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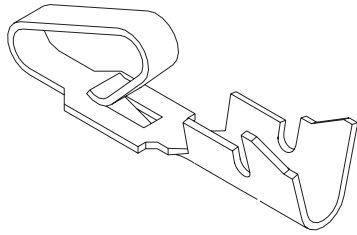
JAMECO[®]
ELECTRONICS

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Jameco Part Number 1960476

3.96mm (.156") Pitch KK® Crimp Terminal 2478/2578



Features and Benefits

- Double cantilever design
- Single beam terminal is available for low insertion force 7821 Series (contact Molex)
- For low-level current and voltage use Gold plating
- Phosphor Bronze is recommended for rated current
- Complete line of terminal crimping equipment available (see Application Tooling section of this catalog)

Reference Information

Product Specification: PS-08-50
Packaging: Reel or bag
Tooling Information: See crimp tooling section
UL File No.: E29179
CSA File No.: LR19980
Use With: 2139, 3069 and 41695
Designed In: Inches

Electrical

Voltage: 250V AC max.
Current: Max.

AWG	18	20	22	24	26
Phosphor Bronze	7.00A	6.25A	5.50A	5.00A	4.50A
Brass	5.00A	4.75A	4.50A	4.25A	4.00A

Contact Resistance: 6 milliohms max.
Dielectric Withstanding Voltage: 1500V AC
Insulation Resistance: 50K Megohms min.

Mechanical

Contact Insertion Force: 1.8kg (4 lb) max.
Contact Retention to Housing: 3.6kg (8 lb) min.
Wire Pull-Out Force: 20 lb max./18 AWG
Normal Force: 0.75kg (1.65 lb)
Durability: 25 cycles max.

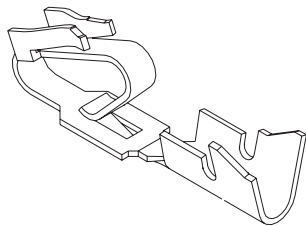
Physical

Contact: Brass or Phosphor Bronze
Plating: See Table
Operating Temperature: Phosphor Bronze—0 to +75°C
Brass—0 to +50°C

Wire Size AWG	Insulation OD	Series	Material	Order No.						Lead-free
				Tin Plating		Gold Plating No. 1		Gold Plating No. 2		
				Reel	Bag	Reel	Bag	Reel	Bag	
18-20	2.79 (.110)	max. 2478	Phosphor Bronze	08-52-0071	08-52-0072	08-58-0121	08-58-0122	08-65-0114	08-65-0115	Yes
			Brass	08-50-0105	08-50-0106	08-56-0105	08-56-0106	08-55-0103	08-55-0104	
22-26	1.65 (.065)	max. 2578	Phosphor Bronze	08-50-0133	08-50-0134	08-58-0125	08-58-0126	08-65-0116	08-65-0117	
			Brass	08-50-0107	08-50-0108	08-56-0107	08-56-0108	08-55-0105	08-55-0106	

Recommended wire range assumes stranded wire
Plating No. 1: 20µm min. Gold in contact area with a flash overall
Plating No. 2: 15µm min. Gold in contact area only

3.96mm (.156") Pitch KK® Crimp Terminal 6838/7258 Trifurcon™



Features and Benefits

- Complete line of terminal crimping equipment available (see Application Tooling section of this catalog)
- Accommodates 18 to 26 AWG
- Trifurcon design provides 3 distinct points of contact
- Ideal choice where high shock or vibration exists
- For low current/voltage, Gold is recommended
- Phosphor Bronze recommended for rated current

Reference Information

Product Specification: PS-40-02
Packaging: Reel or bag
Tooling Information: See crimp tooling section
Use With: 6442 and 41695 crimp terminal housings
Designed In: Inches

Electrical

Voltage: 250V AC max.
Current: Max.

AWG	18	20	22	24	26
Phosphor Bronze	7.00A	6.25A	5.50A	5.00A	4.50A
Brass	5.00A	4.75A	4.50A	4.25A	4.00A

Contact Resistance: 6 milliohms max.
Dielectric Withstanding Voltage: 1500V AC
Insulation Resistance: 50K Megohms min.

Mechanical

Contact Insertion Force: 1.8kg (4 lb) max.
Contact Retention to Housing: 3.6kg (8 lb) min.
Wire Pull-Out Force: 20 lb max./18 AWG
Normal Force: 0.75kg (1.65 lb)
Durability: 25 cycles max.

Physical

Contact: Brass or Phosphor Bronze
Plating: See Table
Operating Temperature: Phosphor Bronze—0 to +75°C
Brass—0 to +50°C

Wire Size AWG	Insulation OD	Series	Material	Order No.						Lead-free
				Tin Plating		Gold Plating		Select Gold Plating		
				Reel	Bag	Reel	Bag	Reel	Bag	
18-20	2.79 (.110) max.	6838	Phosphor Bronze	08-52-0112	08-52-0113	08-58-0187	08-58-0189	08-58-0110	08-58-0111	Yes
			Brass	08-50-0187	08-50-0189					
22-26	1.65 (.065) max.	7258	Phosphor Bronze	08-52-0124	08-52-0125	08-56-0123	08-56-0124	08-65-0121	08-65-0122	
			Brass	08-50-0183	08-50-0185					



PRODUCT SPECIFICATION

1.0 SCOPE

This Product Specification covers the 3.96 mm (.156 inch) centerline (pitch) Trifurcon Connectors terminated with 18 to 26 AWG wire using crimp technology when mated with 1.14mm (.045) square pin headers.

2.0 PRODUCT DESCRIPTION

2.1 PRODUCT NAME AND SERIES NUMBERS

Crimp Terminals: 6838, 7258

Crimp Housings: 41695, 6442

Headers: 41771, 41772, 41791, 41792, 42471, 42472, 42491, 42492, 41661, 41662, 41671,

Other products conforming to this specification are noted on the individual drawings.

2.2 DIMENSIONS, MATERIALS, PLATINGS AND MARKINGS

Terminal Material: Brass or Phos. Bronze (for Max performance use phos bronze material.)

Housing: Nylon or Polyester

Pins: Brass or Phos. Bronze

For more information on dimensions, materials, and plating see the individual drawings.

2.3 SAFETY AGENCY APPROVALS

UL File Number E29179

CSALR19980

3.0 APPLICABLE DOCUMENTS AND SPECIFICATIONS

None

4.0 RATINGS

4.1 VOLTAGE

250 Volts AC (RMS) {or 176 Volts DC}

4.2 CURRENT (Current is dependent on connector size, contact material, plating, ambient temperature, printed circuit board characteristics and related factors. Actual current rating is application dependent and should be evaluated for each application.)

Wire Awg	Amps (Max) With Brass	Amps (Max) With Phos Bronze	Wire Insulation Dia
18	5.00	7.00	See terminal drawings
20	4.75	6.25	See terminal drawings
22	4.50	5.50	See terminal drawings
24	4.25	5.00	See terminal drawings
26	4.00	4.50	See terminal drawings

4.3 TEMPERATURE (ambient + 30°C temp rise)

	Brass	Phos Bronze
Operating Temperature	0°C to +50°C	0°C to +75°C
Non Operating Temperature	-40°C to +105°C	-40°C to +105°C

REVISION:	ECR/ECN INFORMATION:	TITLE:	SHEET No.
D1	EC No: UCP2005-2745 DATE: 2005/06/14	PRODUCT SPECIFICATION .156 CENTER KK CONNECTORS Trifurcon Contacts	1 of 4
DOCUMENT NUMBER:	CREATED / REVISED BY:	CHECKED BY:	APPROVED BY:
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PRODUCT SPECIFICATION

5.0 PERFORMANCE

5.1 ELECTRICAL REQUIREMENTS

DESCRIPTION	TEST CONDITION	REQUIREMENT
Contact Resistance (Low Level)	Mate connectors: apply a maximum voltage of 20 mV and a current of 100 mA.	6 milliohms MAXIMUM [initial]
Contact Resistance of Wire Termination (Low Level)	Terminate the applicable wire to the terminal and measure wire using a voltage of 20 mV and a current of 100 mA.	2 milliohms MAXIMUM [initial]
Insulation Resistance	Unmate & unmount connectors: apply a voltage of 500 VDC between adjacent terminals and between terminals to ground.	50 K Megohms MINIMUM
Dielectric Withstanding Voltage	Unmate connectors: apply a voltage of {two times the rated voltage plus 1000 volts} VAC for 1 minute between adjacent terminals and between terminals to ground.	No breakdown
Capacitance	Measure between adjacent terminals at 1 MHz.	1.2 picofarads MAXIMUM
Temperature Rise (via Current Cycling)	Mate connectors: measure the temperature rise at the rated current after: 1) 96 hours (steady state) 2) 240 hours (45 minutes ON and 15 minutes OFF per hour) 3) 96 hours (steady state)	Temperature rise: +30°C MAXIMUM

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PRODUCT SPECIFICATION

5.2 MECHANICAL REQUIREMENTS

DESCRIPTION	TEST CONDITION	REQUIREMENT
Connector Mate and Unmate Forces	Per circuit when mated to an .045 Sq. pin. Mate and unmate connector (male to female) at a rate of 25 ± 6 mm ($1 \pm \frac{1}{4}$ inch) per minute.	10.0 N (2.25 lbf) MAXIMUM insertion force & 3.7 N (0.84 lbf) MINIMUM withdrawal force
Terminal Insertion Force (into Housing)	Apply an axial insertion force on the terminal at a rate of 25 ± 6 mm ($1 \pm \frac{1}{4}$ inch). (Forces will change with platings and materials.)	17.8 N (4.0 lbf) MAXIMUM insertion force
Terminal Retention Force (in Housing)	Axial pullout force on the terminal in the housing at a rate of 25 ± 6 mm ($1 \pm \frac{1}{4}$ inch) per minute. (Forces will change with platings and materials.)	35.6 N (8.0 lbf) MINIMUM withdrawal force
Durability	Mate connectors up to 25 cycles at a maximum rate of 10 cycles per minute prior to Environmental Tests.	10 milliohms MAXIMUM (change from initial)
Vibration (Random)	Mate connectors and vibrate per EIA 364-28, test condition VII.	10 milliohms MAXIMUM (change from initial) & Discontinuity < 1 microsecond
Shock (Mechanical)	Mate connectors and shock at 50 g's with $\frac{1}{2}$ sine wave (11 milliseconds) shocks in the $\pm X, \pm Y, \pm Z$ axes (18 shocks total).	10 milliohms MAXIMUM (change from initial) & Discontinuity < 1 microsecond
Wire Pullout Force (Axial)	Apply an axial pullout force on the wire at a rate of 25 ± 6 mm ($1 \pm \frac{1}{4}$ inch). (For maximum performance use molex application tooling with stranded tinned copper wire)	18 awg = 89 N (20 lbf) 20 awg = 66 N (15 lbf) 22 awg = 53 N (12 lbf) 24 awg = 35 N (8 lbf) 26 awg = 22 N (5 lbf)
Normal Force	Apply a perpendicular force.	7.34 N (748 grams) average

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PRODUCT SPECIFICATION

5.3 ENVIRONMENTAL REQUIREMENTS

DESCRIPTION	TEST CONDITION	REQUIREMENT										
Shock (Thermal)	Mate connectors; expose to 5 cycles of: <table><tr><th>Temperature °C</th><th>Duration (Minutes)</th></tr><tr><td>-40 +0/-3</td><td>30</td></tr><tr><td>+25 ±10</td><td>5 MAXIMUM</td></tr><tr><td>+105 +3/-0</td><td>30</td></tr><tr><td>+25 ±10</td><td>5 MAXIMUM</td></tr></table>	Temperature °C	Duration (Minutes)	-40 +0/-3	30	+25 ±10	5 MAXIMUM	+105 +3/-0	30	+25 ±10	5 MAXIMUM	10 milliohms MAXIMUM (change from initial) & Visual: No Damage
Temperature °C	Duration (Minutes)											
-40 +0/-3	30											
+25 ±10	5 MAXIMUM											
+105 +3/-0	30											
+25 ±10	5 MAXIMUM											
Thermal Aging	Mate connectors; expose to: 96 hours at 105 ± 2°C	10 milliohms MAXIMUM (change from initial]) & Visual: No Damage										
Humidity (Steady State)	Mate connectors: expose to a temperature of 40 ± 2°C with a relative humidity of 90-95% for 96 hours. Note: Remove surface moisture and air dry for 1 hour prior to measurements.	10 milliohms MAXIMUM (change from initial) & Dielectric Withstanding Voltage: No Breakdown at 500 VAC & Insulation Resistance: 1000 Megohms MINIMUM & Visual: No Damage										
Solderability	Per SMES-152	Solder coverage: 95% MINIMUM (per SMES-152)										
Solder Resistance	Dip connector terminal tails in solder: Solder Duration: 5 ± 0.5 seconds; Solder Temperature: 230 ± 5°C	Visual: No Damage to insulator material										

6.0 PACKAGING

Parts shall be packaged to protect against damage during handling, transit and storage.

7.0 GAGES AND FIXTURES

8.0 OTHER INFORMATION

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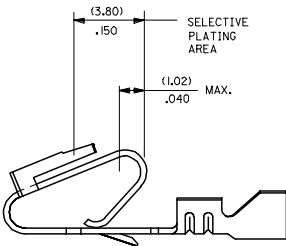
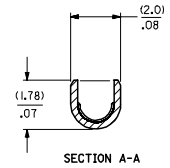
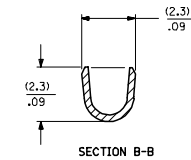
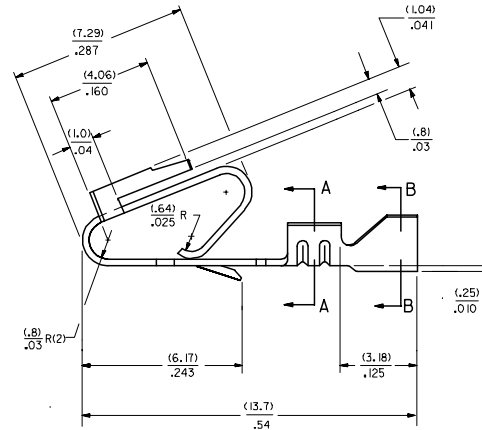
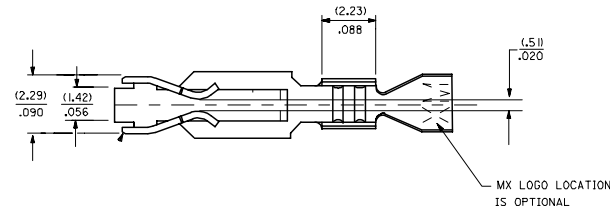
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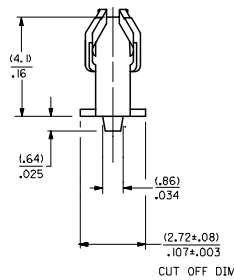
A

NOTES

2. CRIMP FOR 22 TO 26 GA. WIRE WITH MAX. INSULATION DIA. OF (.165)/.065
3. PLATINGS CONFORM TO MOLEX ENG. STD. SDES-88.
4. DIMENSIONS GIVEN ACROSS CENTERLINES ARE SYMMETRICAL ABOUT THOSE CENTERLINES WITHIN HALF THE TOTAL TOLERANCE.
5. PARTS CONFORM TO PRODUCT SPECIFICATION PS-40-02.



SELECTIVE PLATING AREA

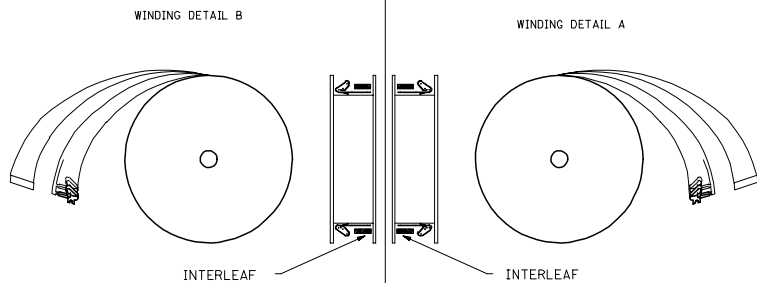


7258-1(1) FORM
MAT'L: (.27)±.0106 THK
BLANK=BRASS
A=PHOS. BRONZE
BLANK= CHAIN PER DETAIL B
A=CHAIN PER DETAIL A
L= LOOSE

PLATING PER SDES- 88

- (909) * OVERALL HOT TIN DIP: .00254 MICROMETERS MIN.
- (558) SELECT GOLD: .00076 MICROMETERS MIN.
- OVERALL GOLD FLASH: .00005 MICROMETERS MIN.
- OVERALL NICKEL UNDERPLATE: .00127 MICROMETERS MIN.
- (561) SELECT GOLD: .00076 MICROMETERS MIN.
- OVERALL NICKEL UNDERPLATE: .00127 MICROMETERS MIN.

*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 TIN-LEAD PLATING.



CHANGE TO ME10 IEC NO: UCP2005-0964 DRAWN BY: JJS CHKD BY: JJS APP: MARGULIS 2004/11/05 REV	QUALITY SYMBOLS ▽=0 ▽=0	DESCRIPTION	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE IN/MM		SCALE ---	DESIGN UNITS INCH	 THIRD ANGLE PROJECTION
			mm	INCH	DRAWN BY JJS	DATE 12/03/87	TITLE TRIFURCON TERMINAL CRIMP TYPE, .156 CENTERS 22 TO 26 AWG		
			4 PLACES ±.005	±.005	CHECKED BY JJS	DATE 12/03/87	MOLEX INCORPORATED		
			3 PLACES ±.010	±.010	APPROVED BY LENZ	DATE 12/03/87	DOCUMENT NO. SD-7258		
			1 PLACE ±.036		±.036	SHEET NO. 1 OF 2			
T1	NEW		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		SEE CHART		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION		

19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1

	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	
	7258-(*)*			7258-A(*)*																	
M	PART NO.	ENG. NO		PART NO.	ENG. NO		PART NO.	ENG. NO		PART NO.	ENG. NO(SUFFIX ONLY)		PART NO.	ENG. NO(SUFFIX ONLY)	VOID	CKT.	PART NO.	ENG. NO(SUFFIX ONLY)	VOID	CKT.	M
	08-50-0183	7258-(P909)		08-04-0001	7258-A(999)																
	08-50-0185	7258-(P909)IL		08-65-0121	7258-A(P56)IL	ES-276-P561															
	08-56-0181	7258-(503)		08-65-0122	7258-A(P56)IL																
	08-56-0182	7258-(503)IL		08-56-0123	7258-A(P558)	MAKE FROM															
	08-50-0283	7258-(P909)IA		08-56-0124	7258-A(P558)IL	7258-A(P56)IL															
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					7258-A(56)IL																
				08-52-0124	7258-A(P909)																
				08-52-0125	7258-A(P909)IL																
K				08-65-0126	7258-A(P555)																K
				08-65-0127	7258-A(P555)IL	ES-276-P555															
				08-58-0133	7258-A(550)IL	MAKE FROM															
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	COLUMN NO. 1	CON'T. IN COLUMN NO.	SHEET NO.	COLUMN NO. 2	CON'T. IN COLUMN NO.	SHEET NO.	COLUMN NO. 3	CON'T. IN COLUMN NO.	SHEET NO.	COLUMN NO. 4	CON'T. IN COLUMN NO.	SHEET NO.	COLUMN NO. 4	CON'T. IN COLUMN NO.	SHEET NO.	COLUMN NO. 4	CON'T. IN COLUMN NO.	SHEET NO.			
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B																					B
A																					A

CHANGE TO ME10
IEC NO: UCP2005-0964
DRAWN BY: T1
CHKD: SAMEC 2006/07/09
APP: MARGILLIS 2006/11/05

REV
DESCRIPTION

QUALITY SYMBOLS
▽=0
▽=0

GENERAL TOLERANCES (UNLESS SPECIFIED)
4 PLACES ±
3 PLACES ±
2 PLACES ±
1 PLACE ±
ANGULAR ±1/2°
DRAFT WHERE APPLICABLE
MUST REMAIN WITHIN DIMENSIONS

DIMENSION STYLE
IN/MM

DRAWN BY: JJS
CHECKED BY: PATEL
APPROVED BY: LENZ
DATE: 12/07/87
DATE: 12/07/87
DATE: 12/07/87

DRAWN BY: JJS
CHECKED BY: PATEL
APPROVED BY: LENZ
DATE: 12/07/87
DATE: 12/07/87
DATE: 12/07/87

SCALE

DESIGN UNITS
INCH

THIRD ANGLE PROJECTION

MATERIAL NO.
SD-7258

DOCUMENT NO.
SD-7258

SHEET NO.
2

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