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Jameco Part Number 1930007

2.54mm (.100") Pitch SI™ Terminal

70021

2.54mm (.100") Pitch PCB and Wire Connectors

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

Order No.

<u>16-02-0117</u>

16-02-0110

16-02-0115

16-02-0109

16-02-0114

16-02-0108

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

> Bag Wire Range (AWG)

> > Stranded

22-24

24-30

22-24

24-30 22-24

24-30

Insulation Maximum

Outside Diameter

1.63 (.064)

1.52 (.060)

1.63 (.064)

1.52 (.060)

1.63 (.064)

1.52 (.060)

Lead-free

Yes

Not For Use With C-Grid III[™] Components

Reel						
Order No.	Plating	Wire Range (AWG) Stranded	Insulation Maximum Outside Diameter	Lead-free		
<u>16-02-0116</u>	1	22-24	1.63 (.064)			
<u>16-02-0078</u>	I	24-30	1.52 (.060)	1		
<u>16-02-0081</u>	n	22-24	1.63 (.064)	V		
<u>16-02-0077</u>	L	24-30	1.52 (.060)	tes		
<u>16-02-0107</u>	n	22-24	1.63 (.064)	1		
<u>16-02-0105</u>	3	24-30	1.52 (.060)	1		

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

Plating

1

2

3

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				
<u>16-02-0088</u>	1	22-24	1.63 (.064)					
<u>16-02-0083</u>		24-30	1.52 (.060)					
<u>16-02-0087</u>		22-24	1.63 (.064)	Vec				
<u>16-02-0082</u>		24-30	1.52 (.060)	les				
<u>16-02-0086</u>	2	22-24	1.63 (.064)]				
16-02-0069	3	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

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ee	Order No.	Order No. Plating		No. Plating Wire Range (AWG) Stranded		Insulation Maximum Outside Diameter	Lead-free
	<u>16-02-0104</u>	1	22-24	1.63 (.064)			
	<u>16-02-0098</u>		24-30	1.52 (.060)			
	<u>16-02-0103</u>	n	22-24	1.63 (.064)	Voc		
	<u>16-02-0097</u>	L	24-30	1.52 (.060)	162		
	<u>16-02-0102</u>	2	22-24	1.63 (.064)			
	<u>16-02-0096</u>	3	24-30	1.52 (.060)			

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LANGUAGE

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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.

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- 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.

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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.

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