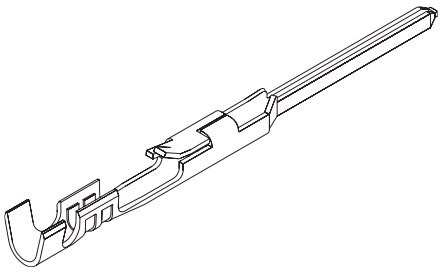
Jameco Part Number 1930031

# 2.54mm (.100") Pitch SL™ Terminal

## 70021
## Male, Crimp



### Features and Benefits
- Dual tab strain relief
- Locking tang secures terminal in housing

### Reference Information
Product Specification: PS-70021
Packaging: Reel or bag
Mates With: 70058 and 71851 female crimp terminals, and 70400 and 70430 connector assemblies
Use With: 70066D and 70107 housings
Designed In: Inches

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

### Mechanical
Wire Pull-Out Force: 17.79N (4.0 lb) min.
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*

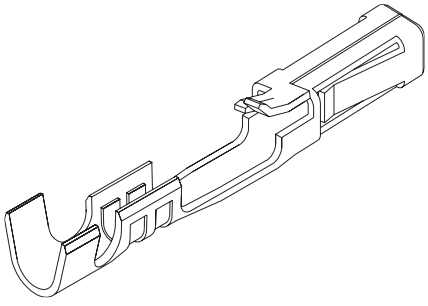
| Reel | | | | |
|---|---|---|---|---|
| Order No. | Plating | Wire Range (AWG) Stranded | Insulation Maximum Outside Diameter | Lead-free |
| 16-02-0116 | 1 | 22-24 | 1.63 (.064) | Yes |
| 16-02-0078 | | 24-30 | 1.52 (.060) | |
| 16-02-0081 | 2 | 22-24 | 1.63 (.064) | |
| 16-02-0077 | | 24-30 | 1.52 (.060) | |
| 16-02-0107 | 3 | 22-24 | 1.63 (.064) | |
| 16-02-0105 | | 24-30 | 1.52 (.060) | |

| Bag | | | | |
|---|---|---|---|---|
| Order No. | Plating | Wire Range (AWG) Stranded | Insulation Maximum Outside Diameter | Lead-free |
| 16-02-0117 | 1 | 22-24 | 1.63 (.064) | Yes |
| 16-02-0110 | | 24-30 | 1.52 (.060) | |
| 16-02-0115 | 2 | 22-24 | 1.63 (.064) | |
| 16-02-0109 | | 24-30 | 1.52 (.060) | |
| 16-02-0114 | 3 | 22-24 | 1.63 (.064) | |
| 16-02-0108 | | 24-30 | 1.52 (.060) | |

Plating No. 1: 30µ" min. Gold in select area over 50µ" min. Nickel overall with 75µ" Tin in select area
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™ Terminal

## 70058
## Female Box, Crimp



### Features and Benefits
- Dual beam, fully-enclosed box contact
- Dual tab strain relief
- Locking tang secures terminal in housing

### Reference Information
Product Specification: PS-70058
Packaging: Reel or bag
Mates With: 70021 male crimp terminals and 0.64mm (.025") square pins
Use With: All 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: 2.22N (.50 lb) max.
Unmating Force: 0.28N (.06 lb) min.
Normal Force: 0.98N (.22 lb) min.
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 |
| 16-02-0088 | 1 | 22-24 | 1.63 (.064) | Yes |
| 16-02-0083 | | 24-30 | 1.52 (.060) | |
| 16-02-0087 | 2 | 22-24 | 1.63 (.064) | |
| 16-02-0082 | | 24-30 | 1.52 (.060) | |
| 16-02-0086 | 3 | 22-24 | 1.63 (.064) | |
| 16-02-0069 | | 24-30 | 1.52 (.060) | |

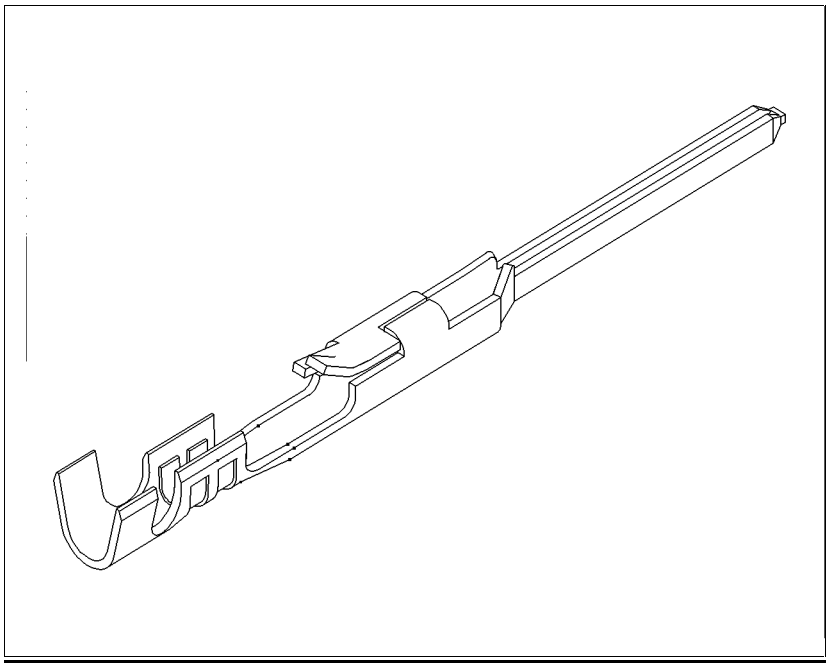
| Bag | | | | |
|---|---|---|---|---|
| Order No. | Plating | Wire Range (AWG) Stranded | Insulation Maximum Outside Diameter | Lead-free |
| 16-02-0104 | 1 | 22-24 | 1.63 (.064) | Yes |
| 16-02-0098 | | 24-30 | 1.52 (.060) | |
| 16-02-0103 | 2 | 22-24 | 1.63 (.064) | |
| 16-02-0097 | | 24-30 | 1.52 (.060) | |
| 16-02-0102 | 3 | 22-24 | 1.63 (.064) | |
| 16-02-0096 | | 24-30 | 1.52 (.060) | |

Plating No. 1: 30µ" min. Gold in select area over 50µ" min. Nickel overall with 75µ" Tin in select area
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

# PRODUCT SPECIFICATION
# MALE CRIMP CONNECTOR ASSEMBLY

**LANGUAGE**

ENGLISH



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| | | | | | | |
|---|---|---|---|---|---|---|
| REV | D | | | | | |
| SHT | 1-4 | | | | | |
| REVISE ON PC ONLY | | TITLE **MALE CRIMP TERMINAL 70021** | | | | |
| **D** | REVISED & REDRAWN, CHG TO MS WORD FORMAT ECN UDT2002-0519 SCHAFER 01/9/18 | | | | | |
| REV | DESCRIPTION | THIS DOCUMENT CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INC. AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION | | | | |
| DESIGN CONTROL | STATUS | WRITTEN BY: | CHECKED BY: | APPROVED BY: | DATE: YR / MO / DAY | |
| UDT | | J.SCHAFER | D.BRINKMAN | D.BRINKMAN | 01/7/13 | |

| DOCUMENT NO. | | FILE NAME | SHT NO. |
|---|---|---|---|
| **PS -70021** | | PS70021.DOC | 1 OF 4 |

**1.0 SCOPE:**

This specification covers the crimp terminal 70021-**** used with housings 70066-**** and 70107-****.

**2.0 PRODUCT DESCRIPTION:**

2.1 Product is available in single row 2-25 circuits, on .100 centers.

2.2 Connector housings 70066-**** and 70107-**** are used with terminals 70021-****.

2.3 Connector assembly will mate with the following:

2.3.1 Connector assemblies with terminals 70058-**** female crimp and 70028-**** female I.D.T.

2.4 Connectors are stackable end to end, or side to side, on .100" center pins when using option "A" housing.

2.5 Maximum pin height to be .300", minimum height to be .280", measured from top of housing.

2.6 Connector to accept wire range from:

30 to 24 AWG stranded wire with .060" dia. max. insulation,
36 to 32 AWG stranded wire with .025" dia. max. insulation,
22 to 24 AWG stranded wire with .064" dia. max. insulation.

**3.0 RECOGNIZED AGENCY APPROVALS:**

3.1 Underwriters Laboratories: UL #E29179

3.2 Canadian Standards Association: CSA #LR19980

**4.0 MECHANICAL SPECIFICATIONS:**

4.1 Housing 70066-**** is molded of black, glass-filled polyester 94V-0.

4.2 Terminal 70021-**** is a high strength copper alloy.

4.2.1 Finish, Tin/Lead: .000200" min. electrotin plate over .000050" min. nickel plate overall.

4.2.2 Finish, Select Gold: .000015" min. gold plate in selected area over .000050" min. nickel overall, with .000075" min. tin/lead plate in selected area.

4.2.3 Finish, Select Gold: .000030" min. gold in selected area over .000050" min. nickel plate overall, with .000075" min. tin/lead plate in selected area.

4.2.4 For special finish requirements, consult with your local Molex sales representative.

4.3 Strain Relief Strength: E.I.A. RS-186-D, method 6; and Mil. Std. 202E, Method 211A.

4.4 Temperature rating of materials: G.F. polyester, 94V-0, black -40°C to +120°C.

4.5 Terminal pull-out force from housing must withstand gradually applied force of 4 pounds for 15 seconds.

## 5.0 ELECTRICAL SPECIFICATIONS:

5.1 Rated voltages, currents:
Dry circuit: Open circuit voltage 20 mV max.
Short circuit current 20 mA max.

5.2 Contact resistance @ rated current, 30°C temperature rise after 25 cycles of engage/disengage. Contact resistance must be less than 15 milliohms.

Rated current:
36 AWG - 0.21A
34 AWG - 0.32A
32 AWG - 0.45A
30 AWG - 0.7A
28 AWG - 1.2A
26 AWG - 1.8A
24 AWG - 3.0A
22 AWG - 3.0A

5.3 Dielectric Strength: AC voltage increased until breakdown. Voltage measured to be no less than 600 volts AC R.M.S. for 1 minute at sea level to 5,000 feet.

5.4 Insulation Resistance: 1,000 megohms minimum Mil. Std. 202, Method 302, Condition B.

## 6.0 ENVIRONMENTAL SPECIFICATIONS:

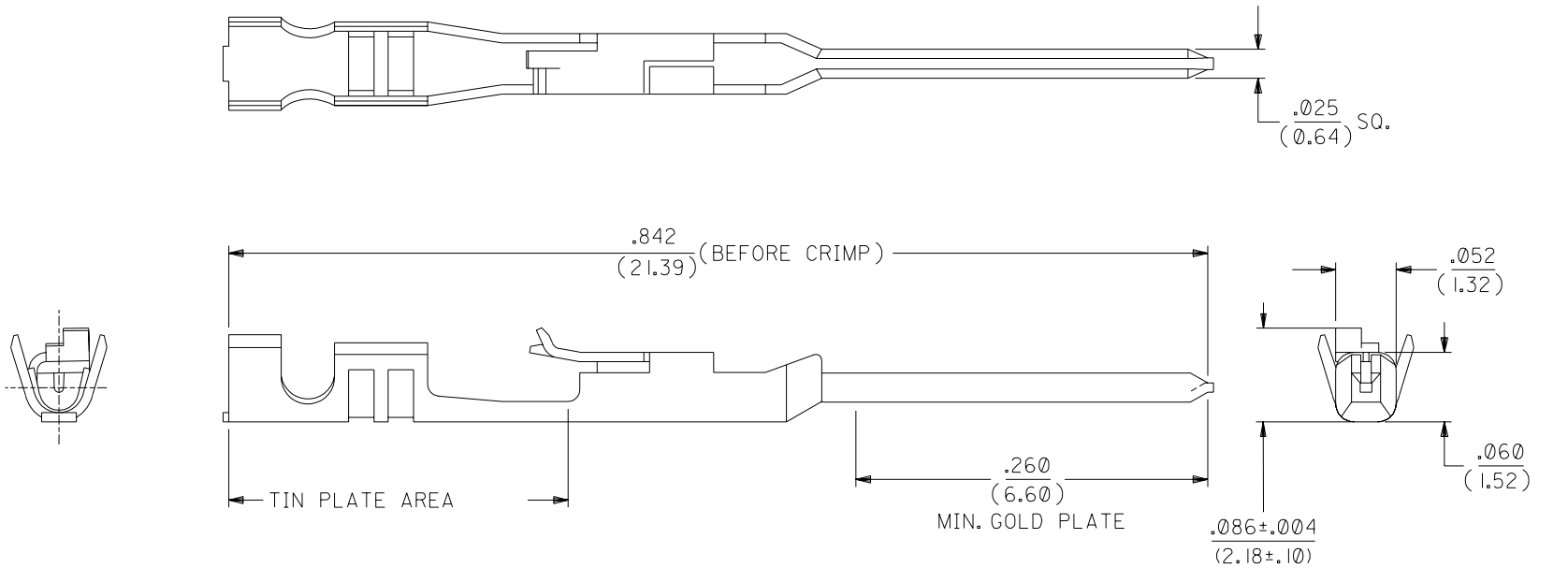
6.1 Thermal Aging: Heat soak @ 105°C for 7 days. Measured contact resistance must be less than 15 milliohms.

6.2 Thermal Shock: Mil. Std. 202E, Method 107C, condition A. Measured contact resistance must be less than 15 miliohms.

6.3 Shock: Mil. Std. 202, Method 205, Condition A (15G). Measured contact resistance must be less than 15 milliohms.

6.4 Humidity: Mil. Std. 202E, Method 103B, Condition A. Measured contact resistance must be less than 15 milliohms.

6.5 Salt Spray: Mil. Std. 202E, Method 101D, Condition A. Measured contact resistance must be less than 15 milliohms.




## NOTES:

1. TERMINAL FOR USE WITH HOUSING PART NO. 70066-**** & 70107-****.
2. MATERIAL: .008/(0.20) THK. PHOSPHOR BRONZE.
3. TERMINAL TO BE USED WITH 22-24 AWG STRANDED WIRE WITH .064 DIA. MAX. INSULATION.
4. REFER TO MOLEX OPERATIONAL AND SERVICE MANUAL FOR DETAILS.
5. REFER TO PRODUCT SPECIFICATION NO. PS-70021.
6. PARTS SUPPLIED LOOSE PER DRAWING PK-70873-0822.

## PLATING:

.000030 GOLD PLATE IN SELECT AREA.
.000075 MIN. TIN PLATE IN SELECT AREA.
OVER NICKEL PLATE.

*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.

| MFG. | SH. | REV. | LTR. | REVISIONS |
|---|---|---|---|---|
| | | | E | LEAD FREE UCP2004-1769 RWHITE 04/03/15 |
| | | | D2 | REVISED PER ECR #U80270 MCGRATH 97/07/31 |
| | | | D1 | REVISED PER ECR #U70928 MCGRATH 97/06/26 |
| | | | D | REVISED PLTG. SPEC. PER ECR # U31149 08/19/93 REED |
| | | | C | REVISED PER ECR# U82220 11-07-88 MJM/MGB |
| | | | B | REDRAWN ON CAD PER E.C.R. #9509 11/10/86 WJF/MJM |

REVISE ONLY ON CAD SYSTEM

DIMENSIONS SHOWN (METRIC) INCH

UNLESS OTHERWISE SPECIFIED TOLERANCES: ANGULAR ± 1/2°

| | INCH | METRIC |
|---|---|---|
| 3 PLACE | ± .010 | --- |
| 2 PLACE | ± .015 | ± 0.25 |
| 1 PLACE | --- | ± 0.35 |

DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS

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

TITLE: TERMINAL, MALE CRIMP

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

SHEET NO. 1 | DATE 10/30/86

PART NO. 16-02-0117 | DRWG. NO. SD-70021-0225

FILE NAME S70021X26 DGN



DIV. DA | SIZE B