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PPAP Package for:

Newark Electronics
Customer Part Number: 41M0805
(TE Connectivity Part Number): 1703032-1
May-2021

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.

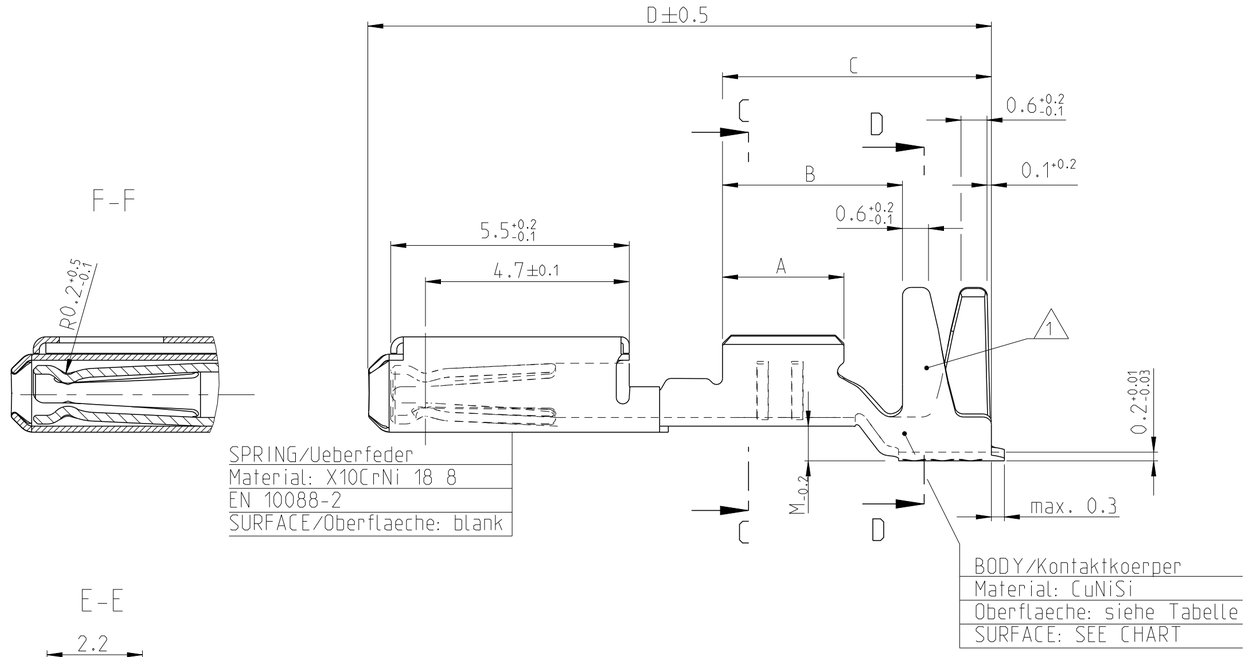
Section 1

Design Records

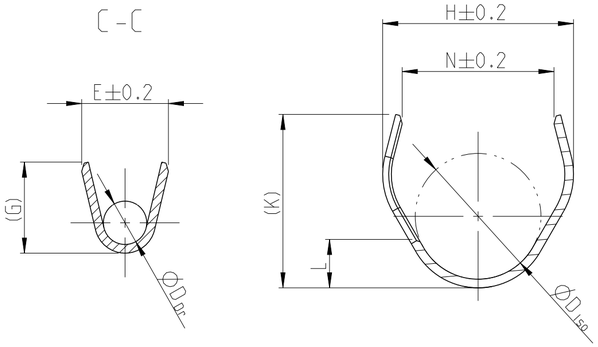
LOC	DIST
A1	-

REVISIONS

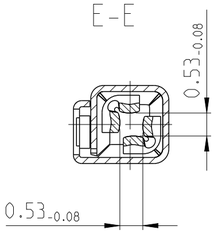
P	LTR	DESCRIPTION	DATE	DWN	APVD
	A2	LP variants removed. ECR-13-015135	30SEP2013	Abr	Brun
	A3	Design 2 and PN 2288140 added. ECR-14-018067	20NOV2014	Bren	Brun
	A4	Dimension of ISO-Crimp changed. ECR-17-006253	02MAY2017	HO.	BRUN
	A5	WIRE SIZE RANGE 0.22 added. PCN E-17-016682	13NOV2017	MAH.	BRUN

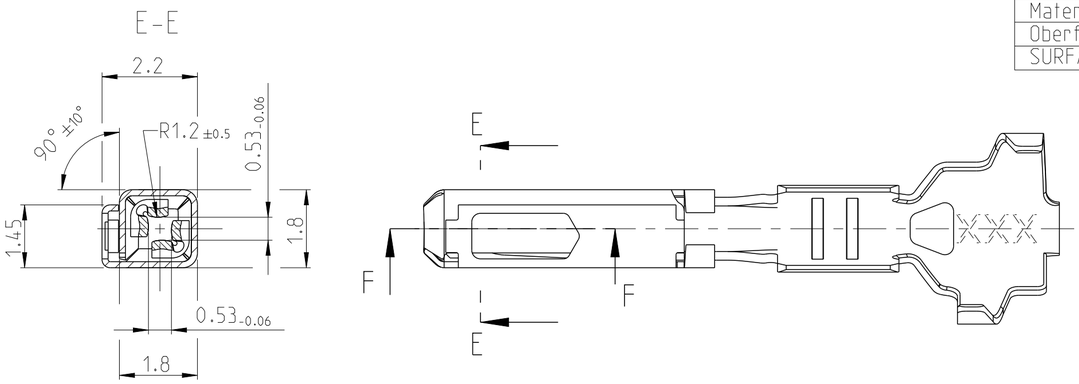


DESIGN 1 / Ausfuehrung 1



GOLD VERSION
Vergoldete Ausfuehrung





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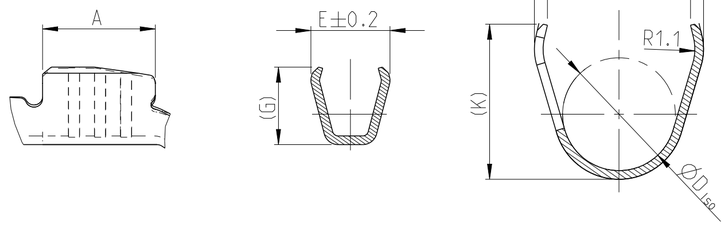
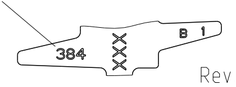


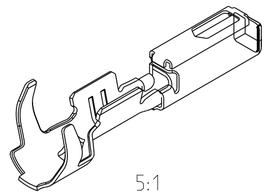
NOTES
Bemerkungen

1 DATE-CODE (WEEK/YEAR (E.G. WEEK NUMBER 38/ YEAR 2004) AND TE REVISION (E.G. REV. B)
Datumscode (Woche / Jahr, z.B. KW38/ Jahr 2004) und TE-Revision (z.B.Rev.B)



2 SUITABLE FOR PIN CONTACT SEE DRAWING: TE: 929453
Passend zu Stiftkontakt siehe Zeichnung: TE: 929453

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


5:1

A5

Bestell-Nr. Ausfuehrung ORDER NO. DESIGN 1	Bestell-Nr. Ausfuehrung ORDER NO. DESIGN 2	Rev	DGB Wire Size Range mm^2	Oberflaeche SURFACE	Laenge LENGTH mm	Drahtcrimp WIRE CRIMP mm	Iso-crimp INSU-CRIMP mm	DGB Wire Size Range mm^2	Isolations Ø INSULATION 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
	2288140-1	A	0.22-0.35	Sn	A = 2.6 B = 4.2 C = 6.2 D = 14.2 M = 0.8	E = 1.8 G = 1.8	H = 3.9 K = 3.58 N = 3.3 D_{Iso} = 2.6	0.22-0.35	0.9-1.4	967067-2 gelb YELLOW	967056-1 blau / BLUE	963142-2 grau GREY	967056-1 blau / BLUE
1703032-5		A	0.5-0.75	Au	A = 2.8 B = 4.2 C = 6.2 D = 14.2 M = 0.8	E = 2 G = 2.1 D_{Dr} = 1	H = 4.4 K = 4 L = 1.5 N = 3.5 D_{Iso} = 2.9	0.5-0.75	1.4-1.9	967067-1 gruen GREEN		963142-1 schwarz BLACK	
1703032-1		A		Sn									

zugehoerige Einzeldichtung / SUITABLE SINGLE WIRE SEAL

THIS DRAWING IS A CONTROLLED DOCUMENT.

DIMENSIONS: mm

TOLERANCES UNLESS OTHERWISE SPECIFIED: 0 PLC, 1 PLC, 2 PLC, 3 PLC, 4 PLC ±0.2 ANGLES ±1°

MATERIAL -

FINISH -

DWN	Abraham.G. 01JUN2004
CHK	Kampmann.H. 02JUN2004
APVD	Bleicher. M. 27SEP2004
PRODUCT SPEC	108-18030
APPLICATION SPEC	114-18025
WEIGHT	0.13 g

TE Connectivity

NAME
MQS
SOCKET CONTACT CLEANBODY SWS
Tabellenzeichnung Buchsenkontakt

SIZE	CAGE CODE	DRAWING NO	RESTRICTED TO
A2	00779	C-1703040	-

Customer Drawing | SCALE 10:1 | SHEET 1 OF 1 | REV A5

1471-9 (3/11)

Section 2

Engineering Change Documents

Product Change Notification

Current Date: 14-Aug-2020

TE Connectivity

Product Change Notification: P-20-018935 **PCN Date:** 16-APR-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 CLEAN BODY SOCKET CONTACT

Description of Changes
Manufacturing location change. Following Part Numbers will be transferred from TE Connectivity Woert (D) to TE Connectivity Greensboro (NA): 1703032-1 1703032-5 2288140-1 5-968220-6

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:	
Last Order Date (Obsolete Parts Only):	**First Date To Ship** (Changed Parts Only):
	11-DEC-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
1-2323914-1	NO					
1-2323914-2	NO					
1-2323914-4	NO					
1-2323914-5	NO					
1-2323914-6	NO					
1-2323914-7	NO					
1703032-1	NO					
1703032-5	NO					
1703033-1	NO					
1703033-5	NO					
2288140-1	NO					
2323914-1	NO					
2323914-2	NO					
2323914-4	NO					
2323914-5	NO					
2323914-6	NO					
2323914-7	NO					
2324137-1	NO					
2324137-2	NO					
2344929-1	NO					
5-968220-6	NO					

Section 3

Customer Engineering Approval

ENGINEERING SAMPLE EVALUATION REPORT

PART NAME: MQS0,63 Sn rec CB EDS 0,5-0,75		**PART NO.:** TE PN: 1703032-1 (8U5T-14474-DA)	
		CHANGE TYPE:	**CHECK APPLICABLE:**
SUBMITTED BY: Andrew Hjelt	**CURRENT MANUFACTURING SITE:** TE-Woert, Germany	**TOOL MOVE:**	X
		PROCESS CHANGE:	
	FUTURE MANUFACTURING SITE: TE-Greensboro, NC (Pegg Rd)	**MATERIAL/MATERIAL SUPPLIER CHANGE:**	
		CAPACITY TOOL:	
SUPPLIER: TE Connectivity J6DRY		**DATE SUBMITTED:** 5/14/2021	**MADE TO DRAWING DATED:** 1/22/2007

CHANGE DETAILS:

Qualification of die relocation, Die# 11-1058067, to produce the terminal 1703032-1, MQS0,63 Sn rec CB EDS 0,5-0,75.

APPROVED: ☑ **REJECTED:**		**PRODUCT ENGINEERING SIGNATURE*:**	**DATE:** May 19, 2021

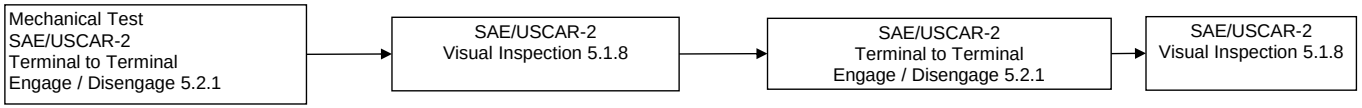
IDENTIFY WITH ▽REMARKS AFFECTING PRODUCT ENGINEERING CRITICAL REQUIREMENTS

***By signing this document, you state that you have verified the physical part/s with the drawing/s and agree with key dimensional data, notes and appearance.**

System: CPSC 18.01.07 Connectors			Ford part number (s): 8U5T-14474-DA		Model Year and Program:	Ford Design Engineer:
Temperature Class	T3	T1, T2, T3, T4 T5	Supplier: TE Connectivity			Ford Design Engineer Approval
Vibration Class		V1, V2,V3, V4, V5	Reason for Validation:	Tool Transfer	Part Level: PV - production	Plan: / Report:
Sealing Class		S1, S2,S2.5, S3				

Test Name/Source	Acceptance Criteria	Test Results	Design Level Tested	Sample Size		Timing		Remarks
				Required	Tested	Sched.	Actual	

Group A -Mechanical Test Flow Chart Terminal to Terminal Engage / Disengage 5.9.3



A-1. Visual Inspection - SAE/USCAR-2 5.1.8 To document the physical appearance of test samples.	The connectors assemblies must not show , with the aid of 10X magnification, any evidence of deterioration, cracks, deformities, etc., that could affect their functionality or distort their appearance. Connector locking mechanism must function without breaking	Passed	PV	10	10	May 2021	May 2021	
A-2. Engage Force USCAR 2, 5.2.1.3.3	1st mate engage force USCAR-2, 5.2.1.3.4	Max: 3.47 N / Min: 2.80 N / Ave: 3.07 N	PV	10	10	May 2021	May 2021	Max Force per Ford Drawing (8U5T-14474-DA) Note 6 is 5 N.
A-3. Disengage Force USCAR 2, 5.2.1.3.3	10th unmate disengage force USCAR-2, 5.2.1.3.6	2.93 N / 1.44 N / 2.66 N				May 2021	May 2021	
A-4. Visual Inspection - SAE/USCAR-2 5.1.8 To document the physical appearance of test samples.	The connectors assemblies must not show , with the aid of 10X magnification, any evidence of deterioration, cracks, deformities, etc., that could affect their functionality or distort their appearance. Connector locking mechanism must function without breaking	Passed	PV	10	10	May 2021	May 2021	

Test Part Inventory Page

Design Verification Plan and Report

System: CPSC 18.01.07 Connectors			Ford part number (s): 8U5T-14474-DA		Model Year and Program:		Ford Design Engineer:	
Temperature Class	T3	T1, T2, T3, T4 T5	Supplier: TE Connectivity				Ford Design Engineer Approval	
Vibration Class		V1, V2,V3, V4, V5	Reason for Validation:	Tool Transfer	Part Level:	PV - production	Plan:	Report:
Sealing Class		S1, S2,S2.5, S3						

Test Name/Source	Acceptance Criteria	Test Results	Design Level Tested	Sample Size		Timing		
				Required	Tested	Sched.	Actual	Remarks
	Male Connector Test					Female Connector Test		
Terminal Test Part Numbers	Unknown, TE P/N: 5-963716-1, MQS0,63 Sn tab LL unseal. 0,50-0,75					8U5T-14474-DA, TE P/N: 1703032-1, MQS0,63 Sn rec CB EDS 0,5-0,75		
Seal Test Part Numbers	N/A					N/A		
Clip/Cover etc. Test Part Numbers	N/A					N/A		
Mating Device Used Part Numbers	N/A					N/A		
Terminal Test Part Numbers	N/A					N/A		
Connector Test Part Numbers	N/A					N/A		
Wire Gauge and Type	N/A					N/A		

Ford_DVPR-ESER_MQS_0.63_CB_Recpt_DieTransfer_8U5T-14474-DA

Final Audit Report 2021-05-19

Created:	2021-05-17
By:	DALE SHIELDS (djshields@te.com)
Status:	Signed
Transaction ID:	CBJCHBCAABAAyk-dT0WfsTcAGkQoaSwvjDtQcQY3sVMZ

"Ford_DVPR-ESER_MQS_0.63_CB_Recpt_DieTransfer_8U5T-14474-DA" History

Document created by DALE SHIELDS (djshields@te.com)
2021-05-17 - 12:09:11 PM GMT- IP address: 198.137.214.33

Document emailed to Joel Pittenger (jpitten1@ford.com) for signature
2021-05-17 - 12:10:21 PM GMT

Email viewed by Joel Pittenger (jpitten1@ford.com)
2021-05-19 - 7:08:45 PM GMT- IP address: 136.2.16.184

Document e-signed by Joel Pittenger (jpitten1@ford.com)
Signature Date: 2021-05-19 - 7:12:41 PM GMT - Time Source: server- IP address: 136.2.16.184- Signature captured from device with phone number XXXXXXX4467

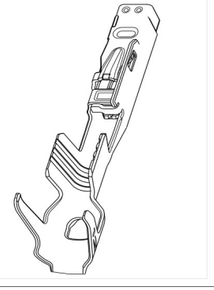
Agreement completed.
2021-05-19 - 7:12:41 PM GMT

GMW 3191 - Sealed Connector

Testing Purpose:	**Product Validation Plan**
EWO Number:	N/A - TE NA Tool Relocation
Model Year:	N/A
First Using Program:	N/A
Application:	MQS,CONTACT,MQS CLEAN BODY EDS
Notes:	This PV Plan is to validate a the tool transfer of die S1058067 from Wort, Germany to TE's Pegg Rd Facility in Greensboro, NC.

Customer Information	
GM Connector Part Number(s)	**N/A**
Other Information	
Wire Type	
Tool Number 11-1058067	Tool Revision Number
Tool Location Pegg Road, Greensboro, North Carolina	

Supplier Information					
Connector Supplier Name:	TE Connectivity				
Supplier Part Number(s)	2288140-1 & 1703032-1				
Terminal Information					
	Primary Terminal			Secondary Terminal	
GM Terminal Part Number 2288140-1 & 1703032-1	Terminal Supplier	Terminal Type	Terminal Part No	Terminal Supplier	Terminal Type	Terminal Part No
	TE Conn.	0.63	2288140-1			
	TE Conn.	0.63	1703032-1			



Connector Information			
Connector Type:	Sealed	X	Unsealed
Connector Size:	N/A - Terminal		
Part Description:	MQS,CONTACT,MQS CLEAN BODY EDS		
Temperature Class: T3			
Vibration Class: Connector Dependent			
Sealing Class: Connector Dependent			
Connector Mating Force Class:	N/A		

GM Approval

Pretest:

Post Test:

GM CVE - 06MAY21

				Primary Terminal or Connector (****)										**Secondary Terminal/Connector (****)**										
				Sample Description					**Test Results**					**Sample Description**					**Test Results**					
	Test Item	Test Requirement	Acceptance Criteria	Minimum Sample Size	Terminal Size (mm)	Wire Size	Test Number	Test Start Date	Test Completion Date	Minimum	Maximum	Average	Standard Deviation	Pass/Fail	Terminal Size (mm)	Wire Size	Test Number	Test Start Date	Test Completion Date	Minimum	Maximum	Average	Standard Deviation	Pass/Fail	Notes
Terminal Mechanical Tests	**Terminal to Terminal Engagement Force (Section 4.2.3) Test Sequence 26C**																							
	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 appeearance	10 Terminal Pairs	0.63 mm	N/A	WE-20210627	May 2021	May 2021	No Defects				Passed										
	Terminal to Terminal Engagement Force (4.2.3)	Insert male terminal at a rate of 50mm/min	Reference Only		0.63 mm	N/A				2.80 N	3.47 N	3.07 N	0.22	Passed										
	Post Test Visual Examination (3.4)	Visually examine each test specimen after testing, note any obsevable 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	N/A				Passed				Passed										

PF90012 Design Validation Plan & Report Document

Supplier:	TE Connectivity
Supplier Part Number:	1703032-1 & 2288140-1
Part Description	MQS,CONTACT,MQS CLEAN BOD
Lead Application:	
Lead Carline	
Lead MY:	
PF90012 Temperature Class	
PF90012 Vibration Class	

Were There Failures on Testing?	No
(If yes, please explain on Failure Analysis Page)	

Prepared By:	Andrew Hjelt
Date:	5/6/2021

Comments:
TE is requesting Stellantis approval of the Product Validation report for tool transfer, being relocated from Wort, Germany to Greensboro, NC, USA. S1058067 which produces the MQS terminal

Date:	Rev.	Content of Revision

Stellantis CoC Approval	
Laura Borthwick	5/7/2021
Paul Dang	

DESIGN VERIFICATION PLAN AND REPORT

Assembly/Part Number: 1703032-1 & 2288140-1	**Component Description:** MQS,CONTACT,MQS CLEAN BODY EDS	**Date:**	5/6/2021
		Design Engineer:	Andrew Hjelt
System N/A	**Subsystem** N/A	**DVP&R Level:**	☐ Prototype
Specifications: Chrysler PF90012 (Class ***TBD***) Revision 1			☑ Production

Test Type	Test Sub-Category	Acceptance Criteria	Test Results				Minimum Required Data Points	Timing		Notes
			DV		PV			Sched	Actual	
			Pass/Fail	Result	Pass/Fail	Result		Start / End	Start / End	
Terminal Mechanical Testing	**Terminal - Terminal Engage/Disengage Force -- PF90012 Sec. 6.4.1.A**									
	Engage Force Sec. 6.4.1.A	1st and last (10th) insertions should be recorded. Complete the Visual Examination per section 6.2.1 noting any wear of the contact surfaces. No base material should be exposed.	TBD	TBD	Passed	Fmin = 2.80 N Fmax =3.47 N Favg = 3.07 N	10 Data Points	May 2021	May 2021	
	Disengage Force Sec. 6.4.1.A	10th removal should be recorded.	TBD	TBD	Passed	Fmin = 2.53 N Fmax = 3.56 N Favg = 3..09N	10 Data Points			
	Terminal Bend Resistance -- PF90012 Sec. 6.4.1.B									
	Terminal Bend Resistance Sec. 6.4.1.B	The TUT must not tear when subjected to the applied force for **15 seconds**. If the TUT was bent from its original position during the test, it must not tear or crack when straightened to its original position	TBD	TBD			15 (Terminal Type "A")			

DESIGN VERIFICATION PLAN AND REPORT

Assembly/Part Number: 1703032-1 & 2288140-1	**Component Description:** MQS,CONTACT,MQS CLEAN BODY EDS	**Date:**	5/6/2021
		Design Engineer:	Andrew Hjelt
System N/A	**Subsystem** N/A	**DVP&R Level:**	☐ Prototype
Specifications: Chrysler PF90012 (Class ***TBD***) Revision 1			☑ Production

Test Type	Test Sub-Category	Acceptance Criteria	Test Results				Minimum Required Data Points	Timing		Notes
			DV		PV			Sched	Actual	
			Pass/Fail	Result	Pass/Fail	Result		Start / End	Start / End	
Mechanical Over-Stress - PF90012 Sec. 6.4.1.C										
Testing	**Dry Circuit Resistance 6.3.6 A**	Total connection resistance (crimp-to-crimp): ≤ 0.64mm 10 mΩ Max ≤ 1.5mm 8 mΩ Max ≤ 2.8mm 5 mΩ Max ≤ 6.35mm 1.5 mΩ Max > 6.35mm 1.5 mΩ Max While shorted resistance shall be < 40 mΩ **10.0mΩ Max for precious metal contacts**	TBD	TBD	TBD	TBD	10 Data Points	TBD	TBD	
	Voltage Drop 6.3.6 B	Total connection resistance (crimp-to-crimp): ≤ 0.64mm 10 mΩ Max ≤ 1.5mm 8 mΩ Max ≤ 2.8mm 5 mΩ Max ≤ 6.35mm 1.5 mΩ Max > 6.35mm 1.5 mΩ Max Maximum allowable mVD = 50 **10.0mΩ Max for precious metal contacts**	TBD	TBD	TBD	TBD	10 Data Points	TBD	TBD	

DESIGN VERIFICATION PLAN AND REPORT

Assembly/Part Number: 1703032-1 & 2288140-1	**Component Description:** MQS,CONTACT,MQS CLEAN BODY EDS	**Date:**	5/6/2021
		Design Engineer:	Andrew Hjelt
System N/A	**Subsystem** N/A	**DVP&R Level:**	☐ Prototype
Specifications: Chrysler PF90012 (Class ***TBD***) Revision 1			☑ Production

Test Type	Test Sub-Category	Acceptance Criteria	Test Results				Minimum Required Data Points	Timing		Notes
			DV		PV			Sched	Actual	
			Pass/Fail	Result	Pass/Fail	Result		Start / End	Start / End	
Terminal Mechanical Te	**Mechanical Over-Stress Sec. 6.4.1.C**	Conditioning Step Only	TBD	TBD	TBD	TBD	N/A	TBD	TBD	
	Dry Circuit Resistance 6.3.6 A	Total connection resistance (crimp-to-crimp): ≤ 0.64mm 10 mΩ Max ≤ 1.5mm 8 mΩ Max ≤ 2.8mm 5 mΩ Max ≤ 6.35mm 1.5 mΩ Max > 6.35mm 1.5 mΩ Max While shorted resistance shall be < 40 mΩ **10.0mΩ Max for precious metal contacts**	TBD	TBD	TBD	TBD	10 Data Points	TBD	TBD	
	Voltage Drop 6.3.6 B	Total connection resistance (crimp-to-crimp): ≤ 0.64mm 10 mΩ Max ≤ 1.5mm 8 mΩ Max ≤ 2.8mm 5 mΩ Max ≤ 6.35mm 1.5 mΩ Max > 6.35mm 1.5 mΩ Max Maximum allowable mVD = 50 **10.0mΩ Max for precious metal contacts**	TBD	TBD	TBD	TBD	10 Data Points	TBD	TBD	
	Crimp Strength -- PF90012 Sec. 6.4.1.D									
	Crimp Strength USCAR-21	Cable to terminal crimps shall be validated per SAE/USCAR-21. Refer to SAE/USCAR-21 for test procedure. Terminal crimps for all wire sizes specified for the terminal shall be completed.	TBD	TBD	TBD	TBD	All cable crimping configurations shall be verified	TBD	TBD	

DESIGN VERIFICATION PLAN AND REPORT

Assembly/Part Number: 1703032-1 & 2288140-1	**Component Description:** MQS,CONTACT,MQS CLEAN BODY EDS	**Date:**	5/6/2021
		Design Engineer:	Andrew Hjelt
System N/A	**Subsystem** N/A	**DVP&R Level:**	☐ Prototype
Specifications: Chrysler PF90012 (Class ***TBD***) Revision 1			☑ Production

Test Type	Test Sub-Category	Acceptance Criteria	Test Results				Minimum Required Data Points	Timing		Notes
			DV		PV			Sched	Actual	
			Pass/Fail	Result	Pass/Fail	Result		Start / End	Start / End	
Terminal Electrical	**Maximum Current/Current Cycling -- PF90012 Sec. 6.3.6.D-E**									
	Maximum Test Current Capability 6.3.6 D	No pass/fail criteria applies; value is used to establish "Maximum Test Current" for the TUT in Section 6.3.6.. The maximum test current of the specific combination of the terminal and the wire conductor gage and insulation type used is the current that produces an exact or interpolated value of 55°C rise in the first increment in which either the condition described in 9 a or 9 b above was achieved, less 10% of that value.	TBD	TBD	TBD	TBD	10 Lg Data Points 10 Sm Data Points	TBD	TBD	
	Current Cycling 6.3.6 E	1. At the conclusion of the test, verify conformance of CUT/TUT per corresponding measurement section as identified in Test Sequence (6.3.6). 2. The temperature of any terminal interface must not exceed a 55 oC ROA at any time during the test.	TBD	TBD	TBD	TBD	30 Lg Data Points 30 Sm Data Points	TBD	TBD	

DESIGN VERIFICATION PLAN AND REPORT

Assembly/Part Number: 1703032-1 & 2288140-1	**Component Description:** MQS,CONTACT,MQS CLEAN BODY EDS	**Date:**	5/6/2021
		Design Engineer:	Andrew Hjelt
System N/A	**Subsystem** N/A	**DVP&R Level:**	☐ Prototype
Specifications: Chrysler PF90012 (Class ***TBD***) Revision 1			☑ Production

Test Type	Test Sub-Category	Acceptance Criteria	Test Results				Minimum Required Data Points	Timing		Notes
			DV		PV			Sched	Actual	
			Pass/Fail	Result	Pass/Fail	Result		Start / End	Start / End	
Final-Electrical Testing	**Vibration/Mechanical Shock -- PF90012 6.4.2 K**									
	Visual Examination 6.2.1	There shall be no corrosion, discoloration, cracks, etc., which could affect the functionality of the part Swelling or physical distortion shall not exceed the tolerances specified on the part drawing.	TBD	TBD	TBD	TBD	10 Connector Pairs	TBD	TBD	
	Connector Conditioning 1.8.2	Conditioning Step Only	N/A	N/A	N/A	N/A	10 Connector Pairs	TBD	TBD	
	Dry Circuit Resistance 6.3.6 A	Total connection resistance (crimp-to-crimp): ≤ 0.64mm 10.0mΩ Max ≤ 1.50mm 8.0mΩ Max ≤ 2.80mm 5.0mΩ Max ≤ 6.35mm 1.5mΩ Max > 6.35mm 1.5mΩ Max While shorted resistance shall be < 20 mΩ	TBD	TBD	TBD	TBD	10 Data Points	TBD	TBD	
	Mechanical Shock 6.4.2 K	Conditioning Step Only	N/A	N/A	N/A	N/A	10 Connector Pairs	TBD	TBD	
	Circuit Continuity 6.4.2 K	No loss of electrical contiinuity for more than 1μ second. 1μ sec > Resistance of terminal pair > 7Ω	TBD	TBD	TBD	TBD	10 Connector Pairs	TBD	TBD	Refer to Figure 20
	Dry Circuit Resistance 6.3.6 A	Total connection resistance (crimp-to-crimp): ≤ 0.64mm 10.0mΩ Max ≤ 1.50mm 8.0mΩ Max ≤ 2.80mm 5.0mΩ Max ≤ 6.35mm 1.5mΩ Max > 6.35mm 1.5mΩ Max While shorted resistance shall be < 20 mΩ	TBD	TBD	TBD	TBD	10 Data Points	TBD	TBD	

DESIGN VERIFICATION PLAN AND REPORT

Assembly/Part Number: 1703032-1 & 2288140-1	**Component Description:** MQS,CONTACT,MQS CLEAN BODY EDS	**Date:**	5/6/2021
		Design Engineer:	Andrew Hjelt
System N/A	**Subsystem** N/A	**DVP&R Level:**	☐ Prototype
Specifications: Chrysler PF90012 (Class ***TBD***) Revision 1			☑ Production

Test Type	Test Sub-Category	Acceptance Criteria	Test Results				Minimum Required Data Points	Timing		Notes
			DV		PV			Sched	Actual	
			Pass/Fail	Result	Pass/Fail	Result		Start / End	Start / End	
Term	**Vibration 6.4.2 L**	Conditioning Step Only	N/A	N/A	N/A	N/A	10 Connector Pairs	TBD	TBD	
	Circuit Continuity 6.4.2 K	No loss of electrical contiinuity for more than 1µ second. 1µ sec > Resistance of terminal pair > 7Ω	TBD	TBD	TBD	TBD	10 Connector Pairs	TBD	TBD	Refer to Figure 20
	Dry Circuit Resistance 6.3.6 A	Total connection resistance (crimp-to-crimp): ≤ 0.64mm 10.0mΩ Max ≤ 1.50mm 8.0mΩ Max ≤ 2.80mm 5.0mΩ Max ≤ 6.35mm 1.5mΩ Max > 6.35mm 1.5mΩ Max While shorted resistance shall be < 20 mΩ	TBD	TBD	TBD	TBD	10 Data Points	TBD	TBD	
	Voltage Drop 6.3.6 B	Total connection resistance (crimp-to-crimp): ≤ 0.64mm 10.0mΩ Max ≤ 1.50mm 8.0mΩ Max ≤ 2.80mm 5.0mΩ Max ≤ 6.35mm 1.5mΩ Max > 6.35mm 1.5mΩ Max	TBD	TBD	TBD	TBD	10 Data Points	TBD	TBD	
	Visual Examination 6.2.1	There shall be no corrosion, discoloration, cracks, etc., which could affect the functionality of the part Swelling or physical distortion shall not exceed the tolerances specified on the part drawing.	TBD	TBD	TBD	TBD	10 Connector Pairs	TBD	TBD	

DESIGN VERIFICATION PLAN AND REPORT

Assembly/Part Number: 1703032-1 & 2288140-1	**Component Description:** MQS,CONTACT,MQS CLEAN BODY EDS	**Date:**	5/6/2021
		Design Engineer:	Andrew Hjelt
System N/A	**Subsystem** N/A	**DVP&R Level:**	☐ Prototype
Specifications: Chrysler PF90012 (Class ***TBD***) Revision 1			☑ Production

Test Type	Test Sub-Category	Acceptance Criteria	Test Results				Minimum Required Data Points	Timing		Notes
			DV		PV			Sched	Actual	
			Pass/Fail	Result	Pass/Fail	Result		Start / End	Start / End	
Thermal-Electrical Testing	**Thermal Shock -- PF90012 Section 5.2.1 (Electrical)**									
	Visual Examination 6.2.1	There shall be no corrosion, discoloration, cracks, etc., which could affect the functionality of the part Swelling or physical distortion shall not exceed the tolerances specified on the part drawing.	TBD	TBD	TBD	TBD	10 Connector Pairs	TBD	TBD	
	Connector Conditioning 1.8.2	Conditioning Step Only	N/A	N/A	N/A	N/A	10 Connector Pairs	TBD	TBD	
	Dry Circuit Resistance 6.3.6 A	Total connection resistance (crimp-to-crimp): ≤ 0.64mm 10.0mΩ Max ≤ 1.50mm 8.0mΩ Max ≤ 2.80mm 5.0mΩ Max ≤ 6.35mm 1.5mΩ Max > 6.35mm 1.5mΩ Max While shorted resistance shall be < 20 mΩ	TBD	TBD	TBD	TBD	10 Data Points	TBD	TBD	
	Thermal Shock 6.4.2 K	Conditioning Step Only	N/A	N/A	N/A	N/A	10 Connector Pairs	TBD	TBD	
	Circuit Continuity 6.4.2 K	No loss of electrical contiinuity for more than 1µ second. 1µ sec > Resistance of terminal pair > 7Ω	TBD	TBD	TBD	TBD	10 Connector Pairs	TBD	TBD	Refer to Figure 20

DESIGN VERIFICATION PLAN AND REPORT

Assembly/Part Number: 1703032-1 & 2288140-1	**Component Description:** MQS,CONTACT,MQS CLEAN BODY EDS	**Date:**	5/6/2021
		Design Engineer:	Andrew Hjelt
System N/A	**Subsystem** N/A	**DVP&R Level:**	☐ Prototype
Specifications: Chrysler PF90012 (Class ***TBD***) Revision 1			☑ Production

Test Type	Test Sub-Category	Acceptance Criteria	Test Results				Minimum Required Data Points	Timing		Notes
			DV		PV			Sched	Actual	
			Pass/Fail	Result	Pass/Fail	Result		Start / End	Start / End	
Termina	**Dry Circuit Resistance 6.3.6 A**	Total connection resistance (crimp-to-crimp): ≤ 0.64mm 10.0mΩ Max ≤ 1.50mm 8.0mΩ Max ≤ 2.80mm 5.0mΩ Max ≤ 6.35mm 1.5mΩ Max > 6.35mm 1.5mΩ Max While shorted resistance shall be < 20 mΩ	TBD	TBD	TBD	TBD	10 Data Points	TBD	TBD	
	Voltage Drop 6.3.6 B	Total connection resistance (crimp-to-crimp): ≤ 0.64mm 10.0mΩ Max ≤ 1.50mm 8.0mΩ Max ≤ 2.80mm 5.0mΩ Max ≤ 6.35mm 1.5mΩ Max > 6.35mm 1.5mΩ Max	TBD	TBD	TBD	TBD	10 Data Points	TBD	TBD	
	Visual Examination 6.2.1	There shall be no corrosion, discoloration, cracks, etc., which could affect the functionality of the part Swelling or physical distortion shall not exceed the tolerances specified on the part drawing.	TBD	TBD	TBD	TBD	10 Connector Pairs	TBD	TBD	

DESIGN VERIFICATION PLAN AND REPORT

Assembly/Part Number: 1703032-1 & 2288140-1	**Component Description:** MQS,CONTACT,MQS CLEAN BODY EDS	**Date:**	5/6/2021
		Design Engineer:	Andrew Hjelt
System N/A	**Subsystem** N/A	**DVP&R Level:**	☐ Prototype
Specifications: Chrysler PF90012 (Class ***TBD***) Revision 1			☑ Production

Test Type	Test Sub-Category	Acceptance Criteria	Test Results				Minimum Required Data Points	Timing		Notes
			DV		PV			Sched	Actual	
			Pass/Fail	Result	Pass/Fail	Result		Start / End	Start / End	
Terminal-Electrical Testing	**Temperature/Humidity Cycling -- PF90012 Section 5.2.2 (Electrical)**									
	Visual Examination 6.2.1	There shall be no corrosion, discoloration, cracks, etc., which could affect the functionality of the part Swelling or physical distortion shall not exceed the tolerances specified on the part drawing.	TBD	TBD	TBD	TBD	10 Connector Pairs	TBD	TBD	
	Connector Conditioning 1.8.2	Conditioning Step Only	N/A	N/A	N/A	N/A	10 Connector Pairs	TBD	TBD	
	Dry Circuit Resistance 6.3.6 A	Total connection resistance (crimp-to-crimp): ≤ 0.64mm 10.0mΩ Max ≤ 1.50mm 8.0mΩ Max ≤ 2.80mm 5.0mΩ Max ≤ 6.35mm 1.5mΩ Max > 6.35mm 1.5mΩ Max While shorted resistance shall be < 20 mΩ	TBD	TBD	TBD	TBD	10 Data Points	TBD	TBD	
	Temp/Humidity Cycling 5.2.2	Conditioning Step Only	N/A	N/A	N/A	N/A	10 Connector Pairs	TBD	TBD	
	Circuit Continuity 6.4.2 K	No loss of electrical contiinuity for more than 1µ second. 1µ sec > Resistance of terminal pair > 7Ω	TBD	TBD	TBD	TBD	10 Connector Pairs	TBD	TBD	Refer to Figure 20
	Dry Circuit Resistance 6.3.6 A	Total connection resistance (crimp-to-crimp): ≤ 0.64mm 10.0mΩ Max ≤ 1.50mm 8.0mΩ Max ≤ 2.80mm 5.0mΩ Max ≤ 6.35mm 1.5mΩ Max > 6.35mm 1.5mΩ Max While shorted resistance shall be < 20 mΩ	TBD	TBD	TBD	TBD	10 Data Points	TBD	TBD	

DESIGN VERIFICATION PLAN AND REPORT

Assembly/Part Number: 1703032-1 & 2288140-1	**Component Description:** MQS,CONTACT,MQS CLEAN BODY EDS	**Date:**	5/6/2021
		Design Engineer:	Andrew Hjelt
System N/A	**Subsystem** N/A	**DVP&R Level:**	☐ Prototype
Specifications: Chrysler PF90012 (Class ***TBD***) Revision 1			☑ Production

Test Type	Test Sub-Category	Acceptance Criteria	Test Results				Minimum Required Data Points	Timing		Notes
			DV		PV			Sched	Actual	
			Pass/Fail	Result	Pass/Fail	Result		Start / End	Start / End	
	Voltage Drop 6.3.6 B	Total connection resistance (crimp-to-crimp): ≤ 0.64mm 10.0mΩ Max ≤ 1.50mm 8.0mΩ Max ≤ 2.80mm 5.0mΩ Max ≤ 6.35mm 1.5mΩ Max > 6.35mm 1.5mΩ Max While shorted resistance shall be < 20 mΩ	TBD	TBD	TBD	TBD	10 Data Points	TBD	TBD	
	Visual Examination 6.2.1	There shall be no corrosion, discoloration, cracks, etc., which could affect the functionality of the part Swelling or physical distortion shall not exceed the tolerances specified on the part drawing.	TBD	TBD	TBD	TBD	10 Connector Pairs	TBD	TBD	

DESIGN VERIFICATION PLAN AND REPORT

Date: 5/6/2021

Assembly/Part Number:	**Component Description:**	**Design Engineer:**
1703032-1 & 2288140-1	MQS,CONTACT,MQS CLEAN BODY EDS	Andrew Hjelt

System	**Subsystem**	**DVP&R Level:**
N/A	N/A	☐ Prototype
Specifications: Chrysler PF90012 (Class ***TBD***) Revision 1		☑ Production

Test Type	Test Sub-Category	Acceptance Criteria	Test Results				Minimum Required Data Points	Timing		Notes
			DV		PV			Sched	Actual	
			Pass/Fail	Result	Pass/Fail	Result		Start / End	Start / End	
Electrical Testing	**High Temperature Exposure -- PF90012 Section 5.2.3 (Electrical)**									
	Visual Examination 6.2.1	There shall be no corrosion, discoloration, cracks, etc., which could affect the functionality of the part Swelling or physical distortion shall not exceed the tolerances specified on the part drawing.	TBD	TBD	TBD	TBD	10 Connector Pairs	TBD	TBD	
	Connector Conditioning 1.8.2	Conditioning Step Only	N/A	N/A	N/A	N/A	10 Connector Pairs	TBD	TBD	
	Dry Circuit Resistance 6.3.6 A	Total connection resistance (crimp-to-crimp): ≤ 0.64mm 10.0mΩ Max ≤ 1.50mm 8.0mΩ Max ≤ 2.80mm 5.0mΩ Max ≤ 6.35mm 1.5mΩ Max > 6.35mm 1.5mΩ Max While shorted resistance shall be < 20 mΩ	TBD	TBD	TBD	TBD	10 Data Points	TBD	TBD	
	High Temp Exposure 5.2.3	Conditioning Step Only	N/A	N/A	N/A	N/A	10 Connector Pairs	TBD	TBD	

DESIGN VERIFICATION PLAN AND REPORT

Assembly/Part Number: 1703032-1 & 2288140-1	**Component Description:** MQS,CONTACT,MQS CLEAN BODY EDS	**Date:**	5/6/2021
		Design Engineer:	Andrew Hjelt
System N/A	**Subsystem** N/A	**DVP&R Level:**	☐ Prototype
Specifications: Chrysler PF90012 (Class ***TBD***) Revision 1			☑ Production

Test Type	Test Sub-Category	Acceptance Criteria	Test Results				Minimum Required Data Points	Timing		Notes
			DV		PV			Sched	Actual	
			Pass/Fail	Result	Pass/Fail	Result		Start / End	Start / End	
Terminal-Electri	**Dry Circuit Resistance 6.3.6 A**	Total connection resistance (crimp-to-crimp): ≤ 0.64mm 10.0mΩ Max ≤ 1.50mm 8.0mΩ Max ≤ 2.80mm 5.0mΩ Max ≤ 6.35mm 1.5mΩ Max > 6.35mm 1.5mΩ Max While shorted resistance shall be < 20 mΩ	TBD	TBD	TBD	TBD	10 Data Points	TBD	TBD	
	Voltage Drop 6.3.6 B	Total connection resistance (crimp-to-crimp): ≤ 0.64mm 10.0mΩ Max ≤ 1.50mm 8.0mΩ Max ≤ 2.80mm 5.0mΩ Max ≤ 6.35mm 1.5mΩ Max > 6.35mm 1.5mΩ Max While shorted resistance shall be < 20 mΩ	TBD	TBD	TBD	TBD	10 Data Points	TBD	TBD	
	Visual Examination 6.2.1	There shall be no corrosion, discoloration, cracks, etc., which could affect the functionality of the part Swelling or physical distortion shall not exceed the tolerances specified on the part drawing.	TBD	TBD	TBD	TBD	10 Connector Pairs	TBD	TBD	
	Heavy Duty Test -- PF90012 Section 5.2.4									
	Visual Examination 6.2.1	There shall be no corrosion, discoloration, cracks, etc., which could affect the functionality of the part Swelling or physical distortion shall not exceed the tolerances specified on the part drawing.	TBD	TBD	TBD	TBD	10 Connector Pairs	TBD	TBD	
	Connector Conditioning 1.8.2	Conditioning Step Only	N/A	N/A	N/A	N/A	6 Terminal Pairs	TBD	TBD	

DESIGN VERIFICATION PLAN AND REPORT

Assembly/Part Number: 1703032-1 & 2288140-1	**Component Description:** MQS,CONTACT,MQS CLEAN BODY EDS	**Date:**	5/6/2021
		Design Engineer:	Andrew Hjelt
System N/A	**Subsystem** N/A	**DVP&R Level:**	☐ Prototype
Specifications: Chrysler PF90012 (Class ***TBD***) Revision 1			☑ Production

Test Type	Test Sub-Category	Acceptance Criteria	Test Results				Minimum Required Data Points	Timing		Notes
			DV		PV			Sched	Actual	
			Pass/Fail	Result	Pass/Fail	Result		Start / End	Start / End	
Terminal-Electrical Testing	**Dry Circuit Resistance 6.3.6 A**	Total connection resistance (crimp-to-crimp): ≤ 0.64mm 10.0mΩ Max ≤ 1.50mm 8.0mΩ Max ≤ 2.80mm 5.0mΩ Max ≤ 6.35mm 1.5mΩ Max > 6.35mm 1.5mΩ Max While shorted resistance shall be < 20 mΩ	TBD	TBD	TBD	TBD	6 Data Points	TBD	TBD	
	Heavy Duty Test 5.2.4	Conditioning Step Only	N/A	N/A	N/A	N/A	6 Data Points	TBD	TBD	
	Dry Circuit Resistance 6.3.6 A	Total connection resistance (crimp-to-crimp): ≤ 0.64mm 10.0mΩ Max ≤ 1.50mm 8.0mΩ Max ≤ 2.80mm 5.0mΩ Max ≤ 6.35mm 1.5mΩ Max > 6.35mm 1.5mΩ Max While shorted resistance shall be < 20 mΩ	TBD	TBD	TBD	TBD	6 Data Points	TBD	TBD	
	Visual Examination 6.2.1	There shall be no corrosion, discoloration, cracks, etc., which could affect the functionality of the part Swelling or physical distortion shall not exceed the tolerances specified on the part drawing.	TBD	TBD	TBD	TBD	6 Data Points	TBD	TBD	
	Temperature Rise at Max De-Rated Current (Per Cycle)	Maximum allowed T-Rise on the terminal at the end of each cycle is 50 deg C. Temperature on any terminal shall not exceed the terminal's max temperature rating at any time during the test	TBD	Cycle 1 = TBD Cycle 2 = TBD Cycle 3 = TBD Cycle 4 = TBD Cycle 5 = TBD	TBD	Cycle 1 = TBD Cycle 2 = TBD Cycle 3 = TBD Cycle 4 = TBD Cycle 5 = TBD	6 Data Points	TBD	TBD	

Supplier:	
Supplier Part Number:	
Part Description	
Date	

Test Failure Analysis

Number	Component	Test Name	Acceptance Criteria	Measured Value	Countermeasure	Results

Comments:	

Please note, all failures must have definitive analysis reports determining root cause and corresponding countermeasure investigations

Failures	Yes	
	No	
Temperature Class		1
		2
		3
		4
		5
Vibration Class		1
		2
		3
		4

Product Validation Plan & Report

Component	TE PN:	JLR PN:	Department:	TE Connectivity Global Automotive Division	Revision:	1
MQS Socket Tool No. 11-1058067 Die ID 3	1703032-1	8U5T-14474-DA			Plan Originator Double click for signature	Hjelt, Andrew (5/14/2021) TE270770
					Reporting Engineer Double click for signature	Bull, Alex (17/05/2021) TE295865
					JLR Approval Double click for signature	Jonathan Goodacre (17/05/2021) jgoodacr@jaguarlandrover.com (by Bull, Alex)
			Controlling Document(s):	Source	Plan Date	Report Date
			LV214 Rev. 2010-03 (Mar-2010) **TE-Spec. 108-18030 Rev. B** **USCAR2 Rev. 7**		14/05/2021	14/05/2021
					Comments:	
					Tool Transfer for PN 1703032-1	

TEST PLAN								TEST REPORT			
Item No	**Procedure or Standard**	**Test Description**	**Acceptance Criteria**	**Target Requirements**	**Test Responsibility**	**Test Stage**	**Qty**	**Qty Samples Tested**	**Test Report Number**	**RESULTS**	**NOTES**
1a	LV214	Contact resistance	Determination of resistance in contact area TE 108-18030 Rev. B	0.50 mm² -0.75 mm² R ≤ 3mΩ	TE	PV	10	10	21-AUT-NA-0007	0.50mm² Max. 1.75 mΩ Avg. 1.55 mΩ Min. 1.33 mΩ 0.75mm² Max. 1.93 mΩ Avg. 1.66 mΩ Min. 1.40 mΩ	
1b	LV214	Crimp resistance	Determination of resistance in the crimp TE 108-18030 Rev. B	0.50 mm² -0.75 mm² R ≤ 0.9 mΩ	TE	PV	10	10	21-AUT-NA-0007	0.50mm² Max. 0.34 mΩ Avg. 0.19 mΩ Min. 0.10 mΩ 0.75mm² Max. 0.62 mΩ Avg. 0.42 mΩ Min. 0.33 mΩ	
2	LV214	Visual Inspection	Inspect for Defects	No Defects	TE	PV	60	60	21-AUT-NA-0007	No Defects	
3	LV214	Contact Normal Force	Determination of contact normal force TE 108-18030 Rev.B	Min. 1 N	TE	PV	20	20	21-AUT-NA-0007	F1 Max. 2.0 N Avg. 1.8 N Min. 1.6 N F2 Max. 1.7 N Avg. 1.6 N Min. 1.5 N	
4a	USCAR-2 5.1.8	Visual Inspection	Inspect for Defects	No Defects	TE	PV	10	10	WE-20210627	No Defects	

TEST PLAN								TEST REPORT			
Item No	**Procedure or Standard**	**Test Description**	**Acceptance Criteria**	**Target Requirements**	**Test Responsibility**	**Test Stage**	**Qty**	**Qty Samples Tested**	**Test Report Number**	**RESULTS**	**NOTES**
4b	USCAR-2 5.2.1.3.3	Terminal to Terminal Engage/Disengage	Determination of the engage and disengage force of the receptacle to a mating blade.	1st Engage 5 N Max 2 N Min 1st Disengage 5 N Max 1 N Min	TE	PV	10	10	WE-20210627	1st Engage: Fmax= 3.47 N Fmin= 2.80 N Fave= 3.07 N 1st Disengage: Fmax= 3.12 N Fmin= 1.44 N Fave= 2.66 N	
4c	USCAR-2 5.1.8	Visual Inspection	Inspect for Defects	No Defects	TE	PV	10	10	WE-20210627	No Defects	

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

General Sales Part.
MSA is not included in the PPAP Package

1703032-1
MQS0,63 Sn rec CB EDS 0,5-0,75
Production

Part Revision:	A
Certified Format:	TYCO ELECTRONICS
Global Portfolio Status:	N/A
End of life date:	N/A
Originator ID:	DAF_SOURCE
Original Date:	23 Jul 2004
Production Date:	23 Jul 2004
Market date:	1 Jul 2005
Project Number:	N/A
RDO:	0730 - Factory Located Platform Global
ECOC:	EGA0 - TE Connectivity Germany Automotive Products
Material Type:	ZFRT - FINISHED PRODUCT
Engineering Status:	2 - PRODUCTION
Sales Status:	2 - GENERAL SALES
Discontinuance Status:	2 - NOT PLANNED
Base UOM:	PC - PIECE

Section 9

Dimensional Results

Production Part Approval
Dimensional Test Results

ORGANIZATION:	TE Connectivity
SUPPLIER/VENDOR CODE:	
INSPECTION FACILITY	Siemers Inspection Service, Inc. 185 N Leja Dr. Suite C Vicksburg, MI 49097

PART NUMBER: 1703032-1
PART NAME: MQS0,63 Sn rec CB EDS 0,5-0,75
DESIGN RECORD CHANGE LEVEL: A
ENGINEERING CHANGE DOCUMENTS:

ITEM	DIM./SPEC	SPEC. / LIMITS TOL +	SPEC. / LIMITS TOL -	UNITS	DATE inspec	QTY. inspec	ORGANIZATIONAL MEASUREMENT RESULTS (DATA)	OK	NOT OK
1	0.2	0.50	0.10	mm	3/30/2021	1	0.20	✓	
2	4.7	0.10	0.10	mm	3/30/2021	1	4.62	✓	
3	5.5	0.20	0.10	mm	3/30/2021	1	5.58	✓	
4	2.8	0.20	0.20	mm	3/30/2021	1	2.89	✓	
5	0.6	0.10	0.10	mm	3/30/2021	1	0.64	✓	
6	4.2	0.20	0.20	mm	3/30/2021	1	4.27	✓	
7	6.2	0.20	0.20	mm	3/30/2021	1	6.11	✓	
8	14.2	0.50	0.50	mm	3/30/2021	1	14.26	✓	
9	0.10	0.20	0.00	mm	3/30/2021	1	0.11	✓	
10	0.60	0.20	0.10	mm	3/30/2021	1	0.57	✓	
11	0.80	0	0.20	mm	3/30/2021	1	0.79	✓	
12	MAX	0.30	0	mm	3/30/2021	1	OK	✓	
13	0.20	0.01	0.03	mm	3/30/2021	1	0.20	✓	
14	2.00	0.20	0.20	mm	3/30/2021	1	2.05	✓	
15	1.00	0.20	0.20	mm	3/30/2021	1	0.99	✓	
16	4.40	0.20	0.20	mm	3/30/2021	1	4.25	✓	
17	3.50	0.20	0.20	mm	3/30/2021	1	3.45	✓	
18	1.50	0.20	0.20	mm	3/30/2021	1	1.30	✓	
19	2.90	0.20	0.20	mm	3/30/2021	1	2.91	✓	
20	1.45	0.20	0.20	mm	3/30/2021	1	1.40	✓	
21	90.00	10.00	10.00	degrees	3/30/2021	1	85.00	✓	
22	2.20	0.20	0.20	mm	3/30/2021	1	2.27	✓	
23	1.20	0.50	0.50	mm	3/30/2021	1	1.20	✓	
24	0.53	0.00	-0.06	mm	3/30/2021	1	0.48	✓	
25	1.80	0.20	0.20	mm	3/30/2021	1	1.78	✓	
26	0.53	0.00	-0.06	mm	3/30/2021	1	0.48	✓	
27	1.80	0.20	0.20	mm	3/30/2021	1	1.77	✓	

Blanket statement of conformance are unacceptable for any test results.

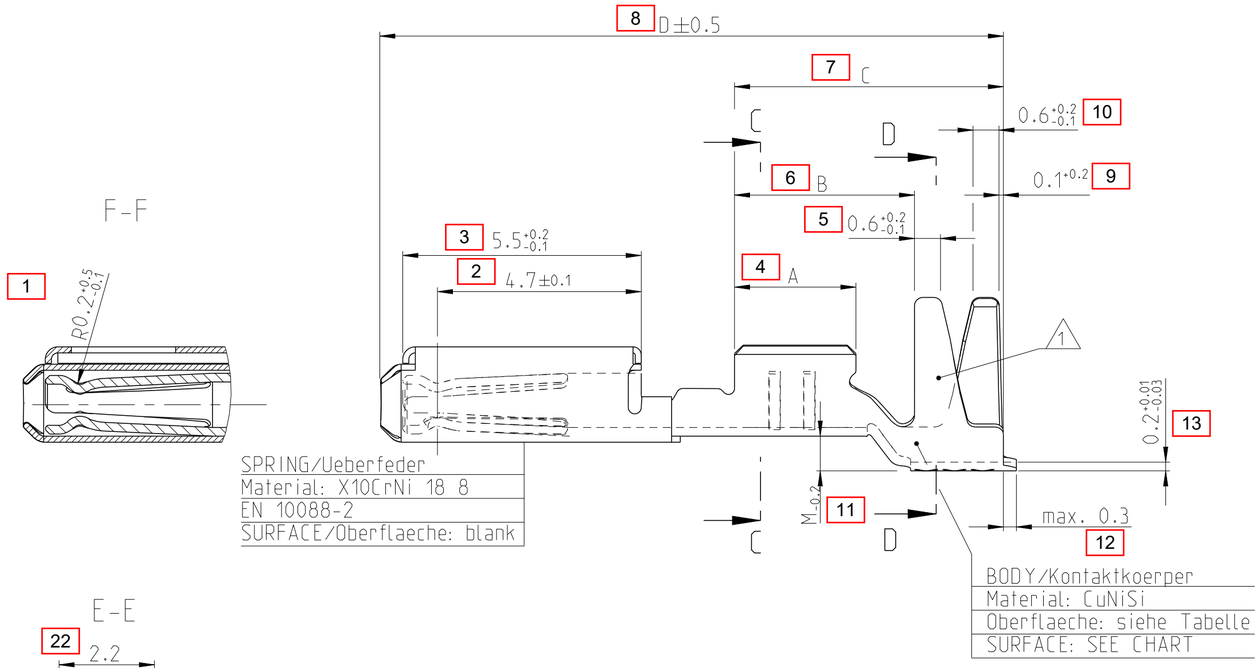
CFG-1003

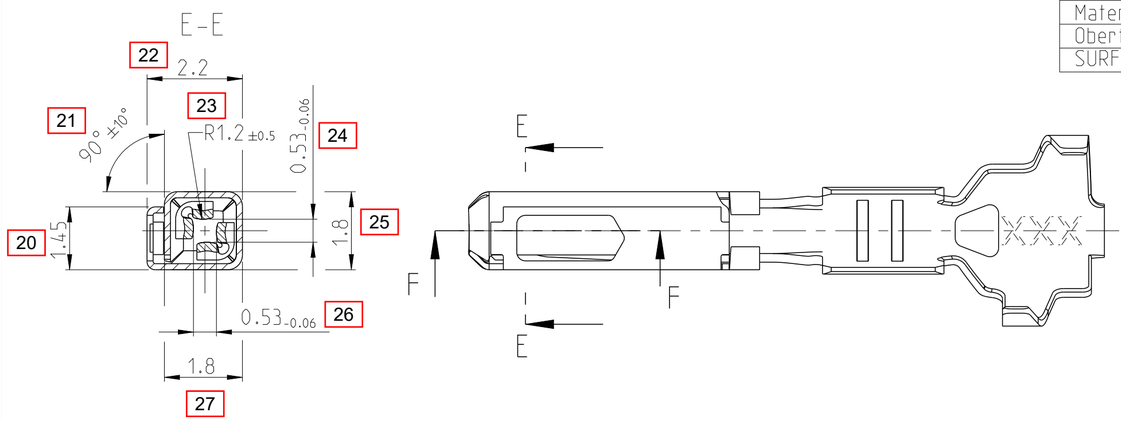
SIGNATURE	TITLE	DATE
Andrew Hjelt	TE - Product Engineer	5/17/2021

LOC	DIST
A1	-

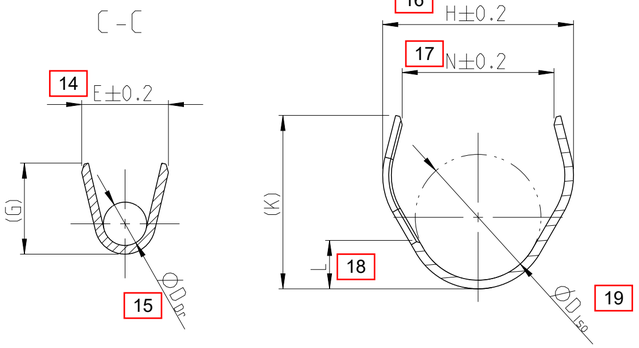
REVISIONS

P	LTR	DESCRIPTION	DATE	DWN	APVD
	A2	LP variants removed. ECR-13-015135	30SEP2013	Abr	Brun
	A3	Design 2 and PN 2288140 added. ECR-14-018067	20NOV2014	Bren	Brun
	A4	Dimension of ISO-Crimp changed. ECR-17-006253	02MAY2017	HO.	BRUN
	A5	WIRE SIZE RANGE 0.22 added. PCN E-17-016682	13NOV2017	MAH.	BRUN

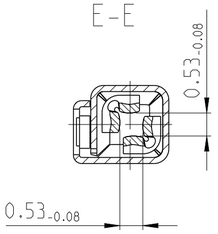




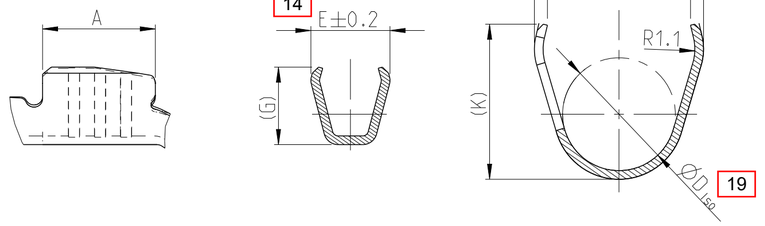
DESIGN 1 / Ausfuehrung 1



GOLD VERSION
Vergoldete Ausfuehrung

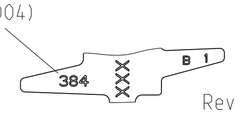


DESIGN 2 / Ausfuehrung 2



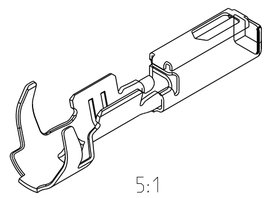
NOTES
Bemerkungen

1 DATE-CODE (WEEK/YEAR (E.G. WEEK NUMBER 38/ YEAR 2004)
AND TE REVISION (E.G. REV. B)
Datumscode (Woche / Jahr, z.B. KW38/ Jahr 2004)
und TE-Revision (z.B.Rev.B)



2 SUITABLE FOR PIN CONTACT SEE DRAWING: TE: 929453
Passend zu Stiftkontakt siehe Zeichnung: TE: 929453

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



A5

Bestell-Nr. Ausfuehrung ORDER NO. DESIGN 1	Bestell-Nr. Ausfuehrung ORDER NO. DESIGN 2	Rev	DGB Wire Size Range mm²	Oberflaeche SURFACE	Laenge LENGTH mm	Drahtcrimp WIRE CRIMP mm	Iso-crimp INSU-CRIMP mm	DGB Wire Size Range mm²	Isolations Ø INSULATION 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
	2288140-1	A	0.22-0.35	Sn	A = 2.6 B = 4.2 C = 6.2 D = 14.2 M = 0.8	E = 1.8 G = 1.8	H = 3.9 K = 3.58 N = 3.3 D_{Iso} = 2.6	0.22-0.35	0.9-1.4	967067-2 gelb YELLOW	967056-1 blau / BLUE	963142-2 grau GREY	967056-1 blau / BLUE
1703032-5		A	0.5-0.75	Au	A = 2.8 B = 4.2 C = 6.2 D = 14.2 M = 0.8	E = 2 G = 2.1 D_{Dr} = 1	H = 4.4 K = 4 L = 1.5 N = 3.5 D_{Iso} = 2.9	0.5-0.75	1.4-1.9	967067-1 gruen GREEN		963142-1 schwarz BLACK	
1703032-1		A		Sn									

zugehoerige Einzeldichtung / SUITABLE SINGLE WIRE SEAL

THIS DRAWING IS A CONTROLLED DOCUMENT.

DIMENSIONS: mm

TOLERANCES UNLESS OTHERWISE SPECIFIED: 0 PLC ±, 1 PLC ±0.2, 2 PLC ±, 3 PLC ±, 4 PLC ±, ANGLES ±1°

MATERIAL -

FINISH -

DWN	01JUN2004 Abraham.G.
CHK	02JUN2004 Kampmann.H.
APVD	27SEP2004 Bleicher. M.
PRODUCT SPEC	108-18030
APPLICATION SPEC	114-18025
WEIGHT	0.13 g

TE Connectivity

NAME
MQS
SOCKET CONTACT CLEANBODY SWS
Tabellenzeichnung Buchsenkontakt

SIZE	CAGE CODE	DRAWING NO	RESTRICTED TO
A2	00779	C-1703040	-

Customer Drawing | SCALE 10:1 | SHEET 1 OF 1 | REV A5

1471-9 (3/11)

Section 10

Material, Performance Test Results

Eagle Metals
1243 Old Bernville Rd
Leesport, PA 19533
Phone: 610.926.4111
Fax: 484.240.4530
www.eaglemetals.com

Certificate of Conformity

Customer TE Connectivity Corporation
P.O. Box 68355
Harrisburg, PA, 17106

Cert# 62139 | 10/22/20
Sales Order# 38842 | 9/8/20
Cust PO# 2713162574 | 9/8/20

Part# 2-704567-2
Eagle Item 9541
Form Strip
Alloy S30100 Stainless
Chem Spec ASTM A666-15
Temper K1150 (K1150)
Gauge inch 0.00550 (+/- 0.00020)
mm 0.1397 (+/- 0.00508)
Width inch 0.47240 (+/- 0.00200)
mm 11.99896 (+/- 0.0508)
Surface 2B Finish
Edge #3 Slit Edge
Mfg Spec 100-309-2 Rev: U, TE (1)

Tag# 19446-21
Heat# 5400001

Chem	Cert	Specification	Actual
Iron (Fe)	Cert	70.4050 - 74.6750 %	74.2570 %
Chromium (Cr)	Cert	16.0000 - 19.0000 %	16.9200 %
Nickel (Ni)	Cert	6.0000 - 9.0000 %	6.8700 %
Manganese (Mn)	Cert	2.0000 Max %	0.8000 %
Silicon (Si)	Cert	1.0000 Max %	0.4600 %
Molybdenum (Mo)	Cert	0.8000 Max %	0.1700 %
Carbon (C)	Cert	0.0500 - 0.1500 %	0.1300 %
Nitrogen (N)	Cert	0.1000 Max %	0.0400 %
Phosphorus (P)	Cert	0.0450 Max %	0.0320 %
Sulfur (S)	Cert	0.0150 Max %	0.0010 %

Property	Cert	Specification	Actual
Tensile	Cert	167,000 - 189,000 PSI	187,400 - 188,400 PSI
Yield	Cert	94,000 Min PSI	112,400 - 113,100 PSI
Elongation	Cert	20.0000 Min %	28.0000 - 32.0000 %
Grain Size	Cert	8.0 - 10.0 ASTM	9.5 ASTM
Bend	Cert	180 Deg Good Way 0.5 R/t	Pass
Bend	Cert	180 Deg Bad Way 1.0 R/t	Pass

We certify to the above results.

Andrew J. Pinkard
Director, QA/QC

Eagle Metals
1243 Old Bernville Rd
Leesport, PA 19533
Phone: 610.926.4111
Fax: 484.240.4530
www.eaglemetals.com

Certificate of Conformity

Customer TE Connectivity Corporation
P.O. Box 68355
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Cert# 62140 | 10/22/20
Sales Order# 38842 | 9/8/20
Cust PO# 2713162574 | 9/8/20

Part# 2-704567-2
Eagle Item 9541
Form Strip
Alloy S30100 Stainless
Chem Spec ASTM A666-15
Temper K1150 (K1150)
Gauge inch 0.00550 (+/- 0.00020)
mm 0.1397 (+/- 0.00508)
Width inch 0.47240 (+/- 0.00200)
mm 11.99896 (+/- 0.0508)
Surface 2B Finish
Edge #3 Slit Edge
Mfg Spec 100-309-2 Rev: U, TE (1)

Tag# 19446-22
Heat# 5400001

Chem	Cert	Specification	Actual
Iron (Fe)	Cert	70.4050 - 74.6750 %	74.2570 %
Chromium (Cr)	Cert	16.0000 - 19.0000 %	16.9200 %
Nickel (Ni)	Cert	6.0000 - 9.0000 %	6.8700 %
Manganese (Mn)	Cert	2.0000 Max %	0.8000 %
Silicon (Si)	Cert	1.0000 Max %	0.4600 %
Molybdenum (Mo)	Cert	0.8000 Max %	0.1700 %
Carbon (C)	Cert	0.0500 - 0.1500 %	0.1300 %
Nitrogen (N)	Cert	0.1000 Max %	0.0400 %
Phosphorus (P)	Cert	0.0450 Max %	0.0320 %
Sulfur (S)	Cert	0.0150 Max %	0.0010 %

Property	Cert	Specification	Actual
Tensile	Cert	167,000 - 189,000 PSI	187,400 - 188,400 PSI
Yield	Cert	94,000 Min PSI	112,400 - 113,100 PSI
Elongation	Cert	20.0000 Min %	28.0000 - 32.0000 %
Grain Size	Cert	8.0 - 10.0 ASTM	9.5 ASTM
Bend	Cert	180 Deg Good Way 0.5 R/t	Pass
Bend	Cert	180 Deg Bad Way 1.0 R/t	Pass

We certify to the above results.

Andrew J. Pinkard
Director, QA/QC

KEMPER

Certificate EN 10204 3.1

customer					
Kemper AIP Metals LLC 518 County Road 513 Suite B CALIFON NJ 07830 USA	our commision no.	**14121 / 10**	printed on	**16.11.2020**
	our part no.	**95-059-24363**	delivery note / pos	**80230022 / 10**
	your PO no.	**16171**	weight	**4106 KG**
	your part no.	**3-704060-8**	casting heat no. / MTN	**1000025371**
material **KHP®102, CuNiSi, C19010**	batch no.	**CN44940 CN44944**	specification	**TEC-100-1230-S R580S** **TEC-112-20-4 Rev.AE**
dimension **0.200 x 17.800 mm**				

chemical composition of the base material

min.		0.800	0.0100	0.150
max.		1.800	0.0500	0.350
	Cu %	Ni %	P %	Si %
	98.29	**1.383**	**0.0200**	**0.250**

mechanical properties

pos.	characteristic	specified		actual result	
		min.	max.	min.	max.
1	camber - mm /1m		**2.0**	**0.1**	**0.4**
2	width - mm	**17.75**	**17.85**	**17.78**	**17.80**
3	thickness - mm - SC	**0.192**	**0.204**	**0.201**	**0.203**
4	yield strength (Rp0,2) - N/mm2	**540**		**564**	**573**
5	tensile strength (Rm) - N/mm2	**580**	**650**	**599**	**606**
6	elongation (A50) - %	**8**		**12**	**12**
7	hardness (HV) -	**175**	**205**	**183**	**185**
8	electrical conductivity - m/Ohm mm2	**29.0**		**31.1**	**31.1**
9	electrical conductivity (IACS) - IACS	**50.0**		**53.6**	**53.6**
10	roughness Ra - µm		**0.35**	**0.11**	**0.14**
11	grain size - µm		**25**	**11**	**11**
12	Sn hot-dip thickness - µm	**1.00**	**2.00**	**1.53**	**1.92**
13	bend test 180°II - R=0,60 b=10			**passed**	**passed**
14	bend test 180°_ - R=0,40 b=10			**passed**	**passed**
15	edge burr max. - 0,020 mm			**passed**	**passed**

remarks

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

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

tested and released (date, name) **30.10.2020, Michael Weber** (inspection representative)

This document was created by machine and is valid without signature

KEMPER

Certificate EN 10204 3.1

customer	our commision no.	14121 / 10	printed on	16.11.2020
Kemper AIP Metals LLC 518 County Road 513 Suite B CALIFON NJ 07830 USA	our part no.	95-059-24363	delivery note / pos	80230022 / 10
	your PO no.	16171	weight	4106 KG
	your part no.	3-704060-8	casting heat no. / MTN	1000020498
material KHP®102, CuNiSi, C19010	batch no. CN44937 CN44940		specification	TEC-100-1230-S R580S TEC-112-20-4 Rev.AE
dimension 0.200 x 17.800 mm				

chemical composition of the base material

min.		0.800	0.0100	0.150
max.		1.800	0.0500	0.350
	Cu %	Ni %	P %	Si %
	98.33	**1.353**	**0.0200**	**0.250**

mechanical properties

pos.	characteristic	specified		actual result	
		min.	max.	min.	max.
1	camber - mm /1m		2.0	0.1	0.1
2	width - mm	17.75	17.85	17.80	17.80
3	thickness - mm - SC	0.192	0.204	0.193	0.196
4	yield strength (Rp0,2) - N/mm2	540		563	570
5	tensile strength (Rm) - N/mm2	580	650	598	603
6	elongation (A50) - %	8		10	12
7	hardness (HV) -	175	205	181	182
8	electrical conductivity - m/Ohm mm2	29.0		31.1	31.1
9	electrical conductivity (IACS) - IACS	50.0		53.6	53.6
10	roughness Ra - µm		0.35	0.22	0.30
11	grain size - µm		25	12	12
12	Sn hot-dip thickness - µm	1.00	2.00	1.32	1.74
13	bend test 180°II - R=0,60 b=10			passed	passed
14	bend test 180°_ - R=0,40 b=10			passed	passed
15	edge burr max. - 0,020 mm			passed	passed

remarks

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

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

tested and released (date, name) **02.11.2020, Safet Suvic** (inspection representative)

This document was created by machine and is valid without signature

KEMPER

Certificate EN 10204 3.1

customer		our commision no.	14121 / 10	printed on	16.11.2020
Kemper AIP Metals LLC 518 County Road 513 Suite B CALIFON NJ 07830 USA		our part no.	95-059-24363	delivery note / pos	80230022 / 10
		your PO no.	16171	weight	4106 KG
		your part no.	3-704060-8	casting heat no. / MTN	9100009094
material	KHP®102, CuNiSi, C19010	batch no.	CN44841 CN44930	specification	TEC-100-1230-S R580S TEC-112-20-4 Rev.AE
dimension	0.200 x 17.800 mm				

chemical composition of the base material

min.		0.800	0.0100	0.150
max.		1.800	0.0500	0.350
	Cu %	Ni %	P %	Si %
	98.24	**1.409**	**0.0170**	**0.285**

mechanical properties

pos.	characteristic	specified		actual result	
		min.	max.	min.	max.
1	camber - mm /1m		2.0	0.1	0.1
2	width - mm	17.75	17.85	17.79	17.80
3	thickness - mm - SC	0.192	0.204	0.194	0.196
4	yield strength (Rp0,2) - N/mm2	540		575	582
5	tensile strength (Rm) - N/mm2	580	650	613	621
6	elongation (A50) - %	8		11	11
7	hardness (HV) -	175	205	186	188
8	electrical conductivity - m/Ohm mm2	29.0		30.4	30.4
9	electrical conductivity (IACS) - IACS	50.0		52.4	52.4
10	roughness Ra - µm		0.35	0.16	0.19
11	grain size - µm		25	13	13
12	Sn hot-dip thickness - µm	1.00	2.00	1.26	1.74
13	bend test 180°II - R=0,60 b=10			passed	passed
14	bend test 180°_ - R=0,40 b=10			passed	passed
15	edge burr max. - 0,020 mm			passed	passed

remarks

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

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

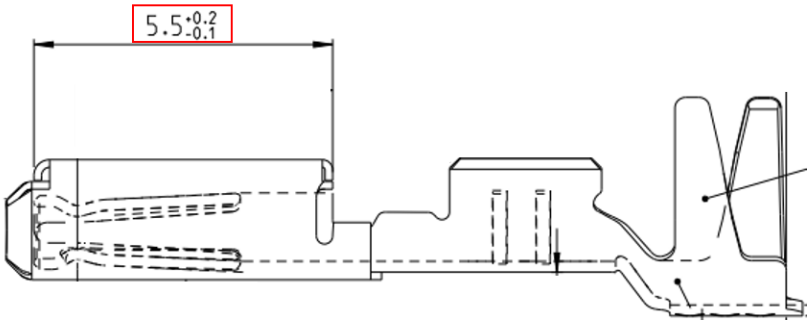
tested and released (date, name) **02.11.2020, Safet Suvic** (inspection representative)

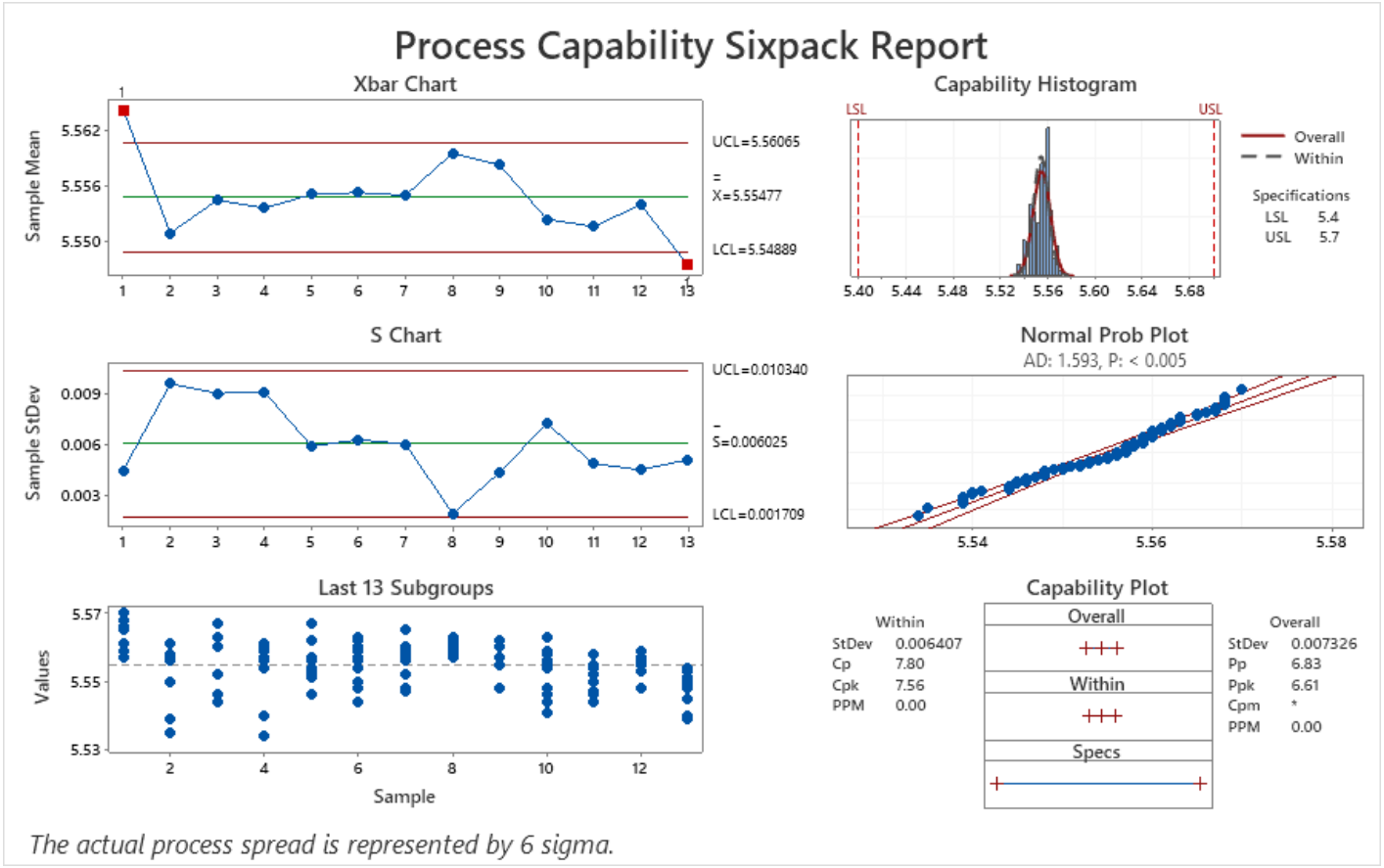
This document was created by machine and is valid without signature

Section 11

Initial Process Studies

Capability Study For 2288140-1 & 1703032-1 off Die S1058067





Section 12

Qualified Laboratory Documentation

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.

NOTE: Please see second page for Extended Manufacturing Site.

For and on behalf of BSI:

Carlos Pitanga, Chief Operating Officer Assurance – Americas

BSI Certificate Number: 514458-007
IATF Number: 0338830

...making excellence a habit.™

Certification Date: 2018-10-18 Latest Issue: 2020-07-15 Expiry Date: 2022-04-18

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 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 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

BSI Certificate Number: 514458-007

IATF Number: 0338830

Certification Date: 2018-10-18 Latest Issue: 2020-07-15 Expiry Date: 2022-04-18

Location	Registered Activities
	TE Connectivity Global Automotive Division Americas North 900 Wilshire Boulevard Suite 150 Troy Michigan 48084 USA Product design
	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

BSI Certificate Number: 514458-007

IATF Number: 0338830

Certification Date: 2018-10-18 Latest Issue: 2020-07-15 Expiry Date: 2022-04-18

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.:	**1703032-1**
Description:	**MQS Socket Contact Clean Body EDS**
Report No.:	**-**
Date of Report:	**-**
Purchase Order No.:	**-**
Bill of Delivery No.:	**-**
Preliminary MDS:	**No**
Multi Sourced:	**No**
IMDS ID / Version:	**22743487 / 14**
Node ID:	**994861256**
MDS Status (Change Date):	**Internally released (02/15/2021)**

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.:	**1703032-1**	Report No.:	**-**
Description:	**MQS Socket Contact Clean Body EDS**	IMDS ID / Version:	**22743487 / 14**
		Node ID:	**994861256**

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	MQS Socket Contact Clean Body EDS	1703032-1	22743487 / 14		0.1332				
├2	Body			1	0.0852				
├3	High Copper Alloy		158414641 / 4		0.0843			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 / 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	MQS, Spring For MQS Contact	0-0968219-1	4036916 / 19	1	0.048				
3	X10CrNi18-8		36413360 / 6		0.048			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 < 0.5µg/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		

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: MQS SOCKET CONTACT CLEANBODY SWS | Cust. Part Number: 41M0805

Shown on Drawing Number: C-1703040 | Org.Part Number: 1703032-1

Engineering Change Level: A5 | Dated: 13-Nov-2017

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

Safety and/or Government Regulation: ☐ Yes ☑ No | Purchase Order No.: N/A | Weight (kg): 0.00013

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

ORGANIZATION MANUFACTURING INFORMATION

TE Connectivity / DUNS 825043995
Organization Name and Supplier Code

719 Pegg Road
Street Address

Greensboro | NC | 27409 | USA
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: 22743487 / 14

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

P-20-018935

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: Stamping / Tool #11-1058067

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. General Sales Part Number. PCN P-20-018935.

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

Organization Authorized Signature: *Enrique Espinoza* | Date: 05/21/2021

Print Name: Enrique Espinoza | Phone No.: n/a | Fax: n/a

Title: PPAP Technician | Email: enrique.espinoza@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