Table of Contents

PPAP Package for:

Newark Electronics
Customer Part Number: 87H5375
(TE Connectivity Part Number): 1241390-1

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.

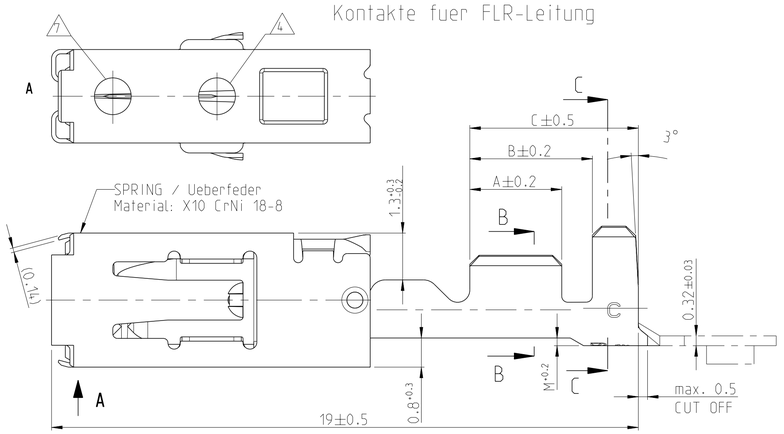
Section 1

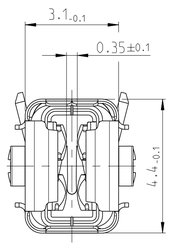
Design Records

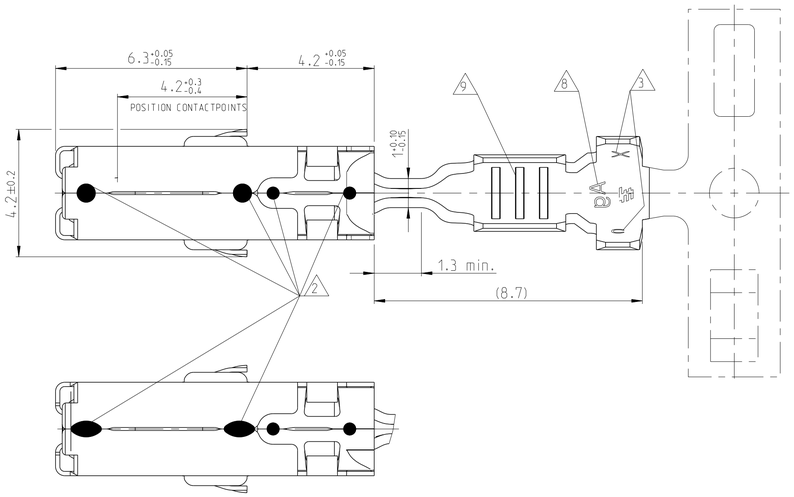
MATED WITH PASSEND ZU

CONTACTS FOR FLR-CABLE
Kontakte fuer FLR-Leitung

USABLE WITH TAB 0.8mm AND TAB 0.6mm THICKNESS
Verwendbar mit Flachstecker 0.8mm und 0.6mm Dicke







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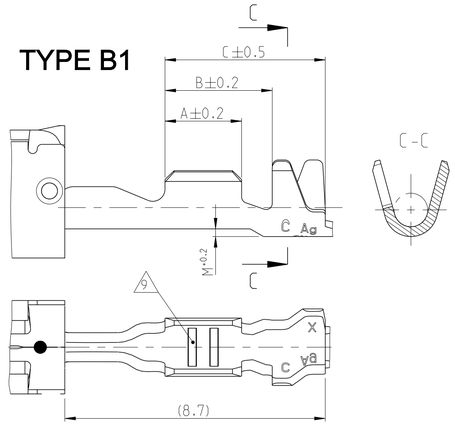
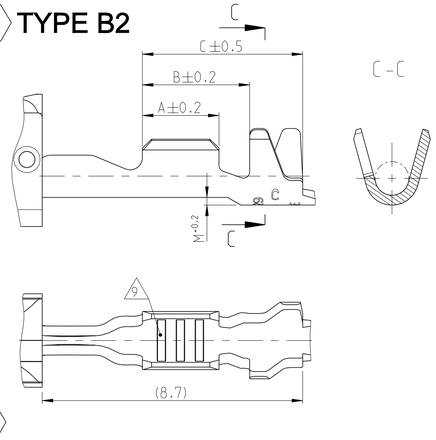
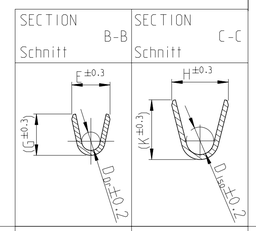


A16 TYPE B2



TYPE A



CONTACTS FOR SINGLE WIRE SEALING SYSTEM:
FLR- AND FLK- CABLE
Kontakte fuer Einzel-Dichtung-System:
FLR- und FLK-Leitung

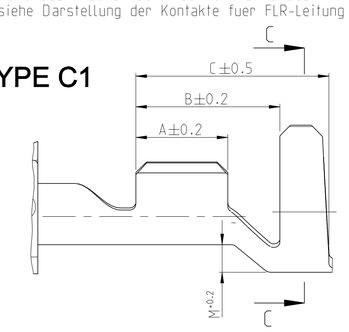
DIMENSIONS SEE FIGURE "CONTACS FOR FLR-CABLE"
Masse siehe Darstellung der Kontakte fuer FLR-Leitung

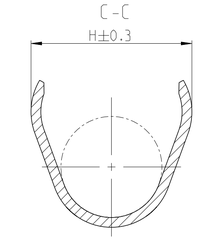
LOC	DIST
A1	-
PROJEKT NR.:	

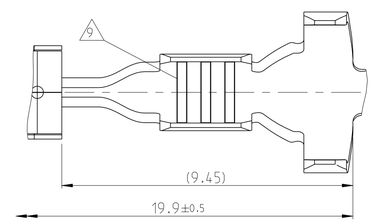
REVISIONS
AENDERUNGEN

P	LTR	DESCRIPTION BESCHREIBUNG	DATE	DWN	APVD
	C13	ECR-15-010777	20JUL2015	SG	RL
	C14	ECR-15-012070	22SEP2015	JBJH	BK
	C15	ECR-15-017391	30NOV2015	SG	RL
	C16	Type B2 added. see PCN E-18-010946	19APR2018	FRAN	MERZ

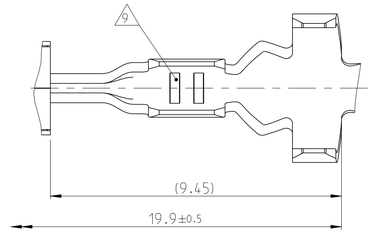
TYPE C1





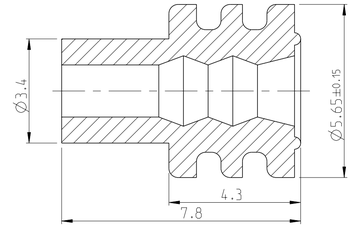


TYPE C2 A16



SINGLE WIRE SEALING SYSTEM 6

SINGLE WIRE SEAL 6 Einzeldichtung		
963292-1	2.7...3.0	YELLOW gelb
963293-1	2.0...2.7	REDBROWN rotbraun
963294-1	1.2...2.1	BLUE blau
ORDER NO. Bestell-Nr.	INSULATION DIA Isolations Ø	COLOUR Farbe



ORDER NO. Bestell-Nr. Strip Bandware	REV.	WIRE RANGE Drahtgroessenbereich (mm²)	INSULATION DIA Isolations Ø (mm)	MATERIAL Werkstoff	PLATING Ueberzug	LENGTH Laenge	WIRE CRIMP Drahtcrimp	INSUL. CRIMP Isol.-Crimp	FORM OF ISO-CRIMP form des Iso-Crimp	ORDER NO. Bestell-Nr. TOOL / INSERT Handzange / Matrize FOR LOOSE PIECE f. Einzelausfuehrung	ORDER NO. Bestell-Nr. EXTRACTION TOOL Ausdrueckwerkzeug	CRIMP DATA AND CRIMP TOOL Crimpdaten u. Crimpwerkzeuge
						CRIMP DIMENSIONS (mm) Crimpabmessungen						
0-1241396-4	C	>1.0-2.5	2.2-3.0	CuNiSi	SILVERPLATED versilbert 12	A = 3.5 B = 5.2 C = 6.8	E = 3.6 G = 3.8 D_{Dr} = 1.8	H = 5.45 K = (4.8) D_{Iso} = 3.5 M = 0.85	C1	SINGLE WIRE SEALING SYSTEM Einzeldichtungssystem 6 HANDCRIMPTOOL Handcrimpwerkzeug 539635-1 INSERT / Matrize 539952-2	539969-1	SEE APPLICATION SPECIFICATION siehe Verarbeitungsspezifikation 114-18387
0-1241396-3	C			CuNiSi	PRESILVER vorversilbert 8							
0-1241396-2	C			CuNiSi	4							
0-1241396-1	C			CuNiSi	TINPLATED vorverzinnt							
0-1241394-3	C	0.5-1.0	1.4-2.7	CuNiSi	PRESILVER vorversilbert 8	A = 3.0 B = 4.7 C = 6.3	E = 2.5 G = 2.7 D_{Dr} = 1.2	H = 5.25 K = (4.8) D_{Iso} = 3.3 M = 0.75	C1			
0-1241394-2	C			CuNiSi	4							
0-1241394-1	C			CuNiSi	TINPLATED vorverzinnt							
0-1241392-3	C	0.2-0.35	1.1-1.4	CuNiSi	PRESILVER vorversilbert 8	A = 2.5 B = 4.7 C = 6.3	E = 1.9 G = 1.9 D_{Dr} = 0.75	H = 4.85 K = (4.4) D_{Iso} = 3.2 M = 0.7	C2			
0-1241392-2	C			CuNiSi	4							
0-1241392-1	C			CuNiSi	TINPLATED vorverzinnt							
0-1564984-3	C	0.2-0.35 10	1.1-1.4	CuNiSi	PRESILVER vorversilbert 8		E = 2.4 G = 2.3 D_{Dr} = 1.0		C1	HANDCRIMPTOOL 539635-1 INSERT 4-1579016-1		
0-1564984-2	C			CuNiSi	4							
0-1564984-1	C			CuNiSi	TINPLATED vorverzinnt							
0-1241390-3	C	>1.0-2.5 5	2.2-3.0 5	CuNiSi	PRESILVER vorversilbert 8	A = 3.3 B = 4.3 C = 5.8	E = 3.6 G = 3.8 D_{Dr} = 1.8	H = 4.7 K = (4.9) D_{Iso} = 2.6 M = 0.4	TYPE A	HANDCRIMPTOOL Handcrimpwerkzeug 539635-1 INSERT / Matrize 539951-2		
0-1241390-2	C			CuNiSi	4							
0-1241390-1	C			CuNiSi	TINPLATED vorverzinnt							
0-1241388-3	C	0.5-1.0	1.4-2.1	CuNiSi	PRESILVER vorversilbert 8	A = 3.0 B = 4.0 C = 5.5	E = 2.5 G = 2.7 D_{Dr} = 1.2	H = 3.7 K = (3.9) D_{Iso} = 1.8 M = 0.2				
0-1241388-2	C			CuNiSi	4							
0-1241388-1	C			CuNiSi	TINPLATED vorverzinnt							
0-1241386-3	C	0.2-0.35 10	1.1-1.4	CuNiSi	PRESILVER vorversilbert 8	A = 2.5 B = 3.5 C = 5.2	E = 1.9 G = 1.9 D_{Dr} = 0.75	H = 2.5 K = (2.5) D_{Iso} = 1.1 M = 0.2	TYPE B1			
0-1241386-2	C			CuNiSi	4							
0-1241386-1	C			CuNiSi	TINPLATED vorverzinnt							
0-1564982-3	C	0.2-0.35	1.1-1.4	CuNiSi	PRESILVER vorversilbert 8		E = 2.4 G = 2.3 D_{Dr} = 1.0		TYPE B2	HANDCRIMPTOOL 539635-1 INSERT 4-1579016-1		
0-1564982-2	C			CuNiSi	4							
0-1564982-1	C			CuNiSi	TINPLATED vorverzinnt							

Notes
Bemerkungen:

1 TO BE USED ON Flachstecker /TAB 2.8 +0.3 -0.1 x 0.6 +0.07 -0.03
Geeignet fuer Flachstecker / TAB 2.8 +0.3 -0.1 x 0.8 ±0.03

2 ALTERNATIVELY LASERWELDED POINT OR LINE SHAPED (DIE CAUSED)
Laserschweissung wahlweise Punk- oder Linienformig (Fertigungsbedingt)

3 DIE-IDENTIFICATION AND REVISION STATUS
Kennung fuer Werkzeug und Revisionsstand

4 MIN. 0.8µm GOLDPLATE IN CONTACT AREA OVER MIN. 1.3µm NICKELPLATE;
MIN. 1µm TINPLATE IN CRIMP AREA.
AS INDEX SEE HOLE AT SPRING
0.8µm Goldueberzug im Kontaktbereich ueber min. 1.3µm Nickelueberzug;
min. 1µm Zinnueberzug im Crimpbereich.
Zur Kennzeichnung siehe Loch an der Ueberfeder

5 FOR DOUBLE AND SINGLE CRIMP
Fuer Doppel- und Einzelcrimp

6 SINGLE WIRE SEAL TO BE SELECTED ACCORDING TO INSULATION-DIA
Auswahl der Einzeldichtung entsprechend dem Isolationsdurchmesser

7 MANUFACTORIN-CONDITIONED HOLE, IS STARTING FROM REV. C AT ALL VERSIONS
Fertigungsbedingtes Loch, befindet sich ab Rev. C an allen Kontakten

8 MARKING WITH "Ag" FOR SILVERPLATE IN CONTACT AREA
Kennzeichnung mit "Ag" bei Silberueberzug im Kontaktbereich

9 DIFFERENT FORM OF THE SERRATION POSSIBLE
Unterschiedliche Ausfuehrung der Rillen moeglich

10 PN 1241386 AND 1241392 NOT FOR NEW APPLICATION. REPLACED BY PN 1564982 AND PN1564984.
PN 1241386 und 1241392 nicht fuer Neuanwendung. Ersatz durch PN 1564982 und 1564984

11 DETAILS OF DESIGN ARE LEFT TO MANUFACTURER
Einzelheiten der Ausfuehrung bleiben dem Hersteller ueberlassen

A16 12 "Ag+" MARKING ON SILVER PLATED VERSIONS FOR INCREASED LIMIT TEMPERATURE
"Ag+" Markierung auf versilberten Versionen fuer erhoehte Grenztemperatur


2:1

DIMENSIONS: MASSEINHEITEN: mm
TOLERANCES UNLESS OTHERWISE SPECIFIED: ALLGEMEINTOLERANZEN
0 PLC ±- 1 PLC ±GENERAL- 2 PLC ±TOLREANZ 3 PLC ± 4 PLC ±-
ANGLES/WINKEL ±1°
MATERIAL see table siehe Tabelle
FINISH/OBERFLAECHE/FARBE see table siehe tabelle

DWN R. Liebing 06JUN2006
CHK -
APVD -

TE Connectivity

NAME PRODUCT GROUP DRAWING FOR AMP MCP 2.8K

PRODUCT SPEC PRODUKTSPEZ. 108-18717
APPLICATION SPEC VERARBEITUNGSSPEZ. 114-18387

SIZE A1 | CAGE CODE 00779 | DRAWING NO ZEICHNUNGS-NR. C-1241437 | RESTRICTED TO NUR FUER -

WEIGHT GEWICHT -

Customer Drawing /KUNDENZEICHNUNG | SCALE MASSSTAB 10:1 | SHEET BLATT 1 | OF VON 1 | REV C16

Section 2

Engineering Change Documents

Product Change Notification

Current Date: 14-Jun-2021

TE Connectivity

Product Change Notification: P-21-021000 **PCN Date:** 07-JUN-21

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:
AMP MCP 2.8K, CONTACT

Description of Changes
Dear Customer, we hereby inform you about tool and/or process transfers within TE Connectivity. As a result of a thorough analysis of our global operations and footprint matching the customer needs in a global supply chain, we are going to reorganize our EMEA manufacturing sites. These reorganizations will support the need of our customers for shorter lead-times and optimized value streams, which are not only generating efficiencies, but also consistency in quality and reducing our CO2 footprint by avoiding unnecessary transportations.

Reason for Changes:	
The transfer from TE Steinach(CH) to TE Kurim(CZ) follows a strict procedure which fully maintains quality, ability to supply and form-fit-function of concerned products. The receiving manufacturing locations operates under a certified Quality Management System in accordance with standard automotive requirements and respective customer specific requirements. TE Connectivity will and has initiated appointments with our customers to share the details about the upcoming changes and the proposals in terms of notification, validation, release and PPAP scenarios for the different product groups affected. In case any PPAP is required for customer owned tools and / or finished good parts saleable part numbers, we kindly ask you to get in touch with your Sales representative first to achieve a common understanding and agreement on both sides.	
Estimated Dates:	
Last Order Date (Obsolete Parts Only):	**First Date To Ship** (Changed Parts Only):
	09-AUG-2021
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
1241386-1	NO					
1241388-1	NO					
1241388-2	NO					
1241390-1	NO					
1241390-2	NO					
1564982-1	NO					
1564982-2	NO					
1564982-3	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

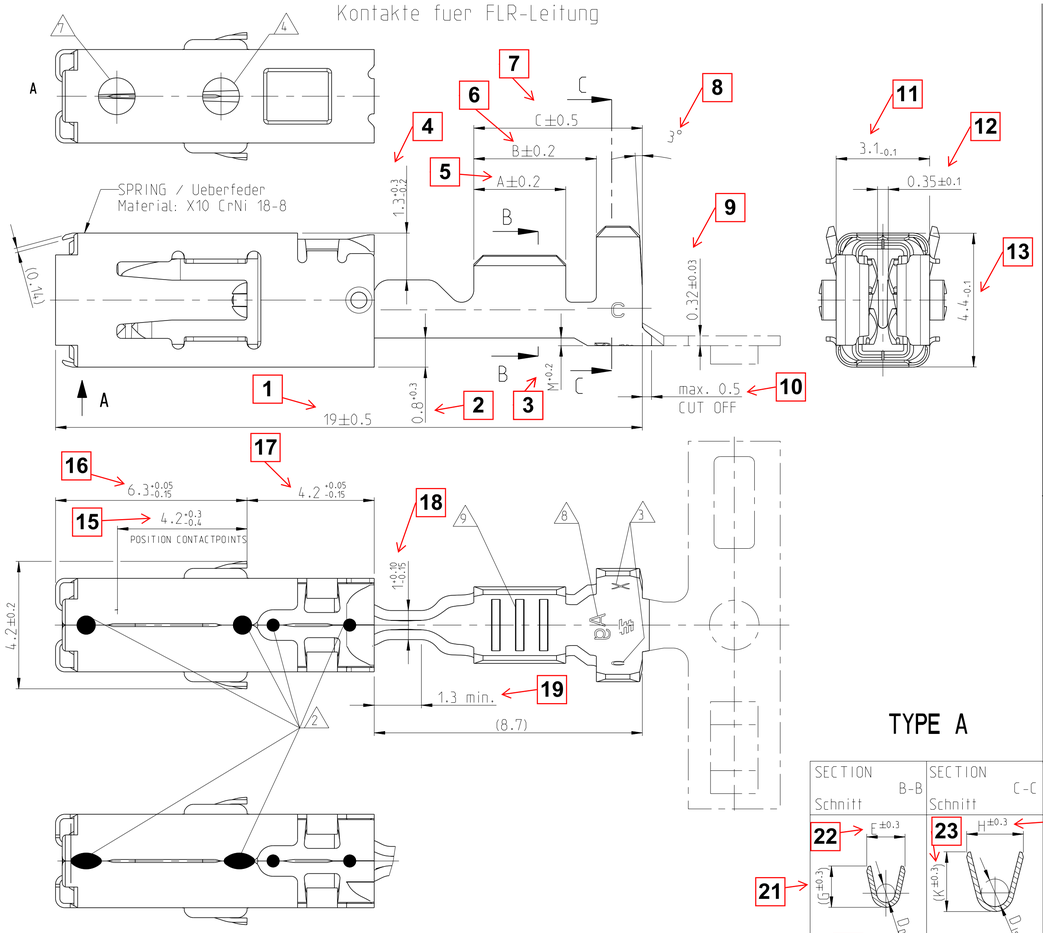
Section 9

Dimensional Results

MATED WITH:
PASSEND ZU:

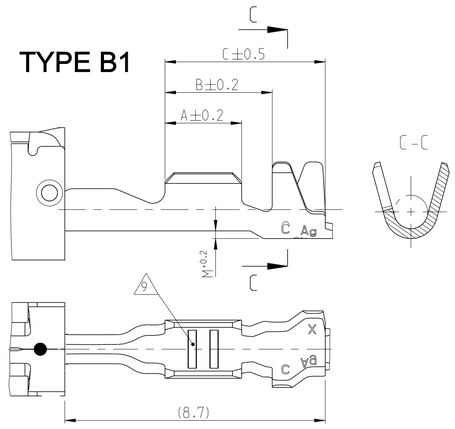
CONTACTS FOR FLR-CABLE
Kontakte fuer FLR-Leitung

USABLE WITH TAB 0.8mm AND TAB 0.6mm THICKNESS
Verwendbar mit Flachstecker 0.8mm und 0.6mm Dicke

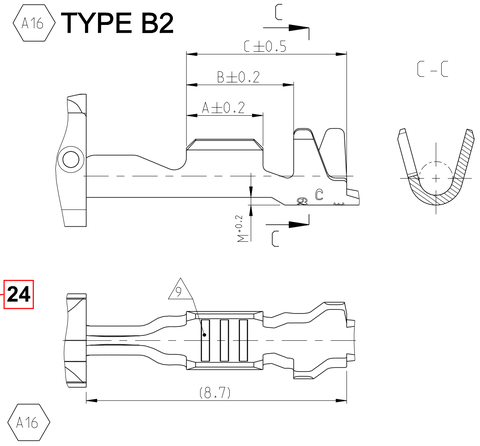


TYPE A

TYPE B1



A16 TYPE B2



CONTACTS FOR SINGLE WIRE SEALING SYSTEM:
FLR- AND FLK- CABLE
Kontakte fuer Einzel-Dichtung-System:
FLR- und FLK-Leitung

DIMENSIONS SEE FIGURE "CONTACS FOR FLR-CABLE"
Masse siehe Darstellung der Kontakte fuer FLR-Leitung

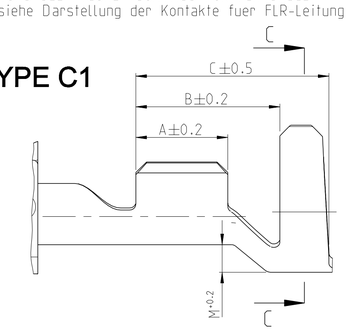
LOC	DIST
A1	-

PROJEKT NR.:

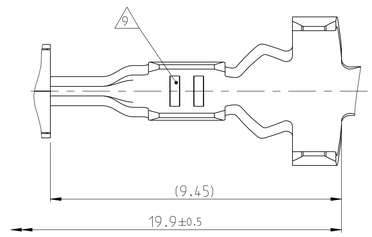
REVISIONS
AENDERUNGEN

P	LTR	DESCRIPTION BESCHREIBUNG	DATE	DWN	APVD
	C13	ECR-15-010777	20JUL2015	SG	RL
	C14	ECR-15-012070	22SEP2015	JBJH	BK
	C15	ECR-15-017391	30NOV2015	SG	RL
	C16	Type B2 added. see PCN E-18-010946	19APR2018	FRAN	MERZ

TYPE C1

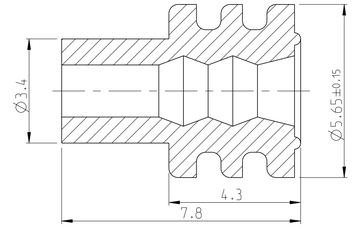


TYPE C2 A16



SINGLE WIRE SEALING SYSTEM 6

SINGLE WIRE SEAL 6 Einzeldichtung		
963292-1	2.7...3.0	YELLOW gelb
963293-1	2.0...2.7	REDBROWN rotbraun
963294-1	1.2...2.1	BLUE blau
ORDER NO. Bestell-Nr.	INSULATION DIA Isolations Ø	COLOUR Farbe



ORDER NO. Bestell-Nr. Strip Bandware	REV.	WIRE RANGE Drahtgroessenbereich (mm²)	INSULATION DIA Isolations Ø (mm)	MATERIAL Werkstoff	PLATING Ueberzug	LENGTH Laenge	WIRE CRIMP Drahtcrimp	INSUL. CRIMP Isol.-Crimp	FORM OF ISO-CRIMP form des Iso-Crimp	ORDER NO. Bestell-Nr. TOOL / INSERT Handzange / Matrize FOR LOOSE PIECE f. Einzelausfuehrung	ORDER NO. Bestell-Nr. EXTRACTION TOOL Ausdrueckwerkzeug	CRIMP DATA AND CRIMP TOOL Crimpdaten u. Crimpwerkzeuge
						CRIMP DIMENSIONS (mm) Crimpabmessungen						
0-1241396-4	C	>1.0-2.5	2.2-3.0	CuNiSi	SILVERPLATED versilbert 12	A = 3.5 B = 5.2 C = 6.8	E = 3.6 G = 3.8 D_{Dr} = 1.8	H = 5.45 K = (4.8) D_{Iso} = 3.5 M = 0.85	C1	SINGLE WIRE SEALING SYSTEM Einzeldichtungssystem 6 HANDCRIMPTOOL Handcrimpwerkzeug 539635-1 INSERT / Matrize 539952-2	539969-1	SEE APPLICATION SPECIFICATION siehe Verarbeitungsspezifikation 114-18387
0-1241396-3	C			CuNiSi	PRESILVER vorversilbert 8							
0-1241396-2	C			CuNiSi	4							
0-1241396-1	C			CuNiSi	TINPLATED vorverzinnt							
0-1241394-3	C	0.5-1.0	1.4-2.7	CuNiSi	PRESILVER vorversilbert 8	A = 3.0 B = 4.7 C = 6.3	E = 2.5 G = 2.7 D_{Dr} = 1.2	H = 5.25 K = (4.8) D_{Iso} = 3.3 M = 0.75	C1			
0-1241394-2	C			CuNiSi	4							
0-1241394-1	C			CuNiSi	TINPLATED vorverzinnt							
0-1241392-3	C	0.2-0.35	1.1-1.4	CuNiSi	PRESILVER vorversilbert 8	A = 2.5 B = 4.7 C = 6.3	E = 1.9 G = 1.9 D_{Dr} = 0.75	H = 4.85 K = (4.4) D_{Iso} = 3.2 M = 0.7	C2			
0-1241392-2	C			CuNiSi	4							
0-1241392-1	C			CuNiSi	TINPLATED vorverzinnt							
0-1564984-3	C	0.2-0.35 10	1.1-1.4	CuNiSi	PRESILVER vorversilbert 8		E = 2.4 G = 2.3 D_{Dr} = 1.0		C1	HANDCRIMPTOOL 539635-1 INSERT 4-1579016-1		
0-1564984-2	C			CuNiSi	4							
0-1564984-1	C			CuNiSi	TINPLATED vorverzinnt							
0-1241390-3	C	>1.0-2.5 5	2.2-3.0 5	CuNiSi	PRESILVER vorversilbert 8	A = 3.3 B = 4.3 C = 5.8	E = 3.6 G = 3.8 D_{Dr} = 1.8	H = 4.7 K = (4.9) D_{Iso} = 2.6 M = 0.4	TYPE A	HANDCRIMPTOOL Handcrimpwerkzeug 539635-1 INSERT / Matrize 539951-2		
0-1241390-2	C			CuNiSi	4							
0-1241390-1	C			CuNiSi	TINPLATED vorverzinnt							
0-1241388-3	C	0.5-1.0	1.4-2.1	CuNiSi	PRESILVER vorversilbert 8	A = 3.0 B = 4.0 C = 5.5	E = 2.5 G = 2.7 D_{Dr} = 1.2	H = 3.7 K = (3.9) D_{Iso} = 1.8 M = 0.2				
0-1241388-2	C			CuNiSi	4							
0-1241388-1	C			CuNiSi	TINPLATED vorverzinnt							
0-1241386-3	C	0.2-0.35 10	1.1-1.4	CuNiSi	PRESILVER vorversilbert 8	A = 2.5 B = 3.5 C = 5.2	E = 1.9 G = 1.9 D_{Dr} = 0.75	H = 2.5 K = (2.5) D_{Iso} = 1.1 M = 0.2	TYPE B1			
0-1241386-2	C			CuNiSi	4							
0-1241386-1	C			CuNiSi	TINPLATED vorverzinnt							
0-1564982-3	C	0.2-0.35	1.1-1.4	CuNiSi	PRESILVER vorversilbert 8		E = 2.4 G = 2.3 D_{Dr} = 1.0		TYPE B2 A16	HANDCRIMPTOOL 539635-1 INSERT 4-1579016-1		
0-1564982-2	C			CuNiSi	4							
0-1564982-1	C			CuNiSi	TINPLATED vorverzinnt							

Notes
Bemerkungen:

1 TO BE USED ON Flachstecker /TAB 2.8 $^{+0.3}_{-0.1}$ x 0.6 $^{+0.07}_{-0.03}$
Geeignet fuer Flachstecker / TAB 2.8 $^{+0.3}_{-0.1}$ x 0.8 ±0.03

2 ALTERNATIVELY LASERWELDED POINT OR LINE SHAPED (DIE CAUSED)
Laserschweissung wahlweise Punk- oder Linienformig (Fertigungsbedingt)

3 DIE-IDENTIFICATION AND REVISION STATUS
Kennung fuer Werkzeug und Revisionsstand

4 MIN. 0.8µm GOLDPLATE IN CONTACT AREA OVER MIN. 1.3µm NICKELPLATE;
MIN. 1µm TINPLATE IN CRIMP AREA.
AS INDEX SEE HOLE AT SPRING
0.8µm Goldueberzug im Kontaktbereich ueber min. 1.3µm Nickeleberzug;
min. 1µm Zinnueberzug im Crimpbereich.
Zur Kennzeichnung siehe Loch an der Ueberfeder

5 FOR DOUBLE AND SINGLE CRIMP
Fuer Doppel- und Einzelcrimp

6 SINGLE WIRE SEAL TO BE SELECTED ACCORDING TO INSULATION-DIA
Auswahl der Einzeldichtung entsprechend dem Isolationsdurchmesser

7 MANUFACTORIN-CONDITIONED HOLE, IS STARTING FROM REV. C AT ALL VERSIONS
Fertigungsbedingtes Loch, befindet sich ab Rev. C an allen Kontakten

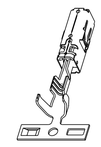
8 MARKING WITH "Ag" FOR SILVERPLATE IN CONTACT AREA
Kennzeichnung mit "Ag" bei Silberueberzug im Kontaktbereich

9 DIFFERENT FORM OF THE SERRATION POSSIBLE
Unterschiedliche Ausfuehrung der Rillen moeglich

10 PN 1241386 AND 1241392 NOT FOR NEW APPLICATION. REPLACED BY PN 1564982 AND PN1564984.
PN 1241386 und 1241392 nicht fuer Neuanwendung. Ersatz durch PN 1564982 und 1564984

11 DETAILS OF DESIGN ARE LEFT TO MANUFACTURER
Einzelheiten der Ausfuehrung bleiben dem Hersteller ueberlassen

A16 12 "Ag+" MARKING ON SILVER PLATED VERSIONS FOR INCREASED LIMIT TEMPERATURE
"Ag+" Markierung auf versilberten Versionen fuer erhoehte Grenztemperatur


2:1

DIMENSIONS: MASSEINHEITEN: mm
TOLERANCES UNLESS OTHERWISE SPECIFIED: ALLGEMEINTOLERANZEN
0 PLC ±- GENERAL-
1 PLC ±DEC ±TOLERANZ
2 PLC ±
3 PLC ±
4 PLC ±
ANGLES/WINKEL ±1°
MATERIAL see table siehe Tabelle
FINISH/OBERFLAECHE/FARBE see table siehe Tabelle

DWN	06JUN2006 R. Liebing
CHK	- -
APVD	- -
PRODUCT SPEC PRODUKTSPEC	108-18717
APPLICATION SPEC VERARBEITUNGSSPEC	114-18387
WEIGHT GEWICHT	-

TE Connectivity

NAME: PRODUCT GROUP DRAWING FOR AMP MCP 2.8K

SIZE	CAGE CODE	DRAWING NO ZEICHNUNGS-NR.	RESTRICTED TO NUR FUER
A1	00779	C-1241437	-

Customer Drawing /KUNDENZEICHNUNG | SCALE MASSSTAB 10:1 | SHEET BLATT 1 OF VON 1 | REV C16

Production Part Approval
Dimension Test Results

1088/21

ORGANIZATION:	PART NUMBER 14000.034.114
SUPPLIER/VENDOR CODE ***Tyco Electronics Czech s.r.o. /***	PART NAME AMP MCP 2.8K
INSPECTION FACILITY ***Kuřim***	DESIGN RECORD CHANGE LEVEL: C-1241437
	ENGINEERING CHANGE DOCUMENTS: C16

ITEM	DIMENSION / SPECIFICATION	SPECIFICATION/ LIMITS	TEST DATE	QTY. TESTED	ORGANIZATION MEASUREMENT RESULT (DATA)				OK	NOT OK
					sample 1					
1	19,00	±0,5			19,24				x	
2	0,80	+0,3			0,89				x	
3	M 0,40	+0,2			0,50				x	
4	1,30	-0,2/+0,3			1,20				x	
5	A 3,30	±0,2			3,37				x	
6	B 4,30	±0,2			4,26				x	
7	C 5,80	±0,5			5,78				x	
8	3°	±1°			2°37'				x	
9	0,32	±0,03			0,32				x	
10	max. 0,50				unmeasurable in the strip.				x	
11	3,10	-0,1			3,05				x	
12	0,35	±0,1			0,41				x	
13	4,40	-0,1			4,37				x	
14	4,20	±0,2			4,32				x	
15	4,20	-0,4/+0,3			4,35				x	
16	6,30	-0,15/+0,05			6,32				x	
17	4,20	-0,15/+0,05			4,21				x	
18	1,00	-0,15/+0,1			0,92				x	
19	min. 1,30				1,38				x	
20	D_{DR} 1,80	±0,2			1,82				x	
21	G (3,80)	±0,3			3,89				x	
22	E 3,80	±0,3			3,64				x	
23	K (4,90)	±0,3			5,07				x	
24	H 4,70	±0,3			4,73				x	
25	D_{ISO} 2,60	±0,2			2,64				x	

Blanked statements of conformance are unacceptable for any test results

SIGNATURE	TITLE	DATE
Miloslav Peška	PPAP Specialist	07.09.2021

Section 10

Material, Performance Test Results

Production Part Approval
Material Test Results

1088/21

ORGANIZATION:	PART NUMBER 14000.034.114
SUPPLIER/VENDOR CODE ***Tyco Electronics Czech s.r.o. /***	PART NAME AMP MCP 2.8K
INSPECTION FACILITY	DESIGN RECORD CHANGE LEVEL: C-1241437
Kuřim	ENGINEERING CHANGE DOCUMENT: C16

ITEM	DIMENSION / SPECIFICATION	SPECIFICATION / LIMITS	TEST DATE	QTY. TESTED	ORGANIZATION MEASUREMENT RESULT (DATA)				OK	NOT OK
	material									
1	**Body**									
	Material: CuNiSi					CuNiSi			x	
	Surface: Tinnned					Tinned			x	
2	**Spring**									
	Material: X10CrNi18-8				X10CrNi18-8				x	

Blanked statements of conformance are unacceptable for any test results

SIGNATURE	TITLE	DATE
Miloslav Peška	PPAP Specialist	07.09.2021

1 Body

KMD Connectors Stolberg GmbH

den 18.08.2021

LAGER SCHENKER DEUTSCHLAND AG

LUDWIG STRAßE 100

74564 CRAILSHEIM

Deutschland

Abnahmeprüfzeugnis 3.1 EN 10204:2005	Coil 100201692B	Herst. KM	Packliste 183176	Auftrag 2121708 - 1	Kunde 03003681

Anzahl 1 Gewicht netto 1389,00 KG

Packstuecke WC430293

Ihre Bestellung 2550163245 H. PROKS

Kunden-Material-Nummer 3-1668000-3 Rev A2 Artikel 7803016

C70250 0,32 X 24,00 SN13

100-1086 REV Z

112-20-8 REV AD

Mechanische Prüfung		Soll		Ist	
		min.	max.	min.	max.
Dicke	mm	0,31	0,33	0,314	0,32
Breite	mm	23,95	24,05	23,99	24,01
Zugfestigkeit	|| RM N/mm²	620		708	709
Streckgrenze	|| RP N/mm²	550		580	583
Bruchdehnung	A 50mm || %	14		18,7	19,7
Biegbarkeit	|| 180° r= 0.32mm BK =			rissfrei	rissfrei
Biegbarkeit	+ 180° r= 0.32mm BK =			rissfrei	rissfrei
Leitfähigkeit	m/(Omm²)	23		26,41	26,41
Säbelförmigkeit	mm/ 900		1,6	0,17	0,29
Ausbiegung	mm/ 900		225	9	12
Querwölbung	mm/ 24		0,048	0,001	0,002
Schneidgrat	mm		0,032	0,003	0,009
Oberflächenrauhtiefe Ra	Ra µm		0,35	0,14	0,19
Auflagendicke	Sn13 reinfeuervz. ausg	0,8	2	1,79	1,95
Korngröße	µm		30	15	15
Drall-Grad	°/ 900		10	1	3

Chemische Zusammensetzung %	bleifrei
MG	0.0861
SI	0.4241
ZN	0.0808
NI	2.3313
CU	Rest

Alle Elemente, die nicht explizit aufgelistet sind, entsprechen in ihren jeweiligen Anteilen der Spezifikation aus Ihrer o.g. Bestellung.

Werkstoffprüfung
Abnahmebeauftragter: Herr Fuchs
(Dieses Schreiben wurde maschinell erstellt und ist auch ohne Unterschrift gültig.)

Telefon :+49 2402 105-516
Fax :+49 2402 105-279
Email :andreas.fuchs@kmdgroup.com

2 Spring

otelinox

A subsidiary of SAMSUNG C&T

MANAGEMENT SYSTEMS CERTIFIED ACCORDING TO ISO 9001 & IATF 16949, ISO 14001, ISO 45001
LABORATORY ACCREDITED ACCORDING TO ISO/IEC 17025

INSPECTION CERTIFICATE

1000616667_5

(according to DIN EN 10204, type 3.1)

Manufacturer:	SC Otelinox SA
Adress:	16, Gaesti Street, Targoviste, 130087, Romania

IDENTITY

Product:	**CRC/Slit1.4310 HT5 2H 0.14x15.5mm MULTICOIL**	
Customer:	**TYCO ELECTRONICS CZECH S.R.O.**	
SO No. / Cust PO.	**1000408645 / PO 2550184164**	
Customer Art No:	**705410-4**	
Otx Art No:	**N13883M CZ**	
Spec No:	**EN 10088-2 ; TEC-100-309-2 rev U ; ID 2086 Version A1**	
Pallet No.	**1000616667_5**	
Coil No.	**NE25/29-216466/2/B/1 / 13**	/ /
Net Weight [kg]	**101**	
Heat Treatment	**Without**	

CHEMICAL ANALISYS(%) Heat No: 28741 Melting Process: E

xxx	C	Mn	Si	P	S	Cr	Ni
Req. (min-max)	0.05-0.15	MAX 2.0	MAX 2.0	MAX 0.045	MAX 0.015	16.00-19.00	6.00-9.50
Measured	0.1100	1.2600	0.8900	0.02600	0.00100	16.8000	6.6000
Element	**Mo**	**Ti**	**N**	**Al**	**Cu**	**Co**	
Req. (min-max)	MAX 0.8	xxx	MAX 0.10	xxx	xxx	xxx	
Measured	0.0900	xxx	0.0740	xxx	xxx	xxx	

TEST RESULTS

Test Direction	Longitudinal					
Position/Test No:	**T/ 828**	**B/ 829**				
Requirement	**Rp02(MPa)**	**Rm(MPa)**	**Elong(A80%)**	**HV1**	**Ra(um)**	**Bending Test**
min-max	min 1,000	1,350-1,500	min 13.0	xxx	xxx	
T	1,164	1,404	20.0	430	0.19	Ok
B	1,171	1,410	23.0	432	0.19	Ok

GEOMETRY MEASUREMENTS

Requirement	**Thick[mm]**	**Width[mm]**	**Burr[%/mm]**
Nominal Value	0.140	15.50	
min/max	-0.010/0.007	-0.05/0.05	max 5%
Min	0.138	15.480	0.0
Max	0.138	15.490	0.0

Other Test Results

PN-International 4-1668000-9/Rev.A
PN-Germany 4-1668000-9/Rev.A

Surface and dimensional control, material identity test : OK

Marking: Producer Trade Mark, Material, Heat No., Coil No.

Delivered product is in conformity with order requirements.

IL-CQ-1 Targoviste, 30.08.2021 Work Inspector : CUTA VICTORIA

C 28

Section 11

Initial Process Studies

Section 12

Qualified Laboratory Documentation

CERTIFICATE

This is to certify that

Tyco Electronics Czech s.r.o.

KAMP 1293
664 34 Kurim
Czech Republic

has implemented and maintains a **Quality Management System**.

Scope:
Design and manufacturing of electronic and mechatronic components and connector systems

An audit, conducted and documented in a report, has verified that this quality management system fulfills the requirements of the following International Automotive Standard:

IATF 16949:2016
(with product design)

Certificate registration no.	515107 IATF16
Main certificate registration no.	515099 IATF16
Issuing date	2021-05-16
This certificate is valid until	2024-05-15
IATF No.	0399463

2-IAO-QMC-01001

For and on behalf of DQS

Markus Bleher
Managing Director, DQS GmbH

Michael Drechsel
Managing Director, DQS Holding GmbH

Annex to certificate registration no.: 515107 IATF16
IATF-No.: 0399463

Tyco Electronics Czech s.r.o.

KAMP 1293
664 34 Kurim
Czech Republic

2-IAO-QMC-01001

Remote Location	Scope
515113 **TE Connectivity Solutions GmbH** **Werk Steinach** **Amperestr. 3** **9323 Steinach** **Switzerland**	Logistics
520349 **Tyco Electronics Czech s.r.o.** **HEMS** **Blanenská 355** **664 34 Kurim** **Czech Republic**	Purchasing
541261 **Tyco Electronics Czech, s. r. o.** **K AMP 2026/2C** **66434 Kurim** **Czech Republic**	Production equipment development, Process design
515099 **TE Connectivity Germany GmbH** **Ampèrestr. 12-14** **64625 Bensheim** **Germany**	Continuous Improvement, Supplier Management, Quality System Management, Purchasing, Internal Audit Management, Sales, Product Design, Production equipment Development, Testing, Process design, Human Resource, Customer Service, Policy making, Management review.
515116 **TE Connectivity Germany GmbH** **Amperestr. 12-14** **73499 Wört** **Germany**	Process Design, Testing, Warehousing

Annex to certificate registration no.: 515107 IATF16
IATF-No.: 0399463

Tyco Electronics Czech s.r.o.

KAMP 1293
664 34 Kurim
Czech Republic

2-IAO-QMC-01001

Remote Location	Scope
515103 **TE Connectivity Germany GmbH** **Amperestr. 11** **91550 Dinkelsbühl** **Germany**	Process design; Production equipment development; Testing
515110 **Tyco Electronics France SAS** **1 rue Ampère** **95300 Pontoise** **France**	Customer service, Product design, Sales Testing,
31600242 **TE Connectivity India Pvt. Ltd.** **RMZ NXT, Campus 1-B, 3rd Floor,** **Unit 301- 302, EPIP Area,** **Sonnenahalli Village, White Field Road,** **Karnataka** **560 066 Bangalore** **India**	Product design; Testing
515514 **TE Connectivity Italia Distribution S.r.l.** **Corso Fratelli Cervi 15** **10093 COLLEGNO TORINO** **Italy**	Customer service, Sales, Testing
525517 **TE Connectivity Morocco SARL** **I Lot 60, Zone Franche Tangier** **90 000 Tangier** **Morocco**	Warehousing
525515 **TE Connectivity Tunisia Office** **Immeuble Lake Forum, 4 ème étage 5 rue de la feuille d'érable** **1053 Tunis** **Tunisia**	Warehousing

This annex (edition: 2021-05-16) is only valid in connection with the above-mentioned certificate.

2019-05-20

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

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.:	**1241390-1**
Description:	**AMP MCP 2.8K Flat Type Receptacle**
Report No.:	**-**
Date of Report:	**-**
Purchase Order No.:	**-**
Bill of Delivery No.:	**-**
Preliminary MDS:	**No**
Multi Sourced:	**No**
IMDS ID / Version:	**4971178 / 30**
Node ID:	**962781136**
MDS Status (Change Date):	**Internally released (10/03/2020)**

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.:	**1241390-1**	Report No.:	**-**
Description:	**AMP MCP 2.8K Flat Type Receptacle**	IMDS ID / Version:	**4971178 / 30**
		Node ID:	**962781136**

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	AMP MCP 2.8K Flat Type Receptacle	1241390-1	4971178 / 30		0.5194				
├2	Body			1	0.385				
├3	Copper Nickel		73855529 / 5		0.3841			3.2	No
├4	Copper	7440-50-8				94.775		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				3.2	2.2 - 4.2	D	Not applicable [34]
4	Cobalt	7440-48-4				0.2	0 - 0.4	D	
4	Silicon	7440-21-3				0.725	0.25 - 1.2		
4	Iron	7439-89-6				0.1	0 - 0.2		
4	Magnesium (metal)	7439-95-4				0.175	0.05 - 0.3	D	
4	Manganese	7439-96-5				0.05	0 - 0.1		
4	Lead	7439-92-1				0.025	0 - 0.05	D / P / SVHC	Concentration within acceptable GADSL limits [44]
4	Zinc (metal)	7440-66-6				0.5	0 - 1		
4	Misc., not to declare	system				0.25	0 - 0.5		
3	e-plate Sn (electrodeposited Tin Coatings, bright and matt)		756885 / 6		0.0009			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				0.05	0 - 0.1	D / P / SVHC	Concentration within acceptable GADSL limits [44]
4	Tin	7440-31-5				99.425			
2	Spring For AMP MCP 2.8K	0-1241385-1	3520662 / 15	1	0.1344				
3	X10CrNi18-8		36413360 / 6		0.1344			1.1.2	No
4	Carbon	7440-44-0				0.1	0.05 - 0.15		
4	Chromium	7440-47-3				17.5	16 - 19		

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	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 < 0.5µg/cm2/week) [33]
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		

This is an uncontrolled copy of a document created by IMDS. End of the report.

Legend

Multi Sourced Component

Section 18

Part Submission Warrant

TE Connectivity

PPAP North America Team

Part Submission Warrant

EPPAP:

Part Name: AMP MCP 2.8K, CONTACT | Cust. Part Number: 87H5375

Shown on Drawing Number: C-1241437 | Org.Part Number: 1241390-1

Engineering Change Level: C16 | Dated: 19/APR/2018

Additional Engineering Changes: N/A | Dated: N/A

Safety and/or Government Regulation: ☐ Yes ☑ No | Purchase Order No.: N/A | Weight (kg): 0.00051

Checking Aid Number: Not applicable | Checking Aid Engineering Change Level: N/A | Dated: N/A

ORGANIZATION MANUFACTURING INFORMATION

TE Connectivity
Organization Name and Supplier Code

KAMP 1293
Street Address

Kurim | | 664 34 | Czech Rep
City | Region | Postal Code | Country

CUSTOMER SUBMITTAL INFORMATION

Newark Electronics
Customer Name/Division

Not Provided
Buyer/Buyer Code

Various
Application

MATERIALS REPORTING

Has customer-required Substance of Concern information been reported Submitted by IMDS or other customer format: ☑ Yes ☐ No ☐ NA

IMDS
4971178 / 30

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

REASON FOR SUBMISSION (Check at least one)

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

PCN P-21-021000

REQUESTED SUBMISSION LEVEL (Check one)

- ☐ Level 1 - Warrant only (and for designated appearance items, an Appearance Approval Report) submitted to customer.
- ☐ Level 2 - Warrant with product samples and limited supporting data submitted to customer.
- ☑ Level 3 - Warrant with product samples and complete supporting data submitted to customer.
- ☐ Level 4 - Warrant and other requirements as defined by customer.
- ☐ Level 5 - Warrant 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 | 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

Production Rate is TE Proprietary. PCN P-21-021000

Is each Customer Tool properly tagged and numbered? ☐ Yes ☐ No ☑ NA

Organization Authorized Signature: *Luis Casas* | Date: 11/06/2021

Print Name: Luis Casas | Phone No.: n/a | Fax: n/a

Title: PPAP Technician | Email: alberto.casas@te.com

FOR CUSTOMER USE ONLY (IF APPLICABLE)

PPAP Warrant Disposition : ☐ Approved ☐ Rejected ☐ Other

Customer Signature | Date

Print Name | Customer Tracking Number (optional)

Section 18a

Bulk Material Requirements

Not Applicable