20	0.01	0.03	mm	2/7/2020	1	0.20	✓	
13	MA□0.3	-	-	mm	2/7/2020	1	OK	✓	
14	1.50	0.2	0.2	mm	2/12/2020	1	1.46	✓	
15	1.50	0.2	0.2	mm	2/12/2020	1	1.47	✓	
16	2.00	0.2	0.2	mm	2/12/2020	1	1.95	✓	
17	2.00	0.2	0.2	mm	2/12/2020	1	2.03	✓	
18	1.10	0.2	0.2	mm	2/12/2020	1	1.15	✓	
19	1.80	0.1	0.1	mm	2/7/2020	1	1.80	✓	
20	0.50	0.20	0.20	mm	2/7/2020	1	0.50	✓	
21	0.14	0.02	0.02	mm	2/7/2020	1	0.14	✓	
22	90.00	10.00	10.00	degrees	2/7/2020	1	90.00	✓	
23	0.53	0.00	0.06	mm	2/7/2020	1	0.48	✓	
24	1.80	0.10	0.10	mm	2/7/2020	1	1.81	✓	
25	0.53	0.00	0.06	mm	2/7/2020	1	0.51	✓	

Blanket statement of conformance are unacceptable for any test results.

CFG-1003

<u>SIGNATURE</u> <i>Andrew Hjelt</i>	<u>TITLE</u> TE - Product Engineer	<u>DATE</u> 6/16/2020
-----------------------------------------	---------------------------------------	--------------------------



## **Section 10**

# **Material, Performance Test Results**

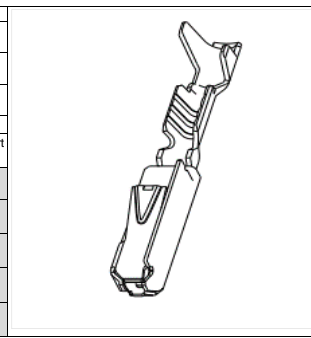
**GMW 3191 - Unsealed Terminal**

**Testing Purpose:** Tool Move Product Validation Plan  
**EWO Number:** N/A - TE NA Capacity Tool  
**Model Year:** N/A  
**First Using Program:** N/A

**Application:** MGS 0,63 Sn rec LL unseal. 0,5-0,75

**Notes:** This PV Plan is to validate the tool move from TE Connectivity's Woert, Germany manufacturing facility to its Pegg Rd manufacturing facility located in Greensboro, NC. This die produces the following part numbers: 5-928999-1, 1355717-1 and 2141824-1 (the only difference between the part numbers are the wire sizes they accept).

Customer Information			Supplier Information				
GM Connector Part Number(s) <b>N/A</b>			Connector Supplier Name: TE Connectivity				
			Supplier Part Number(s) 5-928999-1, 1355717-1 and 2141824-1				
Terminal Information							
Primary Terminal			Secondary Terminal				
GM Terminal Part Number	5-928999-1, 1355717-1 and 2141824-1	Terminal Supplier	Terminal Type	Terminal Part No	Terminal Supplier	Terminal Type	Terminal Part No
<b>Other Information</b>			TE Conn.	0.63	5-928999-1		
Wire Type		TE Conn.	0.63	1355717-1			
Tool Number	11-0020450	Tool Revision Number		2141824-1			
Tool Location	Pegg Rd Greensboro, North Carolina						



Connector Information			
Connector Type:	Sealed	Unsealed	X
Connector Size:	N/A - Terminal		
Part Description:	MGS 0,63 Sn rec LL unsealed		
Temperature Class:			
Vibration Class:			
Sealing Class:			
Connector Mating Force Class:	N/A		

**GM Approval**  
 Pretest:  
 Post Test:  
  
**GM CVE - 02APR20**

Test Item	Test Requirement	Acceptance Criteria	Minimum Sample Size	Sample Description		Test Number	Est. Test Start Date	Est. Test Completion Date	Test Results					Sample Description		Test Number	Test Start Date	Test Completion Date	Test Results					Notes	
				Terminal Size (mm)	Wire Size				Minimum	Maximum	Average	Standard Deviation	Pass/Fail	Terminal Size (mm)	Wire Size				Minimum	Maximum	Average	Standard Deviation	Pass/Fail		
				Primary Terminal or Connector (***)																					Secondary Terminal/Connector (***)
<b>Terminal to Terminal Engagement Force (Section 4.2.3) Test Sequence 26C</b>																									
Pre Test Visual Examination (3.4)	Visually examine each test specimen before testing or conditioning	There shall not exhibit any evidence of deterioration, cracks and/or other deformities that could affect performance, function and/or appearance		0.63 mm	0.75 mm2				No defects					Passed											
Terminal to Terminal Engagement Force (4.2.3)	Insert male terminal at a rate of 50mm/min	2 N to 5 N Engage Force	10 Terminal Pairs	0.63 mm	0.75 mm2	WE-20200410	March 2020	March 2020	3.28 N	4.45 N	3.90 N	0.43	Passed												
Post Test Visual Examination (3.4)	Visually examine each test specimen after testing, note any observable changes, such as swelling, corrosion, discoloration, physical distortion, cracks, etc.	There shall be no corrosion, discoloration, cracks, etc which could affect the functionality of the part		0.63 mm	0.75 mm2				No defects					Passed											

Zapp Precision Strip Inc., 100 Benton Street, Stratford, CT 06615

TE North Carolina DC Components  
8000 Piedmont Triad Pkwy  
Greensboro NC 27409-9697

Zapp Precision Strip Inc.

East Coast Service Center  
100 Benton Street  
Stratford, Connecticut 06615  
Phone 203-386-0038  
Fax 203-502-6681  
Tollfree 866-578-9277

www.zapp.com

Member of the Zapp Group

February 17, 2020

## Inspection certificate Type 3.1 per EN 10204

**Certificate No. 2210078226000010 01**

Your purchase Order 2710877668 dated 01/13/2020  
Sales Order 2402009572 Delivery Note 2210078226  
Production Lot 4739021 Inspection Lot 020000388557  
Item 10 STAINLESS STEEL  
Grade / Alloy SS301  
Dimensions 0.0055 " X 0.4724 "  
Thickness tolerance -0.00039 " / 0.00020 "  
Width tolerance -0.00200 " / 0.00200 "  
Conditions cold rolled, tension levelled, SR - straightened  
Surface bright  
Edge slit edges  
Material 8802102  
Customer part no 704491-6  
Quantity / Weight 5,646.043 LB

Chemical composition		Heat 0454696				
Mn (%)	Si (%)	S (%)	N (%)	Cr (%)	Ni (%)	
1.25	0.82	0.0010	0.0690	16.59	6.68	
Mo (%)	C (%)	P (%)	Cu (%)	Ti (%)	Al (%)	
0.29	0.1100	0.0290	0.380	0.007	0.0050	

### Quality inspection results

Tensile Strength 1,561 - 1,567 MPa  
.2% Yield Strength 1,457 - 1,472 MPa  
Elongation A80mm 9.2 - 14.7 %  
Grain Size 8.5 - 9.0  
Roughness Ra 0.107 - 0.122 µm  
Fold. r/t long. 90° 3.00  
Fold. r/t trans. 90° 1.00  
cpk-value gauge 13.44

Batch 1402201010 1402201011

# ZAPP

Zapp Precision Strip Inc., 100 Benton Street, Stratford, CT 06615

TE North Carolina DC Components  
8000 Piedmont Triad Pkwy  
Greensboro NC 27409-9697

February 17, 2020

Sizes and Quality identification test examined and in order.

Surface visual inspection at finish: without objection.

In compliance with the conditions mentioned in the acknowledgement of order.

This certificate signifies that the material meets the appropriate requirements defined in the current revision of the following specifications:

Strip-Products: ISO 9445-1; ISO 9445-2; ASTM A480/480M and DIN EN 10140.

Wire/Bar-Products: ASTM A370; ASTM A555/A555M; ASTM A580/A580M.

This certificate has been issued by computer and is valid without signature.

ZPS / BRYAN MARSHALL +1 508-998-6300

Abnahme / Abn.Beauftragter	Telefon
Acceptance / Inspection representative	Phone
Contrôle / Contrôleur	Téléphone

ZAPP Precision Strip Inc. does not use mercury in the testing or production of material.  
ZAPP Precision Strip Inc. is certified to ISO 9001, AS 9100 and is approved as a manufacturer according to AD2000-MERKBLATT W0 and the Pressure Equipment Directive PED 2014/68/EU. To view certificates go to customer information [www.zapp.com](http://www.zapp.com)

customer Kemper AIP Metals LLC 518 County Road 513 Suite B CALIFON NJ 07830 USA	our commission no.	<b>7401 / 10</b>	printed on	<b>31.01.2020</b>
	our part no.	<b>95-059-24363</b>	delivery note / pos	<b>80048583 / 10</b>
	your PO no.	<b>2710986124</b>	weight	<b>5341 KG</b>
	your part no.	<b>3-704060-8</b>	casting heat no. / MTN	<b>9100003613</b>
	batch no.	<b>CN19121 CN19123 CN19132</b>	specification	<b>TEC-100-1230-S R580S TEC-112-20-4 Rev.AE</b>
material	<b>KHP®102, CuNiSi, C19010</b>			
dimension	<b>0.200 x 17.800 mm</b>			

### chemical composition of the base material

min.		0.800	0.0100	0.150
max.		1.800	0.0500	0.350
	Cu %	Ni %	P %	Si %
	<b>98.22</b>	<b>1.401</b>	<b>0.0180</b>	<b>0.281</b>

### mechanical properties

pos.	characteristic	specified		actual result	
		min.	max.	min.	max.
1	camber - mm /1m		<b>2.0</b>	<b>0.2</b>	<b>0.4</b>
2	width - mm	<b>17.75</b>	<b>17.85</b>	<b>17.79</b>	<b>17.80</b>
3	thickness - mm - SC	<b>0.192</b>	<b>0.204</b>	<b>0.196</b>	<b>0.198</b>
4	yield strength (Rp0,2) - N/mm2	<b>540</b>		<b>579</b>	<b>580</b>
5	tensile strength (Rm) - N/mm2	<b>580</b>	<b>650</b>	<b>618</b>	<b>619</b>
6	elongation (A50) - %	<b>8</b>		<b>11</b>	<b>11</b>
7	hardness (HV) -	<b>175</b>	<b>205</b>	<b>188</b>	<b>188</b>
8	electrical conductivity - m/Ohm mm2	<b>29.0</b>		<b>31.1</b>	<b>31.1</b>
9	electrical conductivity (IACS) - IACS	<b>50.0</b>		<b>53.6</b>	<b>53.6</b>
10	roughness Ra - µm		<b>0.35</b>	<b>0.13</b>	<b>0.13</b>
11	grain size - µm		<b>25</b>	<b>11</b>	<b>11</b>
12	Sn hot-dip thickness - µm	<b>1.00</b>	<b>2.00</b>	<b>1.67</b>	<b>1.88</b>
13	bend test 180°II - R=0,60 b=10			<b>passed</b>	<b>passed</b>
14	bend test 180°_ - R=0,40 b=10			<b>passed</b>	<b>passed</b>
15	edge burr max. - 0,020 mm			<b>passed</b>	<b>passed</b>

### remarks

declaration of conformity: We hereby confirm that the delivered products fulfill the requirements stated in the order confirmation.

compliance with special requirements  
 Directive 2011/65/EU 'RoHS'  
 Directive 2000/53/EG 'End-of-Life Vehicles Directive'

tested and released (date, name) **25.01.2020, Roman Konrad** (inspection representative)

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customer Kemper AIP Metals LLC 518 County Road 513 Suite B CALIFON NJ 07830 USA	our commission no.	<b>7401 / 10</b>	printed on	<b>31.01.2020</b>
	our part no.	<b>95-059-24363</b>	delivery note / pos	<b>80048583 / 10</b>
	your PO no.	<b>2710986124</b>	weight	<b>5341 KG</b>
	your part no.	<b>3-704060-8</b>	casting heat no. / MTN	<b>9100003619</b>
	batch no.	<b>CN19064 CN19081 CN19097</b>	specification	<b>TEC-100-1230-S R580S TEC-112-20-4 Rev.AE</b>
material	<b>KHP®102, CuNiSi, C19010</b>			
dimension	<b>0.200 x 17.800 mm</b>			

### chemical composition of the base material

min.		0.800	0.0100	0.150
max.		1.800	0.0500	0.350
	Cu %	Ni %	P %	Si %
	<b>98.23</b>	<b>1.426</b>	<b>0.0190</b>	<b>0.271</b>

### mechanical properties

pos.	characteristic	specified		actual result	
		min.	max.	min.	max.
1	camber - mm /1m		<b>2.0</b>	<b>0.3</b>	<b>0.4</b>
2	width - mm	<b>17.75</b>	<b>17.85</b>	<b>17.79</b>	<b>17.80</b>
3	thickness - mm - SC	<b>0.192</b>	<b>0.204</b>	<b>0.198</b>	<b>0.200</b>
4	yield strength (Rp0,2) - N/mm2	<b>540</b>		<b>562</b>	<b>576</b>
5	tensile strength (Rm) - N/mm2	<b>580</b>	<b>650</b>	<b>600</b>	<b>612</b>
6	elongation (A50) - %	<b>8</b>		<b>12</b>	<b>13</b>
7	hardness (HV) -	<b>175</b>	<b>205</b>	<b>187</b>	<b>188</b>
8	electrical conductivity - m/Ohm mm2	<b>29.0</b>		<b>31.0</b>	<b>31.0</b>
9	electrical conductivity (IACS) - IACS	<b>50.0</b>		<b>53.4</b>	<b>53.4</b>
10	roughness Ra - µm		<b>0.35</b>	<b>0.12</b>	<b>0.14</b>
11	grain size - µm		<b>25</b>	<b>11</b>	<b>11</b>
12	Sn hot-dip thickness - µm	<b>1.00</b>	<b>2.00</b>	<b>1.59</b>	<b>1.77</b>
13	bend test 180°II - R=0,60 b=10			<b>passed</b>	<b>passed</b>
14	bend test 180°_ - R=0,40 b=10			<b>passed</b>	<b>passed</b>
15	edge burr max. - 0,020 mm			<b>passed</b>	<b>passed</b>

### remarks

declaration of conformity: We hereby confirm that the delivered products fulfill the requirements stated in the order confirmation.

compliance with special requirements  
 Directive 2011/65/EU ,RoHS'  
 Directive 2000/53/EG ,End-of-Life Vehicles Directive'

tested and released (date, name) **25.01.2020, Roman Konrad** (inspection representative)

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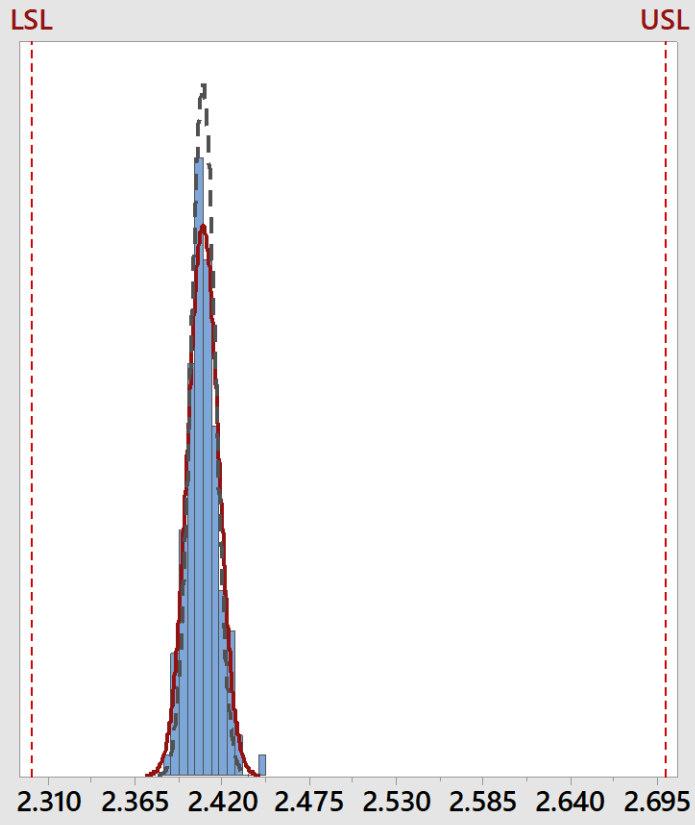


# **Section 11**

# **Initial Process Studies**

# P/N 1355717-1 Process Capability Report for 2.5 +/- 0.2

Process Data	
LSL	2.3
Target	*
USL	2.7
Sample Mean	2.40749
Sample N	130
StDev(Overall)	0.0097227
StDev(Within)	0.00771758



—	Overall
- - -	Within

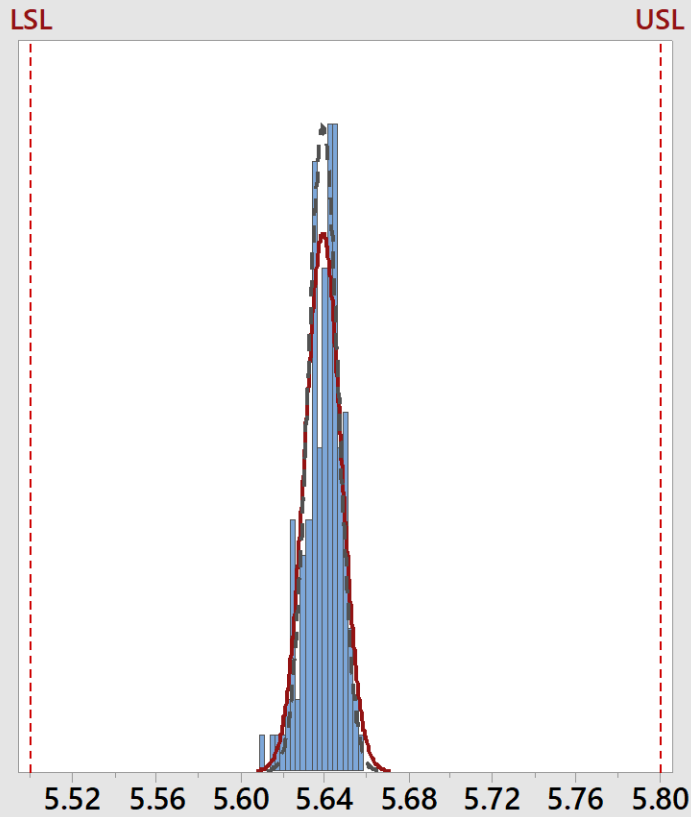
Overall Capability	
Pp	6.86
PPL	3.69
PPU	10.03
Ppk	3.69
Cpm	*

Potential (Within) Capability	
Cp	8.64
CPL	4.64
CPU	12.63
Cpk	4.64

	Performance		
	Observed	Expected Overall	Expected Within
PPM < LSL	0.00	0.00	0.00
PPM > USL	0.00	0.00	0.00
PPM Total	0.00	0.00	0.00

# Process Capability Report for 5.6 +0.2 - 0.1

Process Data	
LSL	5.5
Target	*
USL	5.8
Sample Mean	5.63924
Sample N	130
StDev(Overall)	0.00866947
StDev(Within)	0.00723652



—	Overall
- - -	Within

Overall Capability	
Pp	5.77
PPL	5.35
PPU	6.18
Ppk	5.35
Cpm	*

Potential (Within) Capability	
Cp	6.91
CPL	6.41
CPU	7.41
Cpk	6.41

	Performance		
	Observed	Expected Overall	Expected Within
PPM < LSL	0.00	0.00	0.00
PPM > USL	0.00	0.00	0.00
PPM Total	0.00	0.00	0.00

## **Section 12**

# **Qualified Laboratory Documentation**



By Royal Charter

# Certificate of Registration

QUALITY MANAGEMENT SYSTEM - IATF 16949:2016

This is to certify that:

TE Connectivity  
Global Automotive Division  
Americas North  
719 Pegg Road  
Greensboro  
North Carolina  
27409  
USA

operates a Quality Management System which complies with the requirements of IATF 16949:2016 for the following scope:

Design and manufacture of electrical interconnecting devices.

For and on behalf of BSI:

  
Carlos Pitanga, Chief Operating Officer Assurance – Americas

BSI Certificate Number: 514458-007

IATF Number: 0338830



Certification Date: 2018-10-18

Latest Issue: 2018-10-18

Page: 1 of 3

...making excellence a habit.™

Expiry Date: 2021-10-17

This certificate remains the property of BSI and shall be returned immediately upon request.

An electronic certificate can be authenticated [online](http://www.bsigroup.com/ClientDirectory). Printed copies can be validated at [www.bsigroup.com/ClientDirectory](http://www.bsigroup.com/ClientDirectory)

To be read in conjunction with the scope above or the attached appendix.

Further clarifications regarding the scope of this certificate and the applicability of IATF 16949 requirements may be obtained by consulting the organization.

IATF Contracted Office: BSI Assurance UK Limited, registered in England under number 7805321 at 389 Chiswick High Road, London W4 4AL, UK.

Americas Headquarters: BSI Group America Inc., 12950 Worldgate Drive, Suite 800, Herndon, VA 20170-6007 USA

A Member of the BSI Group of Companies.

Location

Registered Activities

TE Connectivity  
Global Automotive Division  
Americas North  
719 Pegg Road  
Greensboro  
North Carolina  
27409  
USA

Design and manufacture of electrical interconnecting devices.

Including the following remote support functions:

TE Connectivity  
Global Automotive Division  
Americas North  
3800 Reidsville Road  
Winston-Salem  
North Carolina  
27102  
USA

Supplier management, Sales, Testing, Product design

TE Connectivity  
Global Automotive Division  
Americas North  
20 Esna Park Drive  
Markham  
Ontario  
L3R 1E1  
Canada

Testing, Product design

TE Connectivity  
Global Automotive Division  
Americas North  
1901 Fulling Mill Road  
Middletown  
Pennsylvania  
17057  
USA

Customer service, Testing, Product design

TE Connectivity  
Global Automotive Division  
Americas North  
900 Wilshire Boulevard  
Suite 150  
Troy  
Michigan  
48084  
USA

Product design

BSI Certificate Number: 514458-007

IATF Number: 0338830



Certification Date: 2018-10-18

Latest Issue: 2018-10-18

Expiry Date: 2021-10-17

Page: 2 of 3

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Americas Headquarters: BSI Group America Inc., 12950 Worldgate Drive, Suite 800, Herndon, VA 20170-6007 USA  
A Member of the BSI Group of Companies.

Location

Registered Activities

TE Connectivity  
North Carolina Distribution Center  
8000 Piedmont Triad Parkway  
Greensboro  
North Carolina  
27409  
USA  
Warehousing

TE Connectivity  
Global Automotive Division  
Americas North  
2100 Paxton Street  
Harrisburg  
Pennsylvania  
17111  
USA  
Testing

TE Connectivity  
3900 Reidsville Road  
Winston Salem  
North Carolina  
27101  
USA  
Testing

TE Connectivity  
3920 Reidsville Road  
Winston Salem  
North Carolina  
27101  
USA  
Testing

Including the following extended manufacturing sites:

TE Connectivity  
Global Automotive Division  
Americas North  
233 Burgess Road  
Greensboro  
North Carolina  
27409  
USA  
Design and manufacture of electrical interconnecting devices

BSI Certificate Number: 514458-007

IATF Number: 0338830



Certification Date: 2018-10-18

Latest Issue: 2018-10-18

Expiry Date: 2021-10-17

Page: 3 of 3

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Americas Headquarters: BSI Group America Inc., 12950 Worldgate Drive, Suite 800, Herndon, VA 20170-6007 USA  
A Member of the BSI Group of Companies.





## **Section 13**

# **Appearance Approval Report**

# Not Applicable



## **Section 14**

# **Sample Product**

**Sent in separate package  
(if required)**



## **Section 15**

# **Master Sample**

**Retained at manufacturing location**



# Section 16

# Checking Aids



**Not Applicable**



## **Section 17**

# **Records of Compliance with Customer-Specific Requirements**

# MDS Report

## Substances of assemblies and materials

This report is for internal Automotive industry use only. Distribution to non-Automotive clients is a violation of the Terms of Use, and is not permitted unless a written permission was given by DXC Technology. Parsing is not allowed.

### 1. Company and Product Name

#### 1.1 Supplier Data

Name [ID]: **Tyco Electronics GAD [913]**  
DUNS Number: **-**  
Street/Postal Code: **Amperestr. 12-14**  
Nat./ZipCode/City: **DE 64625 Bensheim**  
Supplier Code: **-**  
Contact Person: **IMDS Team (India) Engineering Services**  
- Phone: **-**  
- Fax No.: **-**  
- E-Mail Address: **IMDS@te.com**

#### 1.2 Product Identification

Part/Item No.: **1355717-1**  
Description: **Micro Quadlock System Socket Contact**  
Report No.: **-**  
Date of Report: **-**  
Purchase Order No.: **-**  
Bill of Delivery No.: **-**  
Preliminary MDS: **No**  
IMDS ID / Version: **4084730 / 39**  
Node ID: **933802910**  
MDS Status (Change Date): **Internally released (06/17/2020)**



# MDS Report

## Substances of assemblies and materials

**Materials which are subject to legal prohibitions must not be included!**  
**Dangerous substances formed or released during use must also be declared**  
**Please note: GADSL list for substances that require declaration**

### 2. Characterization of the Component

Part/Item No.: **1355717-1**  
 Description: **Micro Quadlock System Socket Contact**

Report No.: **-**  
 IMDS ID / Version: **4084730 / 39**  
 Node ID: **933802910**

Tree Level	Description Article Name Name Substance name	Part/Item No. Item- /Mat.-No. Material-No. CAS No.	IMDS ID / Version	Quantity	Weight [g]	Portion [%]	Portion (from - to) [%]	Classif. GADSL, SVHC	Parts Marking Recyclate (Indust./Consumer) Application [ID]
1	Micro Quadlock System Socket Contact	1355717-1	4084730 / 39		0.1219				
├2	Body			1	0.0777				
├3	High Copper Alloy		158414641 / 4		0.0765			3.2	No
├4	Copper	7440-50-8				98.12		D	

Tree Level	Description Article Name Name Substance name	Part/Item No. Item- /Mat.-No. Material-No. CAS No.	IMDS ID / Version	Quantity	Weight [g]	Portion [%]	Portion (from - to) [%]	Classif. GADSL, SVHC	Parts Marking Recyclate (Indust./Consumer) Application [ID]
└4	Nickel	7440-02-0				1.3	0.8 - 1.8	D	Not applicable 34
└4	Phosphorus	7723-14-0				0.03	0.01 - 0.05		
└4	Silicon	7440-21-3				0.25	0.15 - 0.35		
└4	Misc., not to declare	system				0.25	0 - 0.5		
└4	Silver	7440-22-4				0.05	0 - 0.1	D / P	
└3	e-plate Sn (electrodeposited Tin Coatings, bright and matt)		756885 / 5		0.0012			4.2	No
└4	Carbon	7440-44-0				0.505	0.01 - 1		
└4	Sulphur	7704-34-9				0.02	0 - 0.04		
└4	Lead	7439-92-1				0.015	0 - 0.03	D / P / SVHC	Concentration within acceptable GADSL limits 44
└4	Tin	7440-31-5				99.46			
└2	Spring For M S Contact	0-0928998-1	3485169 / 33	1	0.0442				
└3	10CrNi18-8		36413360 / 6		0.0442			1.1.2	No
└4	Carbon	7440-44-0				0.1	0.05 - 0.15		
└4	Chromium	7440-47-3				17.5	16 - 19		
└4	Manganese	7439-96-5				1	0 - 2		
└4	Nitrogen	7727-37-9				0.05	0 - 0.1		
└4	Nickel	7440-02-0				7.75	6 - 9.5	D	Other application (Surface not routinely touched or nickel release rate 0.5 g/cm2/week) 33

Tree Level	Description Article Name Name Substance name	Part/Item No. Item- /Mat.-No. Material-No. CAS No.	IMDS ID / Version	Quantity	Weight [g]	Portion [%]	Portion (from - to) [%]	Classif. GADSL, SVHC	Parts Marking Recyclate (Indust./Consumer) Application [ID]
└4	Phosphorus	7723-14-0				0.0225	0 - 0.045		
└4	Sulphur	7704-34-9				0.0075	0 - 0.015		
└4	Silicon	7440-21-3				1	0 - 2		
└4	Iron	7439-89-6				71.67			
└4	Copper	7440-50-8				0.5	0 - 1	D	
└4	Molybdenum	7439-98-7				0.4	0 - 0.8		

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## **Section 18**

# **Part Submission Warrant**

# Part Submission Warrant

EPPAP:

Part Name \_\_\_\_\_ Cust. Part Number \_\_\_\_\_  
Shown on Drawing Number \_\_\_\_\_ Org. Part Number \_\_\_\_\_  
Engineering Change Level \_\_\_\_\_ Dated \_\_\_\_\_  
Additional Engineering Changes \_\_\_\_\_ Dated \_\_\_\_\_  
Safety and/or Government Regulation Yes No Purchase Order No. \_\_\_\_\_ Weight (kg) \_\_\_\_\_  
Checking Aid Number \_\_\_\_\_ Checking Aid Engineering Change Level \_\_\_\_\_ Dated \_\_\_\_\_

## ORGANIZATION MANUFACTURING INFORMATION

## CUSTOMER SUBMITTAL INFORMATION

Organization Name and Supplier Code \_\_\_\_\_  
Street Address \_\_\_\_\_  
City \_\_\_\_\_ Region \_\_\_\_\_ Postal Code \_\_\_\_\_ Country \_\_\_\_\_

Customer Name/Division \_\_\_\_\_  
Buyer/Buyer Code \_\_\_\_\_  
Application \_\_\_\_\_

## MATERIALS REPORTING

Has customer-required Substance of Concern information been reported Yes No NA  
Submitted by IMDS or other customer format \_\_\_\_\_

Are polymeric parts identified with appropriate ISO marking codes  Yes No NA

## REASON FOR SUBMISSION (Check at least one)

Initial submission	Change to Optional Construction or Material
Engineering Change(s)	Sub-Supplier or Material Source Change
Tooling: Transfer, Replacement, Refurbishment, or additional	Change in Part Processing
Correction of Discrepancy	Parts Produced at Additional Location
Tooling Inactive <input type="checkbox"/> than 1 year	Other - please specify _____

## REQUESTED SUBMISSION LEVEL (Check one)

- Level 1 -  arrant only (and for designated appearance items, an Appearance Approval Report) submitted to customer.
- Level 2 -  arrant with product samples and limited supporting data submitted to customer.
- Level 3 -  arrant with product samples and complete supporting data submitted to customer.
- Level 4 -  arrant and other requirements as defined by customer.
- Level 5 -  arrant with product samples and complete supporting data reviewed at supplier's manufacturing location.

## SUBMISSION RESULTS

The results for \_\_\_\_\_ dimensional measurement \_\_\_\_\_ material and functional tests \_\_\_\_\_ appearance criteria \_\_\_\_\_ statistical process package  
These results meet all design record requirements: Yes No (If No - Explanation Required)  
Mold / Cavity / Production Process \_\_\_\_\_

## DECLARATION

I affirm that the samples represented by this warrant are representative of our parts, which were made by a process that meets all Production Part Approval Process Manual 4th Edition Requirements. I further affirm that these samples were produced at the production rate of **Production Rate is TE Proprietary**. I also certify that documented evidence of such compliance is on file and is available for review. I have noted any deviations from this declaration below.

## EXPLANATION/COMMENTS

Is each Customer Tool properly tagged and numbered  Yes No NA

Organization Authorized Signature Enrique Espinoza Date \_\_\_\_\_

Print Name \_\_\_\_\_ Phone No. \_\_\_\_\_ Fax \_\_\_\_\_

Title \_\_\_\_\_ Email \_\_\_\_\_

## FOR CUSTOMER USE ONLY (IF APPLICABLE)

PPAP  arrant Disposition : Approved Rejected Other \_\_\_\_\_

Customer Signature \_\_\_\_\_ Date \_\_\_\_\_

Print Name \_\_\_\_\_ Customer Tracking Number (optional) \_\_\_\_\_



## **Section 18a**

# **Bulk Material Requirements**



**Not Applicable**