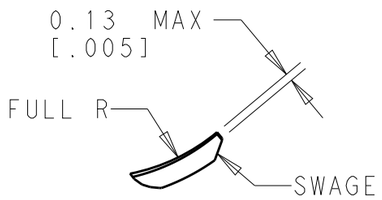
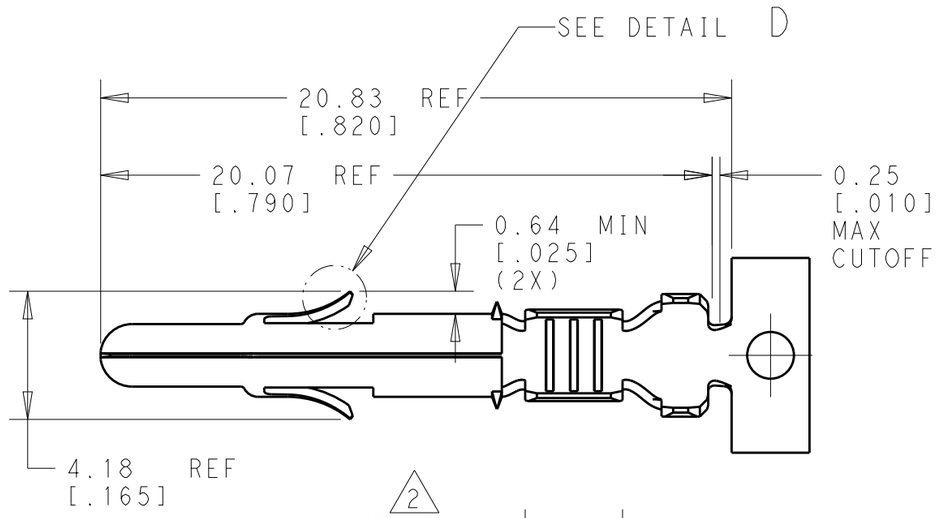
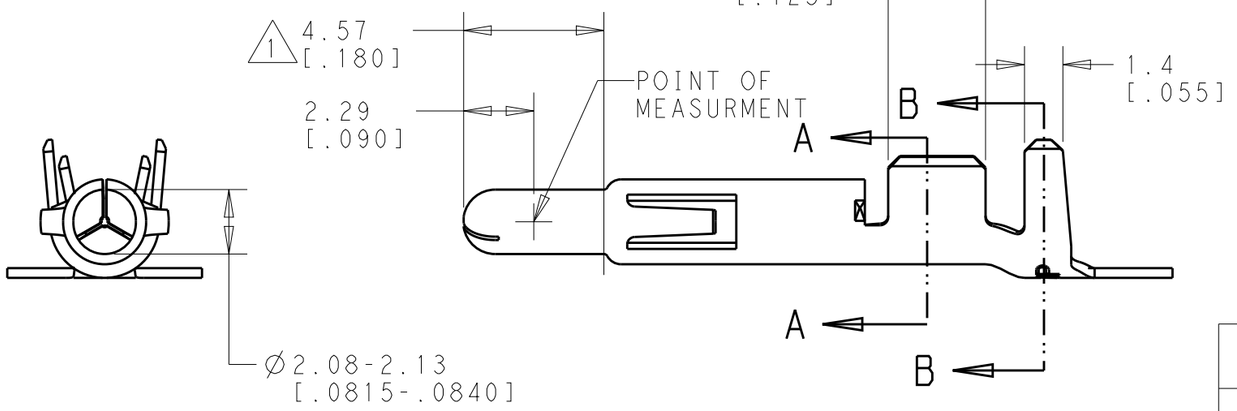
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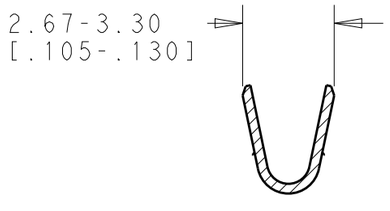
REVISIONS					
P	LTR	DESCRIPTION	DATE	DWN	APVD
	AA	REVISED PER ECO-19-006991	15MAY2019	BKW	SF
	AA1	REVISED PER ECO-19-009144	17JUN2019	BKW	SF
	AA2	REVISED PER ECO-19-011413	24JUL2019	BKW	SF
	AA3	REVISED PER ECO-19-012708	16AUG2019	BKW	SF



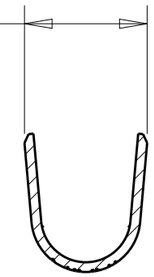
DETAIL D
SCALE 10:1







SECTION A-A



SECTION B-B

1 PLATED WITH 0.00076 [.000030] GOLD, OVER 0.00127 [.000050] NICKEL UNDERPLATE.

2 PLATED INTERNALLY WITH 0.00076 [.000050] GOLD.

3 INSULATION RANGE: 1.52-3.30 [.060-.130] DIAMETER

LOOSE PIECE (REF)	FINISH	MATERIAL	PART NUMBER
350547-7	GOLD 1	0.30 [.012] BRASS	350218-7
350547-6	GOLD 1	0.30 [.012] PH BRZ	350218-6
350547-3	PRE-TIN	0.30 [.012] PH BRZ	350218-3
350547-2	GOLD 1 2	0.30 [.012] BRASS	350218-2
350547-1	PRE-TIN	0.30 [.012] BRASS	350218-1

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勝特力電材超市-光復店 886-3-5729570
胜特力电子(上海) 86-21-34970699
胜特力电子(深圳) 86-755-83298787
http://www.100y.com.tw

INSULATION RANGE: 3

WIRE RANGE: 20-14 AWG

THIS DRAWING IS A CONTROLLED DOCUMENT.

DIMENSIONS: mm [IN]

TOLERANCES UNLESS OTHERWISE SPECIFIED:
0 PLC ±-
1 PLC ±-
2 PLC ±-
3 PLC ±0.38 [.015]
4 PLC ±-
ANGLES ±-

MATERIAL - -

FINISH - -

DWN B. WEAVER 19SEP2018
CHK S. FERNANDES 19SEP2018
APVD S. FERNANDES 19SEP2018
PRODUCT SPEC 108-1031
APPLICATION SPEC 114-1010
WEIGHT -

TE Connectivity

NAME PIN, UNIVERSAL MATE-N-LOK -

SIZE A3 | CAGE CODE 00779 | DRAWING NO C-350218 | RESTRICTED TO -

CUSTOMER DRAWING | SCALE 5:1 | SHEET 1 OF 1 | REV AA3

Universal MATE-N-LOK* Connector

1. INTRODUCTION

1.1. Purpose

Testing was performed on Universal MATE-N-LOK* connectors to determine their conformance to the requirements of Product Specification 108-1031 Revision J.

1.2. Scope

This report covers the electrical, mechanical, and environmental performance of Universal MATE-N-LOK* connectors. Testing was performed at the Environmental Testing Department of the Automatic Machine Group between 15Sep76 and 12Jan77. The test file number for this testing is ELR 472-1. Additional testing was performed at the Engineering Assurance Product Testing Laboratory between 29May 07 and 04Jun07. The test file number for this testing is CTLB084620-003. This documentation is on file at and available from the Engineering Assurance Product Testing Laboratory.

1.3. Conclusion

The Universal MATE-N-LOK connectors listed in paragraph 1.5, conformed to the electrical, mechanical, and environmental performance requirements of Product Specification 108-1031 Revision J.

1.4. Product Description

This connector system is available in 1, 2, 3, 4, 5, 6, 9, 12 and 15 circuit configurations. Both plug and cap have positive locking housings to prevent accidental disengagement when used in panel mounted applications or as free-hanging connectors. They are molder from 6/6 Nylon 94V2. Contacts are furnished in continuous strip for automatic machine termination and in loose-piece for hand tool crimping. They are made from pre-tin brass and include sockets, solid pins and split pins.

1.5. Test Specimens

Test specimens were representative of normal production lots. Specimens identified with the following part numbers were used for test:

Part Number	Description
350867	1circuit plug housing
350868	1 circuit cap housing
1-480698-0	2 circuit plug housing
1-480699-0	2 circuit cap housing
1-480700-0	3 circuit plug housing
1-480701-0	3 circuit cap housing
1-480702-0	4 circuit plug housing
1-480703-0	4 circuit cap housing
1-480704-0	6 circuit plug housing
1-480705-0	6 circuit cap housing
1-480706-0	9 circuit plug housing
1-480707-0	9 circuit cap housing
1-480708-0	12 circuit plug housing

Part Number	Description
1-480709-0	12 circuit cap housing
1-480710-0	15 circuit plug housing
1-480711-0	15 circuit cap housing
350218-1	Solid pin
350536-1	Socket
350537-1	Socket
350538-1	Solid pin
350561-1	Solid pin
350570-1	Socket
350687-1	Split pin
350699-1	Split pin
195444-3	Switched probe yoke subassembly

Figure 1

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| Indicates Change

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1.6. Environmental Conditions

Unless otherwise stated, the following environmental conditions prevailed during testing:

Temperature: 15 to 35°C
Relative Humidity: 25 to 75%

1.7. Qualification Test Sequence

Test or Examination	Test Group (a)						
	1	2	3	4	5	6	7
	Test Sequence (b)						
Examination of product	1						
Termination resistance, specified current			2				
Termination resistance, dry circuit		4,6,10,12		1,3,5,7			
Dielectric withstanding voltage		2,9,14					
Insulation resistance		3,13					
Temperature rise vs current			1				
Vibration				2			
Physical shock				4			
Mating force		1					
Unmating force		7					
Contact insertion force						1	
Contact retention force						2	
Crimp tensile					1		
Durability		5					
Housing panel retention							1
Housing lock strength		15					
Thermal shock		8					
Humidity/temperature cycling		11					
Salt spray corrosion				6			

NOTE

(a) Each test group shall consist of a minimum of 5 specimens.

(b) Numbers indicate sequence in which tests are performed.

Figure 2

2. SUMMARY OF TESTING

2.1. Examination of Product - All Test Groups

2.2. Specimens were visually examined and no evidence of physical damage detrimental to product performance was observed.

2.3. Termination Resistance, Specified Current - Test Group 3

All termination resistance measurements taken at a specified current of 4.5 amperes for 20 AWG wire and 10 amperes for 14 AWG wire were less than 3 milliohms initially.

2.4. Termination Resistance, Dry Circuit - Test Groups 2 and 4

All termination resistance measurements taken at 100 milliamperes maximum and 50 millivolts maximum open circuit voltage were less than 3.5 milliohms initially.

2.5. Dielectric Withstanding Voltage - Test Group 2 No dielectric breakdown or flashover occurred.

2.6. Insulation Resistance - Test Group 2

All insulation resistance measurements were greater than 1000 megohms initially and 100 megohms after testing.

2.7. Temperature Rise Vs Current - Test Group 3

All specimens had a temperature rise of less than 30°C above ambient when tested using a baseline rated current of 6 amperes for 20 AWG wire in a 12 position housing, 11 amperes for 14 AWG wire in a 12 position housing, 7 amperes for 20 AWG wire in 4 a position housing and 15 amperes for 14 AWG wire in a 4 position housing.

2.8. Vibration - Test Group 4

No discontinuities were detected during vibration testing. Following vibration testing, no cracks, breaks, or loose parts on the specimens were visible.

2.9. Physical Shock - Test Group 4

No discontinuities were detected during physical shock testing. Following physical shock testing, no cracks, breaks, or loose parts on the specimens were visible.

2.10. Mating Force - Test Group 2

All mating force measurements were less than 22.2 N [5 lbf] average per contact for solid pins when fully mated (based on a sample size of 30 mated, loaded housings) and 6.67 N [1.5 lbf] maximum per contact for split pins.

2.11. Unmating Force - Test Group 2

All unmating force measurements were greater than 3.11 N [0.7 lbf] per contact for solid pins and 2.22 N [0.5 lbf] per contact for split pins.