

SULLINS CONNECTOR SOLUTIONS  
801 East Mission Road  
San Marcos, CA 92069  
760-744-0125  
www.sullinscorp.com

## Product Specification Report



PART NO.		TITLE		PRODUCT SPEC.	DWG. NO.
WCT001-MCT		CRIMP TOOL		OPS-045	N/A
REQUESTER	TYPE	TESTED BY	REVIEWED BY	DATE	PAGES
SULLINS	PRODUCT SPECIFICATION	JG	KOS	5-15-2015	10

### REVISION HISTORY

DATE	REV	DESCRIPTION	INITIATED BY
5-15-2015	A	INITIAL RELEASE	JG
10/28/2022	B	Corrected insulator crimp width SWT204 from 1.80 Max to 1.64 mm Max	TT



### CERTIFICATION

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## CRIMP TOOL PART NUMBER: WCT001-MCT

This tool will crimp 3 different connectors as follows:

SWT204 (DWG 11627);

SWT201 (DWG 11621);

SWT25X (DWG 11631).

Terminal No.	Wire Size		Conductor crimp		Insulator Crimp		Pull force Min.
			Height	Width	Height	Width	
	AWG	O.D.	mm	mm	mm	mm	Kgf
SWT204	22	1.76	0.70-0.80	1.32 max.	1.50-1.60	1.64 max.	3.6
	24	1.60	0.70-0.80	1.30 max.	1.48-1.58	1.64 max.	2.7
	26	1.48	0.65-0.75	1.30 max.	1.40-1.50	1.60 max.	1.8

Terminal No.	Wire Size		Conductor crimp		Insulator Crimp		Pull force Min.
			Height	Width	Height	Width	
	AWG	O.D.	mm	mm	mm	mm	Kgf
SWT201	24	1.60	0.69-0.79	1.29 max.	1.43-1.53	1.64 max.	3.0
	26	1.48	0.66-0.76	1.29 max.	1.40-1.50	1.64 max.	2.0
	28	1.20	0.63-0.73	1.28 max.	1.40-1.50	1.59 max.	1.0

Terminal No.	Wire Size		Conductor crimp		Insulator Crimp		Pull force Min.
			Height	Width	Height	Width	
	AWG	O.D.	mm	mm	mm	mm	Kgf
SWT25X	20	1.94	0.97-1.07	1.51 max.	1.73-1.83	1.90 max.	5.9
	22	1.76	0.84-0.94	1.49 max.	1.56-1.66	1.86 max.	3.6
	24	1.60	0.79-0.89	1.48 max.	1.50-1.60	1.82 max.	2.7
	26	1.48	0.77-0.87	1.47 max.	1.45-1.55	1.80 max.	1.8

This is to certify that the evaluation described herein was designed and executed by personnel of Sullins Connector Solutions of San Marcos California.

All equipment and measuring instruments used during testing were calibrated and traceable to NIST according to ISO/IEC 17025:2005 and ANSI-Z540-1, as applicable.

All data, raw and summarized, analysis and conclusions presented herein are the property of Sullins Connector Solutions. No copy of this report, except in full, shall be forwarded to any agency, customer, etc., without the written approval of Sullins Connector Solutions.

### Performance:

Crimping Tool with 4 nests.

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2 nests are used for connector SWT25X and one each for the remaining connectors.

**Test:**

A crimp test was performed and cross section pictures were made.  
The crimp cycle is finished when the tool ratchet releases.

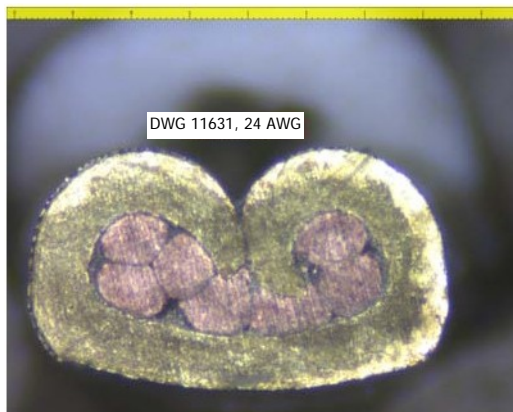
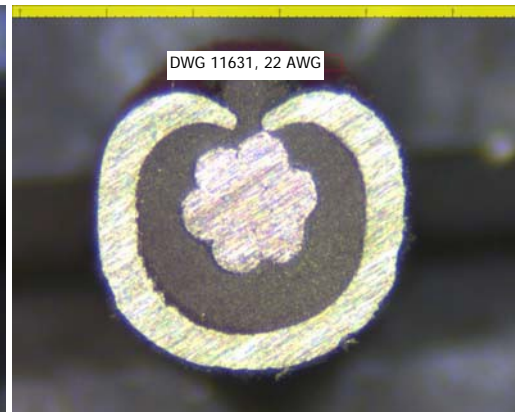
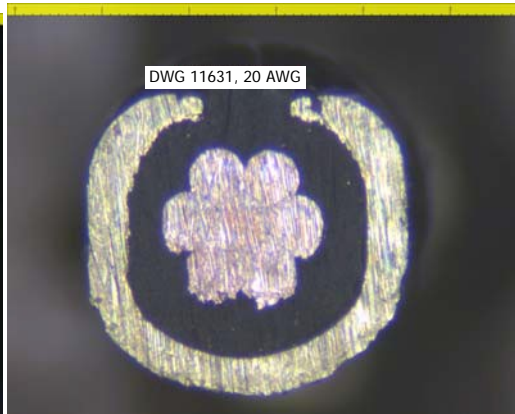
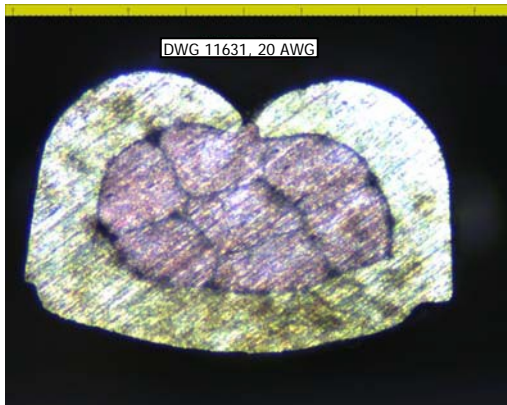
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Tested by	O.S				Date		2011-05-04					
Tool reference	WCT001-MCT				Connector type							
Preload at start of test					Preload at end of test							
Nest / (marking)												
Test wire [mm <sup>2</sup> / AWG}	20AWG	22AWG	24AWG	26AWG	22AWG	24AWG						
Wire type	UL1007	UL1007	UL1007	UL1007	UL1007	UL1007						
Contact / Terminal	SWT25X	SWT25X	SWT25X	SWT25X	SWT204	SWT204						
Crimp height [mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]						
1 [mm]	1,00	0,92	0,87	0,84	0,78	0,74						
Crimp width [mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]						
1 [mm]	1,50	1,47	1,45	1,45	1,28	1,26						
Insulation height [mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]						
1 [mm]	1,73	1,64	1,58	1,55	1,54	1,51						
Insulation width [mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]						
1 [mm]	1,81	1,79	1,73	1,72	1,72	1,71						
Tensile test / fail. mode <sup>1)</sup>	[N]	P/W/C	[N]	P/W/C	[N]	P/W/C	[N]	P/W/C	[N]	P/W/C	[N]	P/W/C
1 [N]	79	W	58,5	W	49,5	W	30	W	84,5	W	58,5	W
2 [N]	82,5	W	65,5	W	48	W	27	W	84	W	58,5	W
3 [N]	81	W	76,5	W	48,5	W	37	W	76,5	W	57	W
Min required value according to customer	57,86		35,3		26,47		17,6		35,3		26,47	
Comments – nest												
Comments – tool												
Nest / (marking)												
Test wire [mm <sup>2</sup> / AWG}	26AWG	24AWG	26AWG	28AWG								
Wire type	UL1007	UL1007	UL1007	UL1007								
Contact / Terminal	SWT204	SWT201	SWT201	SWT201								
Bellmouth [mm]												
Crimp height [mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]		
1 [mm]	0,70	0,77	0,75	0,72								
Crimp width [mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]		
1 [mm]	1,25	1,26	1,25	1,25								
Insulation height [mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]		
1 [mm]	1,50	1,50	1,51	1,48								
Insulation width [mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]		
1 [mm]	1,70	1,56	1,57	1,56								
Tensile test / fail. mode <sup>1)</sup>	[N]	P/W/C	[N]	P/W/C	[N]	P/W/C	[N]	P/W/C	[N]	P/W/C	[N]	P/W/C
1 [N]	35,5	W	53,5	W	38,5	W	21	W				
2 [N]	38	W	56,5	W	38,5	W	20	W				
3 [N]	38,5	W	56,5	W	37,5	W	23	W				
Min required value according to customer	17,6		26,47		17,6		9,8					
Comments – nest												
Comments – tool												

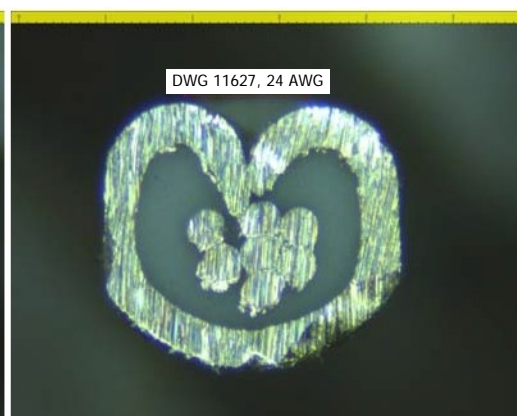
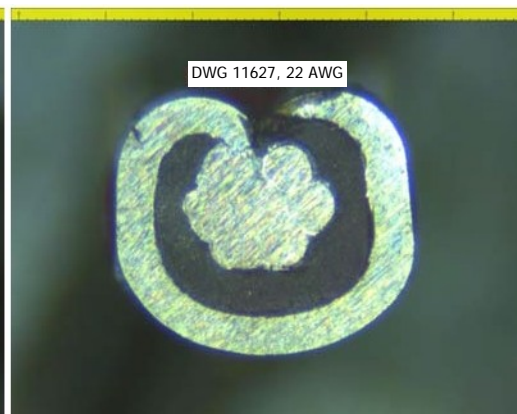
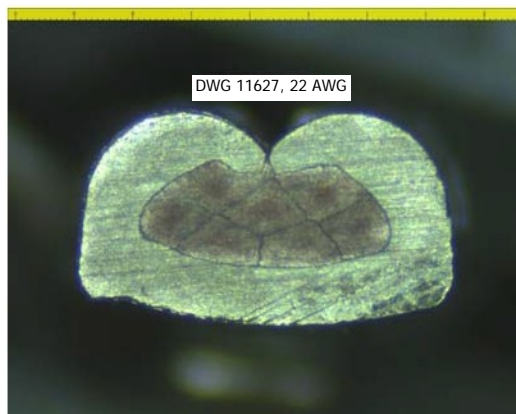
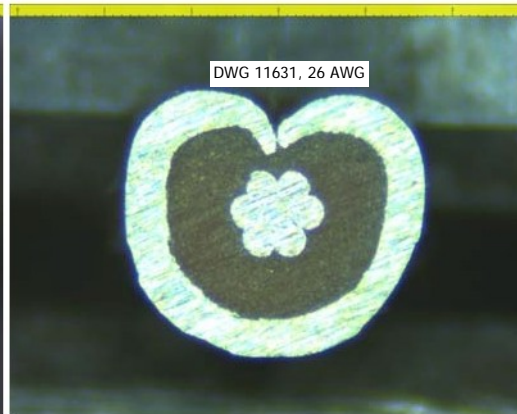
<sup>1)</sup> Records from the tensile tests are maximum pull-off value and failure mode. P = wire pull off from contact / terminal; W = wire break; C = connector / terminal break.

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### Cross Section Pictures:

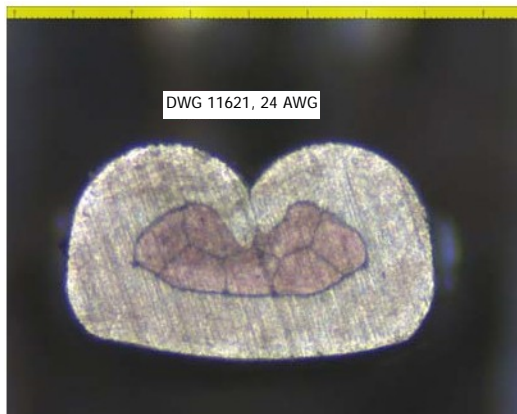


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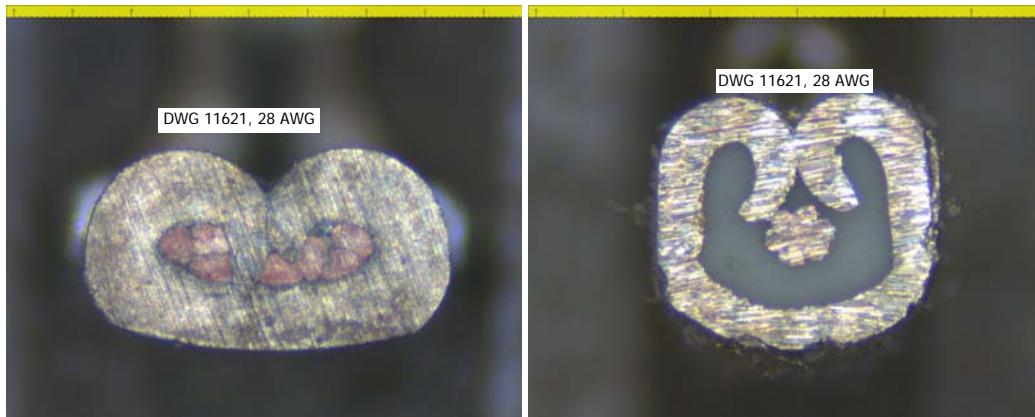




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### Conclusion:

Cross section pictures of the insulation shows that the wings go through the insulation and hit the conductor. This happen even if the specification regarding height and width are fulfilled.



[www.sahibscorp.com](http://www.sahibscorp.com)

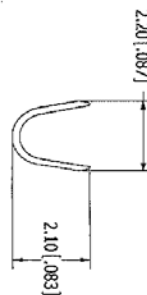
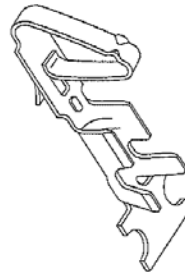
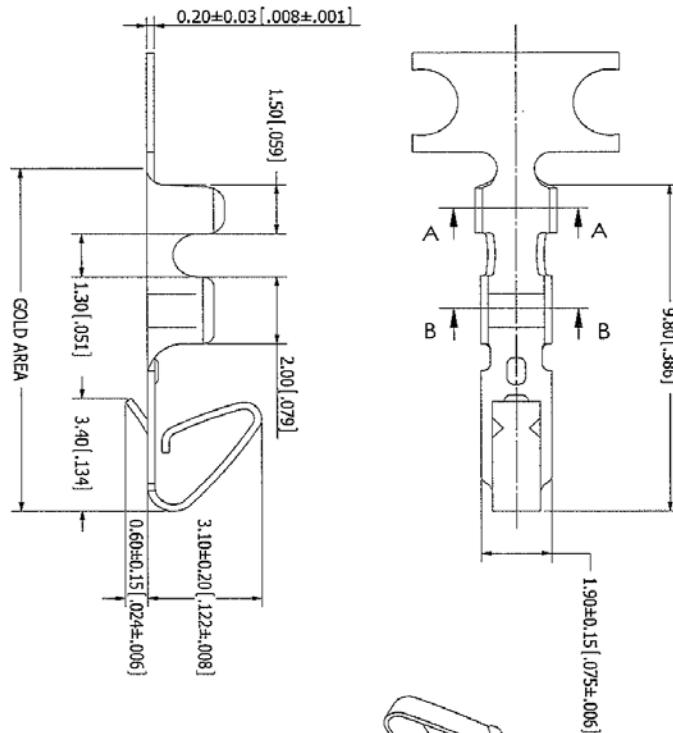
PART NUMBER CODING  
SWT25X-U\_\_C-S01-UU

## MATERIAL & PLATING

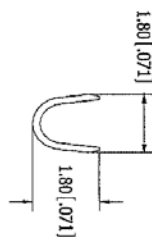
RT = BRASS, .000015" MIN NICKEL UNDERPLATE, .000040" MIN PURE TIN, BRIGHT OVERALL (NOTE 7).

PT = PHOSPHOR BRONZE, .00015" MIN NICKEL UNDERPLATE, .000040" MIN PURE TIN, BRIGHT OVERALL (NOTE 7),  
RP = BRASS, .000040" MIN NICKEL UNDERPLATE, GOLD FLASH OVERALL.

PT = PHOSPHOR BRONZE, .00015" MIN NICKEL UNDERPLATE, .000040" MIN PURE TIN, BRIGHT OVERALL (NOTE 7),  
RP = BRASS, .000040" MIN NICKEL UNDERPLATE, GOLD FLASH OVERALL.



## SECTION A-A






**SECTION B-B**

- NOTES:
1. MATERIAL : SEE PART NUMBER CODING.
  2. PLATING: SEE PART NUMBER CODING.
  3. WIRE RANGE: AWG #20 - #26.
  4. INSULATION O.D.:  $\phi$ 1.35mm ~  $\phi$ 1.90mm.
  5. QUANTITY PER REEL = 10,000 PIECES.
  6. USED IN SWH25X SERIES HOUSING.
  7. PLATING BEFORE STAMPING/FORMING.

**ROHS COMPLIANT**



REVISIONS				
REV.	ECO. NO	DESCRIPTION	DATE	BY
A	2237	INITIAL RELEASE	05/24/2011	LH

UN-CLASSIFIED SPECIFIED DIMENSIONS ARE IN MILLIMETERS (IN) TOLERANCES: ANGULAR: $\pm 0.130^\circ$ SIZE: $\pm 0.254$ mm		INTERPRET DIMENSIONS AND PER. ASSEY 1/10/2006	
		DRAWN DATE 02/04/01 JH	
THE INFORMATION ON THIS DRAWING IS THE PROPERTY OF SULLINS. IT IS TO BE USED ONLY FOR THE PROJECT AND NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT PERMISSION OF SULLINS.		TITLE CRIMP TERMINAL - SW12XZ	
PART NUMBER SW12XZ-UL - C-001-10U-00		 SULLINS CONNECTIVITY SOLUTIONS	
DIM. CHANGE CODE C 34493	DIM. TOL. NO. 11631	REV. A	
SCALE: 1:1		SHEET 1 OF 1	

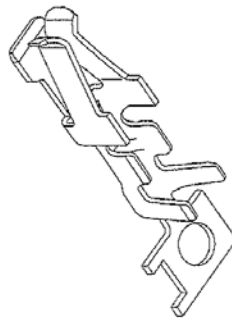
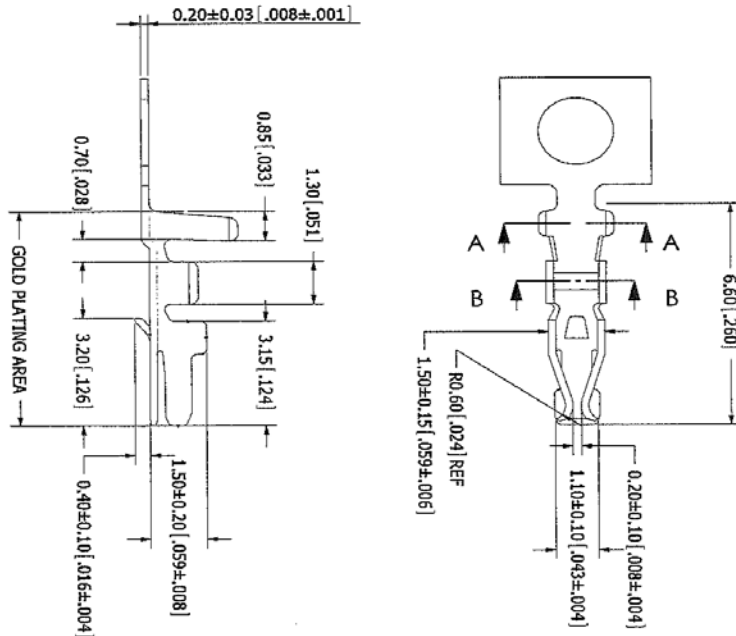
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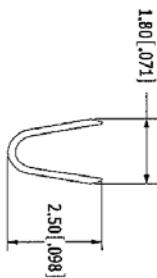
**PART NUMBER CODING**  
SWT204-UP\_N-S01-UU-UU

**PLATING**

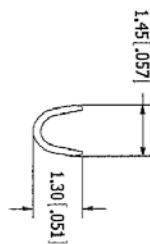
T = .000015" MIN NICKEL UNDERPLATE, .000040" MIN PURE TIN, BRIGHT OVERALL (NOTE 7)  
P = .000040" MIN NICKEL UNDERPLATE, GOLD FLASH OVERALL.



**SECTION A-A**



**SECTION B-B**



- NOTES:**
1. MATERIAL: PHOSPHOR BRONZE.
  2. PLATING: SEE PART NUMBER CODING.
  3. WIRE RANGE: AWG #22 - #26.
  4. INSULATION O.D.:  $\phi$  1.35mm ~  $\phi$  1.70mm.
  5. QUANTITY PER REEL = 10,000 PIECES.
  6. USED IN SWH204 SERIES HOUSING.
  7. PLATING BEFORE STAMPING/FORMING.



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REVISIONS			
REV.	ECO. NO.	DESCRIPTION	DATE
A	2216	INITIAL RELEASE	05/24/2011

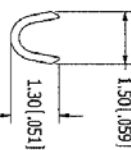
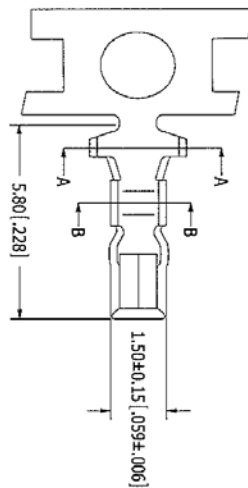
UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS TOLERANCES: ANGULAR: 2X ± 0.1 (0.125) 2X ± 0.05 (0.0125)		DATE 06/20/14	NAME LH
DRAWN BY LH		DATE 06/20/14	
TITLE CRIMP TERMINAL - SWH 204		DATE 06/20/14	
PART NUMBER SWT204-UP_N-S01-UU-UU		DATE 06/20/14	
REV C		DATE 06/20/14	
SCALE 1:1		DATE 06/20/14	
SHEET 1 OF 1		DATE 06/20/14	

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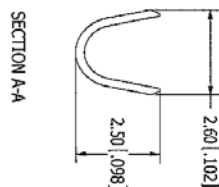
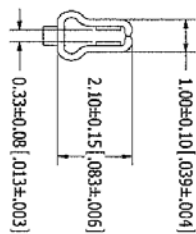
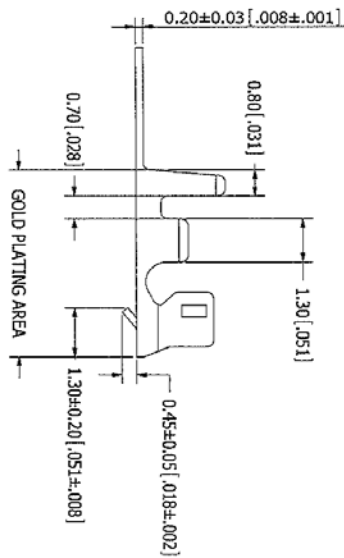
**PART NUMBER CODING**  
**SWT201-UP-N-S01-UU-UU**

**PLATING**

T = .000015" MIN NICKEL UNDERPLATE, .000040" MIN PURE TIN, BRIGHT OVERALL (NOTE 7).  
P = .000040" MIN. NICKEL UNDERPLATE, GOLD FLASH OVERALL.



SECTION B-B



SECTION A-A

- NOTES:**
1. MATERIAL: PHOSPHOR BRONZE.
  2. PLATING: SEE PART NUMBER CODING.
  3. WIRE RANGE: AWG #24 - #28.
  4. INSULATION O.D.:  $\phi 1.20\text{mm} \sim \phi 1.50\text{mm}$ .
  5. QUANTITY PER REEL = 10,000 PIECES.
  6. USED IN SWH201 SERIES HOUSING.
  7. PLATING BEFORE STAMPING/FORMING.



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USE THE FOLLOWING DIMENSIONS FOR THE DIMENSIONS OF THE PARTS. DIMENSIONS ARE IN MILLIMETERS. TOLERANCES: MILLIMETERS: .XX = ±.02 (.002) .XXX = ±.003 (.003) INTERPRET DIMENSIONS AND TOLERANCES PER: ASME Y14.5-2009		DATE: 05/29/2011 NAME: LHM
THE FOLLOWING INFORMATION IS FOR THE IDENTIFICATION OF THE PARTS. PART NUMBER: CRIMP TERMINAL - SWH201 PART NUMBER: SWT201-UP-N-S01-UU-UU SIZE: C DATE CODE: 54453 DWG. NO.: 11621 REV: A		SCALE: 1:1 SHEET 1 OF 1

REVISIONS			
REV.	ECO. NO.	DESCRIPTION	DATE
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			LH