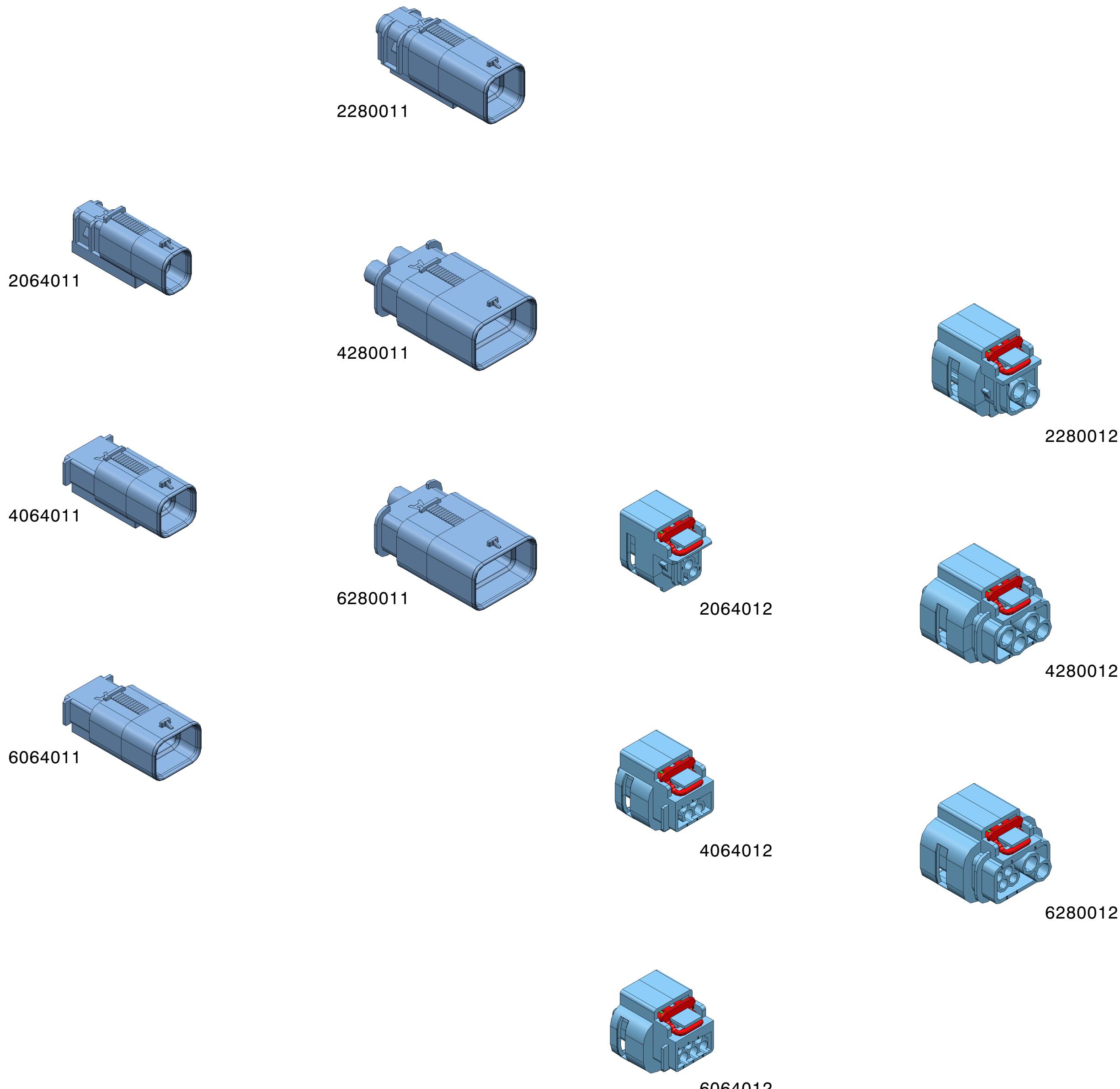


LOW VOLTAGE CONNECTOR STANDARD

CA	DATE	REV	DESCRIPTION	DRWN
CA-00243183	04JUN2025	01	MASS PRODUCTION CONNECTOR RELEASE	J. PANG
CA-00248585	28JUN2025	02	MINOR DRAWING CORRECTIONS	J. PANG



CATEGORY	PART NUMBER FEMALE CONNECTOR	PART NUMBER MALE CONNECTOR	STYLE CODE 1 (COLOR)	STYLE CODE 2 (KEY)	PEDIGREE	INTERFACE SPECIFICATION	PEDIGREE	TAB QUANTITY 0.64X0.64MM	TAB QUANTITY 2.8X0.8MM
LOW POWER (LP)	2064012	2064011	0 - BLUE 1 - BLACK	O A B C D	C	2064000-TS	B	2	0
	4064012	4064011			C	4064000-TS	B	4	0
	6064012	6064011			C	6064000-TS	B	6	0
HIGH POWER (HP)	2280012	2280011	0 - BLUE 1 - BLACK	O A B C D	C	2280000-TS	B	0	2
	4280012	4280011			C	4280000-TS	B	0	4
	6280012	6280011			C	6280000-TS	B	4	2

LICENSING

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REGULATORY COMPLIANCES

- R1. ALL MATERIALS AND COATINGS MUST COMPLY WITH ALL APPLICABLE INTERNATIONAL ENVIRONMENTAL RELATED REGULATIONS, INCLUDING BUT NOT LIMITED TO EU DIRECTIVES WYTA, ELV, RRR, RoHS, WEEE, REACH AND BATTERY DIRECTIVE 2006/66/EC, WHICH ARE DESCRIBED IN DETAIL AT THE GADS LIST IN ITS LATEST VERSION AT THE TIME OF USE. (<http://www.gads1.org>).
- REFERS TO TESLA INC. PART NUMBER 00000000 FOR FULL INFORMATION.
- R2. ALL MATERIALS AND COATINGS MUST COMPLY WITH EU DIRECTIVE 2000/53/EC (ELV DIRECTIVE).
- R3. COMPONENT TO CONFORM TO EU DIRECTIVE 2003/138/EC (MATERIAL CODING DIRECTIVE).
- R4. TOOL TO USE REMOVABLE MOLD INSERT(S) AT INDICATED AREA(S) WILL CONTAIN PART DATA INDICATING THE MOLD NUMBER, MANUFACTURE LEVEL, MANUFACTURED DATE, RECYCLING MARK, TESLA LOGO AND CONTRACT MANUFACTURER ID.
- R5. MATERIAL MUST COMPLY WITH FMVSS 303 OR BETTER.

GENERAL NOTES

- G1. THE MASTER SOURCE OF INFORMATION FOR THIS DOCUMENT IS A COMPUTER DATABASE.
- G2. 3D CAD DATA SUPPLIED IS TO BE USED TO PRODUCE PRODUCTION TOOLING AND FOR INSPECTION.
- G3. PRINTED DOCUMENT IS UNCONTROLLED - DOCUMENT OBSOLETE WHEN PRINTED.
- G4. THIS ASSEMBLY SHALL COMPLY WITH GRADE B BATCH TRACEABILITY REQUIREMENTS PER TESLA INC SPECIFICATION BMS-000015.
- G5. PRINTED DOCUMENT SHALL HAVE PART NUMBER IN THE AREA SHOWN PER TESLA PART LABELING SPECIFICATION BMS-000007.
- G6. THIS COMPONENT MUST BE PACKAGED IN ACCORDANCE WITH TESLA INC SPECIFICATION BMS-000000.
- G7. COMPONENTS MUST BE PLACED IN POLY BAG. BAG TO BE MARKED WITH PART NUMBER, REVISION, QUANTITY, P.O. NUMBER, MANUFACTURING DATE AND VENDOR.
- G8. COMPONENTS TO BE PLACED IN CARTON MARKED FOR SHIPPING IN ACCORDANCE WITH TESLA INC. SPECIFICATION BMS-0000093.
- G9. ANY PARTS THAT ARE CONTRACTED TO MANUFACTURE THIS COMPONENT SHALL BE PROPERTY OF TESLA MOTORS, INC., AND SHALL BE PERMANENTLY MARKED WITH "TESLA INC.", TOOLING PART NUMBER AND DATE.
- G10. IN ADDITION TO THE DRAWINGS, ALL PARTS SUBJECT TO TESLA SHALL MEET ALL REQUIREMENTS OF: TESLA RS-3690003 - 48V CONNECTOR STANDARD PER TESLA INC. SPECIFICATION TESLA RS-3690003 - 48V CONNECTOR RELIABILITY TEST INSPECTION.
- G11. A FULL SHROUD ON THE MATING CONNECTOR AS SHOWN IS REQUIRED TO PREVENT SCOP DAMAGE TO THE HEADER PINS.
- G12. CPA TO BE SHIPPED IN DISENGAGED POSITION.

DIMENSIONAL NOTES

- D1. INTERPRET SPECIFICATIONS PER GEOMETRIC DIMENSIONING & TOLERANCING ASME Y14.5-2009. CAD UNITS ARE MILLIMETERS AT 1:1. TOOLING SUPPLIER TO ALLOW FOR MATERIAL SHRINKAGE.
- D2. DIMENSIONS APPLY AFTER FINISHING OPERATIONS UNLESS OTHERWISE STATED.
- D3. LENGTH DIMENSIONS SPECIFIED IN THE DRAWING VIEWS OF THIS DOCUMENT SUPERSEDE DIMENSIONS PROVIDED IN OTHER DOCUMENTS.
- D4. HARDCOPY IS NOT SCALE, DO NOT SCALE IMAGES.
- D5. DIMENSIONS ARE THEORETICAL SIZE CORRECTED.
- D6. THIS PART HAS BEEN CAD DESIGNED AND TOOLED WITH THE DATUM REFERENCES AS SHOWN. THE DATUM REFERENCES USED ON THIS DRAWING TAKES PRECEDENCE OVER THE EWP DRAWING GUIDELINE DATUM REFERENCE REQUIREMENT.
- D7. SETTING DIMENSIONS INDICATED IN LIGHT BLUE AND MUST BE FREE OF PARTING LINES AND DEFECTS. SURFACE Rz < 2.5μm
- D8. PARTING LINE MISMATCH NOT TO EXCEED 0.05mm FLASH NOT TO EXCEED 0.05mm.
- D9. ALL RADII 0.25 ±0.25 ±0.25 UNLESS OTHERWISE NOTED.
- D10. ALL SURFACES ASSUMED 0.5 DEGREE DRAFT ANGLE UNLESS OTHERWISE NOTED.
- D11. TOLERANCES UNLESS OTHERWISE NOTED:

ØSIZE +0.250	ØSIZE -0.250
[0.5] [A] [B] [C] [D]	[0.5] [A] [B] [C] [D]
SURFACES WITH ALL TRIM EDGES	CIRCULAR FEATURES NON-CIRCULAR FEATURES
BLENDED UNIFORMITY	

MATERIAL SPECIFICATIONS

- M1. MANUFACTURING PROCESS: INJECTION MOLDING.
- M2. REGRINDING IS PERMITTED, IF REGRIND IS USED IN PRODUCTION, SAMPLES MADE FROM MAXIMUM INTENDED AMOUNT OF REGRIND MUST BE VALIDATED TO PERFORMANCE REQUIREMENTS SPECIFIED IN THIS DOCUMENT.
- M3. CLEANLINESS: PART TO BE FREE OF MOLD RELEASE ON ALL SURFACES.
- M4. APPROVED PLASTIC PROCESSORS: FREE OF DEFECTS, BURRS, CRACKS, SPOTS, SPALLS, BUT NOT LIMITED TO, SPLASH, INCLUDED PARTICLES, BURNED PLASTIC MARKS AND SIMILAR IMPERFECTIONS.
- M5. EJECTOR PIN, PARTING LINE AND GATE LOCATION MUST BE APPROVED BY TESLA INC. DESIGN ENGINEER PRIOR TO MOLD FABRICATION.
- M6. NO SUBCONTRACTORS MAY USE TESLA MATERIALS OR ASSOCIATED PROCESSING MATERIALS WITHOUT THE PRIOR WRITTEN CONSENT OF TESLA INC.

TERMINAL NOTES

- T1. RECOMMENDED MATERIAL: COPPER OR CUNISI ALLOY (50% IACS MIN)
- T2. RECOMMENDED FINISH: 100% LEAD FREE TIN + NICKEL UNDERPLATING (>20 CYCLES), SILVER + NICKEL UNDERPLATING (<5 CYCLES)
- T3. TIN TO BE FREE OF BURRS IN EXCESS OF 10% OF MATERIAL THICKNESS UNLESS OTHERWISE SPECIFIED
- T4. LOOSE BURRS OR SLIVERS ARE NOT PERMISSIBLE
- T5. PARTS ARE TO BE FREE OF DUST AND CONTAMINANTS TO THE REQUIREMENT OF TESLA INC.
- T7. TOTAL TWIST ALONG LENGTH OF TERMINAL NOT TO EXCEED 5° IN EITHER DIRECTION
- T8. NO CHANGES SHALL BE MADE TO TERMINAL MATERIAL OR PLATING UNLESS OTHERWISE NOTED
- T9. MATERIAL AND PLATING SPECIFICATIONS DEPENDENT ON MANUFACTURING AND ASSEMBLY PROCESS
- T10. 0.64 TERMINAL MUST FOLLOW ECWAP-001: 064-T002 4 BEAM APPLICATION UNLESS OTHERWISE NOTED
- T11. 2.8 TERMINAL MUST FOLLOW ECWAP-001: 280-T001 UNLESS OTHERWISE NOTED
- T12. 6.3 TERMINAL MUST FOLLOW ECWAP-001: 630-T001 UNLESS OTHERWISE NOTED

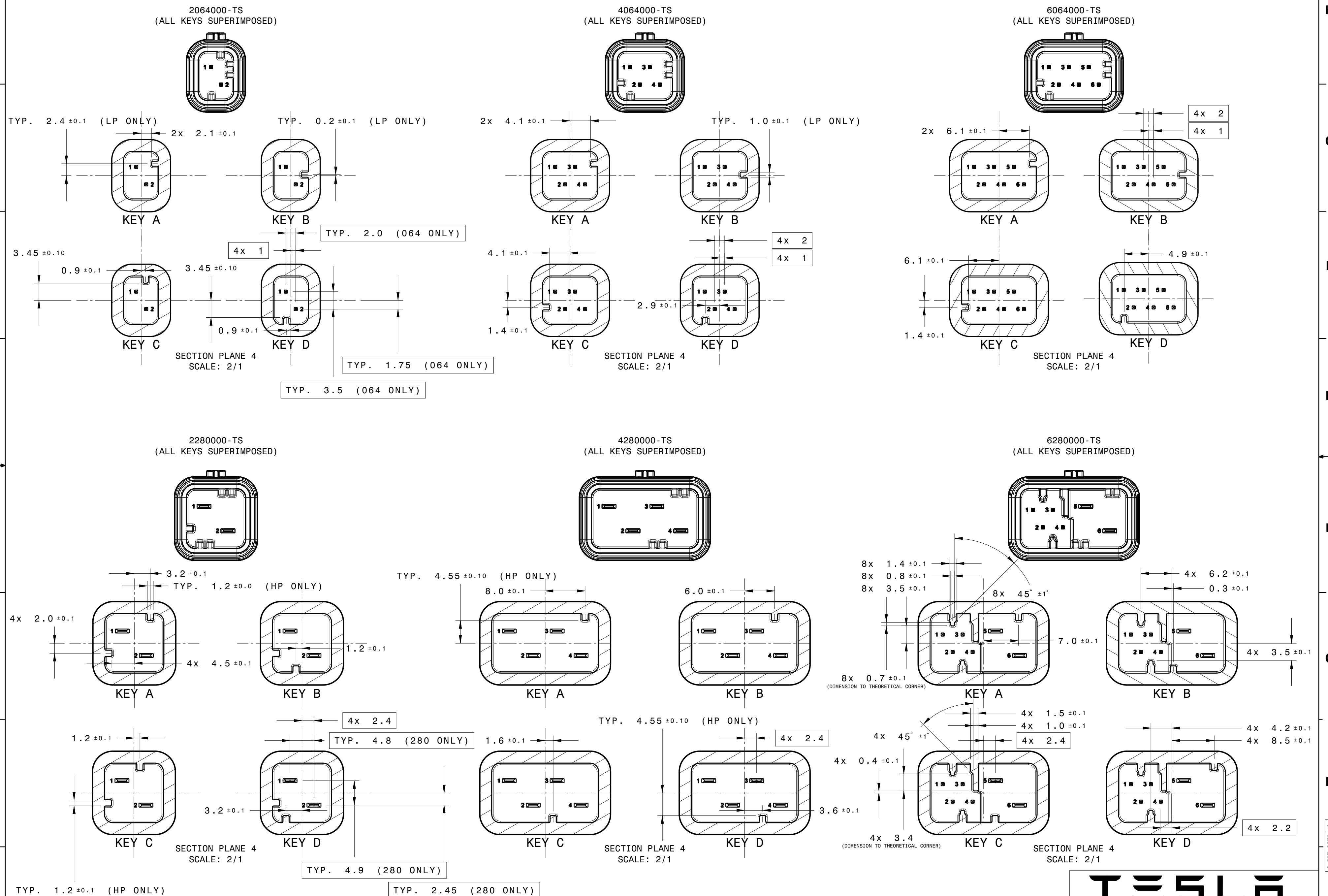
CAD FILE NAME	TRACEABILITY GRADE
3SH-07710087	B

DRAWN BY	DATE
J. PANG	04JUN2025

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MATERIAL	N/A	FINISH	N/A	EST. MASS (g)	N/A	SCALE	Sheet Size
THIRD ANGLE PROJECTION							
ITEM NAME	LOW VOLTAGE CONNECTOR STANDARD						
ITEM NUMBER	DRW-00456412			REVISION			
				C.2			

INTERFACE KEY DETAIL



NOTE:
ALL CENTERLINE PLANES ESTABLISHED BY DATUM B
ALL RIBS 0.5 DEGREE DRAFT ANGLE (PLANE 4 NEUTRAL PLANE)
ALL DIMENSIONS ON PAGE: **⊕ 0.2 A B**

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ITEM NAME: LOW VOLTAGE CONNECTOR STANDARD

ITEM NUMBER: DRW-00456412

REVISION: C.2

SHEET: 2 of 12

LOW POWER (LP) INTERFACE DIMENSIONS

6064000-TS SHOWN FOR ILLUSTRATION PURPOSES. ALL KEYS SHOWN SUPERIMPOSED.
DIMENSIONS W,X,Y,Z USED TO ESTABLISH MAIN PROFILE. KEYS AND RIBS IGNORED.

DIMENSION W

INTERFACE	PLANE 1	PLANE 2	PLANE 4
2064000-TS			
4064000-TS	13.91	*14.30	14.42
6064000-TS			

* DENOTES NEUTRAL DRAFT PLANE

DIMENSION Y

INTERFACE	PLANE 1	PLANE 2	PLANE 4
2064000-TS	11.21	*11.60	11.72
4064000-TS	15.21	*15.60	15.72
6064000-TS	19.21	*19.60	19.72

* DENOTES NEUTRAL DRAFT PLANE

DIMENSION X

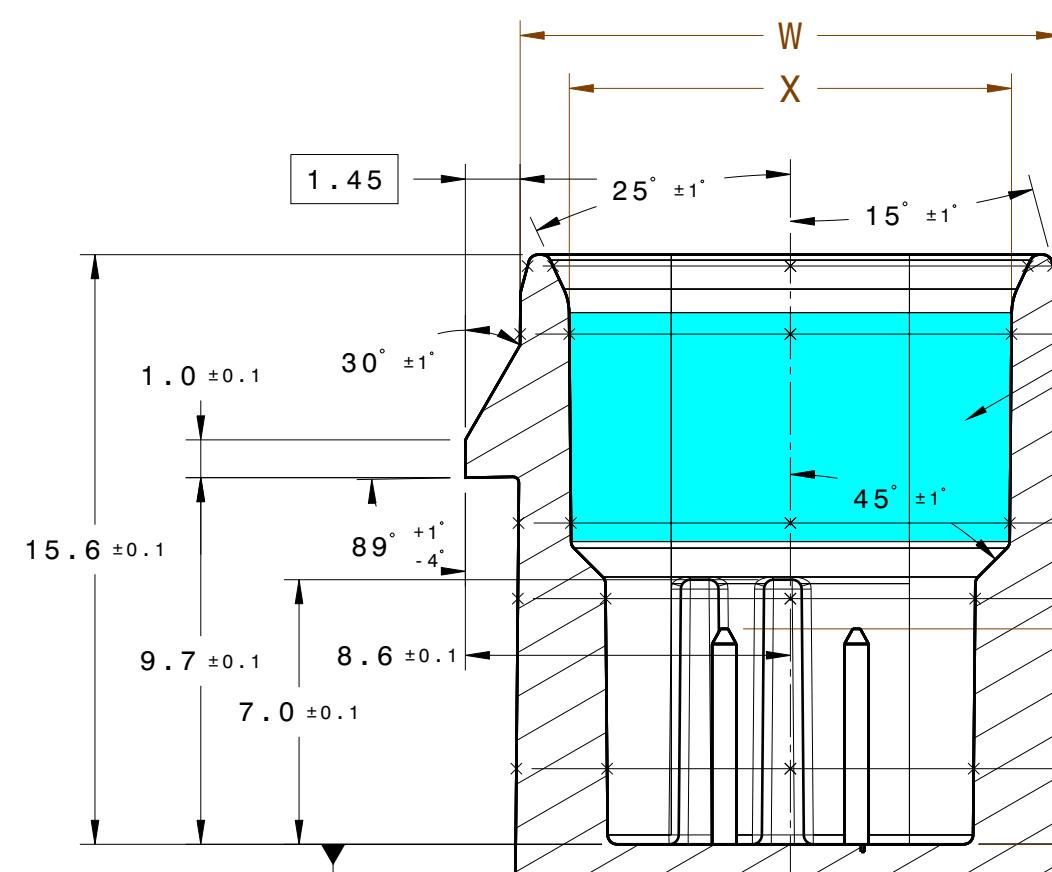
INTERFACE	PLANE 1	PLANE 2	PLANE 3	PLANE 4	PLANE 5
2064000-TS					
4064000-TS	12.56	*11.7	11.61	9.78	*9.70
6064000-TS					

* DENOTES NEUTRAL DRAFT PLANE

DIMENSION Z

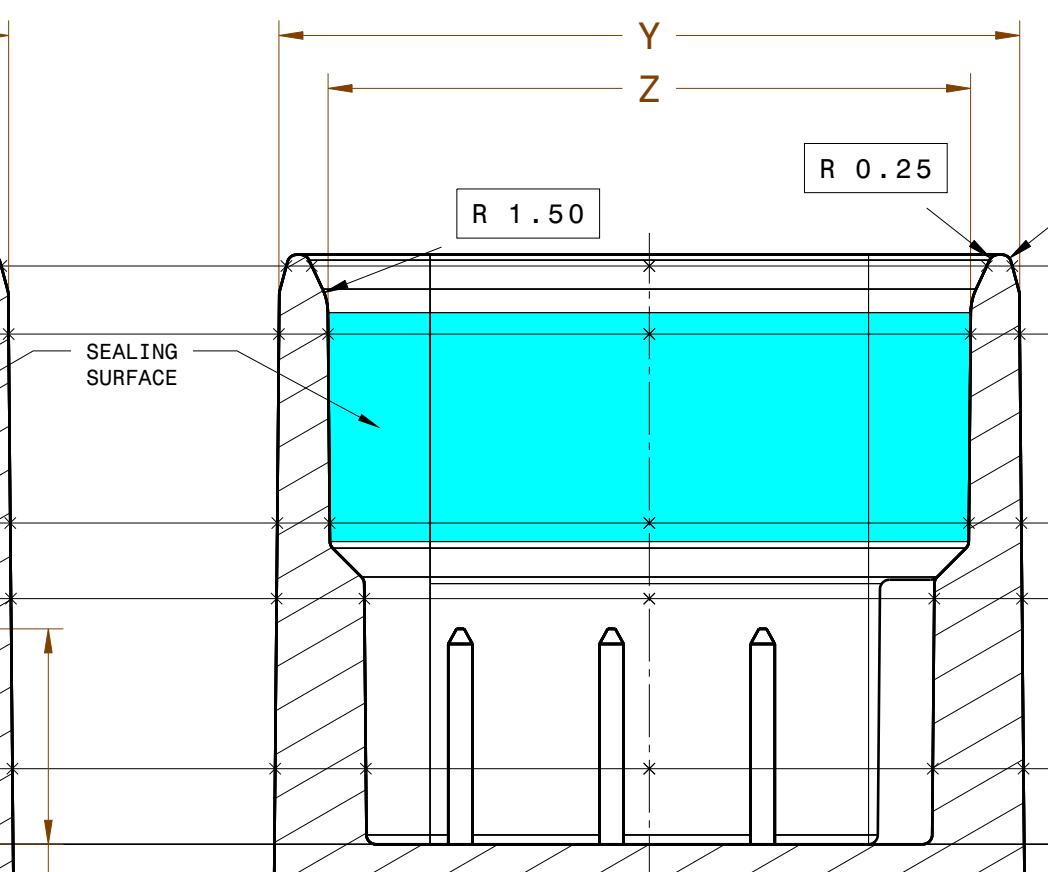
INTERFACE	PLANE 1	PLANE 2	PLANE 3	PLANE 4	PLANE 5
2064000-TS	9.86	*9.00	8.91	7.08	*7.00
4064000-TS	13.86	*13.00	12.91	11.08	*11.00
6064000-TS	17.86	*17.00	16.91	15.08	*15.00

* DENOTES NEUTRAL DRAFT PLANE



SECTION A-A

SCALE: 5/1



SECTION B-B

SCALE: 5/1

2.0
PLANE 5
6.5
PLANE 4
8.5
PLANE 3
13.5
PLANE 2
15.3
PLANE 1

STRUCTURE BELOW DATUM A
IS UNCONTROLLEDFUNCTIONAL LIMIT
PREFERRED (USCAR-12 BALL TEST)

ALL CORNERS CONCENTRIC

REFER TO EWCAP 064-T
⊕ 0.2 M A B

ALL CORNERS CONCENTRIC

REFER TO EWCAP 064-T
⊕ 0.3 M A BTOP VIEW
SCALE: 5/1TOP VIEW
SCALE: 5/1

RIBS IGNORED IN PROFILE MEASUREMENT

RIBS IGNORED IN PROFILE MEASUREMENT

R 1.7

R 2.7

OUTER SURFACE

REFER TO EWCAP 064-T
⊕ 0.3 M A BREFER TO EWCAP 064-T
⊕ 0.3 M A B

0.15 M A B

0.1 M A B

HIGH POWER (HP) INTERFACE DIMENSIONS

6280000-TS SHOWN FOR ILLUSTRATION PURPOSES. ALL KEYS SHOWN SUPERIMPOSED.
DIMENSIONS W,X,Y,Z USED TO ESTABLISH MAIN PROFILE. KEYS AND RIBS IGNORED.

DIMENSION W

INTERFACE	PLANE 1	PLANE 2	PLANE 4
2280000-TS			
4280000-TS	16.11	*16.50	16.62
6280000-TS			

* DENOTES NEUTRAL DRAFT PLANE

DIMENSION Y

INTERFACE	PLANE 1	PLANE 2	PLANE 4
2280000-TS	16.01	*16.40	16.52
4280000-TS	25.61	*26.00	26.12
6280000-TS			

* DENOTES NEUTRAL DRAFT PLANE

DIMENSION X

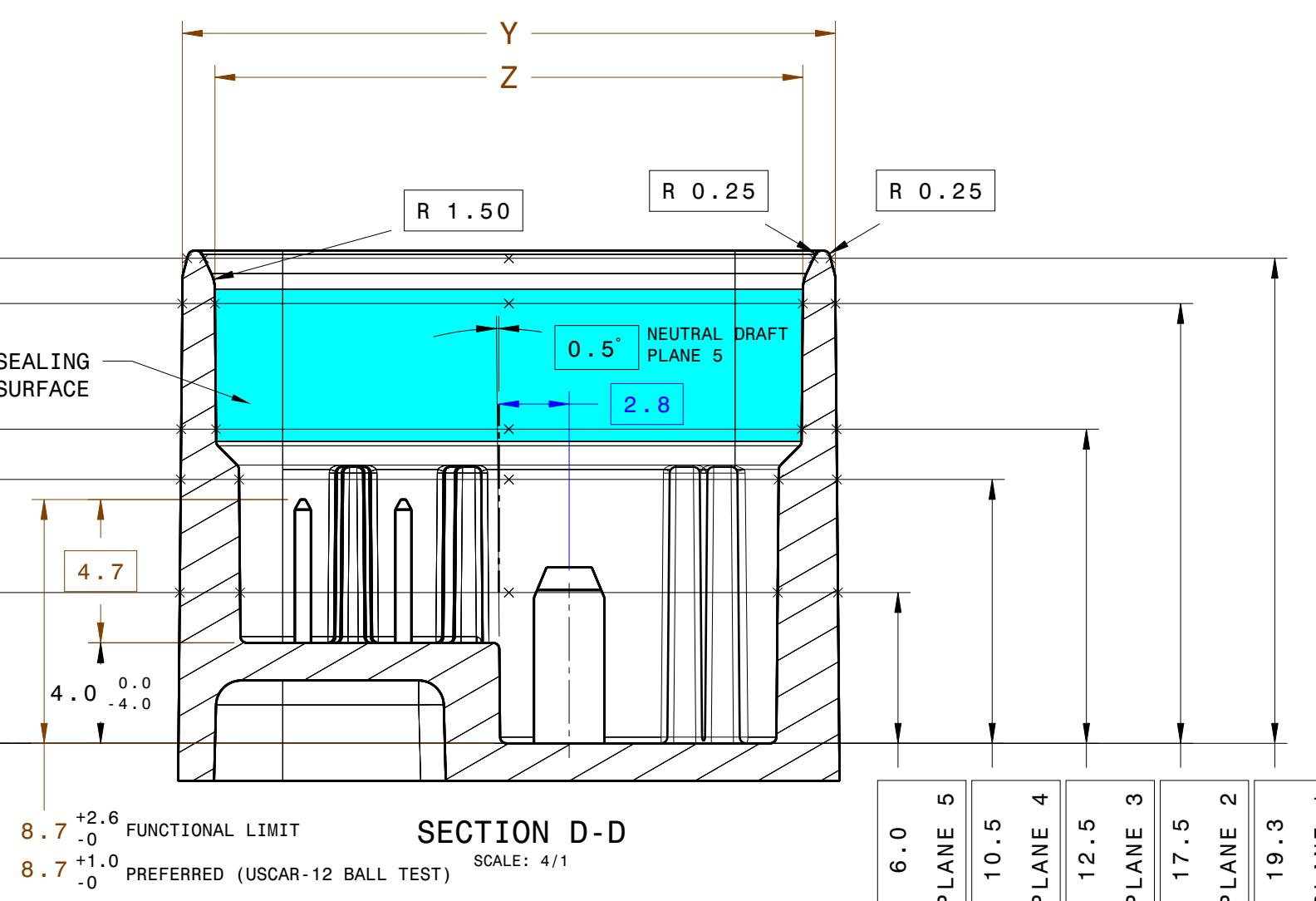
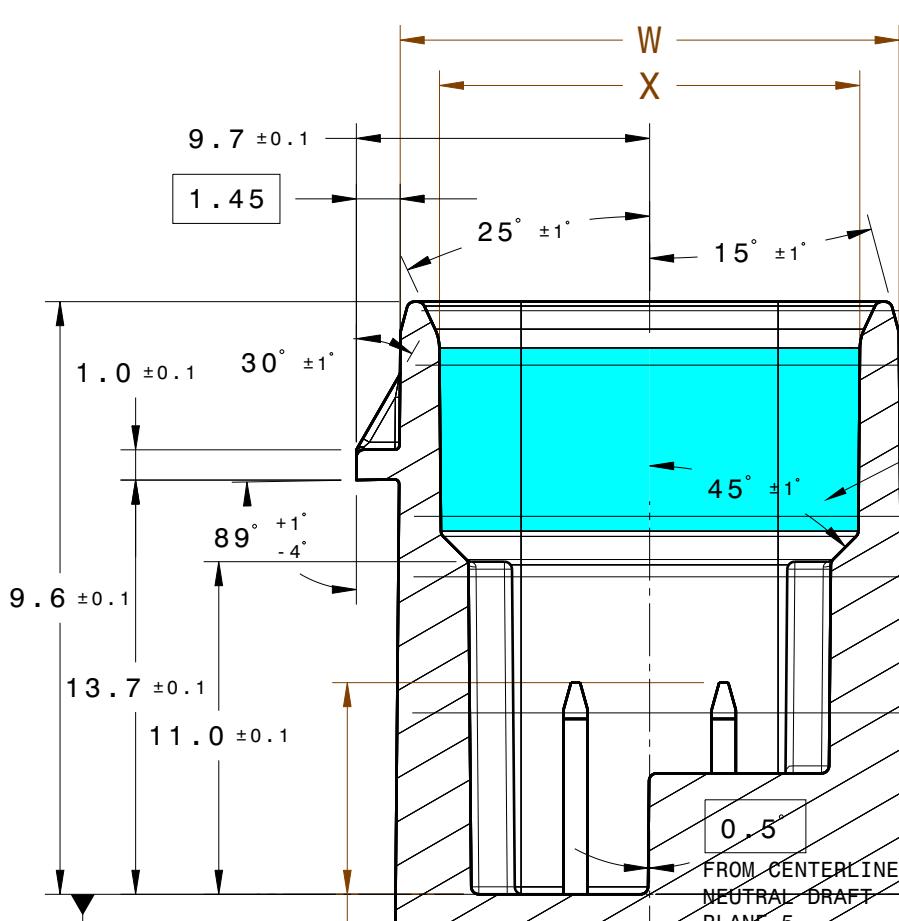
INTERFACE	PLANE 1	PLANE 2	PLANE 3	PLANE 4	PLANE 5
2280000-TS					
4280000-TS	14.76	*13.90	13.81	11.98	*11.90
6280000-TS					

* DENOTES NEUTRAL DRAFT PLANE

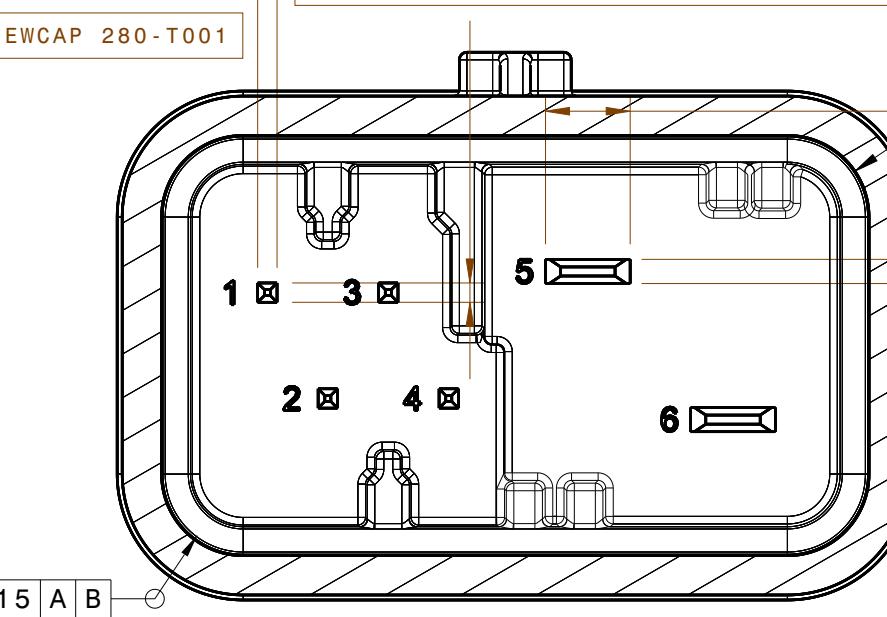
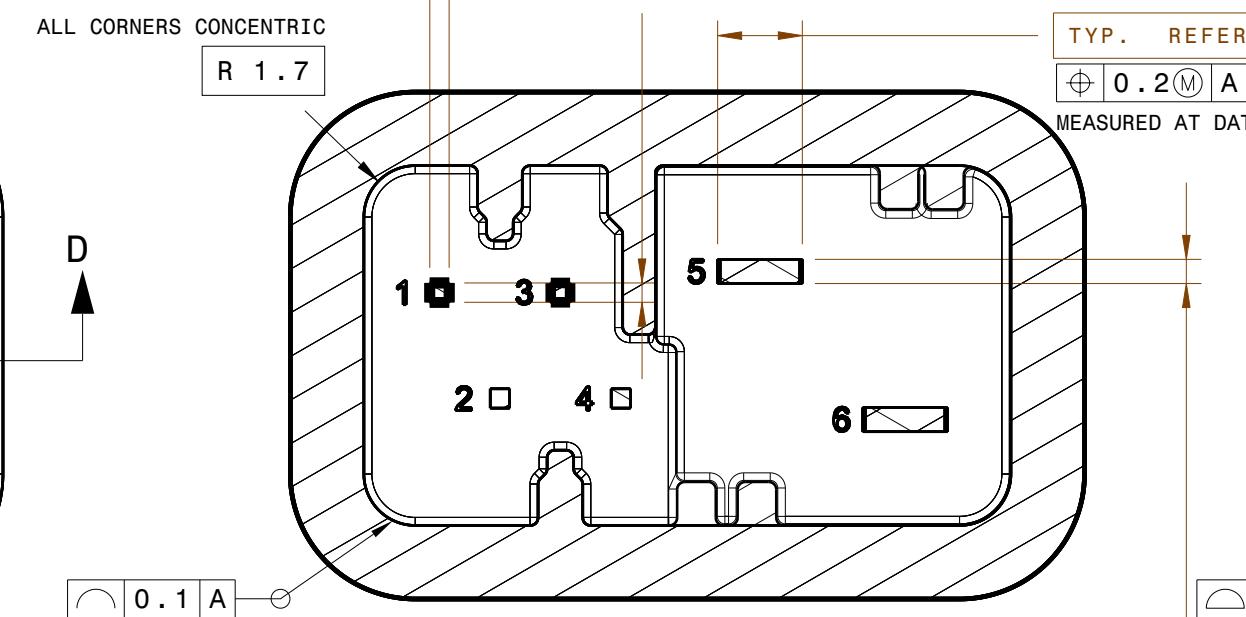
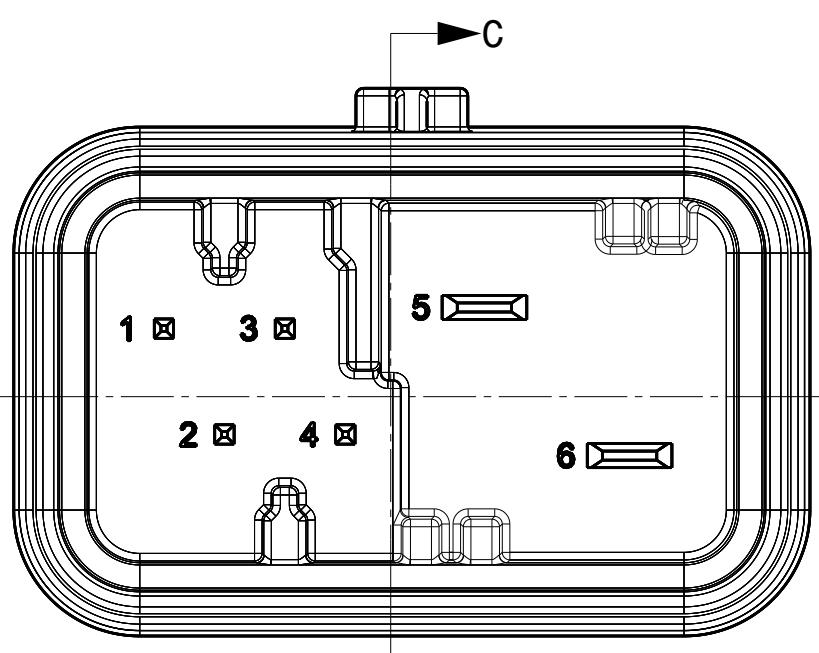
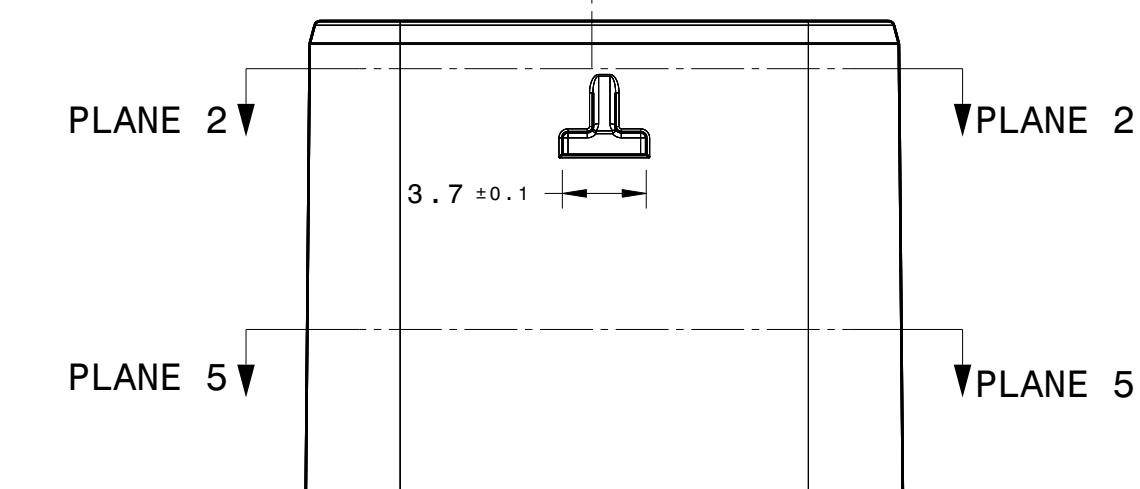
DIMENSION Z

INTERFACE	PLANE 1	PLANE 2	PLANE 3	PLANE 4	PLANE 5
2280000-TS	14.66	*13.80	13.71	11.88	*11.80
4280000-TS	24.26	*23.40	23.31	21.48	*21.40
6280000-TS					

* DENOTES NEUTRAL DRAFT PLANE



SURROUNDING STRUCTURE
HEADER KEEP OUT ZONE
SCALE: 3/1



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ITEM NAME LOW VOLTAGE CONNECTOR STANDARD

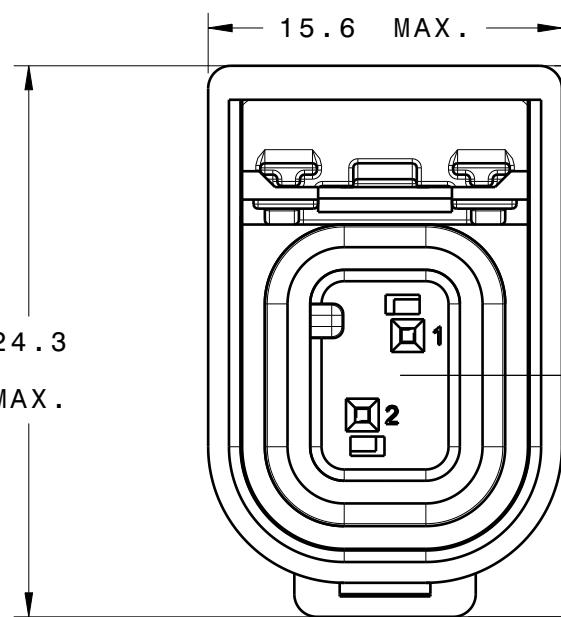
ITEM NUMBER DRW-00456412

REVISION C.2

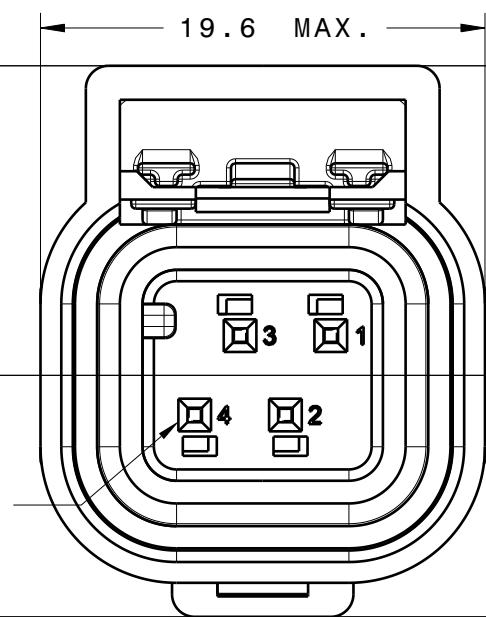
4 of 12

FRONT CONNECTOR VIEW

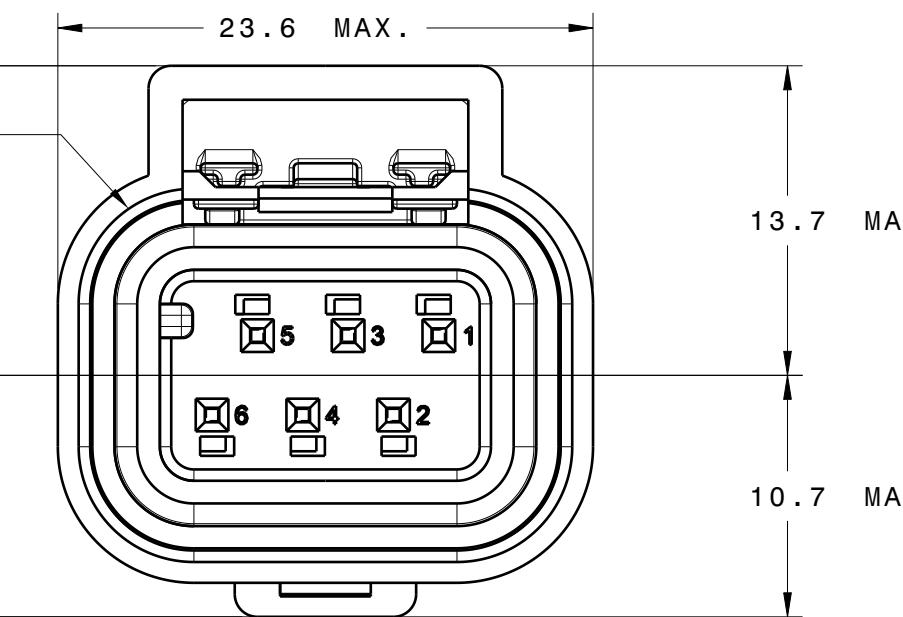
MAXIMUM EXTERNAL DIMENSIONS SHOWN TO ENSURE PACKAGING. ANY TEST OR ASSEMBLY FIXTURES MUST LOCATE TO CONTROLLED INTERFACE, NOT EXTERNAL DIMENSIONS.



TYP. 0.25X0.25MM MIN
CHAMFER ALL AROUND
TYP. ALL FEMALE CONNECTORS



TYP. 0.5X0.1MM MIN
CHAMFER ALL AROUND
TYP. ALL FEMALE CONNECTORS

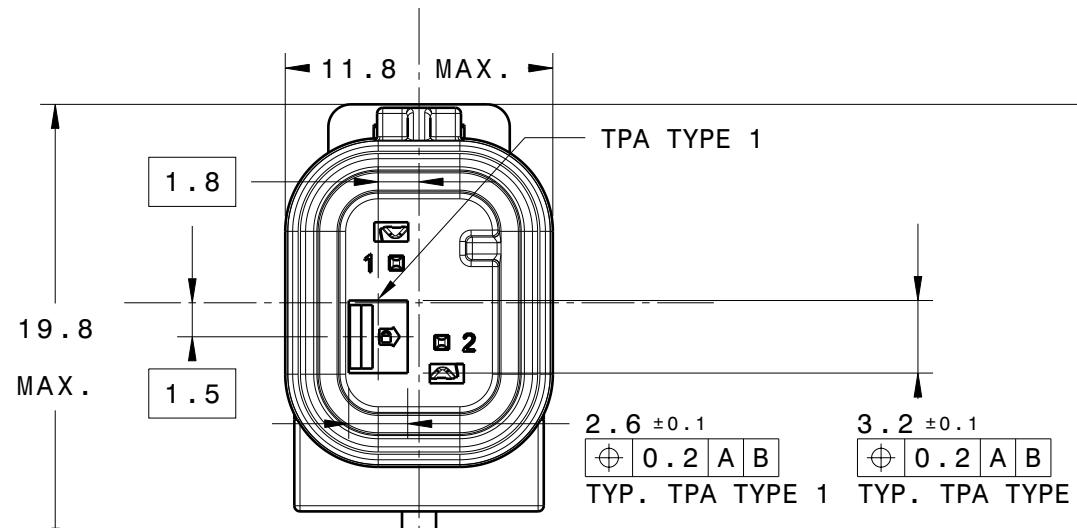


10.7 MAX.
13.7 MAX.

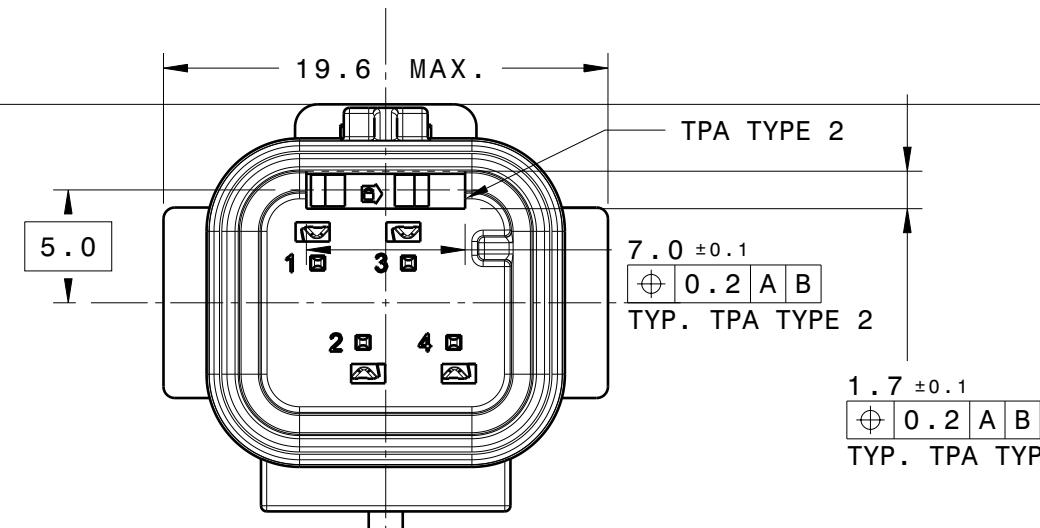
2064012

4064012

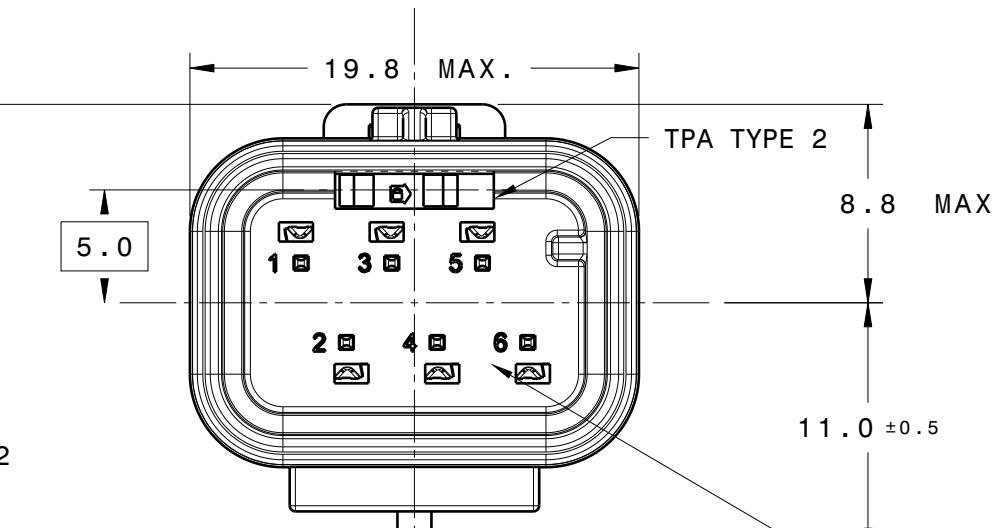
6064012



2064011

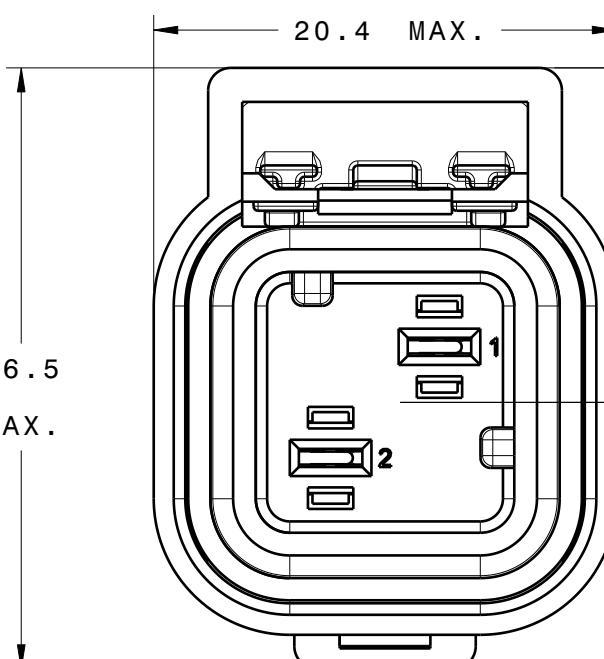


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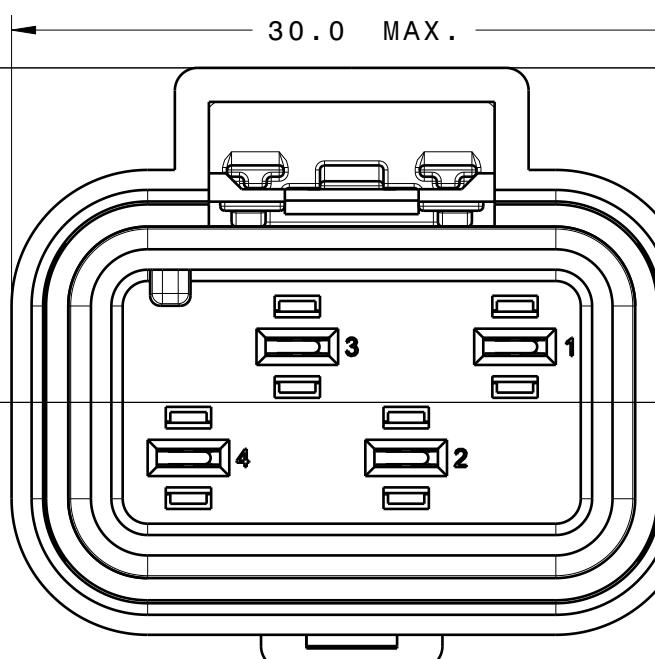


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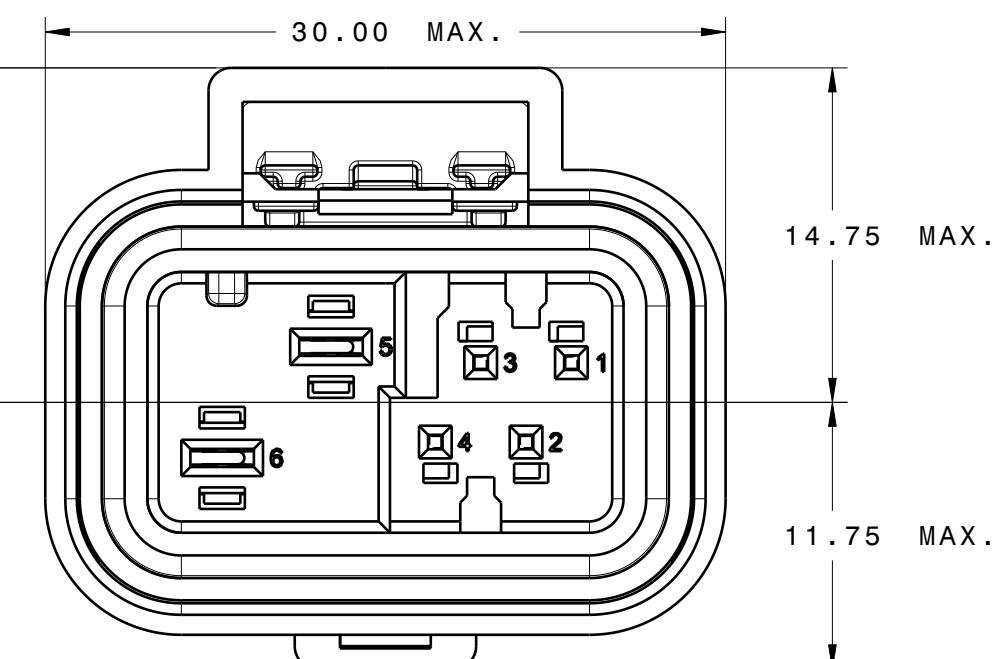
CAVITY NUMBERING:
ENGRAVING POSITION AND SIZE MAY VARY FROM
DRAWING HOWEVER MUST BE CLEARLY VISIBLE.
REQUIRED FOR ALL CAVITIES ON BOTH FRONT AND
REAR OF ALL CONNECTORS.



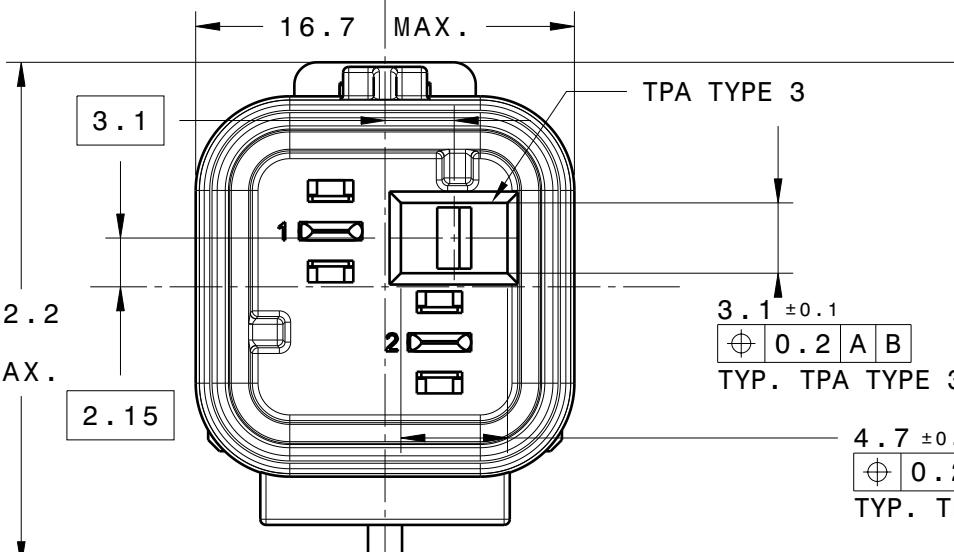
2280012



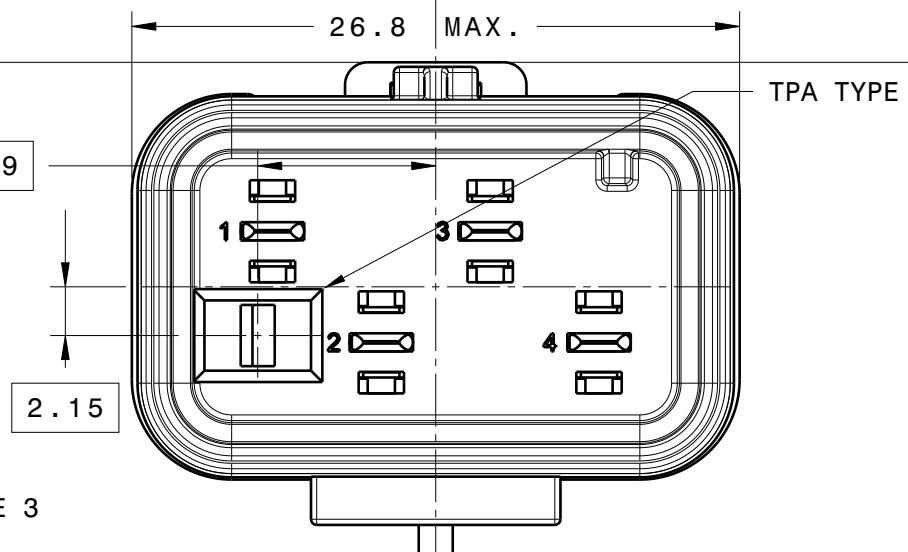
4280012



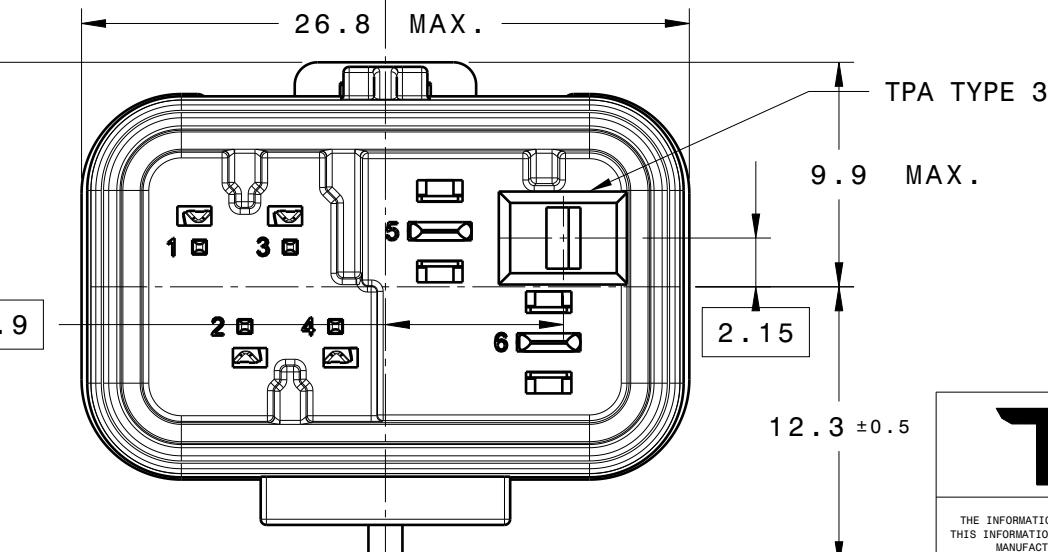
6280012



2280011



4280011



6280011

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ITEM NAME: LOW VOLTAGE CONNECTOR STANDARD

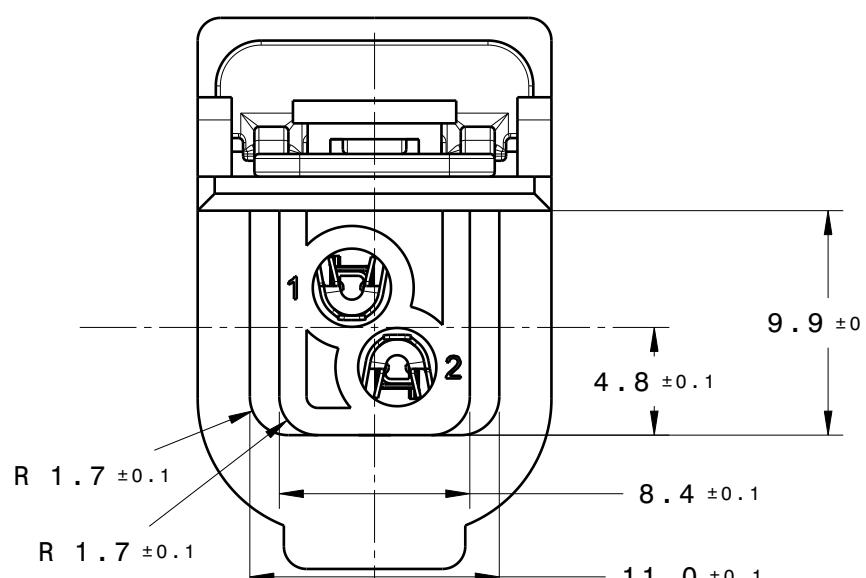
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REVISION: C.2

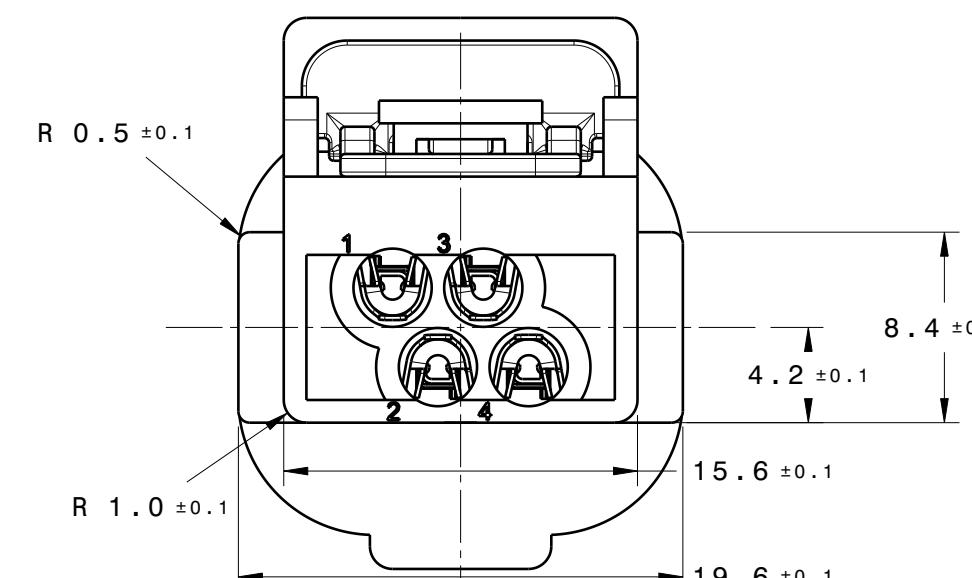
SHEET: 5 of 12

REAR CONNECTOR VIEW

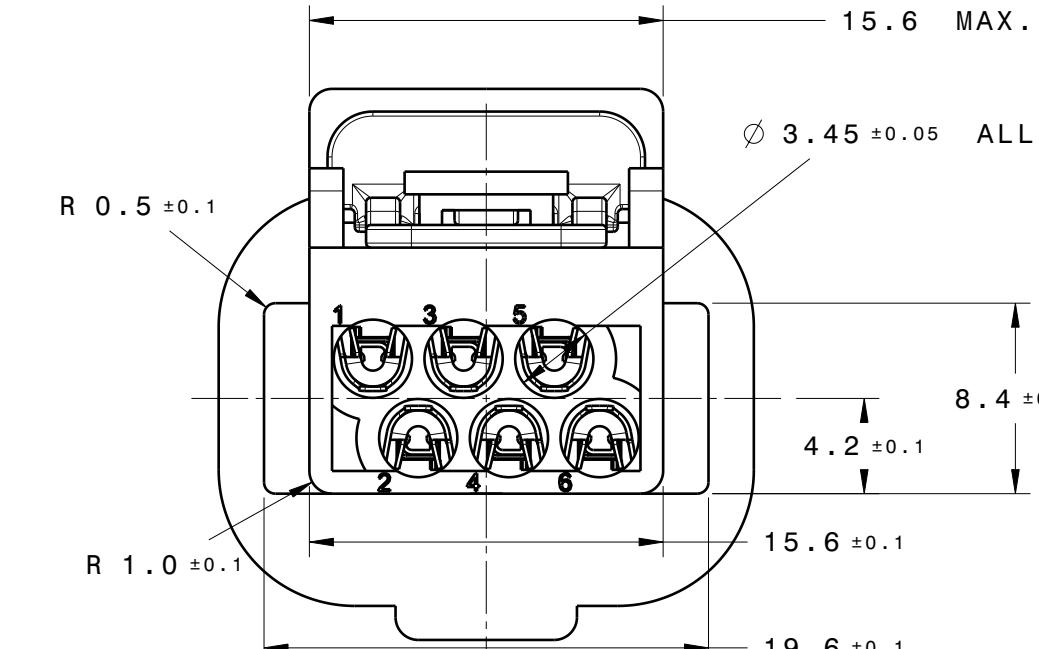
CABLE EXIT AND ACCESSORY RIB FEATURE PRECISION TO ENSURE COMPATIBILITY



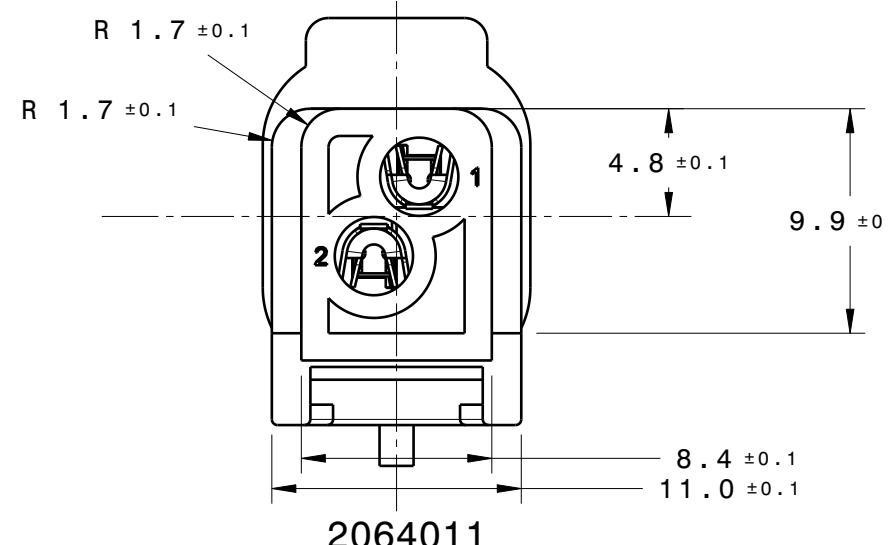
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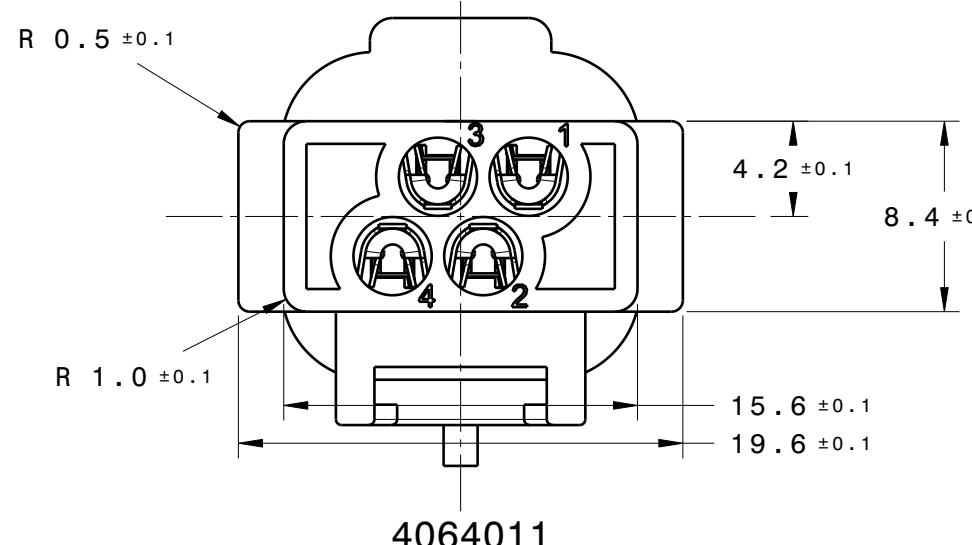
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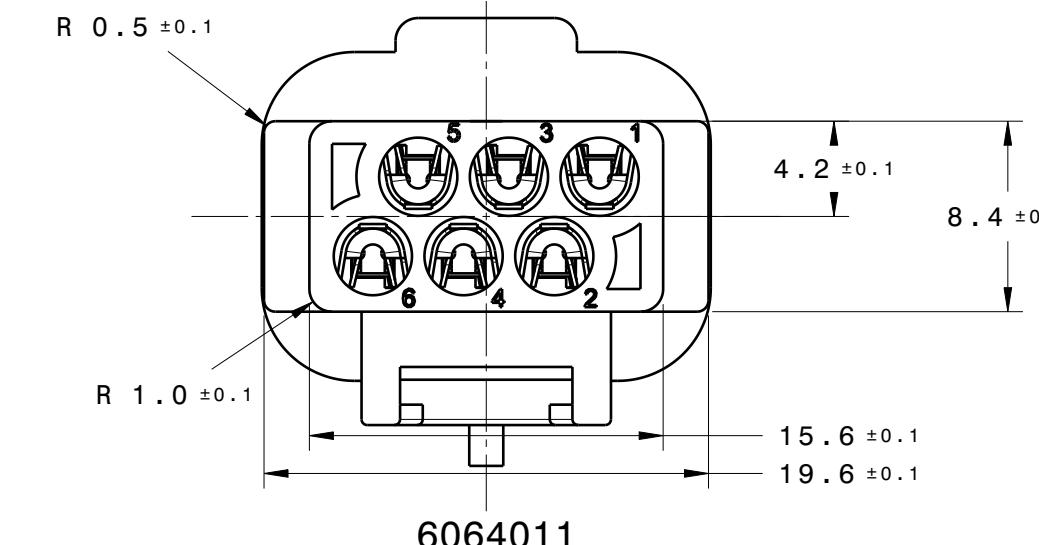
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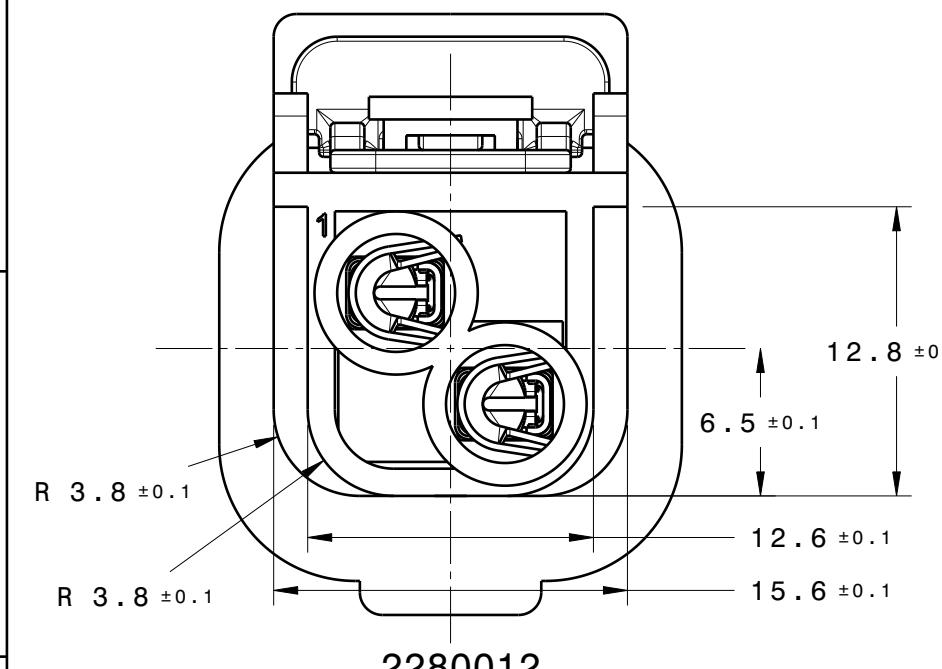
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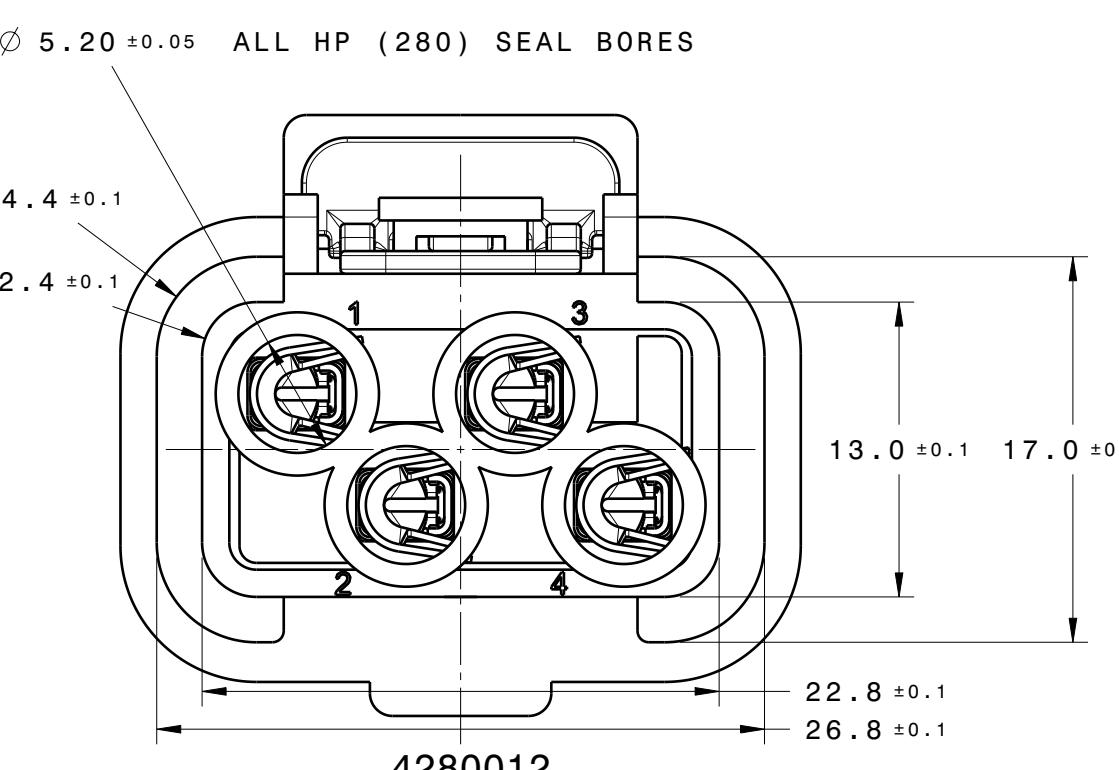
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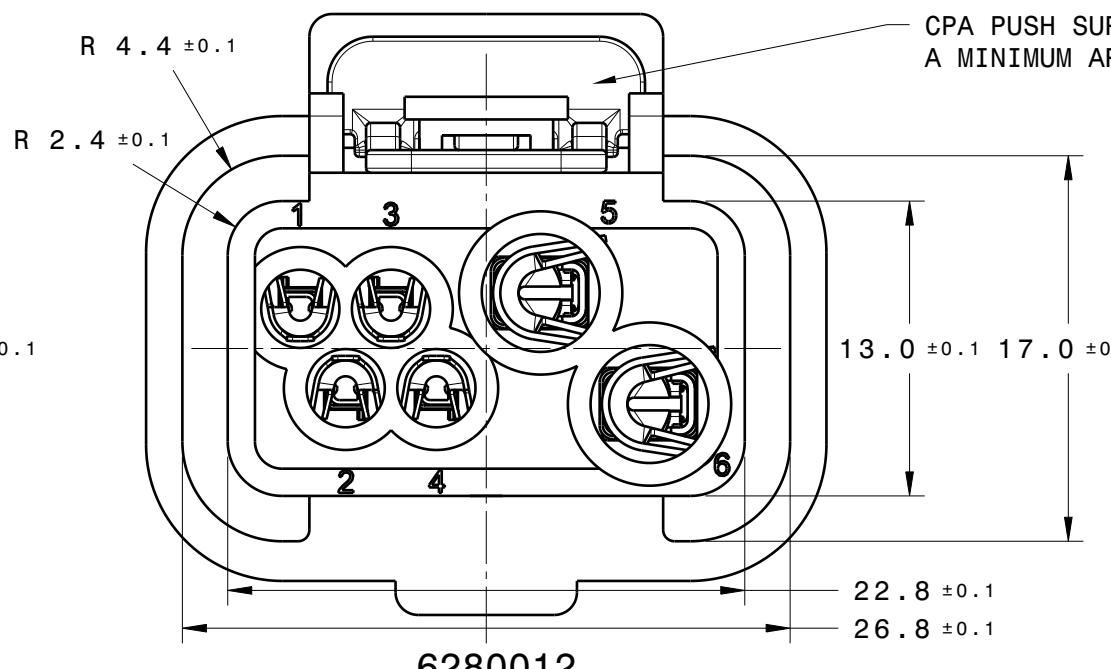
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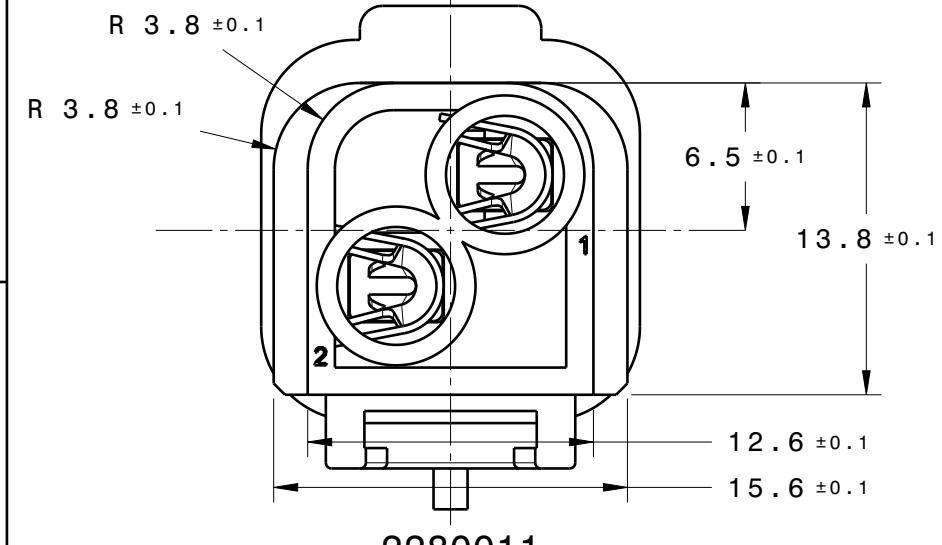
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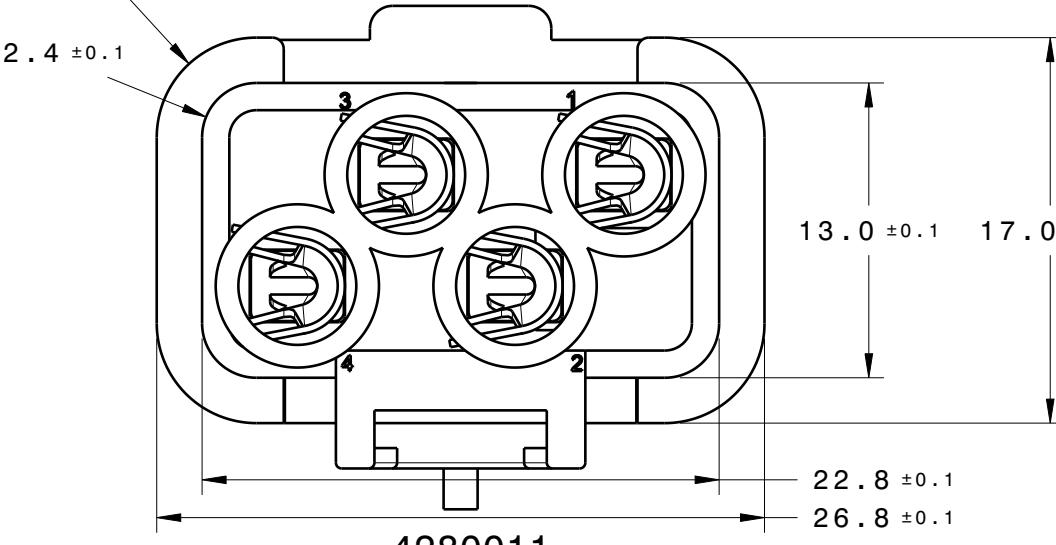
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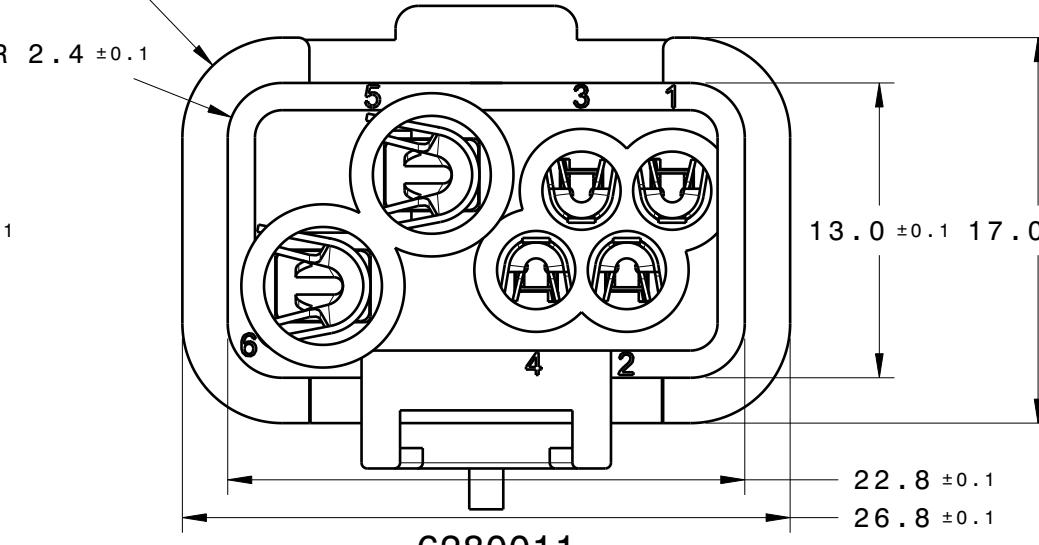
6280012



2280011



4280011



6280011

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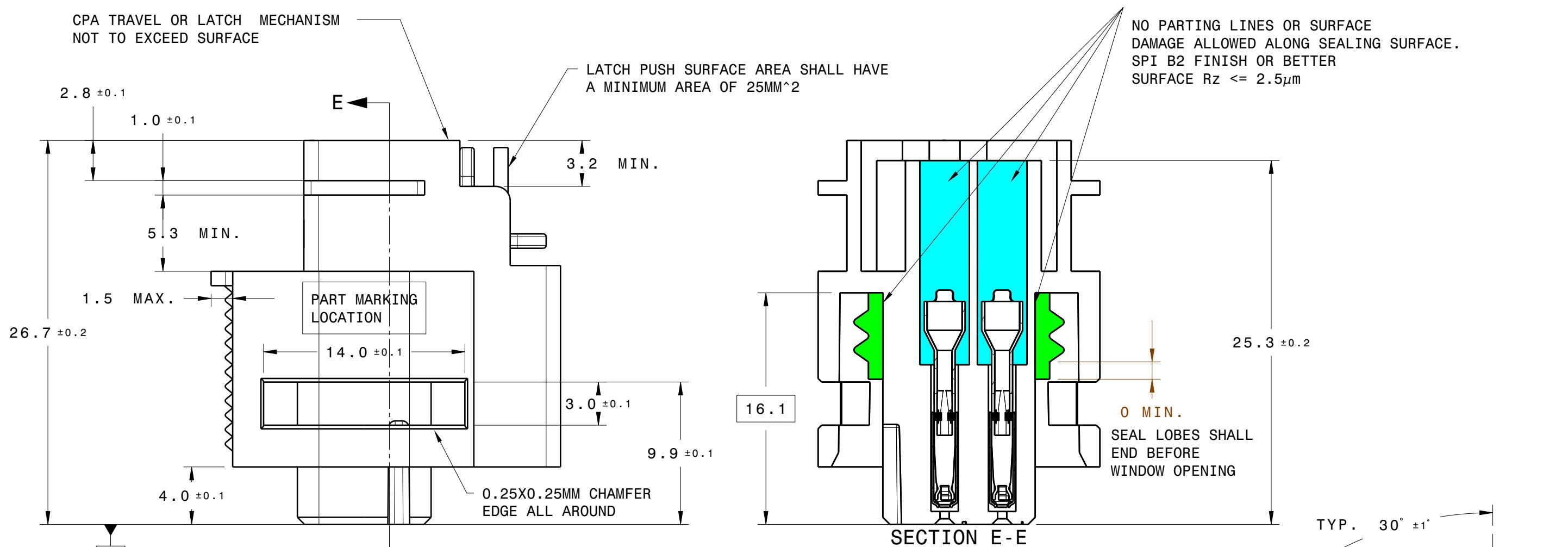
ITEM NAME: LOW VOLTAGE CONNECTOR STANDARD

ITEM NUMBER: DRW-00456412

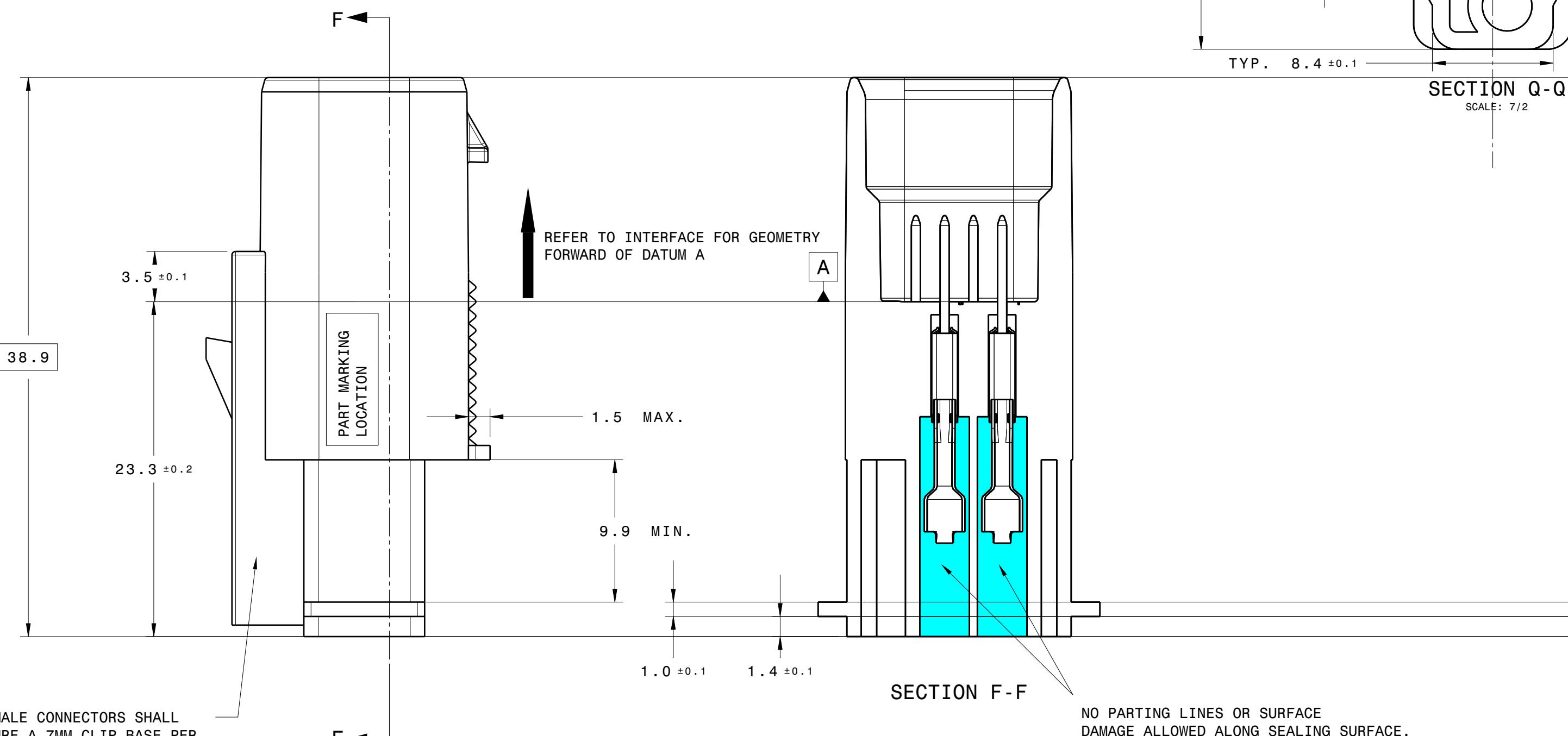
REVISION: C.2

SHEET: 6 of 12

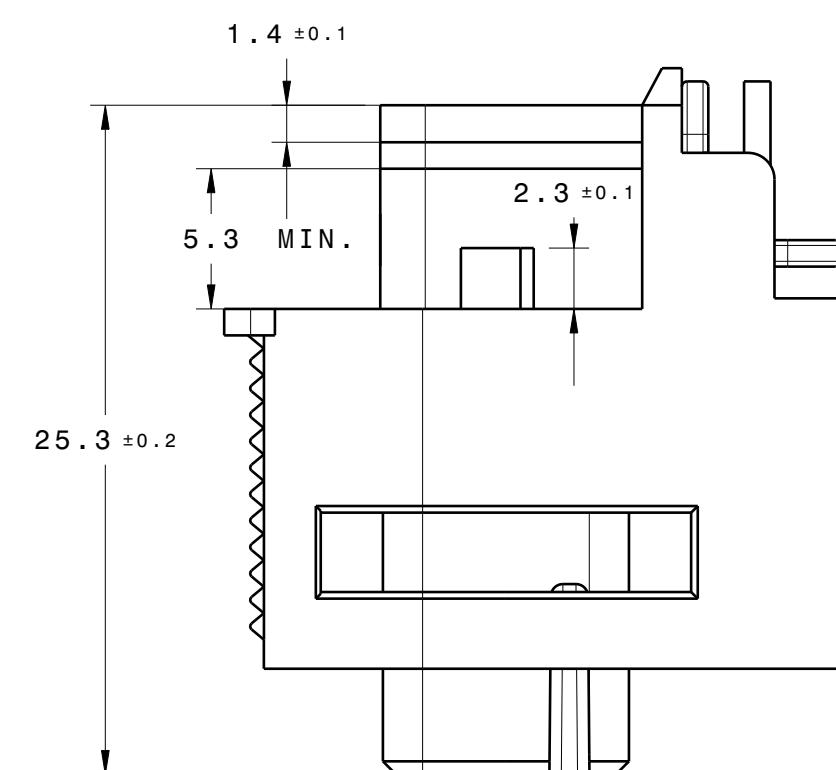
LOW POWER (LP) FEMALE CONNECTOR TYPICAL DIMENSIONS



LOW POWER (LP) MALE CONNECTOR TYPICAL DIMENSIONS



2P LP UNIQUE ACCESSORY ATTACHMENT - FEMALE



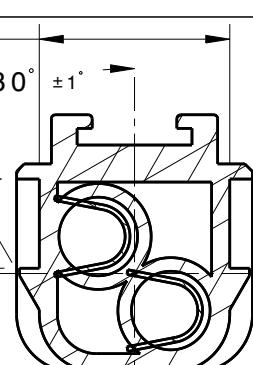
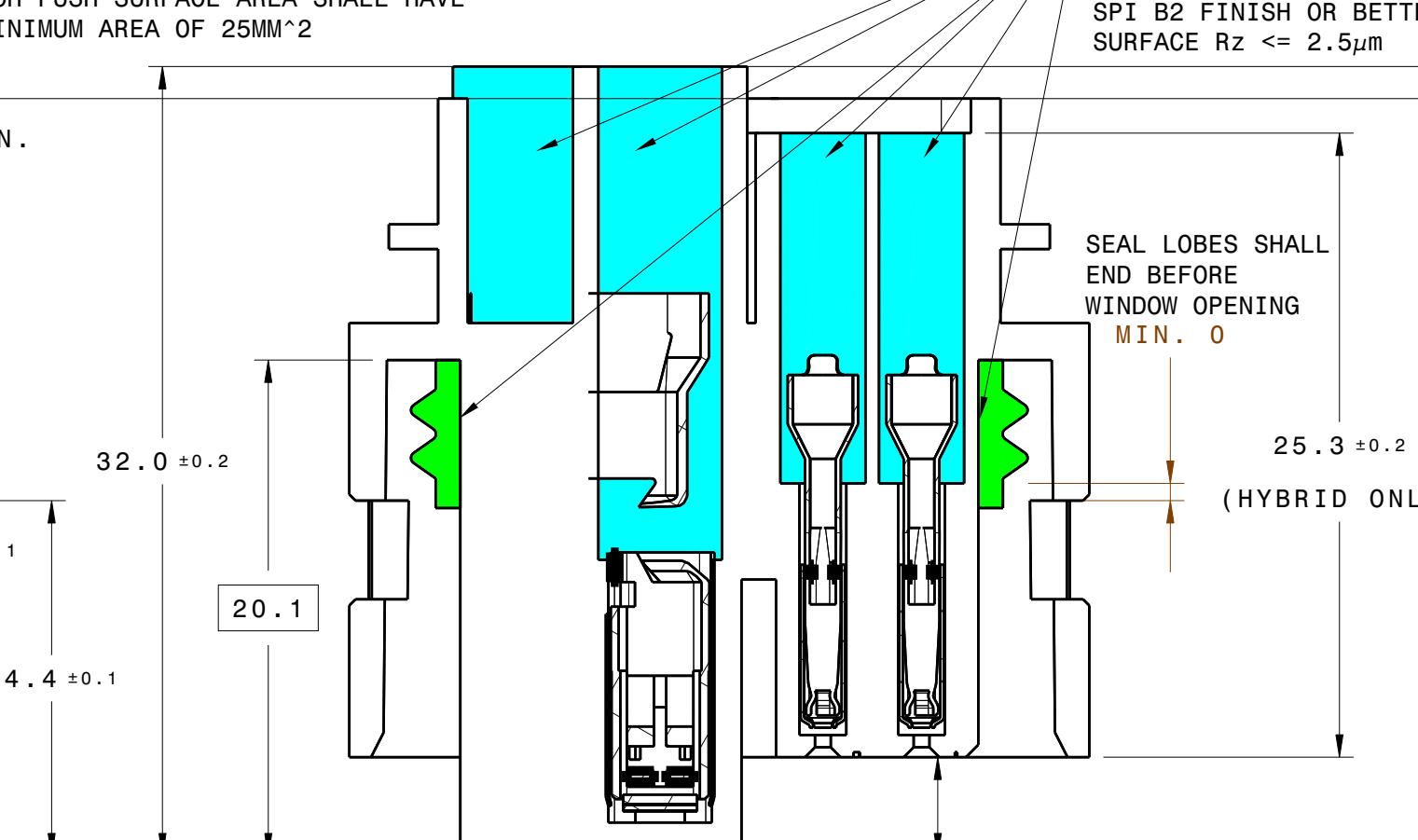
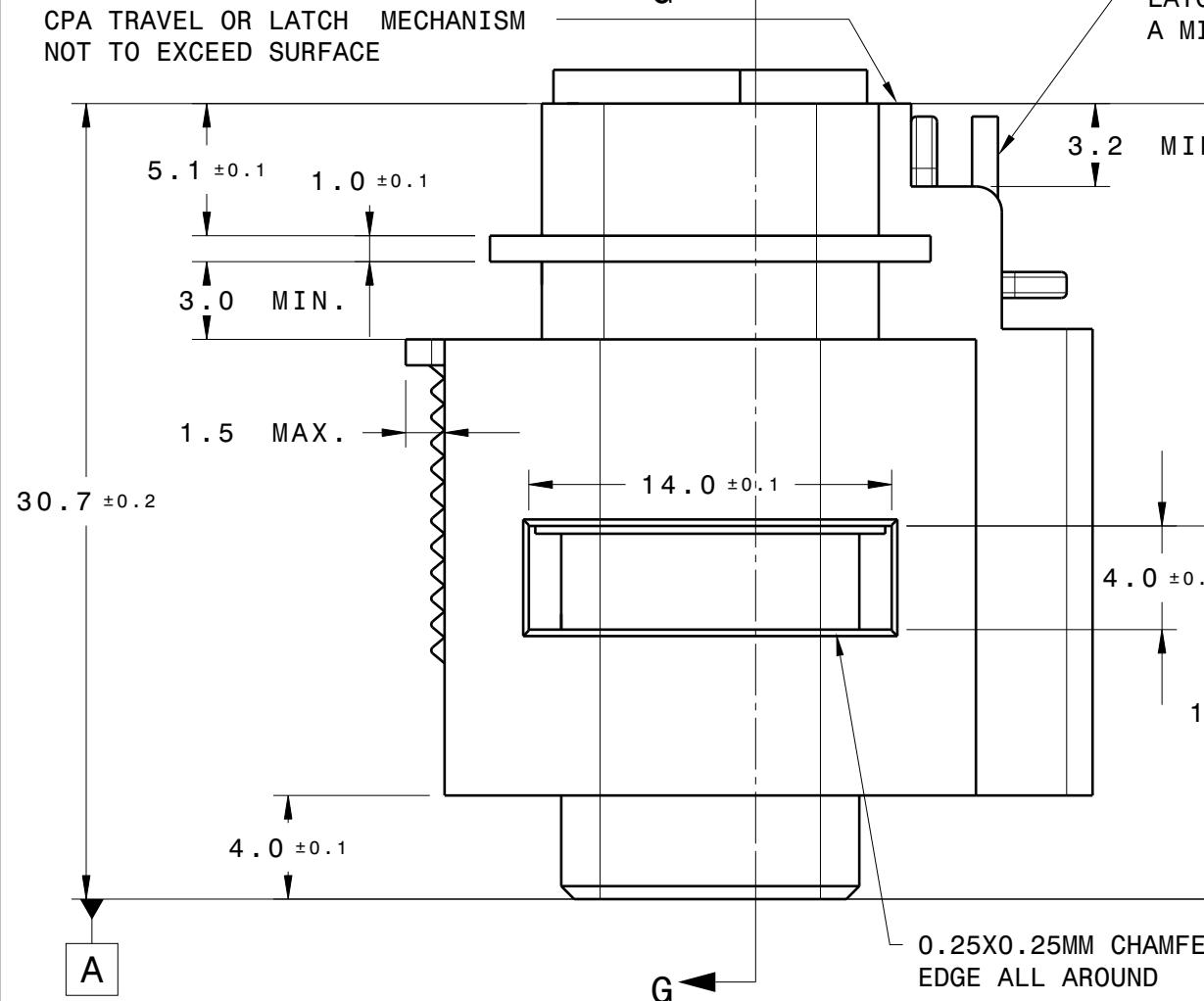
**2P LP UNIQUE ACCESSORY
ATTACHMENT - MALE**



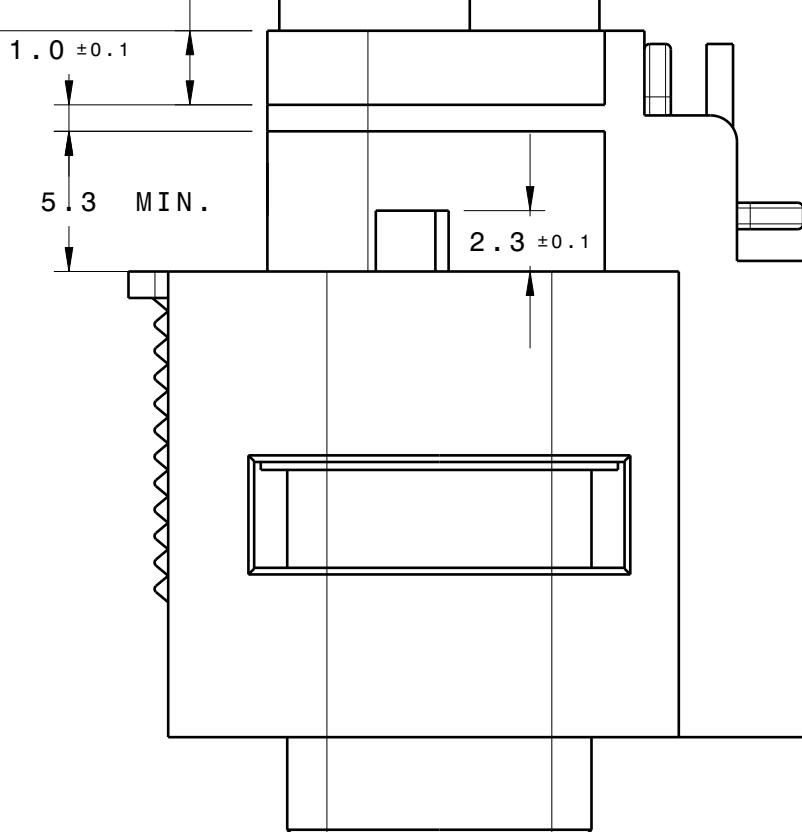
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ITEM NAME	LOW VOLTAGE CONNECTOR STANDARD		
ITEM NUMBER	DRW-00456412	REVISION	SHEET C.2 7 of 12

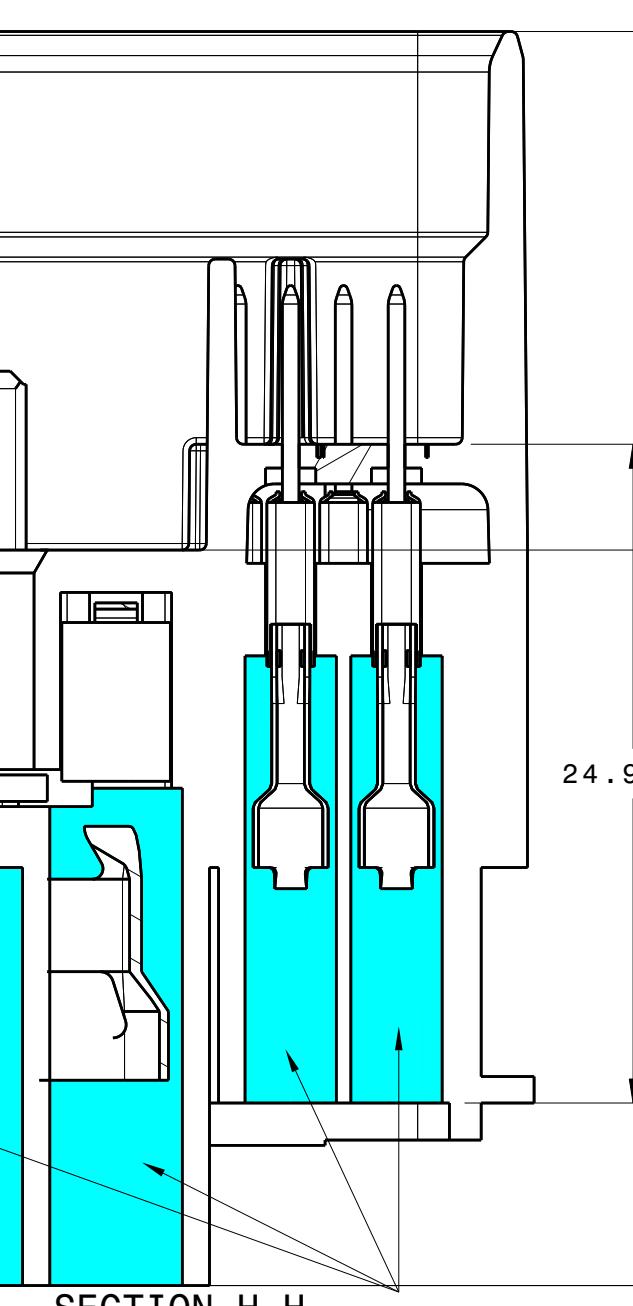
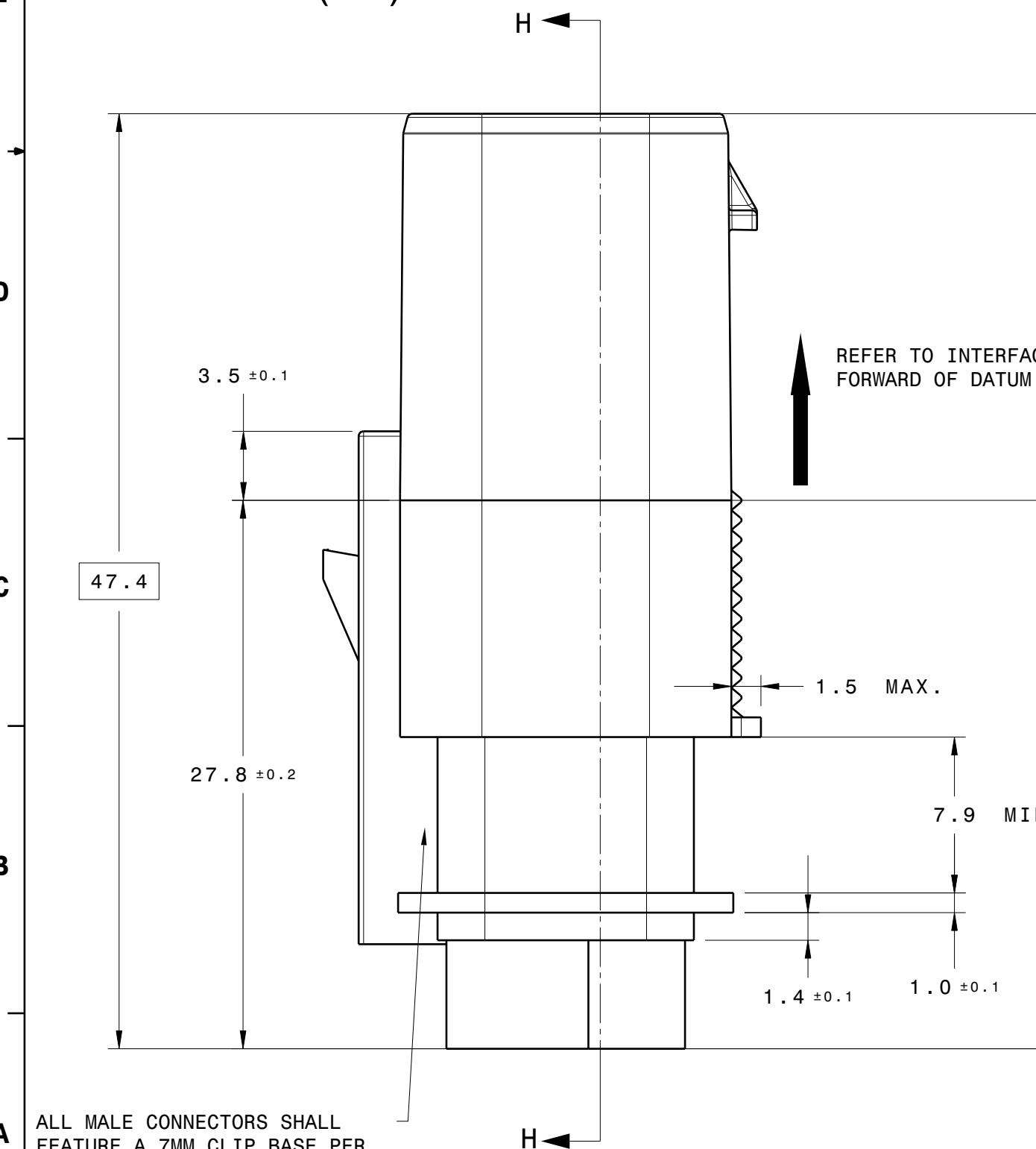
HIGH POWER (HP) AND HYBRID FEMALE CONNECTOR DIMENSIONS



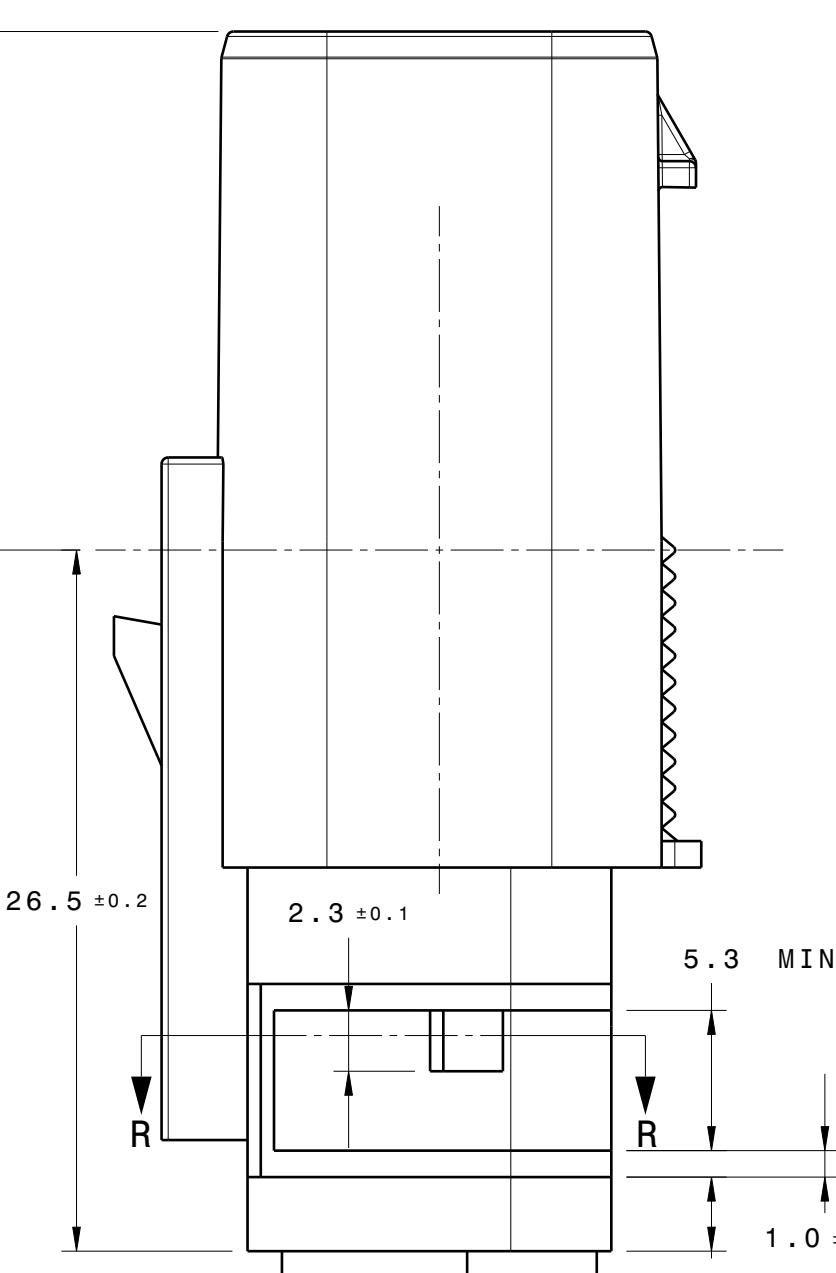
2P HP UNIQUE ACCESSORY ATTACHMENT - FEMALE



HIGH POWER (HP) AND HYBRID MALE CONNECTOR DIMENSIONS



2P HP UNIQUE ACCESSORY ATTACHMENT - MALE



ALL MALE CONNECTORS SHALL FEATURE A 7MM CLIP BASE PER EWCAP-005-7

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ITEM NAME: LOW VOLTAGE CONNECTOR STANDARD

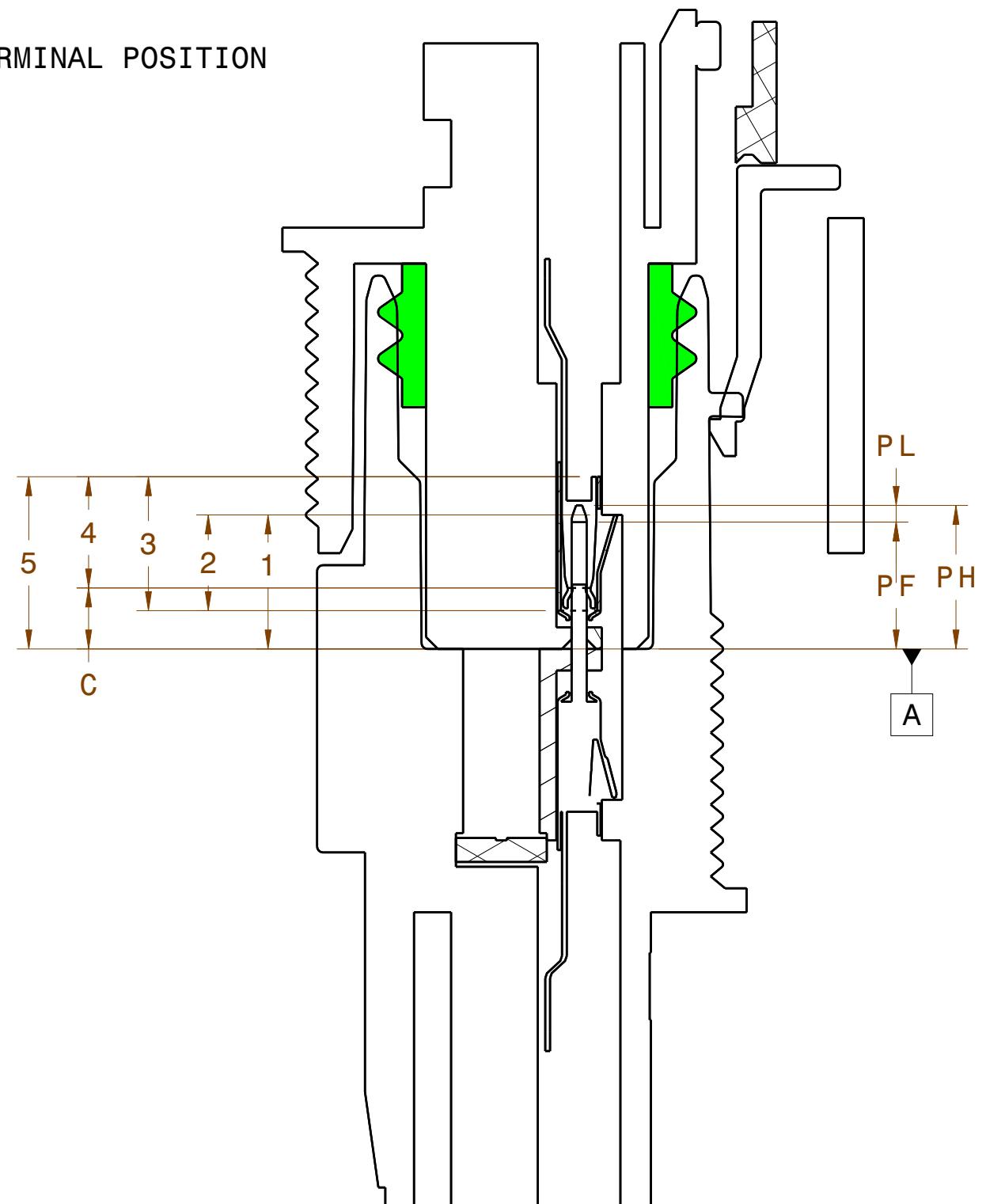
ITEM NUMBER: DRW-00456412

REVISION: C.2

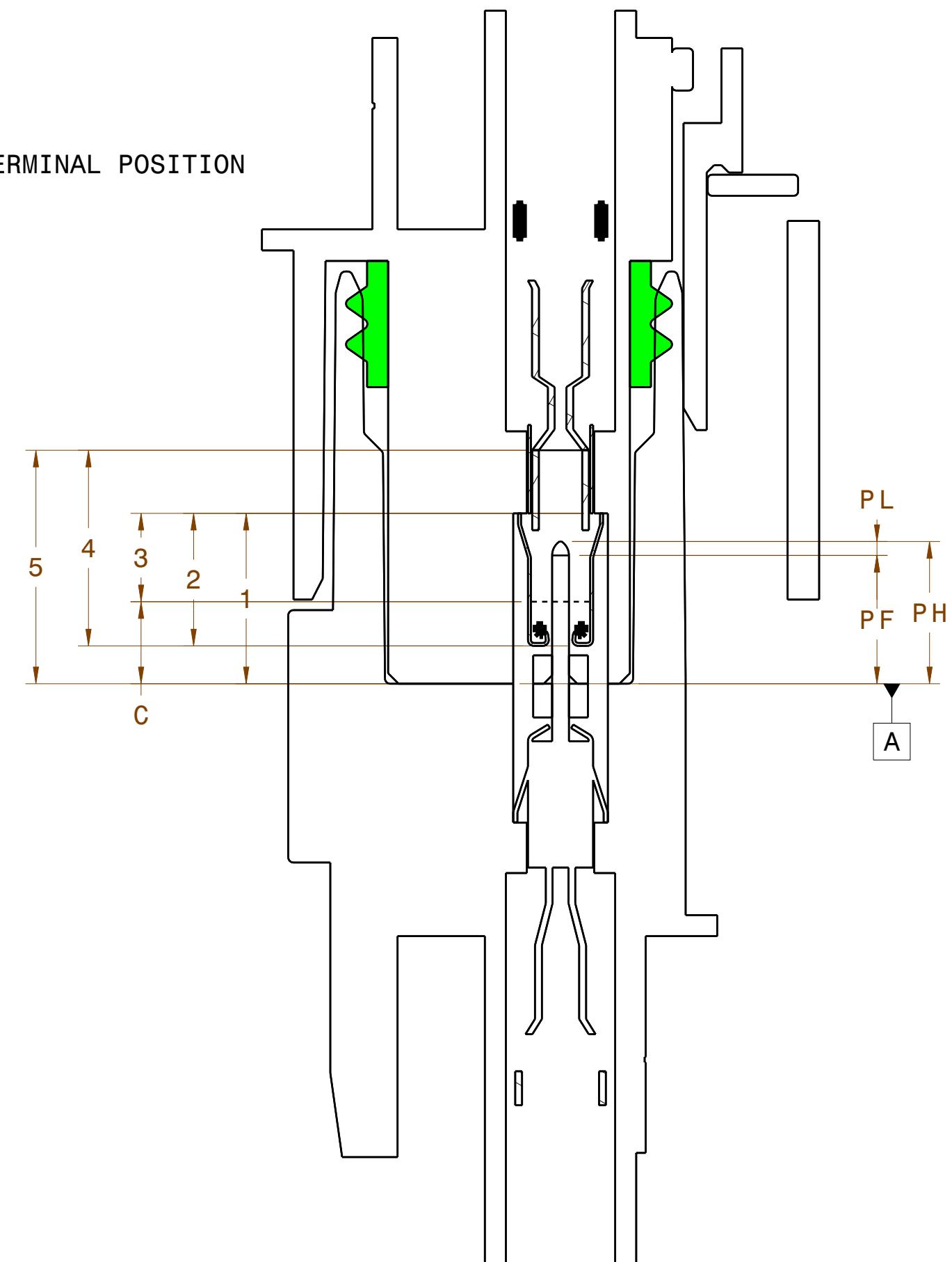
SHEET: 8 of 12

TERMINAL HEIGHT AND PIN WIPE

0.64 LP TERMINAL POSITION



2.8 HP TERMINAL POSITION



0.64x0.64 - LP

0.64x0.64 - HYBRID

DESCRIPTION	ITEM	FUNCTIONAL RANGE FOR OPERATION		PREFERRED USCAR 12 BALL TEST*		FUNCTIONAL RANGE FOR OPERATION		PREFERRED USCAR 12 BALL TEST*	
		MIN. (MM)	MAX. (MM)	MIN. (MM)	MAX. (MM)	MIN. (MM)	MAX. (MM)	MIN. (MM)	MAX. (MM)
HOUSING CAVITY LOCK HEIGHT (DATUM A)	1	5.6	5.4	"	"	9.8	9.4	"	"
TERMINAL FRONT STOP (LANCE LOCK)	2	4.1	3.8	"	"	"	"	"	"
TERMINAL BOX REAR (FRONT STOP)	3	5.8	5.5	"	"	"	"	"	"
TERMINAL CONTACT POINT (BOX REAR)	4	4.6	4.8	"	"	"	"	"	"
CONTACT POINT TO DATUM A (1-2+3-4)	C	2.7	2.3	"	"	"	"	"	"
PIN HEIGHT MIN: (PF + PL) MAX: (5)	PH	4.5	7.3**	4.5	5.7*	8.7	11.3**	8.7	9.7*
PIN LEAD IN	PL	0.8	0.5	"	"	"	"	"	"
PIN FUNCTIONAL HEIGHT TO DATUM A (PH-PL)	PF	3.7	6.6	3.7	5.2	7.9	10.6	7.9	9.2
TERMINAL MAX INSERTION DEPTH (1-2+3)	5	7.3	7.1	"	"	11.5	11.1	"	"
TERMINAL WIPE (PF-C)	W	1	4.3	1	2.9	1	4.3	1	2.9
PIN PROTECTION RIB HEIGHT	R	7.1	6.9	"	"	11.1	10.9	"	"
TRANSLATION TOTAL DISENGAGEMENT (PH-1-2)	D	3	5.5	3	4.1	3	5.5	3	4.1

2.8x0.8 - HYBRID

DESCRIPTION	ITEM	FUNCTIONAL		PREFERRED	
		MIN. (MM)	MAX. (MM)	MIN. (MM)	MAX. (MM)
HOUSING CAVITY LOCK HEIGHT (DATUM A)	1	7.75	7.55	"	"
TERMINAL FRONT STOP (LANCE LOCK)	2	6.35	6.15	"	"
TERMINAL CONTACT POINT (LANCE LOCK)	3	3.8	4.5	"	"
TERMINAL BOX REAR (FRONT STOP)	4	10.15	8.7	"	"
CONTACT POINT TO DATUM A (1-3)	C	3.95	3.05	"	"
PIN HEIGHT MIN: (PF + PL) MAX: (5)	PH	6.3	10.1	8.1	10.1
PIN LEAD IN	PL	1.3	1.1	"	"
PIN FUNCTIONAL HEIGHT TO DATUM A (PH-PL)	PF	5	9	6.8	9
TERMINAL MAX INSERTION DEPTH (1-2+4)	5	11.55	10.1	"	"
TERMINAL WIPE (PF-C)	W	1.05	5.95	2.85	5.95
PIN PROTECTION RIB HEIGHT	R	11.1	10.9	"	"
TRANSLATION TOTAL DISENGAGEMENT (PH-1-3)	D	2.35	7.05	6.7	8.7

* USCAR BALL TEST ONLY APPLICABLE FOR LARGE FORMAT CONTROLLER CONNECTORS DETAILED ON DRW-00460347 DUE TO INCREASED WIDTH. APPLIED TO DRW-00456412 CONNECTORS FOR STANDARDIZATION ONLY

** MAX. PIN HEIGHT EXCEEDS THEORETICAL TERMINAL MAX INSERTION DEPTH (ITEM 5) TO ACCEPT CURRENT TE MQS 064 TERMINALS. ALL NEW 064 MALE TERMINAL DESIGN SHOULD TARGET MINIMUM ACCEPTABLE HEIGHT (ITEM PH)

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ITEM NAME: LOW VOLTAGE CONNECTOR STANDARD

ITEM NUMBER: DRW-00456412

REVISION: C.2

SHEET: 9 of 12

TERMINAL AND SEAL USAGE

064 TERMINALS SHALL BE TE MQS PART NUMBERS SPECIFIED BELOW OR A CAVITY COMPATIBLE EQUIVALENT MEETING ALL SPECIFIED DIMENSIONS IN THIS DOCUMENT AND DEMONSTRATED TO EQUAL OR EXCEED ELECTRICAL AND THERMAL PERFORMANCE. DETAILED INTERNAL CAVITY DIMENSIONS SHALL BE SPECIFIED BY THE TERMINAL SUPPLIER.

280 TERMINALS SHALL BE TE MCP PART NUMBERS SPECIFIED BELOW OR A CAVITY COMPATIBLE EQUIVALENT MEETING ALL SPECIFIED DIMENSIONS IN THIS DOCUMENT AND DEMONSTRATED TO EQUAL OR EXCEED ELECTRICAL AND THERMAL PERFORMANCE. DETAILED INTERNAL CAVITY DIMENSIONS SHALL BE SPECIFIED BY THE TERMINAL SUPPLIER.

COMPATIBLE SEALS AND PLUGS SHALL BE PART NUMBERS SPECIFIED BELOW OR AN EQUIVALENT DEMONSTRATED TO MEET ALL PERFORMANCE REQUIREMENTS SPECIFIED IN THIS DOCUMENT.

Size	Wire (mm²)	Material	Plating	TE TERMINAL	TE SEAL	TE CAV. PLUG
064	0.13-0.17	CuNiSi	Sn	2141826-1	967067-2	967056-1
064	0.25-0.35	CuNiSi	Sn	5-962885-1		
064	0.5-0.75	CuNiSi	Sn	5-965906-1		
064	0.13-0.17	CuNiSi	Ag	2141826-6		
064	0.25-0.35	CuNiSi	Ag	5-962885-6		
064	0.5-0.75	CuNiSi	Ag	5-965906-6		
064	0.13-0.17	CuNiSi	Au	2141826-5		
064	0.25-0.35	CuNiSi	Au	5-962885-5		

Size	Wire (mm²)	Material	Plating	TE TERMINAL	TE SEAL	TE CAV. PLUG
064	0.13-0.17	CuNiSi	Sn	2479123-1	967067-2	967056-1
064	0.25-0.35	CuNiSi	Sn	2479013-1		
064	0.5-0.75	CuNiSi	Sn	2479014-1		
064	0.13-0.17	CuNiSi	Ag	2479123-6		
064	0.25-0.35	CuNiSi	Ag	2479013-6		
064	0.5-0.75	CuNiSi	Ag	2479014-6		

Size	Wire (mm²)	Material	Plating	TE TERMINAL	TE SEAL	TE CAV. PLUG
064	0.13-0.17	CuNiSi	Sn	2141830-1	967067-2	967056-1
064	0.25-0.35	CuNiSi	Sn	5-962886-1		
064	0.5-0.75	CuNiSi	Sn	5-965908-1		
064	0.13-0.17	CuNiSi	Ag	2141830-3		
064	0.25-0.35	CuNiSi	Ag	5-962886-3		
064	0.5-0.75	CuNiSi	Ag	5-965908-3		
064	0.13-0.17	CuNiSi	Au	2141830-2		
064	0.25-0.35	CuNiSi	Au	5-962886-2		

Size	Wire (mm²)	Material	Plating	TE TERMINAL	TE SEAL	TE CAV. PLUG
280	0.2-0.5	CuNiSi	Sn	1-2141859-1	828904-1	828922-1
280	0.5-1	CuNiSi	Sn	1-968855-1		
280	1.5-2.5	CuNiSi	Sn	1-968857-1		
280	12 AWG	CuNiSi	Sn	1-1719506-1		
280	4	CuNiSi	Sn	1-968859-1		
280	0.2-0.5	CuNiSi	Ag	1-2141859-3		
280	0.5-1	CuNiSi	Ag	1-968855-3		
280	1.5-2.5	CuNiSi	Ag	1-968857-3		
280	12 AWG	CuNiSi	Ag	1-1719506-3		
280	4	CuNiSi	Ag	1-968859-3		
280	0.2-0.5	CuNiSi	Au	1-2141859-2		
280	0.5-1	CuNiSi	Au	1-968855-2		

Size	Wire (mm²)	Material	Plating	TE TERMINAL	TE SEAL	TE CAV. PLUG
280	0.2-0.5	CuSn	Sn	1-965982-1	828904-1	828922-1
280	0.5-1	CuSn	Sn	1-962915-1		
280	1-2.5	CuSn	Sn	1-962916-1		
280	12 AWG	CuSn	Sn	1-1719504-1		
280	2.5-4	CuSn	Sn	1-968947-1		
280	0.5-1	CuSn	Ag	1-962915-2		
280	1-2.5	CuSn	Ag	1-962916-2		
280	12 AWG	CuSn	Ag	1-1719504-2		
280	2.5-4	CuSn	Ag	1-968947-2		
280	0.2-0.5	CuSn	Au	1-965982-3		
280	0.5-1	CuSn	Au	1-962915-3		
280	1-2.5	CuSn	Au	1-962916-3		

Size	Wire (mm²)	Material	Plating	TE TERMINAL	TE SEAL	TE CAV. PLUG
280	0.5-1	CuFe	Sn	2-962915-1	828904-1	828922-1
280	1-2.5	CuFe	Sn	2-962916-1		
280	2.5-4	CuFe	Sn	2-968947-1		
280	0.5-1	CuFe	Ag	2-962915-2		
280	1-2.5	CuFe	Ag	2-962916-2		
280	2.5-4	CuFe	Ag	2-968947-2		
280	0.5-1	CuFe	Au	2-962915-3		
280	1-2.5	CuFe	Au	2-962916-3		

PERFORMANCE REQUIREMENTS

AT A MINIMUM, ALL CONNECTORS ARE EXPECTED TO MEET APPLICABLE PERFORMANCE REQUIREMENTS OF USCAR-2

THE FOLLOWING CLASSIFICATIONS ARE TO BE USED:

TEMPERATURE CLASS: T2
 SEALING CLASS: S2
 S3 WHEN BACKSHELL ACCESSORY FITTED
 VIBRATION CLASS: V4 IN SEALED CONFIGURATION
 V1 IN UNSEALED CONFIGURATION
 ERGONOMIC CLASS: USCAR-25 CLASSIFICATION NOT REQUIRED
 SEALED CONNECTOR MATING FORCE SHALL BE EQUAL TO OR BELOW 75N

PARTS SUPPLIED TO TESLA MUST MEET ALL ADDITIONAL PERFORMANCE REQUIREMENTS LISTED IN THE GENERAL NOTES OF THIS DOCUMENT.

GENERAL REQUIREMENTS

SEALING:
 WIRE SEALS AND HOUSING RADIAL SEAL SHALL BE AN OPTIONAL PART. CONNECTOR SHALL BE FUNCTIONAL WITHOUT SEALS INSTALLED

CODING:
 FOUR KEY CODES (A,B,C,D) PLUS UNIVERSAL CODE (0) OPTIONS SHALL BE AVAILABLE

CONNECTOR POSITION ASSURANCE (CPA):
 CPA SHALL BE AVAILABLE AS AN OPTIONAL PART

CYCLE RATING:
 10 CYCLES MINIMUM FOR TIN PLATED TERMINALS (DRY/UNLUBRICATED)
 50 CYCLES MINIMUM FOR SILVER PLATED TERMINALS (DRY/UNLUBRICATED)

HOUSING COLOR:
 OV-16V - BLACK
 16V 60V - LIGHT BLUE (RAL 5012)

CREEPAGE AND CLEARANCE:
 ALL CONNECTORS SHALL PASS IEC-60664-1 CREEPAGE AND CLEARANCE REQUIREMENTS FOR THE APPLICABLE VOLTAGES WHILE MEETING:
 BASIC INSULATION RATING

ALTITUDE = 5000M (CORRECTION FACTOR = 1.48)

POLLUTION DEGREE: 3

	MATERIAL GROUP I (RECOMMENDED)	MATERIAL GROUP II	MATERIAL GROUP III
MIN. CREEPAGE (MM)	1.6	1.8	2.0
MIN. CLEARANCE (MM)	1.2	1.2	1.2

MATERIALS:<br

MALE ISL (INDEPENDANT SECONDARY LOCK)

TPA TYPE 3 DETAILED IN TESLA DRW-00456412

ADDITIONAL REQUIREMENTS (ALL):

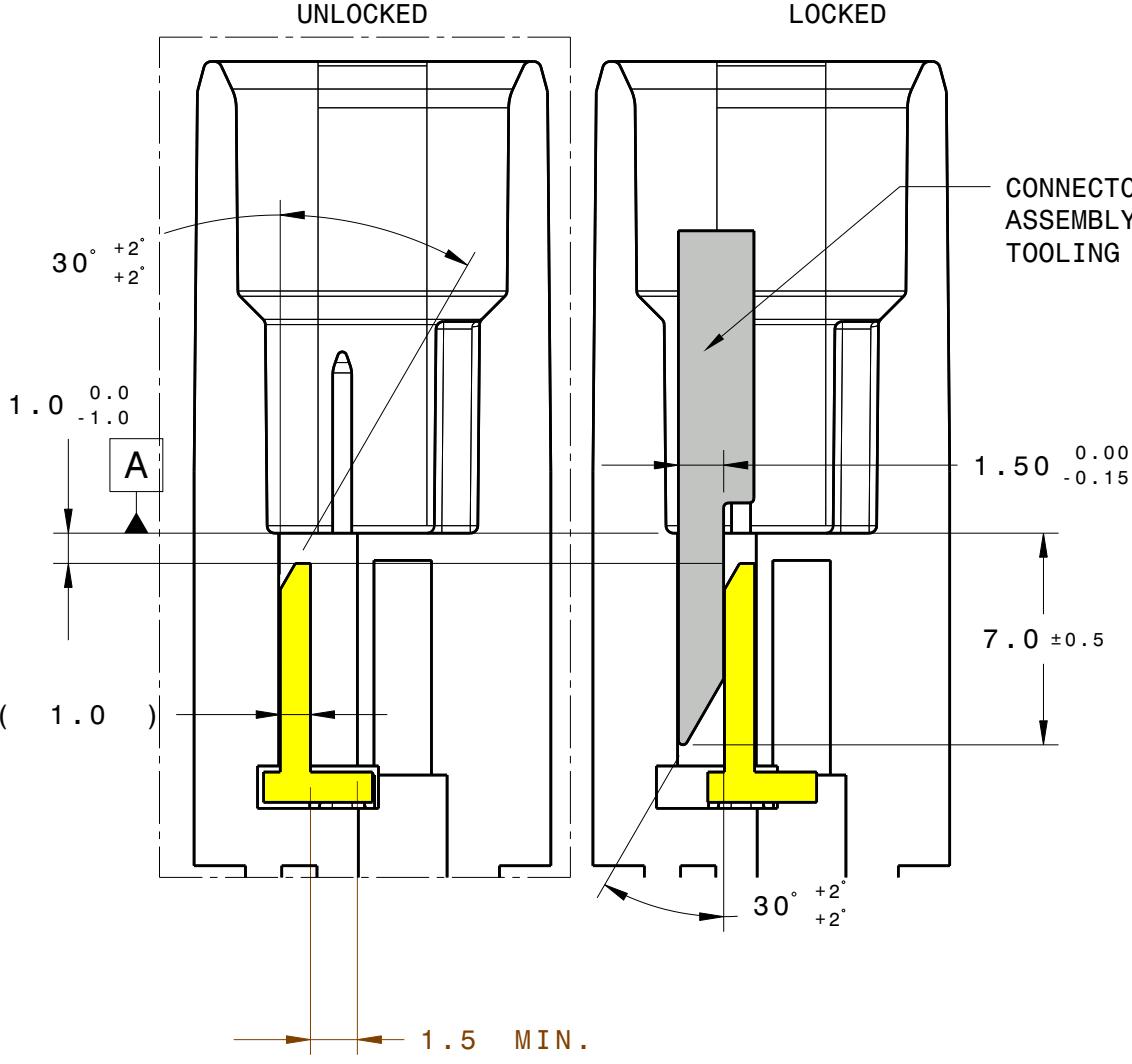
TRAVEL TO LOCK: 1.5MM MIN.

CONNECTOR TPA LOCKING FORCES: PER USCAR-2

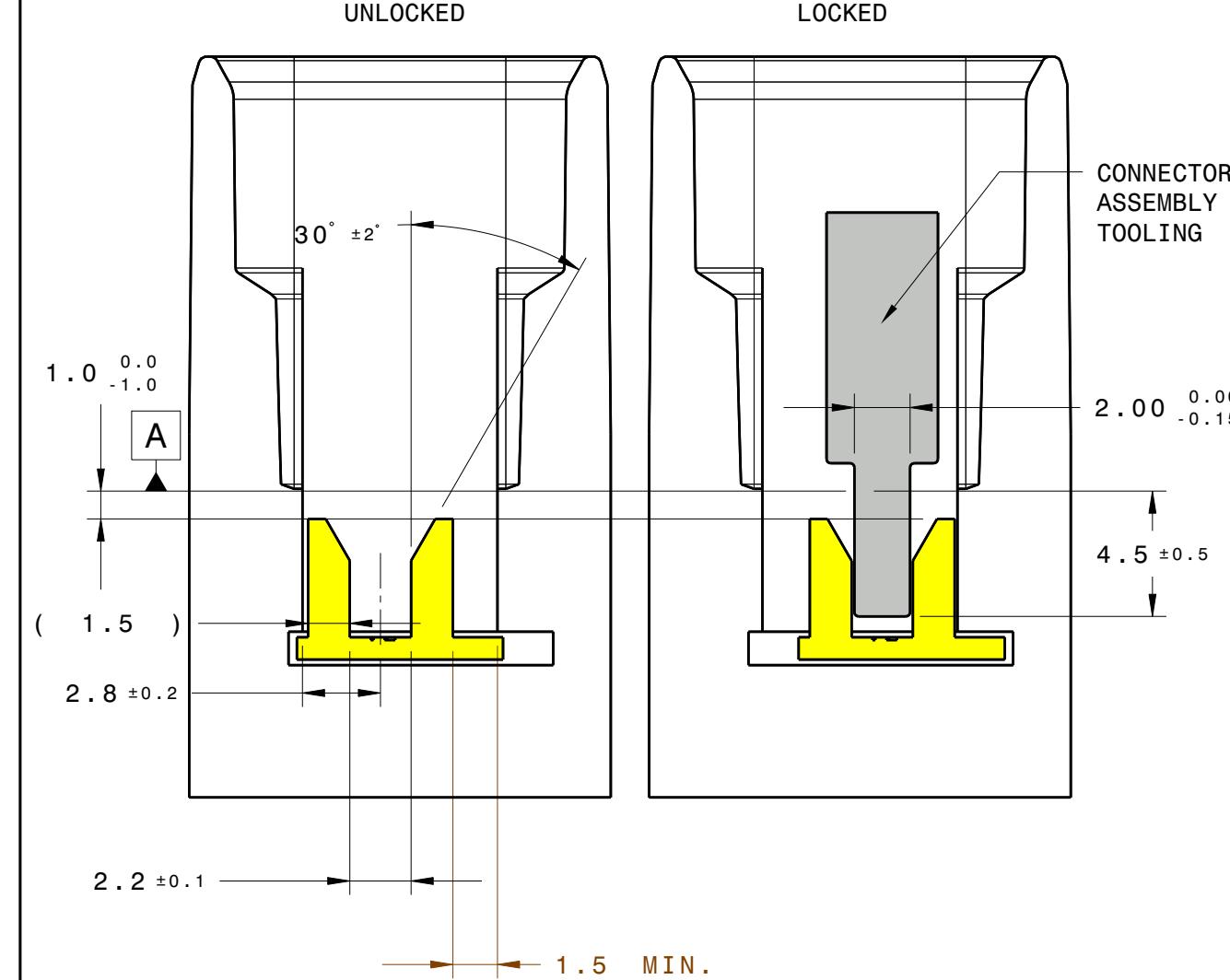
CONNECTOR/TPA OVER TRAVEL FORCE WITHSTAND: 65N

CONNECTOR ASSEMBLY TOOLING APPLIED FORCE: 60N MIN. - 65N MAX

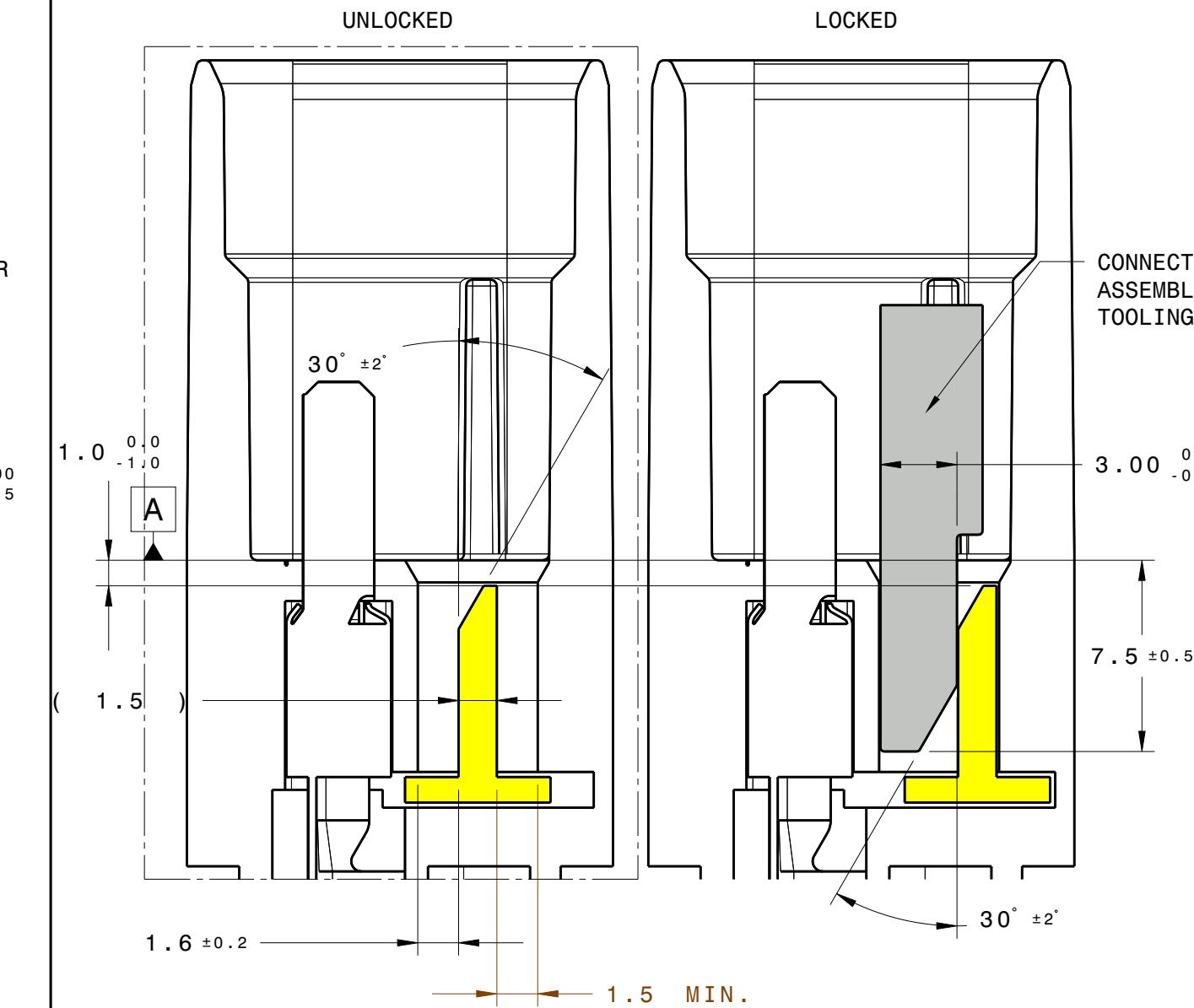
TPA TYPE 1 DETAIL



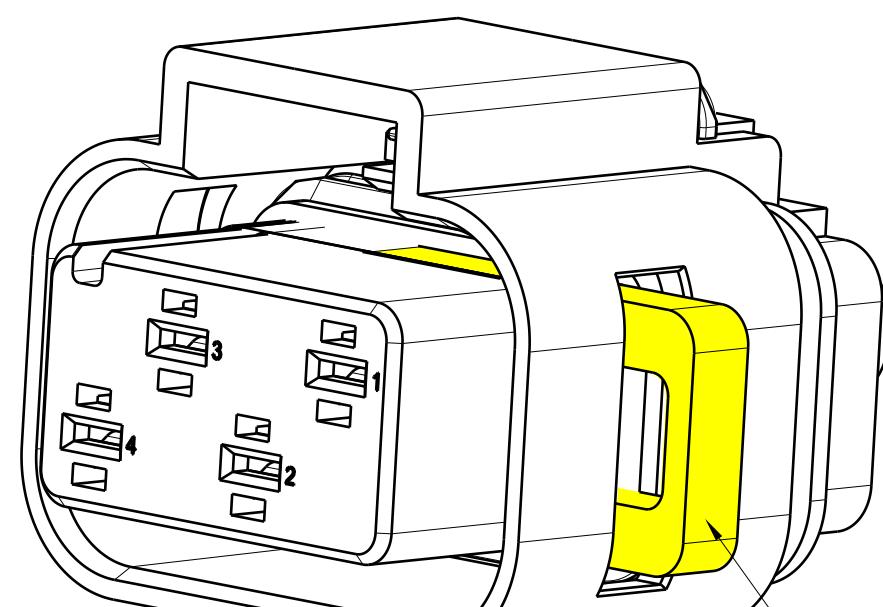
TPA TYPE 2 DETAIL



TPA TYPE 3 DETAIL



FEMALE ISL (INDEPENDANT SECONDARY LOCK)

ISOMETRIC
SCALE: 3/1

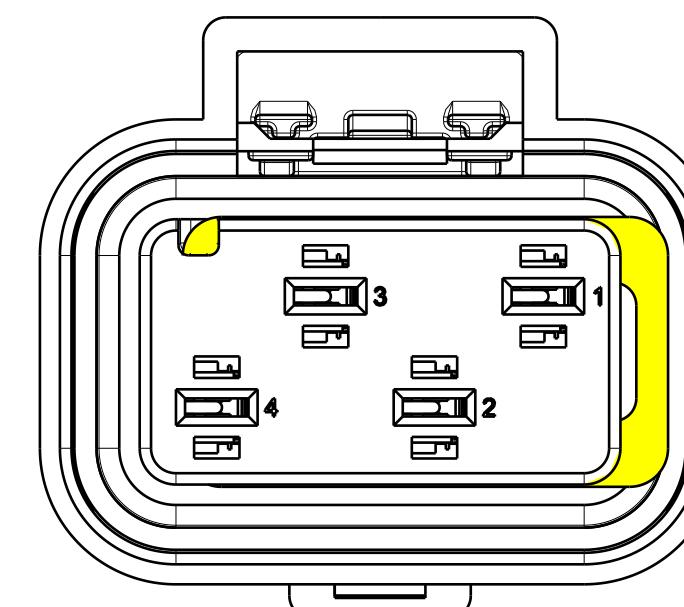
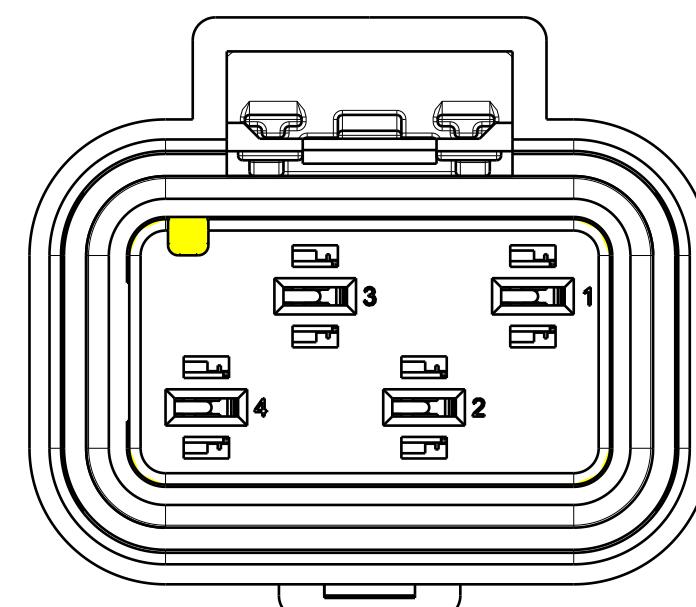
ISL INSTALLATION THROUGH WINDOW

ADDITIONAL REQUIREMENTS (ALL):

CONNECTOR TPA LOCKING FORCES: PER USCAR-2

CONNECTOR/TPA OVER TRAVEL FORCE WITHSTAND: 65N

CONNECTOR ASSEMBLY TOOLING APPLIED FORCE: 60N MIN. - 65N MAX

UNLOCKED POSITION
(EXAMPLE ONLY)
SCALE: 3/1LOCKED POSITION
(EXAMPLE ONLY)
SCALE: 3/1**TESLA**THIS DOCUMENT IS PROPERTY OF TESLA INC.
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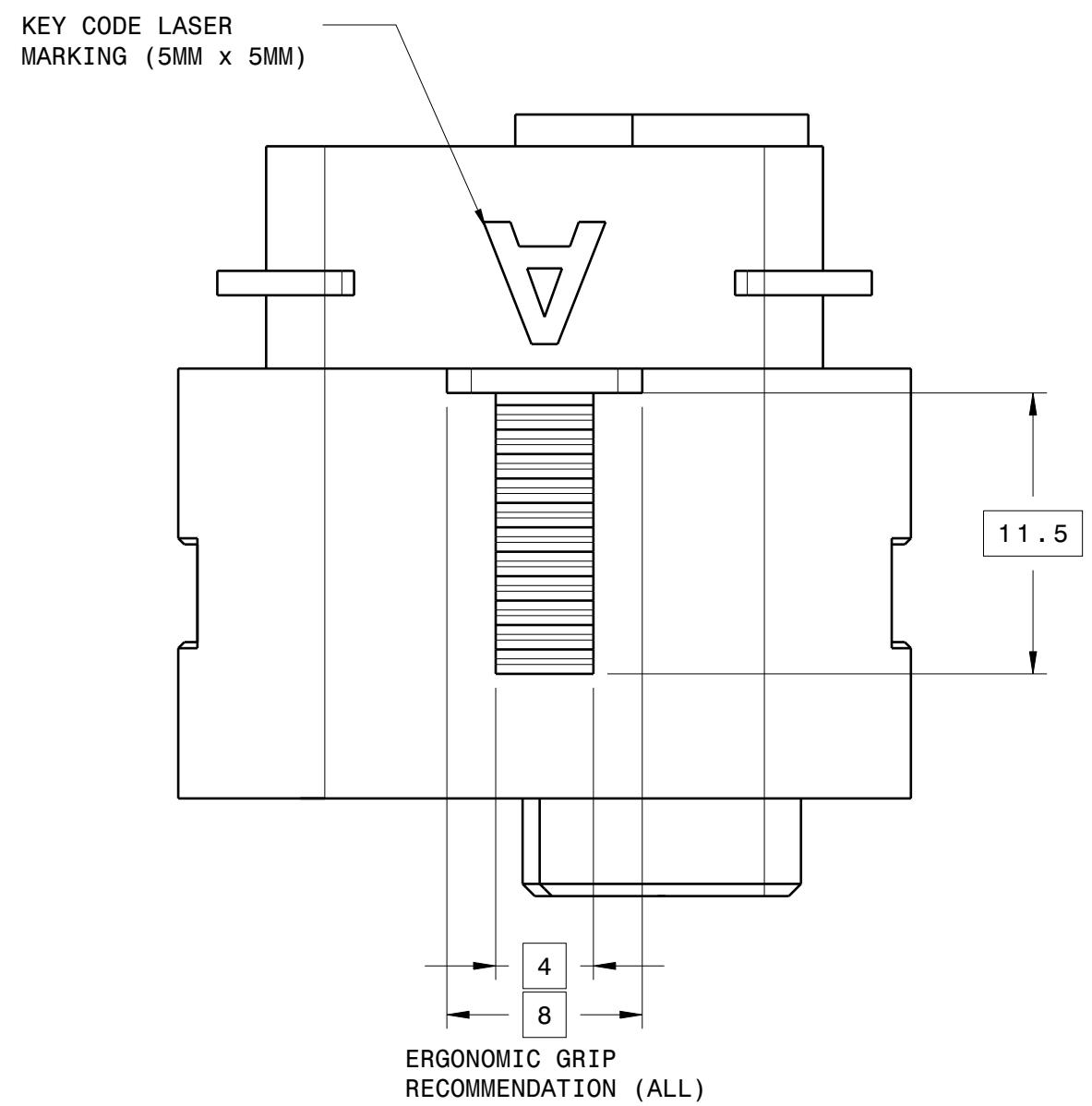
ITEM NAME

LOW VOLTAGE CONNECTOR STANDARD

ITEM NUMBER DRW-00456412

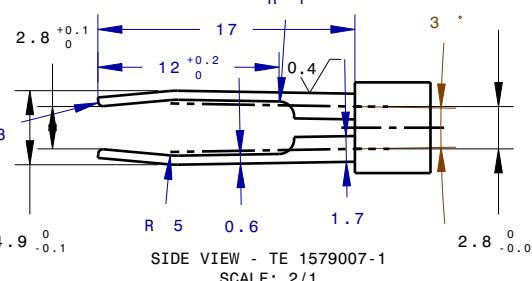
REVISION C.2 SHEET 10 of 12

KEY MARKING

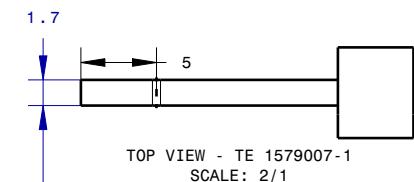


ELECTRICAL PROBING AND TERMINAL REMOVAL

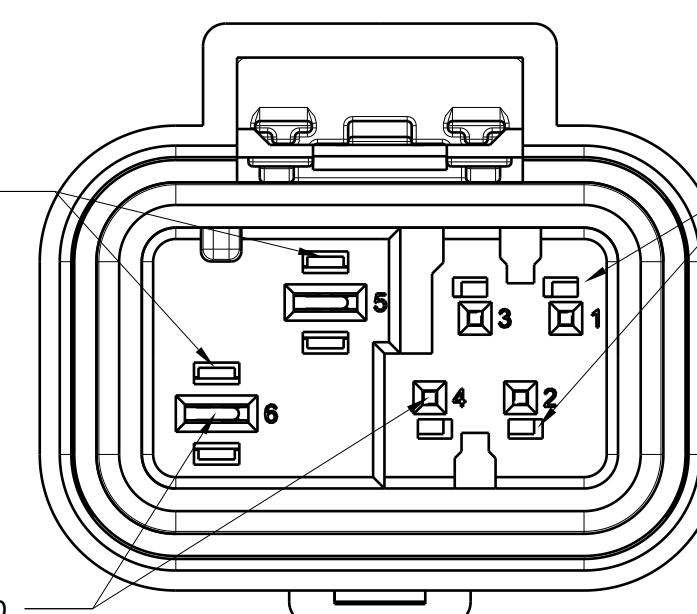
POGO PIN/EXTRACTION TOOL/PROBING TOOL MUST NOT INSERT INTO TERMINAL SLIDING CONTACT



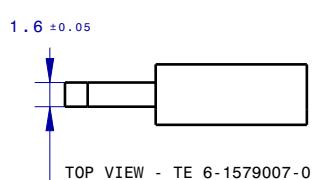
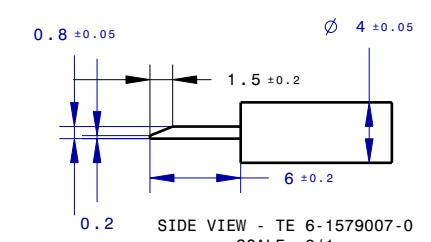
OPENING FOR TERMINAL EXTRACTION (LOCKING LANCE) AND ELECTRICAL PROBING OPENING MUST BE COMPATIBLE WITH TE 1579007-1 OR EQUIVALENT



NO TOOLS ALLOWED TO AVOID DAMAGE TO SLIDING CONTACT



OPENING FOR TERMINAL EXTRACTION (LOCKING LANCE) AND ELECTRICAL PROBING OPENING MUST BE COMPATIBLE WITH TE 6-1579007-0 OR EQUIVALENT



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ITEM NAME	LOW VOLTAGE CONNECTOR STANDARD	
ITEM NUMBER	REVISION	HEET
DRW-00456412	C.2	12 of 12