

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

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

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. Kgf
			Height	Width	Height	Width	
	AWG	O.D.	mm	mm	mm	mm	
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. Kgf
			Height	Width	Height	Width	
	AWG	O.D.	mm	mm	mm	mm	
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. Kgf
			Height	Width	Height	Width	
	AWG	O.D.	mm	mm	mm	mm	
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.

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

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.

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

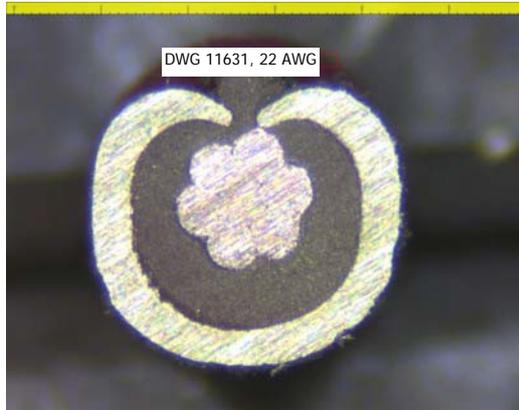
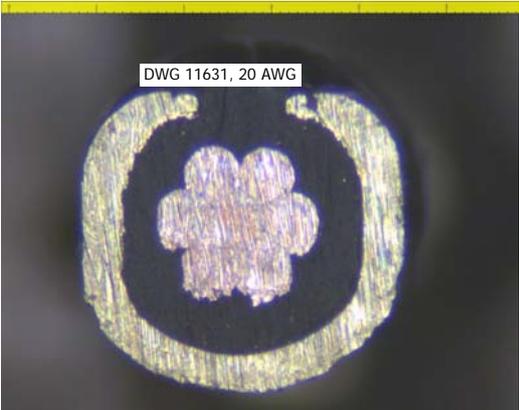
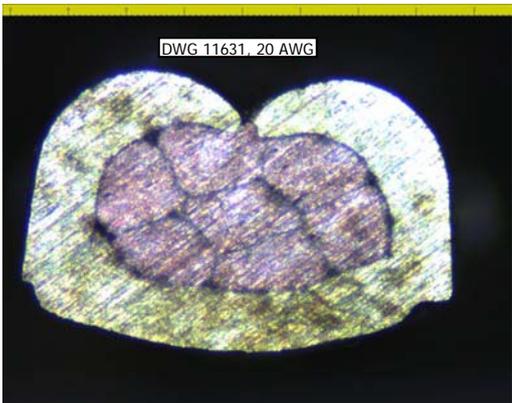
Tested by	O.S				Date	2011-05-04						
Tool reference	WCT001-MCT				Connector type							
Preload at start of test					Preload at end of test							
Nest / (marking)												
Test wire [mm ² / AWG}	20AWG	22AWG	24AWG	26AWG	22AWG	24AWG						
Wire type	UL1007	UL1007	UL1007	UL1007	UL1007	UL1007						
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 ¹⁾	[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 ² / 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]						
1 [mm]	0,70	0,77	0,75	0,72								
Crimp width [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]						
1 [mm]	1,50	1,50	1,51	1,48								
Insulation width [mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]						
1 [mm]	1,70	1,56	1,57	1,56								
Tensile test / fail. mode ¹⁾	[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												

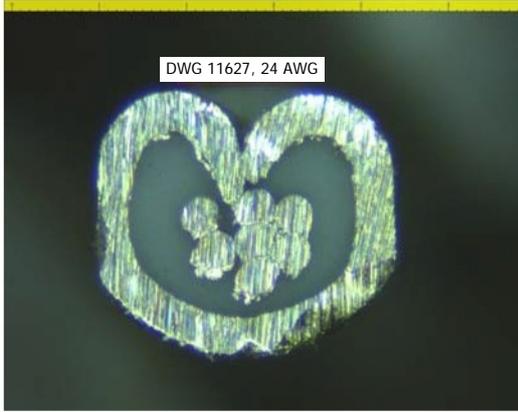
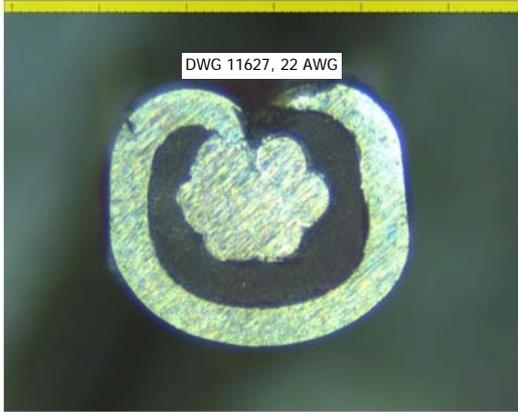
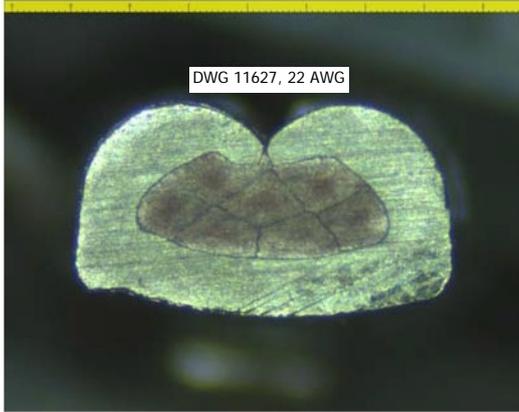
¹⁾ Records from the tensile tests are maximum pull-off value and failure mode. P = wire pull off from contact / terminal; W = wire break; C = connector / terminal break.

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

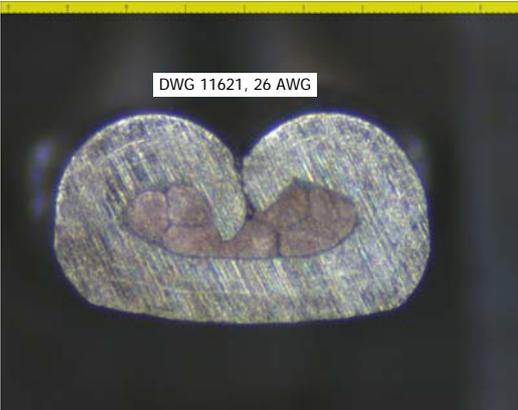
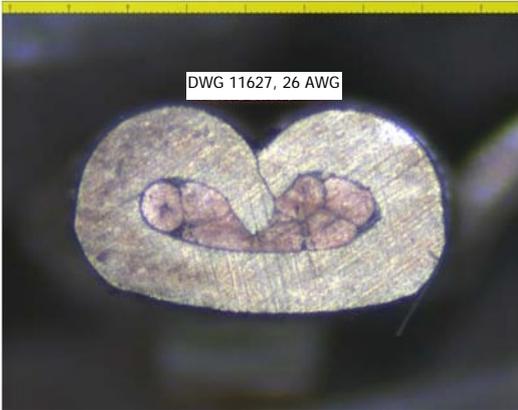
Cross Section Pictures:



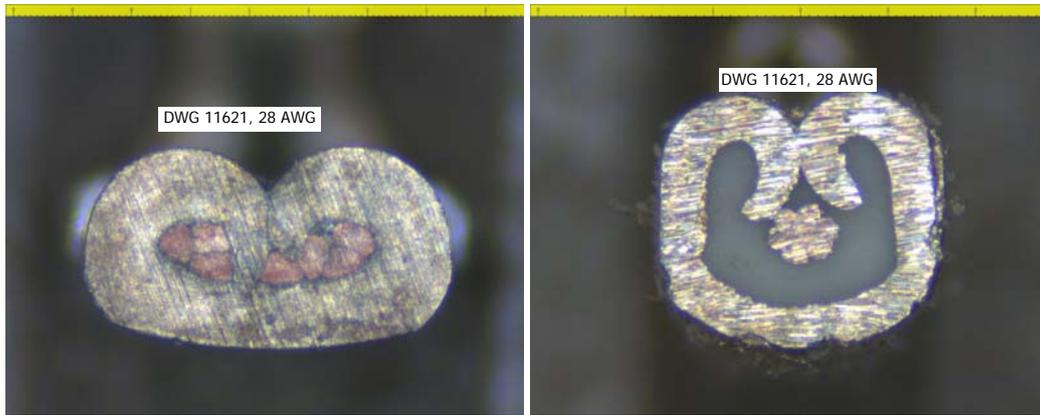
SULLINS CONNECTOR SOLUTIONS
801 East Mission Road
San Marcos, CA 92069
760-744-0125
www.sullinscorp.com



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



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



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.

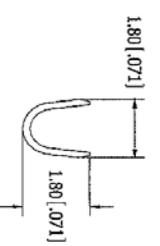
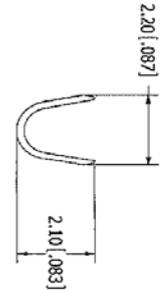
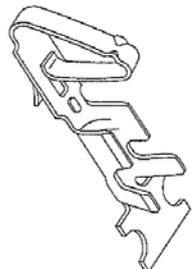
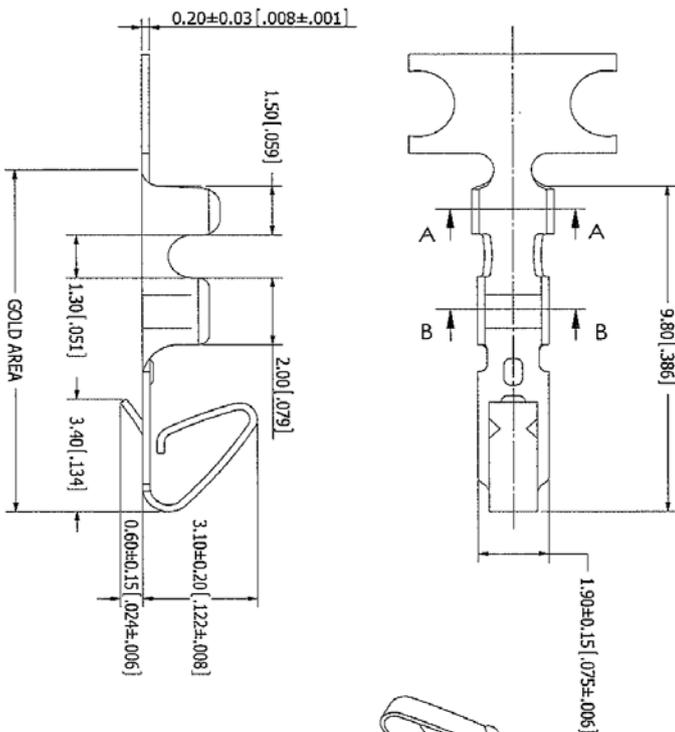
SULLINS CONNECTOR SOLUTIONS
 801 East Mission Road
 San Marcos, CA 92069
 760-744-0125
 www.sullinscorp.com

PART NUMBER CODING
 SWT25X-U__C-S01-UU-UU

MATERIAL & PLATING

RT = BRASS, .000015" MIN NICKEL UNDERPLATE, .000040" MIN PURE TIN, BRIGHT OVERALL (NOTE 7).
 PT = PHOSPHOR BRONZE, .000015" MIN NICKEL UNDERPLATE, .000040" MIN PURE TIN, BRIGHT OVERALL (NOTE 7).
 RP = BRASS, .000040" MIN NICKEL UNDERPLATE, GOLD FLASH OVERALL.

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



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



UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN MILLIMETERS. TOLERANCES: ANGULAR: MPM ± 0.1 (1°) XCP ± 0.3 (10°)	FORMAL DATE NAME
INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5-2009	DATE NAME
SCALE: 1:1	DATE NAME
SHEET: 1 OF 1	DATE NAME
SULLINS CONNECTOR SOLUTIONS	DATE NAME
CRIMP TERMINAL - SWH25X	DATE NAME
PART NUMBER: SWT25X-U__C-S01-UU-UU	DATE NAME
DATE CODE: 11531	DATE NAME
REV: A	DATE NAME

