Distributed by:

JAMECO® ELECTRONICS

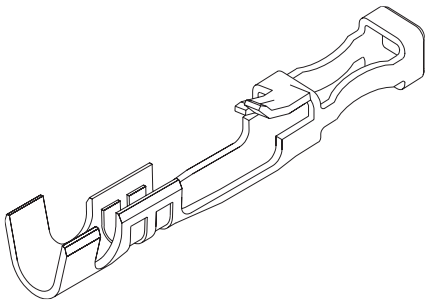
www.Jameco.com ✦ 1-800-831-4242

The content and copyrights of the attached material are the property of its owner.

Jameco Part Number 1443268

2.54mm (.100") Pitch SL™ Terminal

71851
Female, High Force Crimp



Features and Benefits
- Dual beam, fully-enclosed box contact
- Higher mating force than standard crimp terminal
- For use with low current/high vibration applications in small circuit sizes
- Dual tab strain relief
- Locking tang secures terminal in housing

Reference Information
Product Specification: PS-71851
Packaging: Reel or bag
Mates With: 70021 male crimp terminals, 70431 and 70475 male connector assemblies and 0.64mm (.025") square pins
Use With: 70066 and 70450 housings
Designed In: Inches

Electrical
Voltage: 250V
Current: 3.0A
Contact Resistance: 15 milliohms max.
Insulation Resistance: 10,000 Megohms min.

Mechanical
Contact Retention to Housing: 17.79N (4.0 lb) min.
Wire Pull-Out Force: 17.79N (4.0 lb) min.
Mating Force: Tin—12.14N (2.73 lb) max.
Gold—5.07N (1.14 lb)
Unmating Force: Tin—3.60N (.81 lb) min.
Gold—2.36N (.53 lb)
Durability: Tin—25 cycles; Gold—50 cycles

Physical
Contact: Copper Alloy
Plating: See Table
Operating Temperature: -40 to +105˚C
Wire Gauge: 22 to 24 and 24 to 30 AWG

Not For Use With C-Grid III™ Components

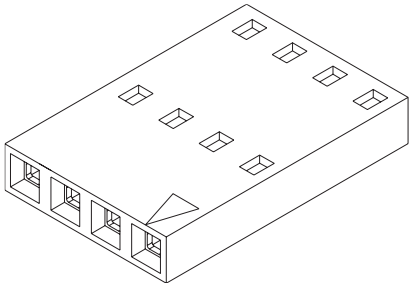
Reel				
Order No.	Plating	Wire Range (AWG) Stranded	Insulation Maximum Outside Diameter	Lead-free
16-02-1111	1	22-24	1.63 (.064)	Yes
16-02-1113		24-30	1.52 (.060)	
16-02-1124	2	22-24	1.63 (.064)	
16-02-0119		24-30	1.52 (.060)	
16-02-1110	3	22-24	1.63 (.064)	
16-02-1112		24-30	1.52 (.060)	

Bag				
Order No.	Plating	Wire Range (AWG) Stranded	Insulation Maximum Outside Diameter	Lead-free
16-02-1115	1	22-24	1.63 (.064)	Yes
16-02-1117		24-30	1.52 (.060)	
16-02-1125	2	22-24	1.63 (.064)	
16-02-1109		24-30	1.52 (.060)	
16-02-1114	3	22-24	1.63 (.064)	
16-02-1116		24-30	1.52 (.060)	

Plating No. 1: 30µ" min. Gold in select area over 50µ" min. Nickel overall with 75µ" Tin
Plating No. 2: 15µ" min. Gold in select area over 50µ" min. Nickel overall with 75µ" min. Tin in select area
Plating No. 3: 150µ" Tin over 50µ" Nickel overall
Each reel contains 20,000 terminals

2.54mm (.100") Pitch SL™ Crimp Housing

70066
Single Row
Version A, Nonpolarized



Features and Benefits
- Sizes 2 to 25 circuits
- End-to-end and side-to-side stackable for single or dual row connections to a 2.54mm (.100") pitch grid pin field

Reference Information
Product Specification: PS-70400
Packaging: Bag
UL File No.: E29179
CSA File No.: LR19980
Mates With: 2.54mm (.100") pitch, single or dual row headers (C-Grid®, SL, KK®)
Use With: 70058 and 71851 crimp terminals
Designed In: Inches

Physical
Housing: Black polyester, UL 94V-0
Operating Temperature: -40 to +105˚C

Delivered on a carrier with 20 pieces per strip.

Actual Size  **Universal Polarizing Pin 40713-1**
Order No. 15-04-0292

Not For Use With C-Grid III™ Components

Circuits	Order No.	Circuits	Order No.	Circuits	Order No.
2	50-57-9002	10	50-57-9010	18	50-57-9018
3	50-57-9003	11	50-57-9011	19	50-57-9019
4	50-57-9004	12	50-57-9012	20	50-57-9020
5	50-57-9005	13	50-57-9013	21	50-57-9021
6	50-57-9006	14	50-57-9014	22	50-57-9022
7	50-57-9007	15	50-57-9015	23	50-57-9023
8	50-57-9008	16	50-57-9016	24	50-57-9024
9	50-57-9009	17	50-57-9017	25	50-57-9025

1.0 **SCOPE**:

This specification covers the high force female crimp contact 71851-****. It is used in both the single row connector housing 70066-****, and the dual row housing 70450-****. Both versions are fully stackable.

2.0 **PRODUCT DESCRIPTION**:

2.1 Product is available in single row 2-25 circuits, on (2.54)/.100" centers, or dual row 4-54 circuits on (2.54 x 2.54)/.100" x .100" centers.

2.2 Connector assembly will mate with the following:

2.2.1 (0.64)/.025" square or round pins assembled directly into p.c. board on (2.54)/.100" centers.

2.2.2 Shrouded or unshrouded single or dual row wafers, with (0.64)/.025" square or round pins on (2.54)/.100" centers.

2.3 Connectors are stackable end to end, side to side on (2.54)/.100" centers with OPTION "A" housing only.

2.3.1 Polarizing ribs available on front of housing for use with shrouded headers, or on back for use with interim clip assemblies.

2.3.2 Active latch with polarizing ribs, for use with pocket headers, housing 70066-**** only.

2.4 Maximum mating pin height to be (8.13)/.320", minimum pin height to be (5.08)/.200". Pin height measured from top of header to top of pin.

2.5 Connector assembly to accept a wire range from 30 to 24 AWG with a max. insulation dia. of (1.52)/.060". Also 22-24 AWG with a max. insulation dia. of (1.63)/.064". Wires may be stranded, stranded tin, or stranded top coated.

3.0 RECOGNIZED AGENCY APPROVALS:

3.1 Underwriters Laboratories: #E29179.

3.2 Canadian Standards Associations: CSA # LR19980

4.0 MECHANICAL SPECIFICATIONS:

4.1 Materials

4.1.1 Housings #70066-**** and # 70450-**** are molded of G.F. polyester 94V-0, color black.

4.1.2 Terminal 71851-**** is a high strength copper alloy.

4.1.2.1 Finish .000200" min. electro-tin over .000100" min. copper plate overall.

4.1.2.2 Finish .000015" min. gold plate select, .000075" min. tin select, over .000050" min. nickel plate overall.

4.1.2.3 Finish .000030" min. gold plate select, .000075" min. tin plate select, over .000050" min. nickel plate overall.

4.1.2.4 For special finish requirements, consult Molex Marketing as to availability, cost, and lead time.

4.2 Terminal pull-out force from housing:
Must withstand a gradual applied force 4.0 pounds for 15 seconds.

4.3 Insulating Materials:
Temperature rating: -40°C to +125 °C

4.4 Insertion / Withdrawal Forces:

4.4.1 Steel Gage Pins:
Insertion Gage Pin: .0260" + .0000" - .0001"
Withdrawal Gage Pin: .0240" + .0001" - .0000"

4.4.1.1 Contact System, .000200" min. tin over .000100" min. copper.

4.4.1.1.1 Average Insertion Force per contact:
After 1 cycle = 1.44 lbs.
After 10 cycles = 1.12 lbs.
After 25 cycles = 1.20 lbs.

4.4.1.1.2 Average Withdrawal Force per cont act:
After 1 cycle = .63 lbs.
After 10 cycles = .57 lbs.
After 25 cycles = .55 lbs.

4.4.1.2 Contact System .000015" min. gold over .000050" min. nickel.

4.4.1.2.1 Average Insertion Force per contact:
After 1 cycle = .92 lbs.
After 10 cycles = .87 lbs.
After 50 cycles = .88 lbs.

4.4.1.2.2 Average Withdrawal Force per contact:
After 1 cycle = .55 lbs.
After 10 cycles = .45 lbs.
After 50 cycles = .60 lbs.

THIS DOCUMENT CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INC. AND MUST NOT BE USED WITHOUT WRITTEN PERMISSION

5.0 ELECTRICAL SPECIFICATIONS:

5.1 Insulation Resistance:
Per Mil Std. 202, Method 302, Condition B.
Greater than 10K megohoms.

5.2 Dielectric Strength:
AC voltage increased until breakdown.
Greater than 600 volts AC R.M.S. for 1 minute at sea level to 5,000 feet.

5.3 Capacitance:
Less than 1.2 pico-farads.

6.0 ENVIRONMENTAL SPECIFICATIONS:

6.1 Mated Environment:

6.1.1 Thermal Shock: Per IEC 68-2-14
-40 °C to +105 °C, 30 minute dwell at each temperature is one cycle.
Repeated for 10 cycles.

6.1.2 Thermal Aging: Per Mil. Std. 202F, 108A
+105 °C for 10 days.

6.1.3 Cyclic Humidity: Per Mil. Std. 202F, 106D
Temperature cycles from +25 °C to +65 °C, at 96% R.H. for 240 hours.

6.1.4 Flowers of Sulphur:
Exposed to sulphur vapors for 24 hours at +65 °C.

6.1.5 Contact Resistance not to increase more than 15 milliohms, or exceed 30 milliohms overall.

THIS DOCUMENT CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INC. AND MUST NOT BE USED WITHOUT WRITTEN PERMISSION

6.1.6 Mechanical Shock: Per Mil-Std.-202F Method 213B Condition A. Peak value of 50 G's. Three shocks in each direction were applied along three mutually perpendicular axes. Minimum of 18 shocks.

6.1.7 Vibration: Per Mil-Std-202F Method 201A
10-55-10 Hz., one minute cycles for 2 hours in each axis..03 inch excursion, 10 G's.

6.1.8 Contact Resistance measurements made using a 4-Point Dry Circuit Method. Test current was 5 milliamps and the open circuit voltage did not exceed 20 millivolts.

6.1.9 Contact discontinuity was also monitored in 6.1.6 and 6.1.7. A discontinuity is defined as being greater in duration than 1.0 microsecond, using 0.8 volts open circuit and 4 milliamps current.

THIS DOCUMENT CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INC. AND MUST NOT BE USED WITHOUT WRITTEN PERMISSION

REVISE ON PC ONLY		TITLE:
D	LEAD FREE CONVERSION UCP2004-2180 RWHITE 2004/04/30	PRODUCT SPECIFICATION "SL" CRIMP HIGH FORCE CONNECTOR PS-71851
REV.	DESCRIPTION	

THIS DOCUMENT CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INC. AND MUST NOT BE USED WITHOUT WRITTEN PERMISSION

TABLE OF CONTENTS

1.**0** ***SCOPE***

This specification is intended to define the mechanical, electrical and environmental requirements for the SL .100" (2.54) pitch modular, single row wire-to-board and wire-to-wire system.

SL is designed for high density signal applications. The system includes: low profile latching vertical and right angle headers; low profile housings for male and female crimp terminals; pre-assembled, single piece pin and receptacle connectors for Insulation Displacement Technology (IDT); panel mounts for modular wire-to-wire remote interconnections; and SL offers design flexibility and automated harness-making capabilities when combined with our tooling.

2.0 ***PRODUCT DESCRIPTION:***

2.1 The following Series are covered by this product specification:

70021, male, crimp terminal
70058, female box, crimp terminal
71851, female box, high force crimp terminal
70066 & 70107, single row, crimp housing
70450 & 74130, dual row, crimp housing
70400, female, single row, insulation displacement, connector assembly
70475 & 71178 ,male, single row, insulation displacement, connector assembly
70543, single row, .120" pocket, wire-to-board, shrouded header, vertical
70541, single row,.120" pocket, wire-to-board, shrouded header, vertical, split peg
70545, single row,.120" pocket, wire-to-board, shrouded header, vertical, tri-peg
70553, single row,.120" pocket, wire-to-board, shrouded header, right angle
70555, single row,.120" pocket, wire-to-board, shrouded header, right angle, tri-peg
70563, single row, .180" pocket, wire-to-board, shrouded header, vertical
70565, single row,.180" pocket, wire-to-board, shrouded header, vertical, tri-peg
70573, single row,.180" pocket, wire-to-board, shrouded header, right angle
70575, single row,.180" pocket, wire-to-board, shrouded header, right angle, tri-peg

THIS DOCUMENT CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INC. AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION

2.2 DIMENSIONS, MATERIALS AND SPECIFICATIONS:

2.2.1 Mating Pin Height

2.2.1.1 Maximum mating pin height: .320" (8.13 mm)
2.2.1.2 Minimum mating pin height: .200" (5.08 mm)

2.2.2 Centerline spacing (pitch): .100" (2.54 mm)

2.2.3 Wire Sizes: #22 - #28 AWG stranded wire, with an insulation diameter of .053" (1.35 mm) max.

2.2.4 Molex cable: 7307, 7767, 8996, 8997, 24226, 24241, 24369 and 24389.

2.2.5 Termination Method:

2.2.5.1 Crimp (70021, 70058)
2.2.5.2 IDT (70400, 70475)

2.2.6 Housings: (70066, 70450, 70107, 74130): Black Glass Filled Polyester, UL 94V-0

2.2.7 Terminals: (70021, 70058): Phosphor Bronze

2.2.7 Plating: Gold and Tin

2.2.7.1 Gold: 30 µ-in. min. Gold in select area over Nickel overall with 75 µ-in. Tin in select area over Nickel overall
or
Gold: 15 µ-in. min. Gold in select area over Nickel overall with 75 µ-in. Tin in select area over Nickel overall
2.2.7.2 Tin: 150 µ-in. min. Tin over Nickel overall.

See the appropriate Sales Drawing(s) for additional information on dimensions, materials, platings, and markings.

THIS DOCUMENT CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INC. AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION

2.3 SAFETY AGENCY APPROVALS:

UL File Number E29179
CSA File Number LR19980

3.0 APPLICABLE DOCUMENTS AND SPECIFICATIONS:

All documents referenced shall be of the latest revision. The order of precedence shall be as follows.
- Product Drawings
- This product specification
- Reference documents

3.1 REFERENCE DOCUMENTS:

- EIA 364 Electronic Industries Association, Recommended Standard
- MIL-STD-202: Test methods for electronics and electrical component parts.
- UL-94: Tests for flammability of plastic material

4.0 RATINGS:

4.1 VOLTAGE:

250 V

4.2 CURRENT:

1.2 A - 28 AWG
1.8 A - 26 AWG
3.0 A - 24 AWG
3.0 A - 22 AWG

4.2 TEMPERATURE:

Operating: -40 °C to +105 °C
Processing: See chart on next page.

THIS DOCUMENT CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INC. AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION

5.0 PERFORMANCE:

5.1 ELECTRICAL PERFORMANCE:

Item	Test Condition	Requirement
Contact Resistance (Low Level)	Mate Connectors with a maximum voltage of 20mV and a current of 100 mA.	**30** milliohm Maximum Initial
Insulation Resistance	Mate Connectors with a voltage of **500** VDC between adjacent terminals and between terminals and ground.	**1000** Megohms Minimum
Dielectric Withstanding Voltage	Mate Connectors with a voltage of 1500 VAC for 1 min. between adjacent terminals and between terminals and ground.	No breakdown
Capacitance	Measure between adjacent terminals at **1** MHz. (Loaded: 50 ohms impedance)	Loaded: **2** picofarad max. Unloaded: 0.5 picofarad max.

5.2 MECHANICAL PERFORMANCE:

Item	Test Condition	Requirement
Terminal Insertion and Withdrawal Forces	Insert and withdraw a terminal (male to female) at a rate of 25 ± 6mm (1 ± 1/4 inch) per minute.	70058 - Insertion force shall be 4.45 N (1.0 lb) max. and withdrawal 0.56 N (0.125 lb) min. 71851 - Insertion force shall be 13.34 N (3.0 lb) max. and withdrawal 1.67 N (0.375 lb) min
Terminal Retention Force (in Housing)	Axial pullout force on the terminal in the housing at a rate of 25 ± 6mm (1 ± 1/4 inch) per minute.	Contact : 17.79 N (4.0 lbs.) min.
Durability	Mate connectors up to 25 cycles for tin plating and 50 cycles for gold plating at a maximum rate of 10 cycles per minute prior to defined Environmental Tests.	Contact Resistance : 10 milliohms Maximum Change from Initial

THIS DOCUMENT CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INC. AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION

Item	Test Condition	Requirement
Vibration Mil-Std-1344 Method 2005.1 Condition I	Amplitude: 1.50mm (.060 inch) peak to peak Sweep: 10-55-10 Hz in one minute Duration: 2 hours in each X-Y-Z axis. (Test module shall be per Section 7.0)	Contact Resistance: 10 milliohms Maximum Change from Initial Discontinuity: not greater than one microsecond
Mechanical Shock Mil-Std-1344 Method 2004.1 Condition A	50 g's with three 1/2 sine wave form shocks in each X-Y-Z axis. (Test module shall be per Section 8.2)	Contact Resistance: 10 milliohms Maximum Change from Initial Discontinuity: not greater than one microsecond
Wire Pullout Force (Axial)	Apply an axial pullout force on the wire at a rate of 25 ± 6mm (1 ± 1/4 inch) per minute.	Pullout force - 75% tensile strength of wire, minimum.
Wire Pullout Force (Right Angle)	Apply a right angle pullout force on the wire at a rate of 25 ± 6mm (1 ± 1/4 inch) per minute.	Pullout force - 75% tensile strength of wire, minimum. 20 Newton's and below - no plastic deformation / no electrical discontinuity Above 20 and below 60 Newton's - slight non-functional plastic deformation / no electrical discontinuity.
Terminal Insertion Force (into Housing)	Apply an axial insertion force on the terminal at a rate of 25 ± 6mm (1 ± 1/4 inch) per minute.	13.34 N (3.0 lbs) maximum insertion force.
Wire Flex	Flex cable 180° for 500 cycles.	Contact resistance: 10 milliohms Maximum Change from Initial. Appearance: No Damage
Normal Force	Apply a perpendicular force at a rate of 25 ± 6mm (1 ± 1/4 inch) per minute on the contacts in a manner simulating actual use.	0.49 N (50 grams) minimum end of life, for gold plating 0.98 N (100 grams) minimum end of life, for tin plating.
Connector Retention	Apply a perpendicular force of 45 N to the wire harness using a free hanging weight.	No deformation or Terminal separation

THIS DOCUMENT CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INC. AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION

5.3 ENVIRONMENTAL PERFORMANCE

Item	Test Condition	Requirement
Thermal Shock Mil-Std-202F Method 107 E	Mate connectors exposed to 10 cycles of: Temperature °C — Duration (Min) -40 +0/-3 — 30 +25 +/-10 — 5 Max +105 +3/-0 — 30 +25 +/-10 — 5 Max -40 +0/-3 — 30	Appearance: No Damage Contact Resistance: 10 milliohms maximum change from initial
Thermal Aging Mil-Std-202F Method 108	Mate connectors; expose to 240 hours at 105 ± 3° C	Appearance: No Damage Contact Resistance: 10 milliohms maximum change from initial
Humidity (Steady State) Mil-Std-202F Method 103	Mate connectors; expose to a temperature of : 85 ± 2°C with a Relative Humidity of 92 ± 3% for 96 hours. Note: Remove surface moisture and air dry for 1 hour prior to measurements.	Appearance: No Damage Contact Resistance: 10 milliohms maximum change from initial. Dielectric Withstanding Voltage: No Breakdown Insulation Resistance: 1000 Megohms Minimum

THIS DOCUMENT CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INC. AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION

Item	Test Condition	Requirement
Humidity (Cyclic) Mil-Std-202 Method 105	Mate connectors; expose for 10 cycles at 90-98% relative humidity with a transition time of 2.5 hours between extremes: Temperature °C — Duration (Min) +25 ± 10 — 5 maximum +65 +3/-0 — 15 maximum Note: Remove surface moisture and air dry for one hour prior to measurements.	Appearance: No Damage Contact Resistance: 10 milliohms maximum change from initial. Dielectric Withstanding Voltage: No Breakdown Insulation Resistance: 1000 Megohms Minimum
Temperature Rise and Current Cycling	Temperature Rise: Mate the connectors; and measure the temperature rise at the rated current after 96 hours. Current Cycling: Mate connectors; measure the temperature rise at the rated current after 500 hours (45 minutes ON and 15 minutes OFF per hour).	Temperature Rise: 30°C above ambient maximum Temperature Rise: 30°C above ambient maximum
Solderability Molex SMES-152	Steam age 1 hr. Solder time 5 ± 0.5 seconds. Solder temperature: 245 ± 5°C Non activated flux.	95% of the immersed area must show no voids, pin holes
Flowing Mixed Gas (FMG)	Battelle Class II, 10 ppm Cl_2, 10 ppm H_2S, 100 ppm NO_2, 70 ± 1% R.H., 25 deg. C. 50-60 CFM. 10 days mated and 7 days unmated exposure.	Contact Resistance: 10 milliohms Maximum change from Initial
Resistance to Solder Heats	Solder Time 3 ± 0.5 seconds Solder Temperature: 260 ± 5°C Immerse leads to a depth of 1.57mm (.062 in.) from connector body.	Appearance: No damage or discoloration of connector materials.

6.0 PACKAGING:

Parts are packaged in trays, tubes or bulk packed, refer to appropriate Sales Drawing for specific information.

THIS DOCUMENT CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INC. AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION

7.0 QUALITY ASSURANCE PROVISIONS:

7.1 MATERIAL INSPECTION:

Shall consist of certification supported by verifying data.

7.2 ACCEPTANCE INSPECTION:

Acceptance of ongoing production product shall be determined by inspection according to Molex approved quality plans and required PPM levels for critical characteristics.

7.3 CONFORMANCE TESTING:

Shall be performed on production quality manufactured products. Sample size shall be per 8.1.

7.4 Gages:

Terminal insertion/withdrawal testing should be performed with the gage pin detailed below.

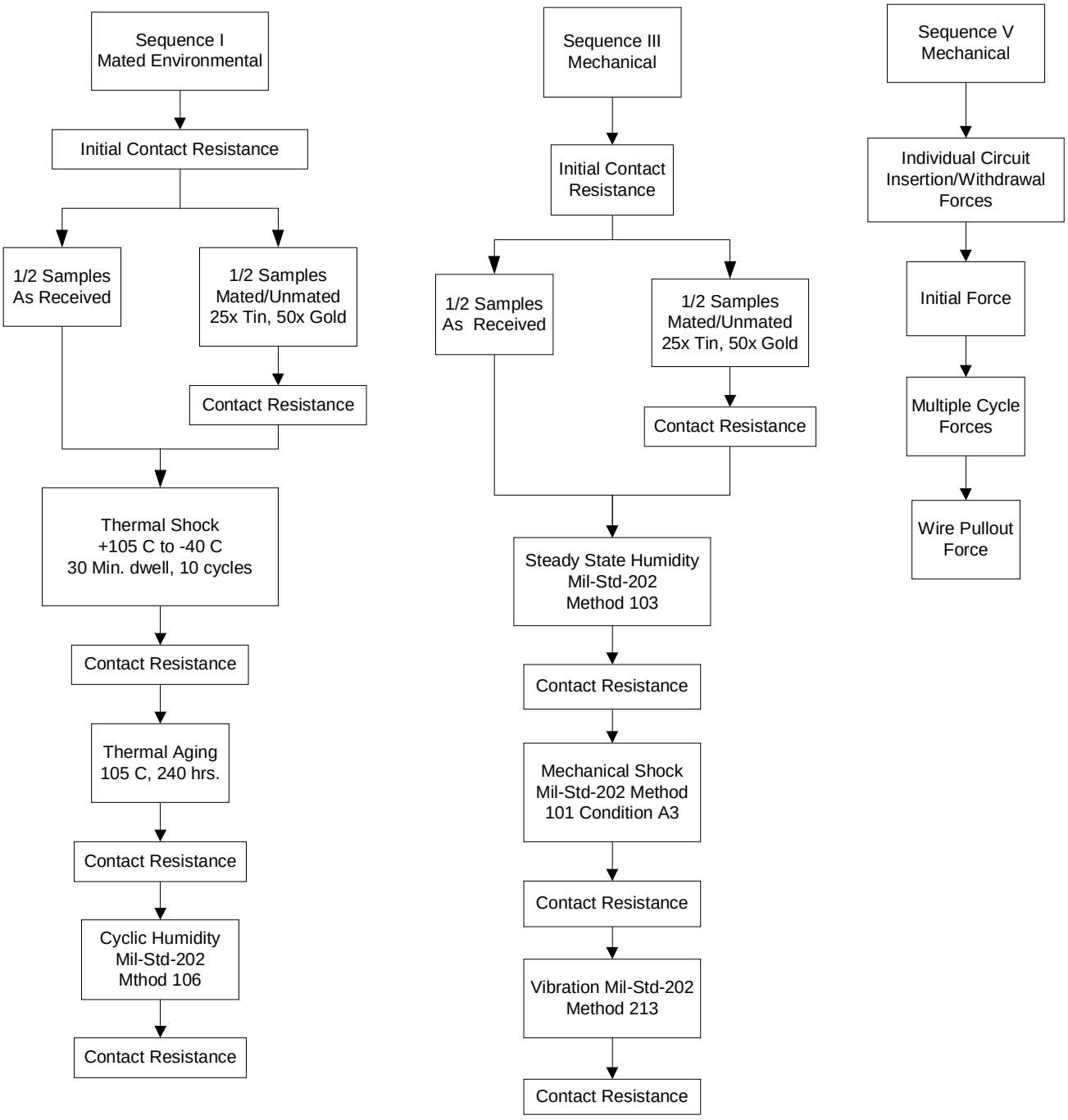
8.0 QUALIFICATION REQUIREMENTS:

8.1 QUALIFICATION TESTING:

1. Samples for testing shall be representative of normal production lots.

2. Sample groups shall consist of a minimum (5) mated pairs of headers and receptacles. 30 minimum data points per group shall be measured. Measurements shall be taken from the middle and ends of the connectors as a minimum.

THIS DOCUMENT CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INC. AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION



REVISE ON PC ONLY		TITLE	**PRODUCT SPECIFICATION SINGLE ROW – STACKABLE LINEAR (SL) CONNECTOR SYSTEM**
J	ADD CONNECTOR RETENTION CALLOUT UCP2005- MIBARRA 05/05/02		
REV	DESCRIPTION		

THIS DOCUMENT CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INC. AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION

9.0 TEST SUMMARY:

9.1 SEQUENCE I - MATED ENVIRONMENTAL:

TEST CONDITION	TREATMENT	REQUIREMENT	UNITS	MEAN	MINIMUM	MAXIMUM
Contact Resistance	Initial	30 max.	milliohms	14.47	13.77	15.08
	After Durability	10 max. Change from initial	Δ-milliohms	.09	-0.82	1.40
	After Shock (Thermal)	10 max. Change from initial	Δ-milliohms	.02	-1.15	1.32
	After Thermal Aging	10 max. Change from initial	Δ-milliohms	.00	-1.06	1.18
	After Humidity (Cyclic)	10 max. Change from initial	Δ-milliohms	.25	-1.00	1.78

9.2 SEQUENCE III - MECHANICAL:

TEST CONDITION	TREATMENT	REQUIREMENT	UNITS	MEAN	MINIMUM	MAXIMUM
Contact Resistance	Initial	30 max.	milliohms	8.6	8.0	9.4
	After Humidity (Steady State)	10 max. Change from initial	Δ-milliohms	8.6	8.0	9.6
	After Shock (Mechanical)	10 max. Change from initial	Δ-milliohms	8.7	8.1	9.9
	After Vibration	10 max. Change from initial	Δ-milliohms	8.7	8.1	9.4

THIS DOCUMENT CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INC. AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION

9.3 ENVIRONMENTAL PERFORMANCE:

TEST CONDITION	TREATMENT	REQUIREMENT	UNITS	MAXIMUM
Temperature Rise and Current Cycling (+30°C)	22 AWG	**** Minimum	Amps	3
	24 AWG	**** Minimum	Amps	3
	26 AWG	**** Minimum	Amps	1.8
	28 AWG	**** Minimum	Amps	1.2
	30 AWG	**** Minimum	Amps	0.70
	32 AWG	**** Minimum	Amps	0.45
	34 AWG	**** Minimum	Amps	0.32
	36 AWG	**** Minimum	Amps	0.21

9.4 SEQUENCE V - MECHANICAL:

70058 - MATING FORCE SEQUENCE 5.3						
TEST CONDITION	TREATMENT	PLATING	UNITS	MEAN	MINIMUM	MAXIMUM
Insertion Force	Initial	Tin	LB/(N)	0.73/(3.24)	0.62/(2.74)	0.82/(3.63)
		Gold	LB/(N)	0.39/(1.75)	0.28/(1.25)	0.59/(2.62)
	After 25 Cycles	Tin	LB/(N)	0.75/(3.32)	0.64/(2.83)	0.89/(3.94)
	After 50 Cycles	Gold	LB/(N)	0.44/(1.96)	0.27/(1.19)	0.55/(2.44)
Withdrawal Force	Initial	Tin	LB/(N)	0.97/4.31)	0.79/(3.52)	1.05/(4.65)
		Gold	LB/(N)	0.29/(1.28)	0.20/(0.89)	0.44/(1.97)
	After 25 Cycles	Tin	LB/(N)	0.77/(3.43)	0.68/(3.04)	0.90/(4.02)
	After 50 Cycles	Gold	LB/(N)	0.38/(1.69)	0.29/(1.29)	0.56/(2.50)

71851 - MATING FORCE SEQUENCE 5.3						
TEST CONDITION	TREATMENT	PLATING	UNITS	MEAN	MINIMUM	MAXIMUM
Insertion Force	Initial	Tin	LB/N	2.39/10.62	2.24/9.96	2.53/11.25
		Gold	LB/N	0.99/4.39	0.91/4.05	1.05/4.67
	After 25 Cycles	Tin	LB/N	2.18/9.71	1.60/7.12	2.82/12.54
	After 50 Cycles	Gold	LB/N	1.01/4.48	0.86/3.83	1.17/5.20
Withdrawal Force	Initial	Tin	LB/N	2.68/11.92	2.28/10.14	3.18/14.15
		Gold	LB/N	0.69/3.07	0.62/2.76	0.77/3.43
	After 25 Cycles	Tin	LB/N	2.70/12.02	1.79/7.96	4.23/18.82
	After 50 Cycles	Gold	LB/N	1.07/4.76	0.84/3.74	1.25/5.56

THIS DOCUMENT CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INC. AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION

TEST CONDITION	TREATMENT	PLATING	UNITS	MEAN	MINIMUM	MAXIMUM
Wire Pullout Force (Axial)	22 AWG with strain relief	**** Minimum	N/LB	65.3/14.67	56.2/12.63	72.4/16.28
	22 AWG w/o strain relief	**** Minimum	N/LB	48.0/10.78	39.2/8.81	54.5/12.24
	24 AWG	**** Minimum	N/LB	37.0/8.32	28.5/6.40	44.9/10.10
	26 AWG	**** Minimum	N/LB			
	28 AWG	**** Minimum	N/LB			
	30 AWG	**** Minimum	N/LB			
	32 AWG	**** Minimum	N/LB			
	34 AWG	**** Minimum	N/LB			
	36 AWG	**** Minimum	N/LB			

9.5 MISCELLANEOUS:

TEST CONDITION	TREATMENT	REQUIREMENT	UNITS	MEAN	MINIMUM	MAXIMUM
Terminal Retention Force (in Housing)	Initial	**** Minimum	N/LB	37.94/8.53	23.04/5.18	55.74/12.53
Insulation Resistance	Initial	1000 Min.	Megaohms	Passed		
	After Shock (Thermal)	1000 Min.	Megaohms	Passed		
	After Thermal Aging	1000 Min.	Megaohms	Passed		
	After Humidity (Steady State)	1000 Min.	Megaohms	Passed		
	After Humidity (Cyclic)	1000 Min.	Megaohms	Passed		

THIS DOCUMENT CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INC. AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION

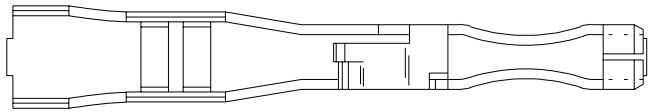
NOTES:

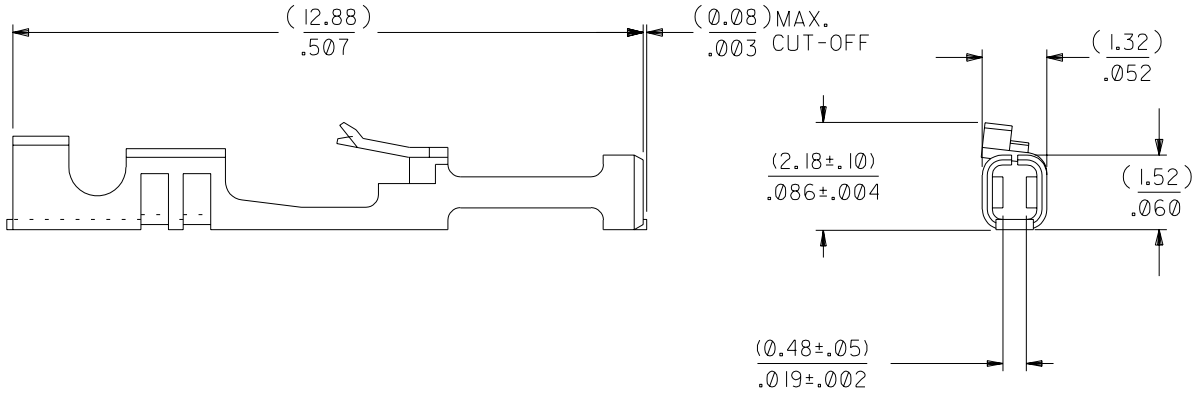
1. TERMINAL TO BE USED IN HOUSINGS 70066-**** AND 70450-****
2. REFER TO PRODUCT SPECIFICATION PS-71851
3. REFER TO MOLEX OPERATIONS AND SERVICE MANUAL FOR CRIMP DETAILS
4. TERMINAL TO BE USED WITH (0.64)/.025 SQUARE PINS
5. TERMINAL TO BE USED WITH 22-24 AWG STRANDED WIRE WITH (1.63)/.064 MAX. DIA. INSULATION
6. TERMINALS SUPPLIED IN REEL FORM

PLATING:

.000015 MINIMUM GOLD PLATE IN SELECT AREA WITH .000075 MINIMUM TIN PLATE IN SELECT AREA OVER NICKEL PLATE OVERALL

*THE PRIMARY SHIPPING CARTON WILL BE LABELED "COMPLIANT TO RoHS DIRECTIVE 2002/95/EC AND ELV ANNEX II OF DIRECTIVE 2000/53/EC". CARTONS WITHOUT THIS LABEL MAY CONTAIN PRODUCT WITH LEAD.





LTR.	REVISIONS	LTR.	REVISIONS
		B	REVISE PER ECR# U82219 11-07-88 MJM/MGB
C	LEAD FREE UCP2004-1769 RWHITE 04/03/24	A	FINAL RELEASE PER ERO #26846 7/14/88 MJM
B1	REVISED ECR #U80270 MCGRATH 97/07/31	3	REVISE PER ERO #26254 3/25/88 MJM

DIMENSIONS SHOWN (METRIC) INCH

UNLESS OTHERWISE SPECIFIED TOLERANCES: ANGULAR ± 1/2°

	INCH	METRIC
3 PLACE	± .010	---
2 PLACE	± .014	± 0.25
1 PLACE	---	± 0.35

DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS

DRWG. BY	MJM	CHK'D. BY	MJM
APP'D. BY	WAZ	SCALE	10: 1

C = 0 ▼ = 0 REVISE ONLY ON CAD SYSTEM

TITLE
TERMINAL-BOX/CRIMP HIGH FORCE CONTACT

molex MOLEX INCORPORATED LISLE,ILL. 60532 U.S.A.

SHEET NO. 1

DATE 03/25/88

PART NO. 016-02-1124

DRWG. NO. SD-71851-0024

FILE NAME S71851X5

THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INC. AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION.

DIV. DA

SIZE B