

Distributed by:

**JAMECO**<sup>®</sup>  
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 521421

## FEATURES AND SPECIFICATIONS

### Features and Benefits

- Sizes 4 to 80 circuits
- High profile: .220" high
- Stackable end-to-end (on unbroken edges)
- Easy breakaway to smaller sizes
- Drawn .025" square wire provides 4-sided smooth surface for quality interface

### Reference Information

Product Specification: PS-70216

Packaging: Tube

UL File No.: E29179 (H)

CSA File No.: LR19980A

Mates With: 7859 Shunts, C-Grid Receptacles, SL Crimp and IDT Housings

Designed In: Inches

### Electrical

Voltage: 250V

Current: 3.0A

Contact Resistance: 15mΩ max.

Dielectric Withstanding Voltage: 1500V

Insulation Resistance: 1000 MΩ min.

### Mechanical

Pin Retention to Header: 17.79N (4 lb)

Durability: 25 cycles Tin/Lead and 50 cycles Gold

### Physical

Housing: Glass-filled polyester, UL 94V-0

Contact: Phosphor Bronze

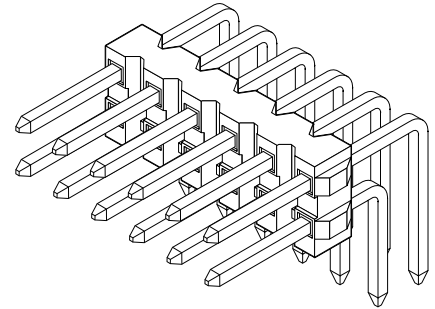
Plating: See Table

Operating Temperature: -40 to +105°C

# molex® 2.54mm (.100") Pitch C-Grid® Breakaway Header

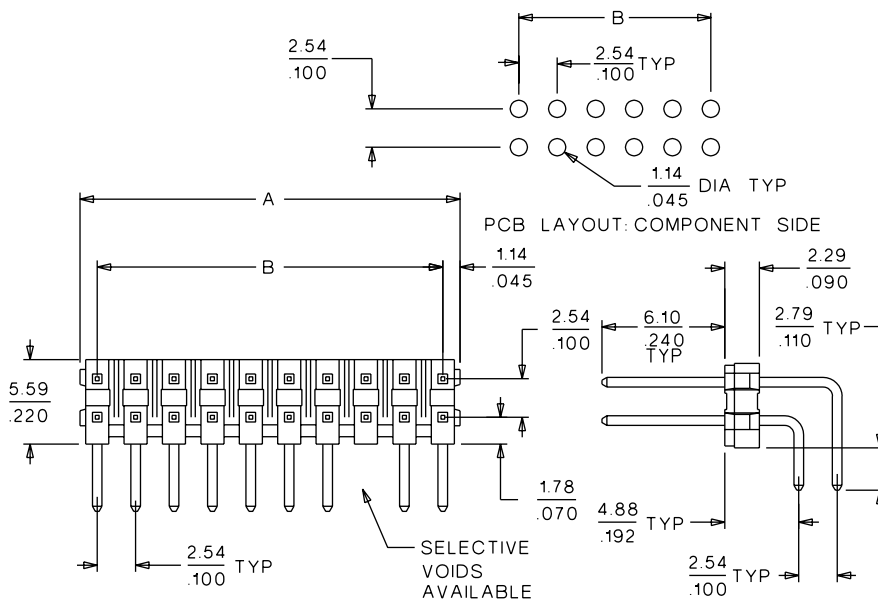
## 70216

## High Profile, Dual Row Right Angle



## CATALOG DRAWING (FOR REFERENCE ONLY)

Not For Use With Molex C-Grid III™ Components



## ORDERING INFORMATION AND DIMENSIONS

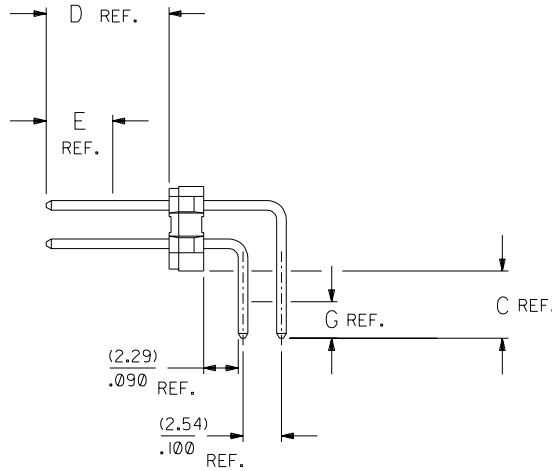
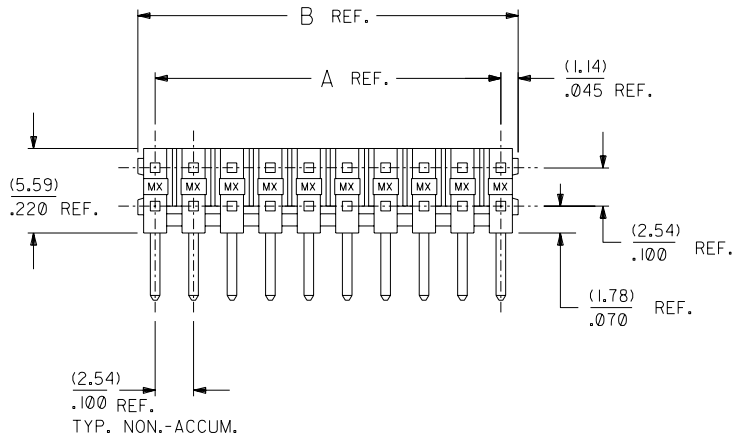
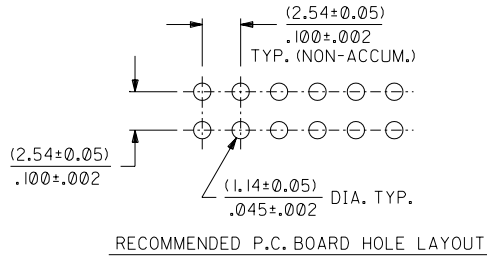
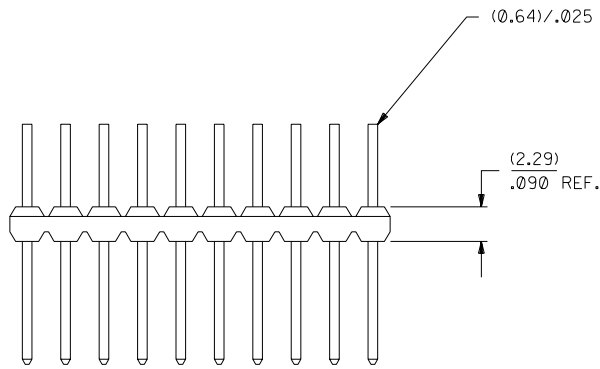
Circuits	Dimension	
	A	B
4	4.83 (.190)	2.54 (.100)
6	7.37 (.290)	5.08 (.200)
8	9.91 (.390)	7.62 (.300)
10	12.45 (.490)	10.16 (.400)
12	14.99 (.590)	12.70 (.500)
14	17.53 (.690)	15.24 (.600)
16	20.07 (.790)	17.78 (.700)
18	22.61 (.890)	20.32 (.800)
20	25.15 (.990)	22.86 (.900)
22	27.69 (1.090)	25.40 (1.000)
24	30.23 (1.190)	27.94 (1.100)
26	32.77 (1.290)	30.48 (1.200)
28	35.31 (1.390)	33.02 (1.300)

Circuits	Dimension	
	A	B
30	37.85 (1.490)	35.56 (1.400)
32	40.39 (1.590)	38.10 (1.500)
34	42.93 (1.690)	40.64 (1.600)
36	45.47 (1.790)	43.18 (1.700)
38	48.01 (1.890)	45.72 (1.800)
40	50.55 (1.990)	48.26 (1.900)
42	53.09 (2.090)	50.80 (2.000)
44	55.63 (2.190)	53.34 (2.100)
46	58.17 (2.290)	55.88 (2.200)
48	60.71 (2.390)	58.42 (2.300)
50	63.25 (2.490)	60.96 (2.400)
52	65.79 (2.590)	63.50 (2.500)
54	68.33 (2.690)	66.04 (2.600)

Circuits	Dimension	
	A	B
56	70.87 (2.790)	68.58 (2.700)
58	73.41 (2.890)	71.12 (2.800)
60	75.95 (2.990)	73.66 (2.900)
62	78.49 (3.090)	76.20 (3.000)
64	81.03 (3.190)	78.74 (3.100)
66	83.57 (3.290)	81.28 (3.200)
68	86.11 (3.390)	83.82 (3.300)
70	88.65 (3.490)	86.36 (3.400)
72	91.19 (3.590)	88.90 (3.500)
74	93.73 (3.690)	91.44 (3.600)
76	96.27 (3.790)	93.98 (3.700)
78	98.81 (3.890)	96.52 (3.800)
80	101.35 (3.990)	99.06 (3.900)

Plating Option	Order No.
15μ" min. select Gold	• 10-89-4XX2
30μ" min. select Gold	• 10-89-4XX6
150μ" Tin/Lead, Nickel overall	• 10-88-3XX1
Replace XX with no. of circuits, 04-80 (even only)	

• US Standard Product, available through Molex franchised distributors (80 circuit only)



CKT. SIZE	DIM. A		DIM. B	
	(MM)	INCH	(MM)	INCH
04	(2.54)	.100	(4.83)	.190
06	(5.08)	.200	(7.37)	.290
08	(7.62)	.300	(9.91)	.390
10	(10.16)	.400	(12.45)	.490
12	(12.70)	.500	(14.99)	.590
14	(15.24)	.600	(17.53)	.690
16	(17.78)	.700	(20.07)	.790
18	(20.32)	.800	(22.61)	.890
20	(22.86)	.900	(25.15)	.990
22	(25.40)	1.000	(27.69)	1.090
24	(27.94)	1.100	(30.23)	1.190
26	(30.48)	1.200	(32.77)	1.290
28	(33.02)	1.300	(35.31)	1.390
30	(35.56)	1.400	(37.85)	1.490
32	(38.10)	1.500	(40.39)	1.590
34	(40.64)	1.600	(42.93)	1.690
36	(43.18)	1.700	(45.47)	1.790
38	(45.72)	1.800	(48.01)	1.890
40	(48.26)	1.900	(50.55)	1.990
42	(50.80)	2.000	(53.09)	2.090
44	(53.34)	2.100	(55.63)	2.190
46	(55.88)	2.200	(58.17)	2.290
48	(58.42)	2.300	(60.71)	2.390
50	(60.96)	2.400	(63.25)	2.490
52	(63.50)	2.500	(65.79)	2.590
54	(66.04)	2.600	(68.33)	2.690
56	(68.58)	2.700	(70.87)	2.790
58	(71.12)	2.800	(73.41)	2.890
60	(73.66)	2.900	(75.95)	2.990
62	(76.20)	3.000	(78.49)	3.090
64	(78.74)	3.100	(81.03)	3.190
66	(81.28)	3.200	(83.57)	3.290
68	(83.82)	3.300	(86.11)	3.390
70	(86.36)	3.400	(88.65)	3.490
72	(88.90)	3.500	(91.19)	3.590
74	(91.44)	3.600	(93.73)	3.690
76	(93.98)	3.700	(96.27)	3.790
78	(96.52)	3.800	(98.81)	3.890
80	(99.06)	3.900	(101.35)	3.990

**GENERAL NOTES:**

- PIN PUSHOUT FORCE: 4 LBS. MINIMUM
- FOR ILLUSTRATION PURPOSES, 20 (DUAL 10) CIRCUIT SIZE WAFER IS SHOWN.
- PINS MUST MEET SOLDERABILITY SPEC. NO. 152
- WAFER TO BE FLAT WITHIN (0.03 MM/CM) .003 IN./IN.
- FOR ASSEMBLIES WITH VOIDED PINS; SEE DRAWING NUMBER A-70216-5001-9999.
- THIS PRODUCT CONFORMS TO PRODUCT SPEC PS-70216.
- PACKAGING INFORMATION: (UNLESS OTHERWISE NOTED IN TABLES)

CIRCUIT SIZE	PACKAGING DRAWING
4 THROUGH 8	PK-70873-0353
10 AND OVER	PK-70873-0075

**FINISH:**

- TIN .000150 MINIMUM TIN OVER .000050 MINIMUM NICKEL OVERALL.
- 15 GOLD .000015 MINIMUM GOLD PLATE IN SELECTED AREA AND .000075 MINIMUM TIN IN SELECTED AREA OVER .000050 MINIMUM NICKEL OVERALL.
- 30 GOLD .000030 MINIMUM GOLD PLATE IN SELECTED AREA AND .000075 MINIMUM TIN IN SELECTED AREA OVER .000050 MINIMUM NICKEL OVERALL.
- 50 GOLD .000050 MINIMUM GOLD PLATE IN SELECTED AREA AND .000075 MINIMUM TIN IN SELECTED AREA OVER .000050 MINIMUM NICKEL 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.

**MATERIAL:**

PINS - PHOS. BRONZE  
WAFER - G.F. POLYESTER, 94V-0; COLOR: BLACK

REV.	DESCRIPTION
E	LEAD FREE UCP2004-1770 RLWHITE 04/04/26
D3	REVISE PKGNC EGN UDT2000-0949 SCHAFFER 00/4/76
D2	ADDED PART PER ECR # UT1190 SCARTH 97/04/08
D1	ADDED PART PER ECR # U70668 SCARTH 96/12/13
D	REVISED PER ECR # UT0414 SCARTH 96/11/04
C1	ADDED EDP NO'S PER ECR # U60256 95/08/23 CAC
C	VOIDED EDP NO'S PER ECR # U60097 95/07/27 CAC
B	REVISED INFORM PER ECR NO U50982 03-31-95 BJS
A	RELEASED PER ECR NO. U40640 05-18-94 RCB

DIMENSIONS SHOWN (METRIC) INCH UNLESS OTHERWISE SPECIFIED TOLERANCES: ANGULAR ± 1/2°		REVISIONS																									
<table border="1"> <thead> <tr> <th>PLACES</th> <th>INCH</th> <th>METRIC</th> </tr> </thead> <tbody> <tr> <td>3 PLACES</td> <td>± .005</td> <td>---</td> </tr> <tr> <td>2 PLACES</td> <td>± .01</td> <td>± 0.13</td> </tr> <tr> <td>1 PLACE</td> <td>---</td> <td>± 0.25</td> </tr> </tbody> </table>		PLACES	INCH	METRIC	3 PLACES	± .005	---	2 PLACES	± .01	± 0.13	1 PLACE	---	± 0.25	<table border="1"> <thead> <tr> <th>REV.</th> <th>DATE</th> </tr> </thead> <tbody> <tr> <td>5</td> <td>E</td> </tr> <tr> <td>4</td> <td>E</td> </tr> <tr> <td>3</td> <td>E</td> </tr> <tr> <td>2</td> <td>E</td> </tr> <tr> <td>1</td> <td>E</td> </tr> </tbody> </table>		REV.	DATE	5	E	4	E	3	E	2	E	1	E
PLACES	INCH	METRIC																									
3 PLACES	± .005	---																									
2 PLACES	± .01	± 0.13																									
1 PLACE	---	± 0.25																									
REV.	DATE																										
5	E																										
4	E																										
3	E																										
2	E																										
1	E																										
<table border="1"> <thead> <tr> <th>DRWG. BY</th> <th>CHK'D. BY</th> <th>FILE NAME</th> <th>SCALE</th> </tr> </thead> <tbody> <tr> <td>RCB</td> <td></td> <td>570216X1 DGN</td> <td>4 : 1</td> </tr> </tbody> </table>		DRWG. BY	CHK'D. BY	FILE NAME	SCALE	RCB		570216X1 DGN	4 : 1	<table border="1"> <thead> <tr> <th>PART NO.</th> <th>DRWG. NO.</th> </tr> </thead> <tbody> <tr> <td>SEE CHART</td> <td>SDA-70216-0079-5000</td> </tr> </tbody> </table>		PART NO.	DRWG. NO.	SEE CHART	SDA-70216-0079-5000												
DRWG. BY	CHK'D. BY	FILE NAME	SCALE																								
RCB		570216X1 DGN	4 : 1																								
PART NO.	DRWG. NO.																										
SEE CHART	SDA-70216-0079-5000																										
<table border="1"> <thead> <tr> <th>DRWG. NO.</th> <th>DATE</th> </tr> </thead> <tbody> <tr> <td>SDA-70216-0079-5000</td> <td>05/18/94</td> </tr> </tbody> </table>		DRWG. NO.	DATE	SDA-70216-0079-5000	05/18/94	<table border="1"> <thead> <tr> <th>DRWG. NO.</th> <th>DATE</th> </tr> </thead> <tbody> <tr> <td>SDA-70216-0079-5000</td> <td>05/18/94</td> </tr> </tbody> </table>		DRWG. NO.	DATE	SDA-70216-0079-5000	05/18/94																
DRWG. NO.	DATE																										
SDA-70216-0079-5000	05/18/94																										
DRWG. NO.	DATE																										
SDA-70216-0079-5000	05/18/94																										

J	13	12	11		10	9	8	7	6	70216		4	3	2	1	
	ENGINEERING PART NUMBER A-70216-	RELEASE FOR MANUFACTURE	EXPOSED PIN DIM.						PLATING TYPE - SEE SHEET 1	CONNECTOR END PLATING			P.C. BOARD END PLATING			PACKAGE PER
			C REF.	D ± (0.25) / .010						TYPE	E MEAS.		TYPE	G MEAS.		
I	-0079/-0117	RFM	(2.79) .110	(6.10) .240					TIN	TIN	(2.54) .100		TIN	(1.27) .050	NOTE #7 ON SHEET 1	
I	-0118/-0156	RFM	(2.79) .110	(8.13) .320					TIN	TIN	(4.57) .180		TIN	(1.27) .050	NOTE #7 ON SHEET 1	
H	-0235/-0273	RFM	(2.79) .110	(6.10) .240					15 GOLD	GOLD	(2.54) .100		TIN	(1.27) .050	NOTE #7 ON SHEET 1	
H	-0274/-0312	RFM	(2.79) .110	(8.13) .320					15 GOLD	GOLD	(4.57) .180		TIN	(1.27) .050	NOTE #7 ON SHEET 1	
H	-0313/-0351	RFM	(4.19) .165	(6.10) .240					15 GOLD	GOLD	(2.54) .100		TIN	(1.27) .050	NOTE #7 ON SHEET 1	
G	-0391/-0429	RFM	(2.79) .110	(6.10) .240					30 GOLD	GOLD	(2.54) .100		TIN	(1.27) .050	NOTE #7 ON SHEET 1	
G	-0430/-0468	RFM	(2.79) .110	(8.13) .320					30 GOLD	GOLD	(4.57) .180		TIN	(1.27) .050	NOTE #7 ON SHEET 1	
F	-0469/-0507	RFM	(4.45) .175	(6.10) .240					30 GOLD	GOLD	(2.54) .100		TIN	(1.27) .050	NOTE #7 ON SHEET 1	
F	-0547/-0585	RFM	(2.79) .110	(6.10) .240					50 GOLD	GOLD	(2.54) .100		TIN	(1.27) .050	NOTE #7 ON SHEET 1	
E	-0664/-0702	RFM	(2.79) .110	(9.53) .375					15 GOLD	GOLD	(4.57) .180		TIN	(1.27) .050	NOTE #7 ON SHEET 1	
E	-0703/-0741														NOTE #7 ON SHEET 1	
D	-0742/-0780														NOTE #7 ON SHEET 1	
CHARTED DIMENSIONS FOR ASSEMBLIES LISTED AFTER A-70216-0780 WILL CONTINUE ON SHEET 6.																
C																C
B																B
A																A
										E	SEE SHEET 1	DIMENSIONS SHOWN (METRIC) INCH		<input checked="" type="checkbox"/> = 0 <input type="checkbox"/> = 0    REVISE ONLY ON CAD SYSTEM		
										DI	SEE SHEET 1	UNLESS OTHERWISE SPECIFIED TOLERANCES: ANGULAR ± 1/2°		TITLE		
										D	SEE SHEET 1	INCH    METRIC		SALES ASS'Y-RIGHT ANGLE WAFER W/BREAK-OFF OPTION .100 GRID DUAL ROW W/.025 SQUARE PINS		
										CI	SEE SHEET 1	3 PLACE ± .005	---	FROM MOLEX INCORPORATED SHEET NO. DATE		
										C	SEE SHEET 1	2 PLACE ± .01	± 0.13	L15LE,ILL. 60532 U.S.A. 2 05/18/94		
										B	SEE SHEET 1	1 PLACE ---	± 0.25	PART NO. DRWG. NO.		
										A	SEE SHEET 1	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		SEE CHART SDA-70216-0079-5000		
										LTR.	REVISIONS	LTR.	REVISIONS	FILE NAME 570216X2 DIV. SIZE		
														THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INC. AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION. DA C		

