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### *PPAP Package for:*

**Nursan Otomotiv Ltd.  
Customer Part Number: 1924275-4  
(TE Connectivity Part Number): 1924275-4  
14-Jan-2020**

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## **Nondisclosure Agreement**

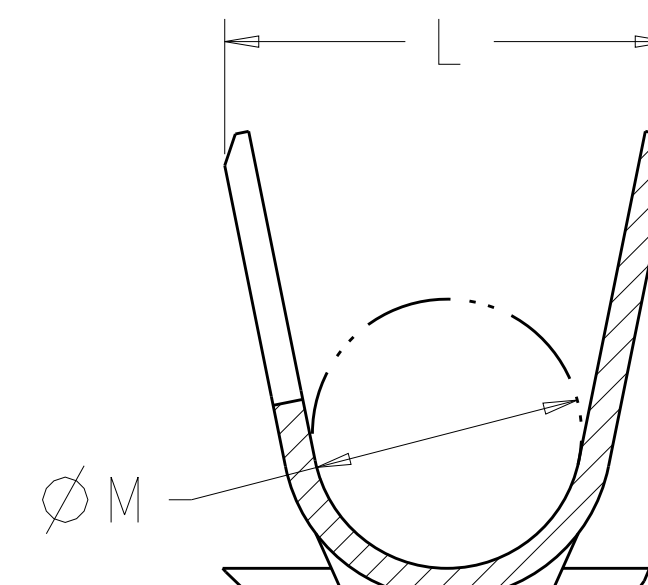
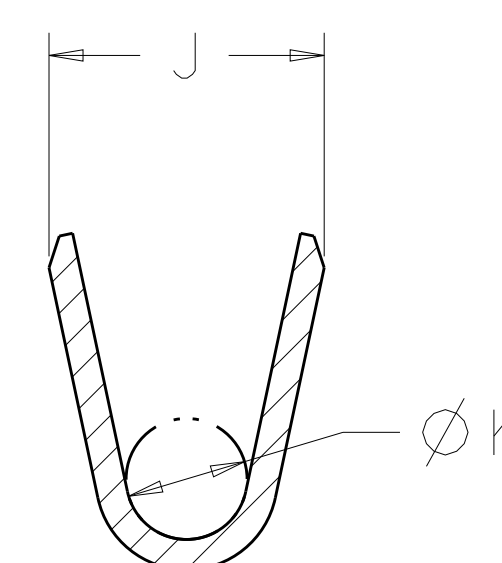
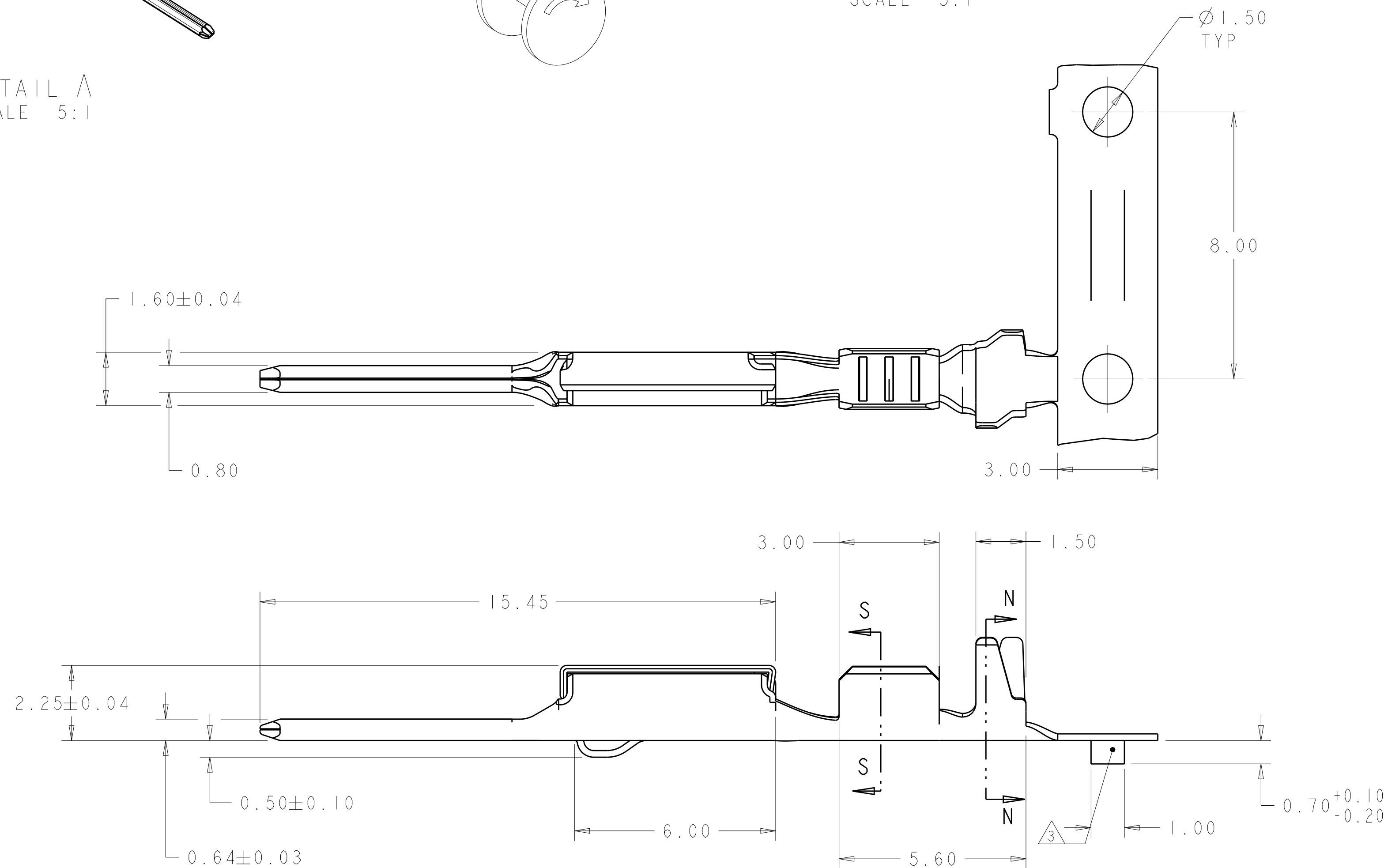
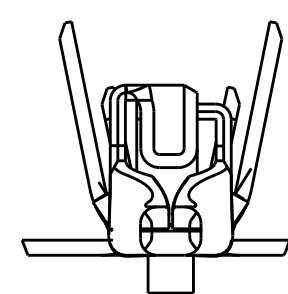
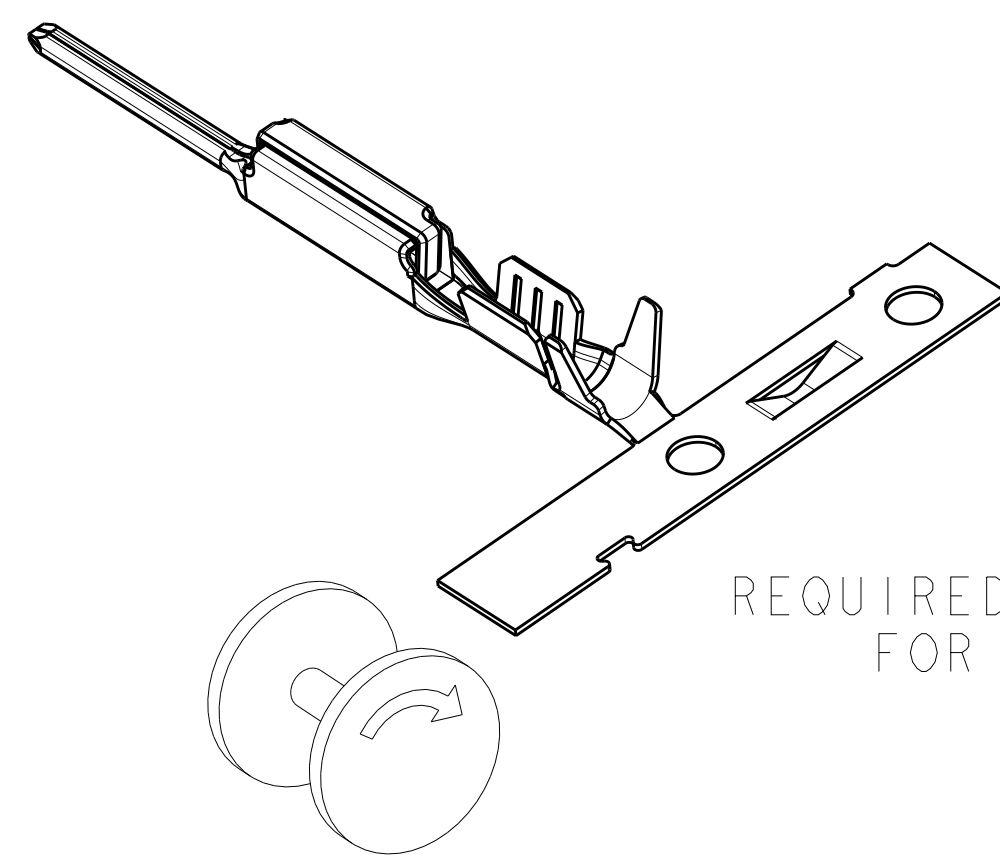
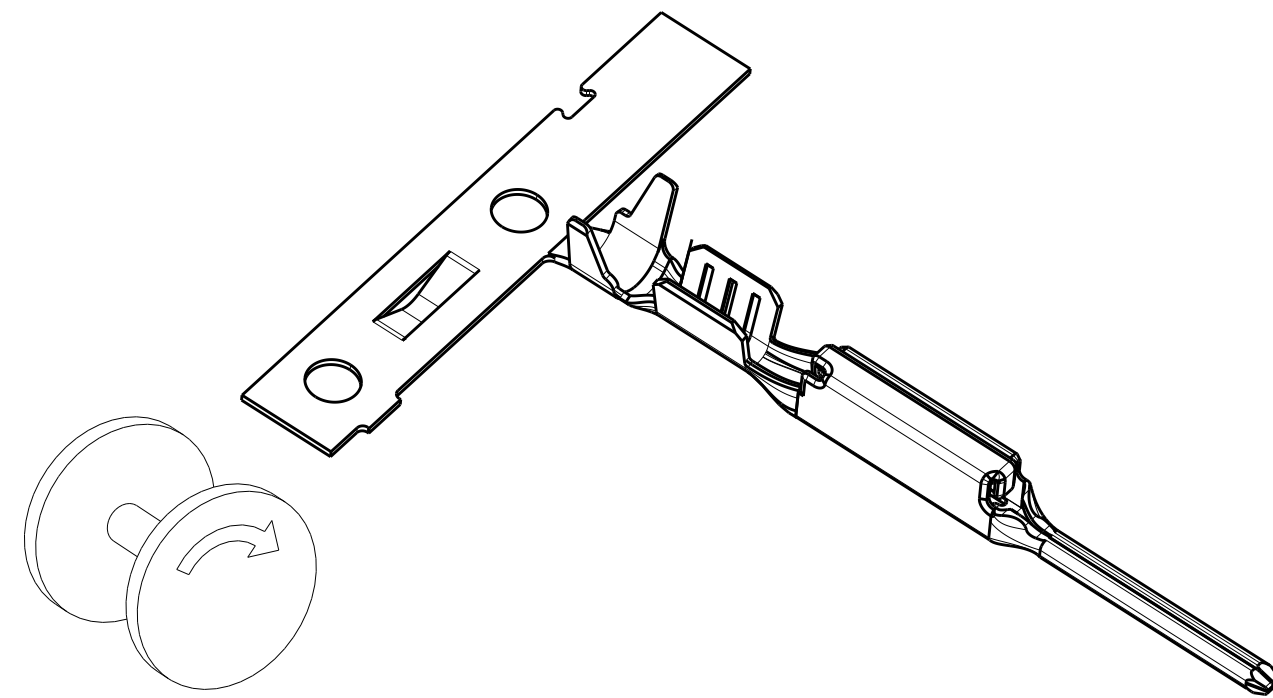
If a nondisclosure agreement has been reached with your company, it will be included on the following page(s). Please review the terms of this agreement to ensure that further actions associated with information contained within this PPAP package do not violate these terms.

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**









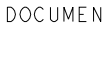
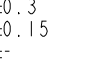
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		84		REVISED PER ECO-12-010824	12JUN2012	DL	CJS	
		85		REVISED PER ECO-12-012285	08NOV2012	DL	CJS	
		86		REVISED PER ECO-19-001554	31JAN2019	JMS	CS	




 MATERIAL: BRASS

△2 FINISH: PRE-PLATED WITH 0.80μm MIN TIN

△3 MATERIAL ID FEATURE IN "DOWN" POSITION.

5. THIS DRAWING IS RESTRICTED TO FORD.

0.13mm <sup>2</sup> = 0.85-1.05; 0.35mm <sup>2</sup> = 1.10-1.40	DETAIL B	1.40	2.40	0.80	1.85		2X 0.13mm <sup>2</sup> OR 0.35mm <sup>2</sup>	1924275-8
0.85-1.05	DETAIL B	0.85	1.82	0.65	1.50		0.13mm <sup>2</sup>	1924275-7
0.13mm <sup>2</sup> = 0.85-1.05; 0.35mm <sup>2</sup> = 1.10-1.40	DETAIL A	1.40	2.40	0.80	1.85		2X 0.13mm <sup>2</sup> OR 0.35mm <sup>2</sup>	1924275-6
0.85-1.05	DETAIL A	0.85	1.82	0.65	1.50		0.13mm <sup>2</sup>	1924275-5
2.06 MAX	DETAIL B	1.78	2.94	1.00	1.96		18	1924275-4
1.5-1.85	DETAIL B	1.78	2.94	0.80	1.82		20-22	1924275-3
2.06 MAX	DETAIL A	1.78	2.94	1.00	1.96		18	1924275-2
1.5-1.85	DETAIL A	1.78	2.94	0.80	1.82		20-22	1924275-1
ISULATION DIAMETER	REELING	S	R	K	J	FINISH	WIRE SIZE	PART NUMBER

THIS DRAWING IS A CONTROLLED DOCUMENT.		DWN H MOLL 020C12008 CHK J HALL 020C12008 APV J HALL 020C12008		 TE Connectivity	
DIMENSIONS: mm		TOLERANCES UNLESS OTHERWISE SPECIFIED: 0 PLC $\pm 0.3$ 1 PLC $\pm 0.3$ 2 PLC $\pm 0.15$ 3 PLC $\pm$ 4 PLC $\pm$ ANGLES $\pm 1^\circ$		NAME CONTACT, MALE, 0.64, GENERATION Y	
		PRODUCT SPEC - APPLICATION SPEC -		SIZE A1	
MATERIAL - 		FINISH -		CASE CODE DRAWING NO 100779	
WEIGHT -		RESTRICTED CUSTOMER -		SCALE 10:1	
SHEET 1 OF 1		REV 0		RESTRICTED FORD	



## **Section 2**

# **Engineering Change Documents**



# Not Applicable



## **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**

# Not Applicable



## Section 9

# Dimensional Results

In lieu of an annual dimensional inspection to the TE Connectivity customer drawing, we are submitting the date for the latest inspection conducted per the applicable TE Connectivity, Quality Inspection Plan. The TE Connectivity, Quality Inspection plan includes all material, dimensional, and functional tests deemed necessary by the TE Connectivity manufacturing facility to ensure part performance.

The TE Connectivity, Quality Inspection Plan reflects the requirements of internal manufacturing documents and drawings, as such the results are deemed to be proprietary information.

The date below reflects the most current inspection completed of TE US stock per the applicable TE Connectivity, Quality Inspection Plan.

Current Quality Inspection Plan Date 14.01.2020

**NO CHANGE OF FIT/FORM/FUNCTION**

[illegible]

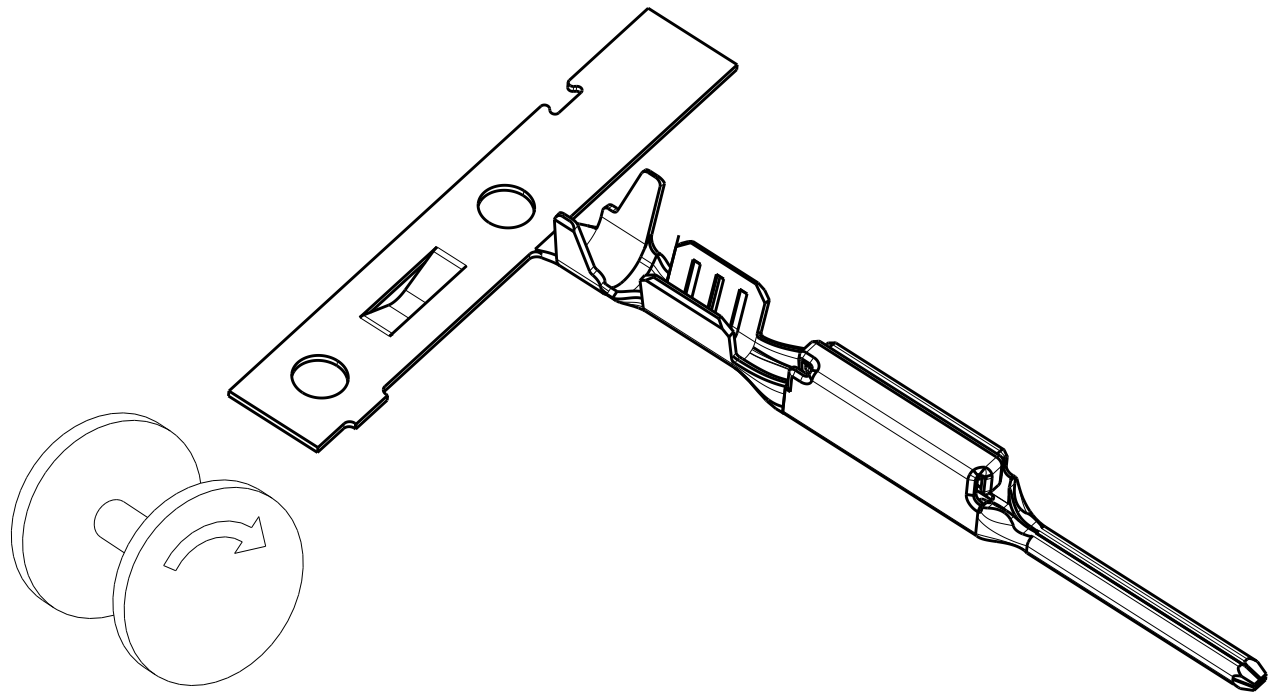
Blanket statements of conformance are unacceptable for any test results.

<u>SIGNATURE</u> <i>Christopher Schmid</i>	<u>TITLE</u> Prod Engr	<u>DATE</u> 4/10/2018
---	---------------------------	--------------------------

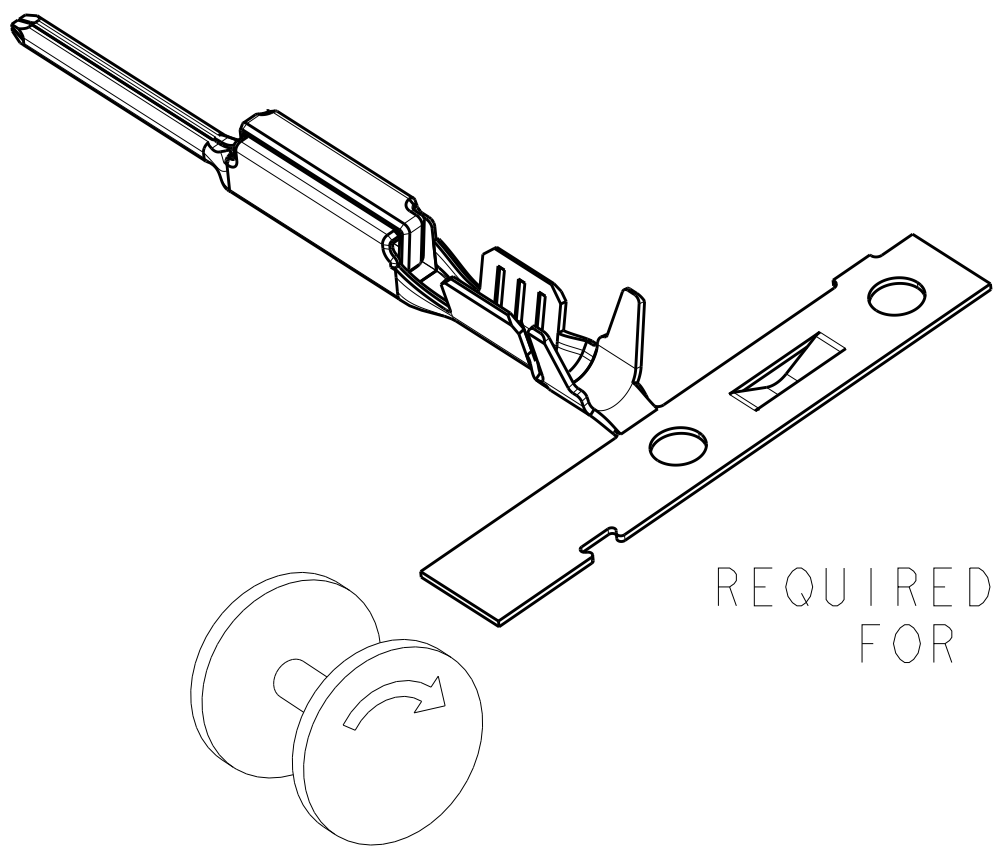


LOC		DIST		REVISIONS				
IN	00	P	LTR	DESCRIPTION		DATE	DWN	APVD
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		B4		REVISED PER ECO-12-010824		12JUN2012	DLD	CJS
		B5		REVISED PER ECO-12-012285		08NOV2012	DLD	CJS

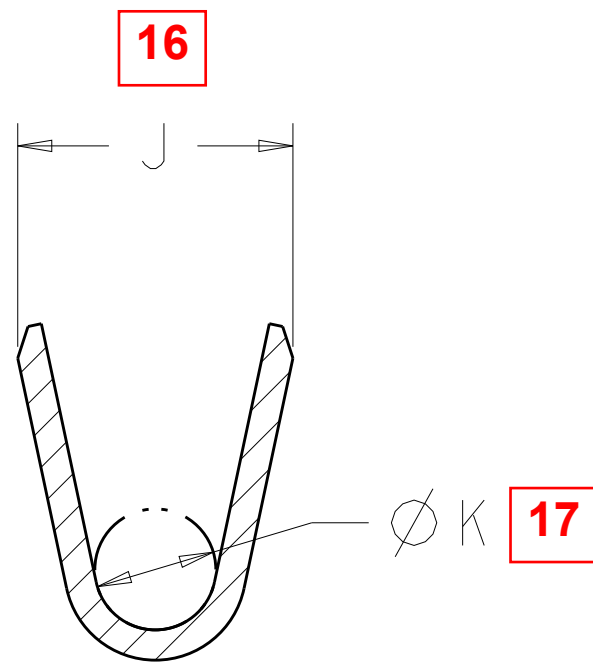
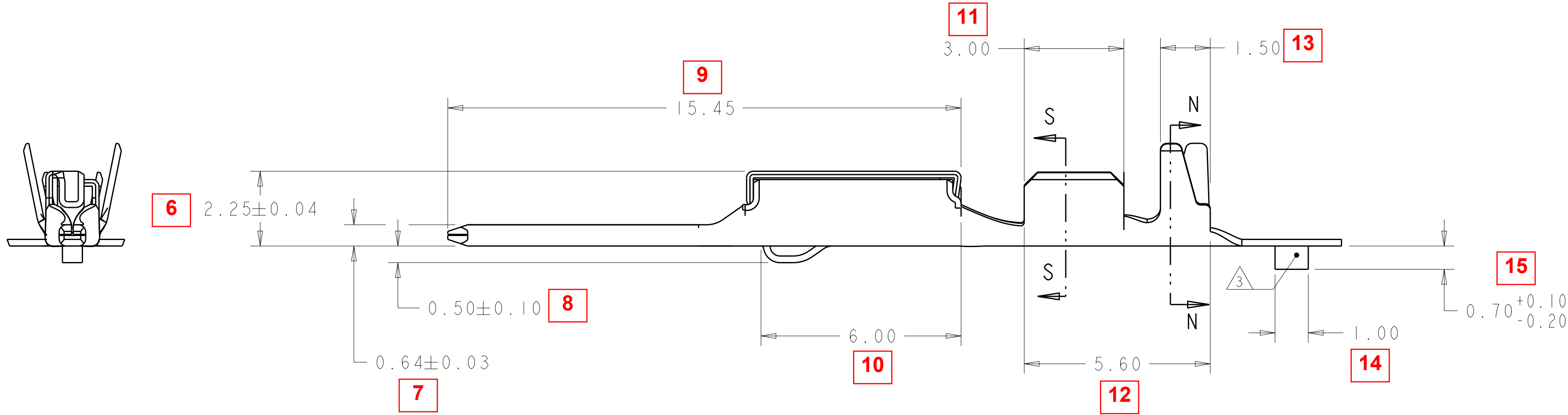
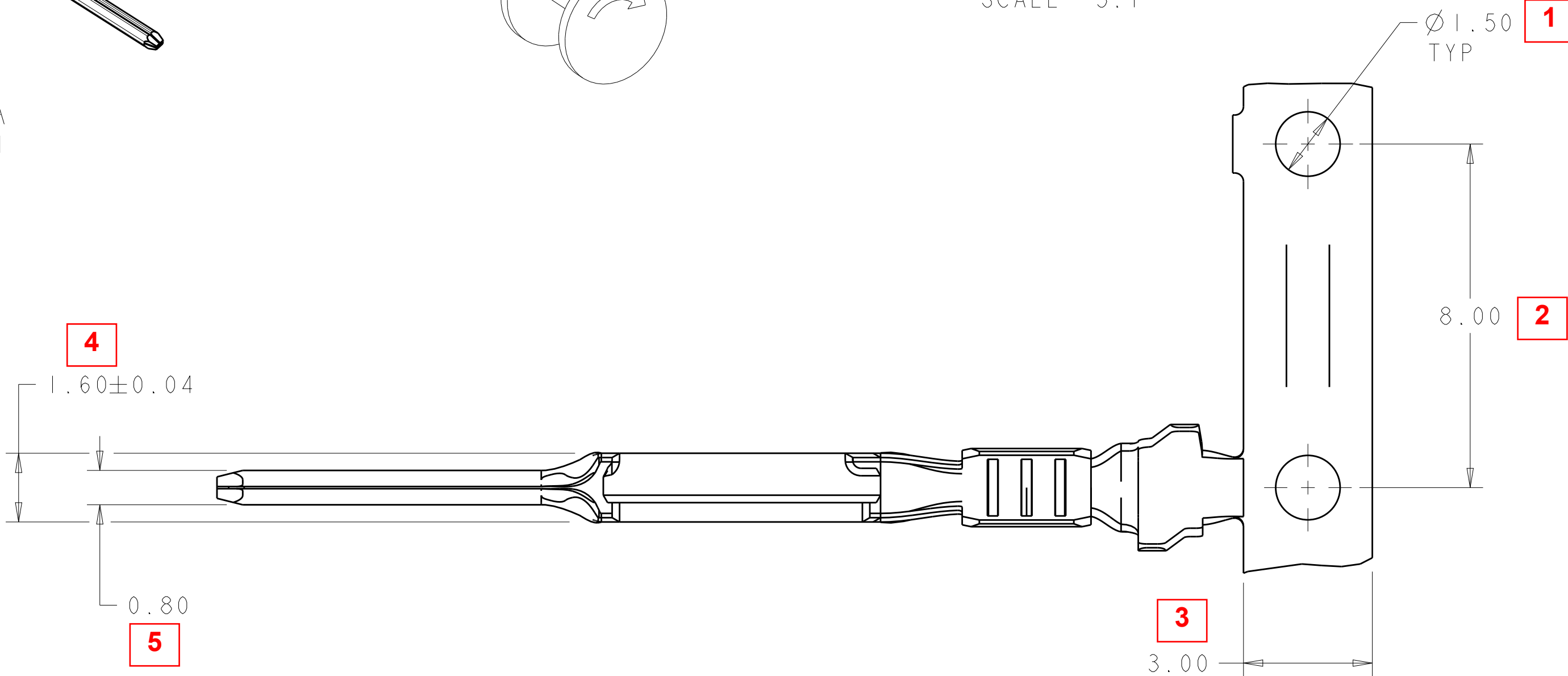
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- ⚠ FINISH: PRE-PLATED WITH 0.80µm MIN TIN
- ⚠ MATERIAL ID FEATURE IN "DOWN" POSITION.
5. THIS DRAWING IS RESTRICTED TO FORD.



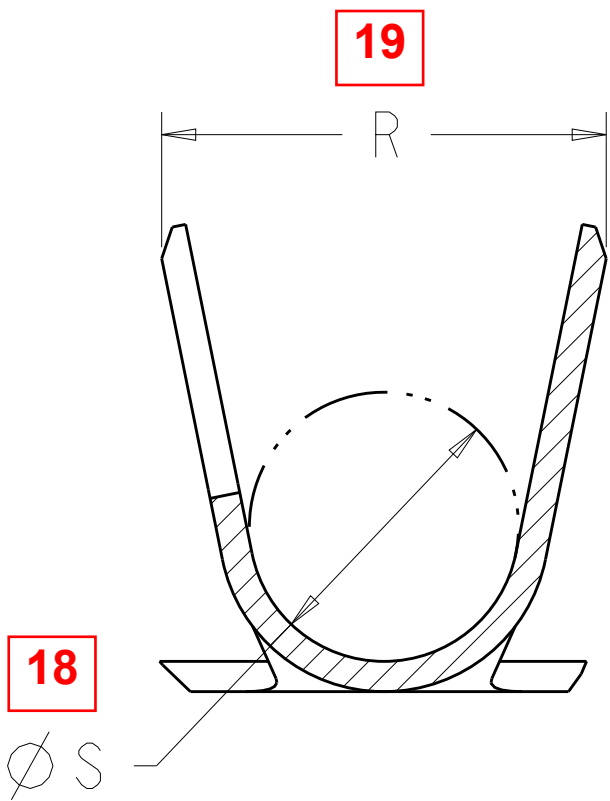
DETAIL A  
SCALE 5:1



DETAIL B  
REQUIRED REELING DIRECTION  
FOR TE APPLICATORS  
SCALE 5:1



SECTION S-S  
SCALE 20:1



SECTION N-N  
SCALE 20:1

DETAIL B	1.40	2.40	0.80	1.85	⚠	2X 0.13mm <sup>2</sup> OR 0.35mm <sup>2</sup>	1924275-8
DETAIL B	0.85	1.82	0.65	1.50	⚠	0.13mm <sup>2</sup>	1924275-7
DETAIL A	1.40	2.40	0.80	1.85	⚠	2X 0.13mm <sup>2</sup> OR 0.35mm <sup>2</sup>	1924275-6
DETAIL A	0.85	1.82	0.65	1.50	⚠	0.13mm <sup>2</sup>	1924275-5
DETAIL B	1.78	2.94	1.00	1.96	⚠	18	1924275-4
DETAIL B	1.78	2.94	0.80	1.82	⚠	20-22	1924275-3
DETAIL A	1.78	2.94	1.00	1.96	⚠	18	1924275-2
DETAIL A	1.78	2.94	0.80	1.82	⚠	20-22	1924275-1
REELING	S	R	K	J	FINISH	WIRE SIZE	PART NUMBER

THIS DRAWING IS A CONTROLLED DOCUMENT.		DWN H. MOLL	02OCT2008	TE Connectivity			
DIMENSIONS:		CHK J. HALL	02OCT2008				
mm		APVD J. HALL	02OCT2008	NAME			
		TOLERANCES UNLESS OTHERWISE SPECIFIED:		PRODUCT SPEC			
		0 PLC ±0.3 1 PLC ±0.3 2 PLC ±0.15 3 PLC ± 4 PLC ± ANGLES ±1°		APPLICATION SPEC			
MATERIAL		FINISH		WEIGHT		RESTRICTED TO	
⚠		-		-		FORD	
				RESTRICTED CUSTOMER		SCALE 10:1 SHEET 1 OF 1 REV B5	



## **Section 10**

# **Material, Performance Test Results**



An ISO Registered Company

1351 S. Girls School Road  
Indianapolis, IN 46231  
Tel: 317-241-7600  
DUNS: 83-296-2588

Date Tested		Job Number		Order Number	
8/20/2019		50432-0000		ABI00950 41-77797	
Size	Alloy	Customer PN		Customer PO#	
.0078 X 1.180	260	8-702482-1		1400-439945	
015191	TE CONNECTIVITY	GREENSBORO		NC	

### PROPERTIES AND TESTING

Trace#	Plating Material		Units	Plating Specs		Actual Data		Pb PPM in Deposit
				Min	Max	Min	Max	
420997b 1 1	Copper	0	μin	40		50	50	
	Reflow Tin	0	μin	32	59	51	52	58.43
420997B 1 11	Copper	0	μin	40		50	60	
	Reflow Tin	0	μin	32	59	35	37	58.43
420997B 1 12	Copper	0	μin	40		50	50	
	Reflow Tin	0	μin	32	59	44	46	58.43
420997B 1 13	Copper	0	μin	40		50	60	
	Reflow Tin	0	μin	32	59	46	49	58.43
420997B 1 14	Copper	0	μin	40		50	50	
	Reflow Tin	0	μin	32	59	54	59	58.43
420997B 1 18	Copper	0	μin	40		40	40	
	Reflow Tin	0	μin	32	59	45	59	58.43

# PROPERTIES AND TESTING

Trace#	Plating Material		Units	Plating Specs		Actual Data		Pb PPM in Deposit
				Min	Max	Min	Max	
420997B 1 19	Copper	0	μin	40		50	50	
	Reflow Tin	0	μin	32	59	44	51	58.43
420997b 1 2	Copper	0	μin	40		50	50	
	Reflow Tin	0	μin	32	59	57	58	58.43
420997B 1 20	Copper	0	μin	40		40	40	
	Reflow Tin	0	μin	32	59	48	50	58.43
420997b 1 3	Copper	0	μin	40		50	50	
	Reflow Tin	0	μin	32	59	49	50	58.43
420997b 1 4	Copper	0	μin	40		50	50	
	Reflow Tin	0	μin	32	59	41	44	58.43
420997b 1 5	Copper	0	μin	40		40	50	
	Reflow Tin	0	μin	32	59	41	45	58.43
420997B 1 6	Copper	0	μin	40		50	50	
	Reflow Tin	0	μin	32	59	43	49	58.43
420997B 1 7	Copper	0	μin	40		50	50	
	Reflow Tin	0	μin	32	59	46	47	58.43

# PROPERTIES AND TESTING

Trace#	Plating Material		Units	Plating Specs		Actual Data		Pb PPM in Deposit
				Min	Max	Min	Max	
420997B 1 8	Copper	0	μin	40		50	50	
	Reflow Tin	0	μin	32	59	55	55	58.43
421490A 2 11	Copper	0	μin	40		40	40	
	Reflow Tin	0	μin	32	59	35	38	58.43
421490a 2 13	Copper	0	μin	40		50	50	
	Reflow Tin	0	μin	32	59	50	59	58.43
421490a 2 18	Copper	0	μin	40		50	50	
	Reflow Tin	0	μin	32	59	38	45	58.43
421490A 2 2	Copper	0	μin	40		50	50	
	Reflow Tin	0	μin	32	59	53	56	58.43
421490A 2 4	Copper	0	μin	40		50	50	
	Reflow Tin	0	μin	32	59	48	49	58.43
421490A 2 6	Copper	0	μin	40		50	50	
	Reflow Tin	0	μin	32	59	55	56	58.43
421490A 2 8	Copper	0	μin	40		50	50	
	Reflow Tin	0	μin	32	59	47	49	58.43

## PROPERTIES AND TESTING

Trace#	Plating Material	Units	Plating Specs		Actual Data		Pb PPM in Deposit
			Min	Max	Min	Max	

1 Plating thickness per ASTM B568

2 Solderability Test per ASTM B678 - Pass/Fail for those products requiring solderability testing.

3 Adhesion Test per ASTM B571 - Performed on all plated product and rejected if test failed.

We hereby certify that the material described in this report has been tested and the results are shown above.

Quality Manager: Amy Schultz



## **Section 11**

# **Initial Process Studies**

There are no requirements for process capability data listed on the applicable Tyco Electronics customer drawing.

No agreement for providing process capability study information, to customer drawing requirements has been agreed to by Tyco Electronics.

Process capability study data, to a Tyco Electronics customer drawing dimension is not currently available from the manufacturing facility and as such will not be provided with this PPAP submission.

# **Section 12**

## **Qualified Laboratory Documentation**





By Royal Charter

# Certificate of Registration

QUALITY MANAGEMENT SYSTEM - IATF 16949:2016


This is to certify that:

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

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

Design and manufacture of electrical interconnecting devices.

For and on behalf of BSI:

  
Carlos Pitanga, Chief Operating Officer Assurance – Americas

BSI Certificate Number: 514458-007

IATF Number: 0338830



Certification Date: 2018-10-18

Latest Issue: 2018-10-18

Page: 1 of 3

...making excellence a habit.™

Expiry Date: 2021-10-17

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

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

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

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

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

A Member of the BSI Group of Companies.

## Location

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

## Registered Activities

Design and manufacture of electrical interconnecting devices.

Including the following remote support functions:

TE Connectivity  
Global Automotive Division  
Americas North  
3800 Reidsville Road  
Winston-Salem  
North Carolina  
27102  
USA  
Supplier management, Sales, Testing, Product design

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

TE Connectivity  
Global Automotive Division  
Americas North  
1901 Fulling Mill Road  
Middletown  
Pennsylvania  
17057  
USA  
Customer service, Testing, Product design

TE Connectivity  
Global Automotive Division  
Americas North  
900 Wilshire Boulevard  
Suite 150  
Troy  
Michigan  
48064  
USA  
Product design

BSI Certificate Number: 514458-007

IATF Number: 0338830



Certification Date: 2018-10-18

Latest Issue: 2018-10-18

Expiry Date: 2021-10-17

Page: 2 of 3

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

A Member of the BSI Group of Companies.

## Location

## Registered Activities

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

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

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

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

Including the following extended manufacturing sites:

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

BSI Certificate Number: 514458-007

IATF Number: 0338830



Certification Date: 2018-10-18

Latest Issue: 2018-10-18

Expiry Date: 2021-10-17

Page: 3 of 3

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

# **Section 13**

# **Appearance Approval Report**

# Not Applicable

## **Section 14**

# **Sample Product**

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

# **Section 15**

# **Master Sample**

**Retained at manufacturing location**

# **Section 16**

# **Checking Aids**



# Not Applicable

## **Section 17**

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

Name Contact, Male, Generation Y, 0.64 ID version 86857344 / 5 Node ID 775382103 Status Internally released

Send Propose Release Internal

- Lear Corporation [632] accepted
- Nursan Kablo Donanimlari San. ve Tic. A.S. [126376]
- TIANHAI SYRACUSE AUTOMOTIVE [22750] accepted
- Yazaki India Pvt.Ltd [22750] accepted

Details

Transfer Information

Company Nursan Kablo Donanimlari San. ve Tic. A.S. [126376]  
Organisation unit -  
Recip. Status accepted  
Supplier Code -  
Name Contact, Male, Generation Y, 0.64  
Part/Item No. 1924275-4  
Legacy Spare Part No  
Transmission/Check Date 1/13/2020  
Forwarding allowed Yes

Drawing

Drawing No. -  
Drawing dated -  
Drawing Change Level -

Purchase Order

Purchase Order No. -  
Bill of Delivery No. -

Report

Report No. -  
Date of Report -



# **Section 18**

# **Part Submission Warrant**

# Part Submission Warrant

EPPAP:

Part Name \_\_\_\_\_ Cust. Part Number \_\_\_\_\_

Shown on Drawing Number \_\_\_\_\_ Org. Part Number \_\_\_\_\_

Engineering Change Level \_\_\_\_\_ Dated \_\_\_\_\_

Additional Engineering Changes \_\_\_\_\_ Dated \_\_\_\_\_

Safety and/or Government Regulation Yes No Purchase Order No. \_\_\_\_\_ Weight (kg) \_\_\_\_\_

Checking Aid Number \_\_\_\_\_ Checking Aid Engineering Change Level \_\_\_\_\_ Dated \_\_\_\_\_

## ORGANIZATION MANUFACTURING INFORMATION

## CUSTOMER SUBMITTAL INFORMATION

Organization Name and Supplier Code \_\_\_\_\_

Street Address \_\_\_\_\_

City \_\_\_\_\_ Region \_\_\_\_\_ Postal Code \_\_\_\_\_ Country \_\_\_\_\_

Customer Name/Division \_\_\_\_\_

Buyer/Buyer Code \_\_\_\_\_

Application \_\_\_\_\_

## MATERIALS REPORTING

Has customer-required Substance of Concern information been reported Yes No NA

Submitted by IMDS or other customer format \_\_\_\_\_

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

## REASON FOR SUBMISSION (Check at least one)

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

## 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 \_\_\_\_\_

## 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 proprietary / hours

I also certify that documented evidence of such compliance is on file and is available for review. I have noted any deviations from this declaration below.

## EXPLANATION/COMMENTS

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

Organization Authorized Signature Pablo Guillermo Jimenez Date \_\_\_\_\_

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

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

## 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