Part Submission Warrant

2019-93303

Part Name: *Female Assembly, 6 pos (1x6), unsealed Gen Y* Cust. Part Number: *DU5T-14489-PA*

Shown on Drawing Number: *DU5T-14489-LA* Org.Part Number: *2035363-7*

Engineering Change Level: *AELE-E-12625180-671* Dated: *2/05/2018*

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

TE Connectivity Belgium bvba */370 654 167*
Organization Name and Supplier Code

Siemenslaan 14
Street Address

Oostkamp | Region | *8020* | *Belgium*
City | Region | Postal Code | Country

CUSTOMER SUBMITTAL INFORMATION

Nursan Kablo Donanimlari
Customer Name/Division

Buyer/Buyer Code

Ford
Application

MATERIALS REPORTING

Has customer-required Substance of Concern information been reported ☐ Yes ☑ No ☐ n/a

Submitted by IMDS or other customer format *271607375 / 2*

Are polymeric parts identified with appropriate ISO marking codes? ☑ Yes ☐ No ☐ n/a

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

New Part Customer Combination

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 *2K mold 21-1776283 (2.1...2.8)*

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 10100/8 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

Organization Authorized Signature Date *26/06/2019*

Print Name *Petra Rolly* Phone No. *0032 50 83 2629* Fax

Title *PPAP Administrator* Email petra.rolly@TE.com

FOR CUSTOMER USE ONLY (IF APPLICABLE)

PPAP Warrant Disposition : ☐ Approved ☐ Rejected ☐ Other

Customer Signature Date

Print Name Customer Tracking Number (optional)

based on CFG-1001 march 2006

ENGINEERING SAMPLE EVALUATION REPORT

PART NAME: 1x6 pos. GENY-Female-Connector		FORD PART NO.: DU5T-14489-LA, DU5T-14489-MA, DU5T-14489-SA, DU5T-14489-NA, DU5T-14489-TA, DU5T-14489, PA, DU5T-14489-RA	
		CHANGE TYPE:	CHECK APPLICABLE:
SUBMITTED BY: Jurek Reuter	CURRENT MANUFACTURING SITE: TE US	TOOL MOVE:	
		PROCESS CHANGE:	
	FUTURE MANUFACTURING SITE: TE Oostkamp EMEA	MATERIAL/MATERIAL SUPPLIER CHANGE:	
		CAPACITY TOOL:	X
SUPPLIER: TE Connectivity		DATE SUBMITTED: 12-31-13	MADE TO DRAWING DATED: DU5T-14489-LA dtd 101222

CHANGE DETAILS:

Duplication Tool (Housing & TPA)
Housing Material PA66-GF35 Ultramid A3EG7 (No change)
TPA Material PBT-GF30 without PC (standard material for EMEA)

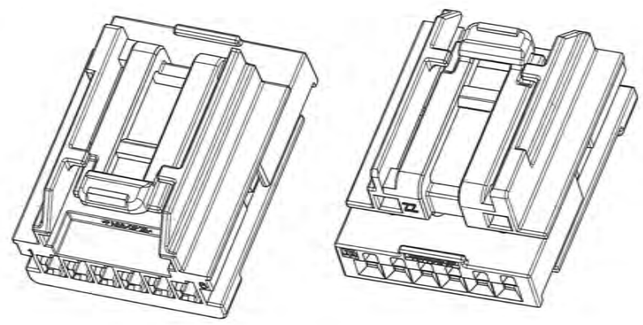
APPROVED: X REJECTED:		PRODUCT ENGINEERING SIGNATURE*:	DATE: 4-18-18

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.

ITEM	DESCRIPTION	COLOR	FORD COMPONENT PART NO.	SUPPLIER COMPONENT PART NO.	MATERIAL/ SPEC ID	RECYLING CODE	WEIGHT	NO. OF ITEMS REQUIRED
1	PLUG HOUSING - KEYING "B"	BLACK	N/A	2035362-1	PA66-GF35	>PA66-GF35<	TBD	1 1
2	PLUG HOUSING - KEYING "C"	BLACK	N/A	2035362-2	PA66-GF35	>PA66-GF35<	TBD	1 1
3	PLUG HOUSING - KEYING "D"	BLACK	N/A	2035362-3	PA66-GF35	>PA66-GF35<	TBD	1 1
4	PLUG HOUSING - KEYING "E"	BLACK	N/A	2035362-4	PA66-GF35	>PA66-GF35<	TBD	1 1
5	PLUG HOUSING - KEYING "F"	BLACK	N/A	2035362-5	PA66-GF35	>PA66-GF35<	TBD	1 1
6	SPACER	RED	N/A	2035361-1	PBT+PC-GF30	>PBT+PC-GF30<	TBD	1 1 1 1 1 1 1 1 1 1
					PBT-GF30 (A1)	>PBT-GF30< (A2)		
7	CPA	RED	N/A	8-1419168-4	PBT-GF20	>PBT-GF20<	TBD	1 1 1 1 1

ASSEMBLY PART NO.'S			MATING COMPONENT	
FORD COMPONENT PART NO.	SUPPLIER COMPONENT PART NO.	MAX. TEMP (AMBIENT + RISE)	FORD COMPONENT PART NO.	SUPPLIER COMPONENT PART NO.
DU5T-14489-LA	2035363-1	CLASS II 100°C	N/A	N/A
N/A	2035363-2	CLASS II 100°C	N/A	N/A
DU5T-14489-MA	2035363-3	CLASS II 100°C	N/A	N/A
DU5T-14489-SA	2035363-4	CLASS II 100°C	N/A	N/A
DU5T-14489-NA	2035363-5	CLASS II 100°C	N/A	N/A
DU5T-14489-TA	2035363-6	CLASS II 100°C	N/A	N/A
DU5T-14489-PA	2035363-7	CLASS II 100°C	N/A	N/A
N/A	2035363-8	CLASS II 100°C	N/A	N/A
DU5T-14489-RA	2035363-9	CLASS II 100°C	N/A	N/A
N/A	1-2035363-0	CLASS II 100°C	N/A	N/A



ISO VIEWS
SCALE 4:1

8. 1. PART MUST CONFORM TO THE ELECTRICAL CONNECTION SYSTEM DESIGN SPECIFICATION (SDS) VER. 17, DATED 17FEB2010.
9. 2. PART MUST CONFORM TO USCAR-2 REV 5, DATED NOV 2007.
10. 3. MAXIMUM MATING FORCE FULLY POPULATED WITH TIN (PLATED) TERMINALS = TBD
11. 4. TERMINAL EXTRACTION TOOL: TBD
12. 5. PRODUCTION DATE CODE.

LTRS	REVISIONS			
ORIGINATOR	CHECKER	ENGR APP	MATL APP	

RELEASED FOR PRODUCTION AUTHORITY
DU5T-14489-LA, DU5T-14489-MA, DU5T-14489-SA, DU5T-14489-NA, DU5T-14489-TA, DU5T-14489-PA, DU5T-14489-RA

AELE-E-11783996-604 DATE:101222

DRUMMOND	C. MARTIN	G. LEECE	

A1 ADDED PBT-GF30
A2 ADDED >PBT-GF30<

AELE E 12625180 671 20180502

HITCHCOCK	C. MARTIN	ASANKOVI	

APPLICABLE COMPONENTS						
ITEM	DESCRIPTION	MANDATORY (YES / NO)	TERMINAL CAVITY MAX (X)	PLATING/ MATERIAL	FORD COMPONENT PART NUMBER	SUPPLIER COMPONENT PART NUMBER
1	GENERATION Y 0.64 (20-22 AWG)	YES	Ø2.1 mm	TIN/COPPER ALLOY	DRAWING: 9U5T-14474-DA	1456574-1
2	GENERATION Y 0.64 (18 AWG)	YES	Ø2.1 mm	TIN/COPPER ALLOY	DRAWING: 9U5T-14474-DA	1456574-2
3	GENERATION Y 0.64 (26 AWG)	YES	Ø2.1 mm	TIN/COPPER ALLOY	DRAWING: 9U5T-14474-DA	1456574-5

REFERENCE: SUPPLIER ID 7298

PART MUST COMPLY WITH RESTRICTED SUBSTANCE MANAGEMENT STANDARD WSS-M99P9999-A1 TO SAFEGUARD HEALTH, SAFETY AND THE ENVIRONMENT

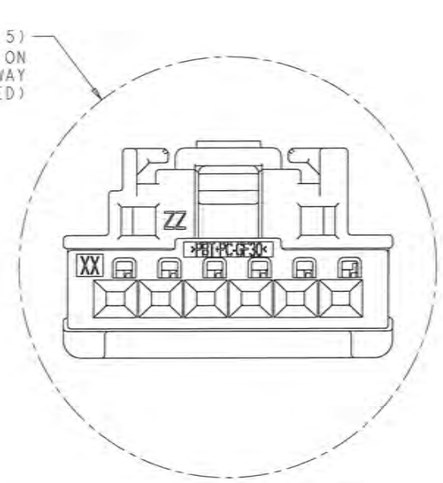
DRAFTED IN ACCORDANCE WITH FORD MOTOR COMPANY ENGINEERING CAD AND DRAFTING STANDARDS VERSION ____

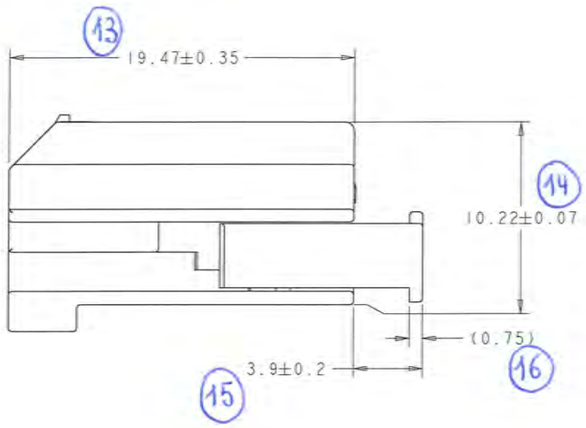
3RD ANGLE PROJ
DIMENSIONS ARE IN MILLIMETERS

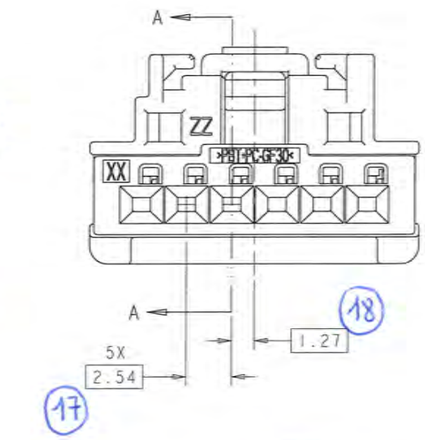
DU5T-14489-RA
DU5T-14489-PA
DU5T-14489-TA
DU5T-14489-NA
DU5T-14489-SA
DU5T-14489-MA

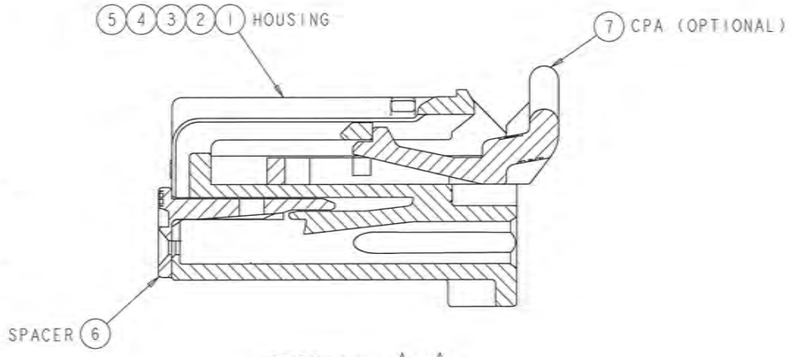
CAD TYPE	CAD LOC.	CAD FILE	
X-PROE	PRO1	2035363_FORD	IS MASTER
OPER. NO.	UNIT	DRAWING	
		DU5T-14489-LA	
DESIGN	DETAIL	TITLE	SHT 1 OF 4
CHECKED	SAFETY	SLV ASY-WIRE CONNECTOR - FEMALE	REV A
SCALE 5:1	DATE	DIVISION	
		PLANT	

FORD MOTOR COMPANY

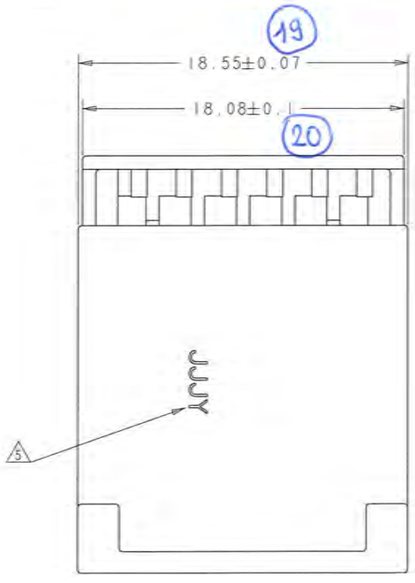






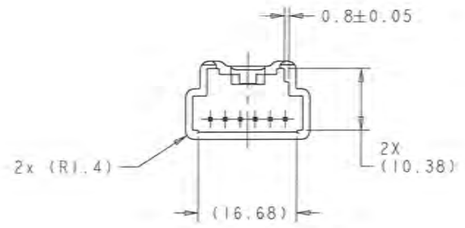


SECTION A-A
SHOWN WITH SPACER IN
FINAL ASSEMBLED POSITION

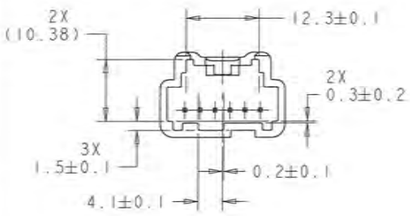


DRAWING	DU5T-14489-LA	REV A	SHT 2 OF 4
CAD FILE	2035363_FORD		FORD MOTOR COMPANY

KEYING OPTION B



KEYING OPTION C



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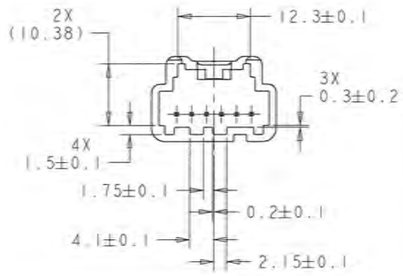
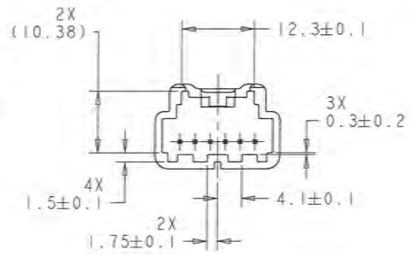
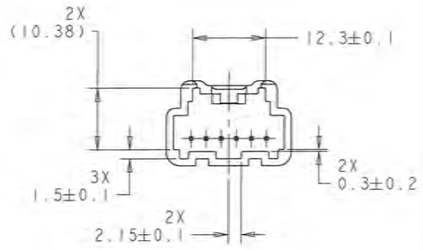


1X6
INTERFACE
SCALE 2:1

KEYING OPTION E



KEYING OPTOIN F



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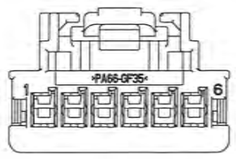

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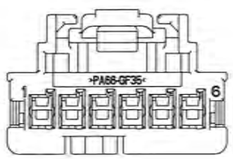
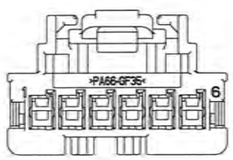
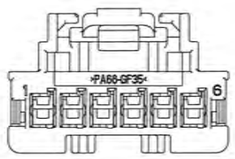


KEYING OPTION D



1X6
FEMALE HARNESS
SCALE 2:1

KEYING OPTION E



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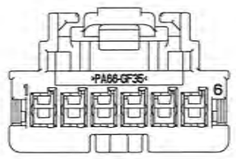
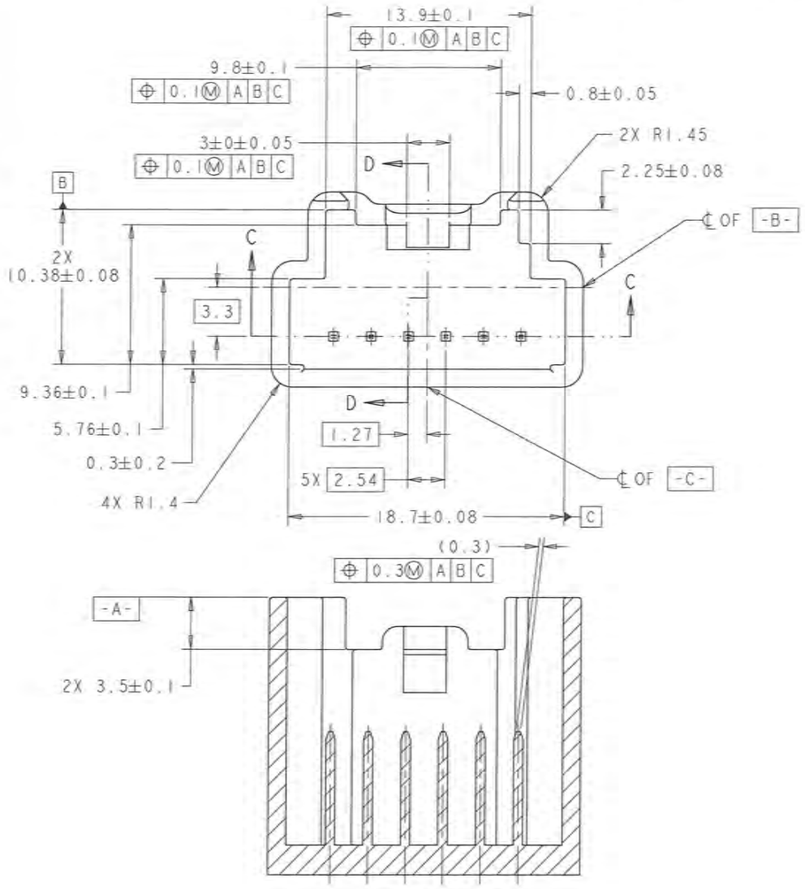
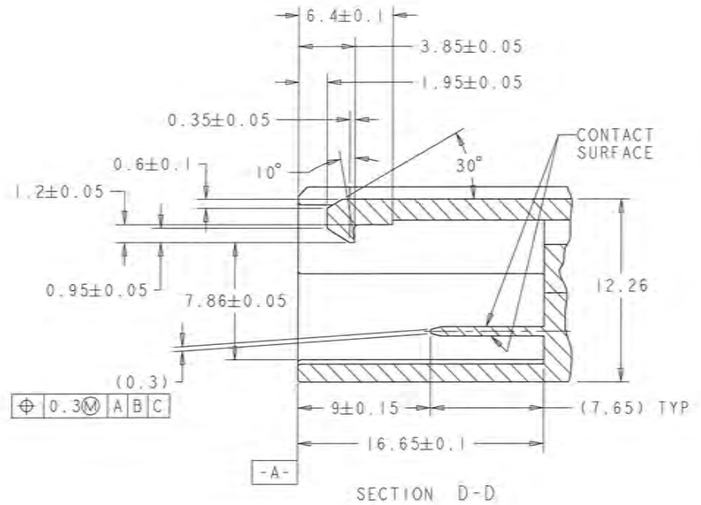


DRAWING	DU5T-14489-LA	REV A	SHT 3 OF 4
CAD FILE	2035363_FORD	FORD MOTOR COMPANY	

APPLICABLE HEADER SPECIFICATION



SECTION C-C



SECTION D-D

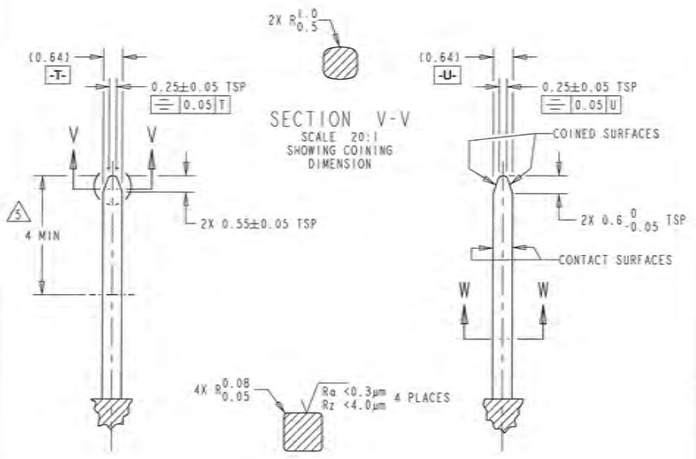
NOTES: UNLESS OTHERWISE SPECIFIED

1. GENERAL TOLERANCE:
   ± 0.3 ALL ONE PLACE DIMENSIONS
   ± 0.10 ALL TWO PLACE DIMENSIONS
   ± 3° 00′ ALL ANGULAR DIMENSIONS
2. DRAFT ANGLE PERMISSIBLE ONLY WITHIN DRAWING TOLERANCE
3. WHEN A TIN OR GOLD TERMINAL IS USED ON THE WIRING SIDE THEN THE CORRESONDING PLATING (i.e. TIN OR GOLD) MUST BE USED ON THE HEADER
4. PLATING ACCORDING TO SPEC. NUMBERS: ES-F8DB14A229-AA/BA/CA/DA

RECOMMENDED PIN TIP GEOMETRY

NOTE(S):

1. MATERIAL: Cu ALLOY
   WITH TENSILE STRENGTH > 600 N/mm²
   ELECTRICAL CONDUCTANCE > 30 Sm/mm²
   (>50% IACS)
2. BASE PLATING: 2-3.5µm Ni ALL OVER.
   TIN PLATING: 2.5-4µm Sn.
   GOLD PLATING: 0.8µm MIN Au.
3. CONTACT MUST BE FREE OF BURRS AND SHARP EDGES.
4. ALL EDGES RADIUSED WITH R0.1-R0.2 IN THIS AREA.
5. TIN AND GOLD PLATING AREA.
6. PIN ROTATION ±5° MAXIMUM.



SECTION V-V
SCALE 20:1
SHOWING COINING DIMENSION

SECTION W-W
SCALE 20:1

0.64 X 0.64 PIN CONTACT
SCALE:8:1

DRAWING	DU5T-14489-LA	REV A	SHT 4 OF 4
CAD FILE	2035363_FORD	FORD MOTOR COMPANY	

Production Part Approval - Dimensional Results

Tyco tracking nr: 2019-93303_2018- 59672

ORGANIZATION: **TE Connectivity Belgium bvba**
SUPLLIER/VENDOR CODE:
INSPECTION FACILITY:
QS

PART NUMBER: **0-2035363-7**
PART NAME: **SLV Assy - Wire Connector - Female**
DESIGN RECORD CHANGE LEVEL: **AELE E 12625180 671**
ENGINEERING CHANGE DOCUMENTS:

ITEM	DIMENSION/SPECIFICATION	SPECIFICATION/ LIMITS	TEST DATE	QTY TESTED	ORGANIZATION MEASUREMENT RESULTS (DATA)	OK	NOT OK
	Drawing DU5T-14489-LA						
	(Sheet 1 of 4)						
	Not Applicable						
	Drawing DU5T-14489-LA						
	(Sheet 2 of 4)						
13	19.47	±0.35	19/03/2018	Cav. 2.1	19.46	X	
				Cav. 2.2	19.47	X	
				Cav. 2.3	19.46	X	
				Cav. 2.4	19.46	X	
				Cav. 2.5	19.47	X	
				Cav. 2.6	19.47	X	
				Cav. 2.7	19.47	X	
				Cav. 2.8	19.48	X	
14	10.22	±0.07	4/06/2019	Cav. 2.1	10.27	X	
				Cav. 2.2	10.25	X	
				Cav. 2.3	10.25	X	
				Cav. 2.4	10.26	X	
				Cav. 2.5	10.26	X	
				Cav. 2.6	10.25	X	
				Cav. 2.7	10.25	X	
				Cav. 2.8	10.26	X	
15	3.9	±0.2	19/03/2018	Cav. 2.1	4.05	X	
				Cav. 2.2	4.04	X	
				Cav. 2.3	4.03	X	
				Cav. 2.4	4.02	X	
				Cav. 2.5	4.03	X	
				Cav. 2.6	4.02	X	
				Cav. 2.7	4.03	X	
				Cav. 2.8	4.05	X	
16	(0.75)	N/A	N/A	N/A	For information only		
17	5x [2.54]	N/A	N/A	N/A	For information only		
18	[1.27]	N/A	N/A	N/A	For information only		
19	18.55	±0.07	4/06/2019	Cav. 2.1	18.52...18.54	X	
				Cav. 2.2	18.52...18.53	X	
				Cav. 2.3	18.53...18.53	X	
				Cav. 2.4	18.53...18.54	X	
				Cav. 2.5	18.50...18.54	X	
				Cav. 2.6	18.52...18.55	X	
				Cav. 2.7	18.51...18.53	X	
				Cav. 2.8	18.52...18.55	X	
20	18.08	±0.1	19/03/2018	Cav. 2.1	18.08	X	
				Cav. 2.2	18.09	X	
				Cav. 2.3	18.09	X	
				Cav. 2.4	18.10	X	
				Cav. 2.5	18.10	X	
				Cav. 2.6	18.07	X	
				Cav. 2.7	18.10	X	
				Cav. 2.8	18.10	X	

Signature

Title: PPAP Adm.

26/06/2019

Production Part Approval - Dimensional Results

Tyco tracking nr: 2019-93303_2018- 59672

ORGANIZATION: TE Connectivity Belgium bvba	PART NUMBER: 0-2035363-7
SUPLLIER/VENDOR CODE:	PART NAME: SLV Assy - Wire Connector - Female
INSPECTION FACILITY: QS	DESIGN RECORD CHANGE LEVEL: AELE E 12625180 671
	ENGINEERING CHANGE DOCUMENTS:

ITEM	DIMENSION/SPECIFICATION	SPECIFICATION/ LIMITS	TEST DATE	QTY TESTED	ORGANIZATION MEASUREMENT RESULTS (DATA)	OK	NOT OK
21	(Ø23,5) Min feed through condition (2mm clearance all the way around included)	N/A	N/A	N/A	For information only		
	Drawing DU5T-14489-LA (Sheet 3 of 4) Not Applicable						
	Drawing DU5T-14489-LA (Sheet 4 of 4) Not Applicable						

based on CFG-1003
march 2006

Signature

Title: PPAP Adm.

26/06/2019

Production Part Approval - Material Test Results

Tyco tracking nr:

ORGANIZATION: *Tyco Electronics Belgium EC bvba*	PART NUMBER: **2035363-7**
SUPLLIER/VENDOR CODE:	PART NAME: **Fem. assembly 6p (1x6) unsealed Gen Y**
INSPECTION FACILITY: *QS*	DESIGN RECORD CHANGE LEVEL:
	ENGINEERING CHANGE DOCUMENTS:

ITEM	DIMENSION/SPECIFICATION	SPECIFICATION/ LIMITS	TEST DATE	QTY TESTED	ORGANIZATION MEASUREMENT RESULTS (DATA)	OK	NOT OK
	Material						
1	Spacer						
	PBT+PC-GF30 Red				see certificate 702350-4_MT	x	
	PBT - GF30						
2	Housing						
	PA66 GF 35 black				see certificate 702661-1_MT	x	

based on CFG-1004
march 2006

Signature

Title

Material test results

Certificate Item 1 Spacer
702350-4_MT

Inspectie Certificaat (EN 10204-3.1)

Charge	Artikelomschrijving	Leveringsnr.	Geplande Leveringsdatum
0000820565	POCAN B 3235 300350 P.1000 OCTA M.BE HP W	3015978393 / 000010	04.02.2019

De toetsingen werden specifiek voor het geleverde materiaal uitgevoerd.

Inspectiemethode/ Karakteristiek	Resultaat	Specificatie	Eenheid
1) ISO 180/1U			
aIU (23 °C)	59,7	>= 35,0	kJ/m²
2) DIN 6174 color difference CIELAB			
Delta L	-0,26		
Delta a	-0,21		
Delta b	0,56		
Delta E	0,65		
3) Calc. from ash (sim. to ISO 3451-1/A)			
Glass fibre content	29,7	27,0 - 33,0	%
4) Sim. to DIN EN ISO 1133-1			
MVR 260°C; 2,16kg	15,3	10,0 - 21,0	cm³/10

Inspectie Certificaat (EN 10204-3.1)

Charge	Artikelomschrijving	Leveringsnr.	Geplande Leveringsdatum
0000853085	POCAN B 3235 300350 P.1000 OCTA M.BE HP W	3015978393 / 000010	04.02.2019

De toetsingen werden specifiek voor het geleverde materiaal uitgevoerd.

Inspectiemethode/ Karakteristiek	Resultaat	Specificatie	Eenheid
1) ISO 180/1U			
aIU (23 °C)	58,7	>= 35,0	kJ/m²
2) DIN 6174 color difference CIELAB			
Delta L	-0,49		
Delta a	0,20		
Delta b	0,08		
Delta E	0,53		
3) Calc. from ash (sim. to ISO 3451-1/A)			
Glass fibre content	30,2	27,0 - 33,0	%
4) Sim. to DIN EN ISO 1133-1			
MVR 260°C; 2,16kg	13,4	10,0 - 21,0	cm³/10

Contact for inqiries regarding this Certificate of Analysis:

Mr. Michael Weber Mail: michael.weber@lanxess.com

The data presented above relate to characteristics.
They do not represent any assurance or warranty.
This information does not release the customer from the obligation to carry out incoming inspections of goods, either as agreed or as required under the regulations.
This information has been issued by computer and is valid without signature.
Authorized inspection representative: Dr. Dietmar Klein

Material test results

Certificate Item 2 Housing
702661-1_MT

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Certificate of Analysis

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Please note that the certificates of analysis are also conveniently available online and around the clock at www.worldaccount.basf.com

Fax No 003250832450

TYCO ELECTRONICS BELGIUM EC BVBA

SIEMENSLAAN 14 14

8020 OOSTKAMP

België

2019-04-04

RBU Performance Materials Europe

Certificate No 4960

Inspection Certificate 3.1 according to EN 10204

ULTRAMID® A3EG7 BLACK 00564
POLYAMIDE
25KG PE-BAG
Purchase Order/Customer Product#
2550129805
702661-1

Material	50036781
Order	3381189206 000010
Delivery	3191606547 000010
Lot	97162367J0
Lot/Qty	20000.000 KG
Total	20000.000 KG
Transport	SB5144P//

Characteristic Method	Specification	Result	Unit
Viscosity number acc.to ISO 307 (Sulfuric acid)	130 - 160	142	ml/g
Moisture content acc. to ISO 15512	max.0,15	0,04	%
Reinforcing filler (glass / mineral) according to ISO 3451	33,0 - 37,0	35,0	%

The above results are means of individual test values determined on samples taken during production of the lot.
Dr.Axel Ebenau, inspection representative
If you have any further questions please send an E-mail to:
EPME-Certificates@basf.com