

## FEATURES AND SPECIFICATIONS

### Features and Benefits

- Sizes 2 to 40 circuits
- Easy breakaway to smaller sizes
- Contact and plating orientation according to DIN 41651
- North/south contact orientation avoids overstress
- High pin retention
- High mechanical stability after soldering

### Reference Information

Product Specification: PS-99020-0001  
 Packaging: Bag  
 Mates With: C-Grid III Housing and Connectors  
 Designed In: Inches

### Electrical

Voltage: 350V  
 Current: 3.0A  
 Contact Resistance: 20mΩ max.  
 Insulation Resistance: 5000 MΩ min.

### Mechanical

Contact Retention to Housing: 20N (2.0kgf) min.  
 Mating Force: 1N max. Gold and 3N max. Tin  
 Unmating Force: 0.2N min. Gold and 0.2N min. Tin  
 Normal Force: 1N

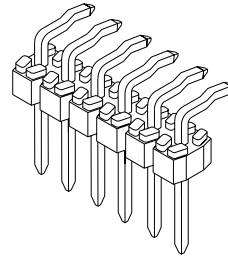
### Physical

Housing: Black glass-filled polyester, UL 94V-0  
 Contact: Copper Alloy, 0.64mm (.025") square pins  
 Plating: See Table  
 Operating Temperature: -55 to +125°C

# molex® 2.54mm (.100") Pitch C-Grid III™ Kinked Pin Header

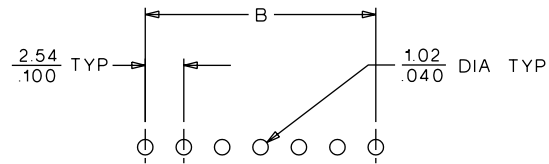
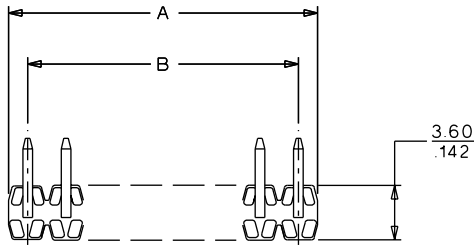
## 90629

### Single Row Right Angle



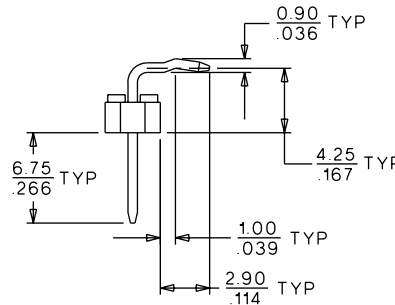
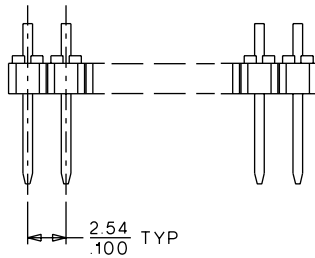
## CATALOG DRAWING (FOR REFERENCE ONLY)

**Not For Use With Molex SL™ Components**



PCB LAYOUT: COMPONENT SIDE

RECOMMENDED PANEL THICKNESS: 1.55 / .061



## ORDERING INFORMATION AND DIMENSIONS

Circuits	Order No.			Dimension	
	Plating A	Plating E	Plating F	A	B
2	90629-0122	90629-0762	90629-0922	5.08 (.200)	2.54 (.100)
3	90629-0123	90629-0763	90629-0923	7.62 (.300)	5.08 (.200)
4	90629-0124	90629-0764	90629-0924	10.16 (.400)	7.62 (.300)
5	90629-0125	90629-0765	90629-0925	12.70 (.500)	10.16 (.400)
6	90629-0126	90629-0766	90629-0926	15.24 (.600)	12.70 (.500)
7	90629-0127	90629-0767	90629-0927	17.78 (.700)	15.24 (.600)
8	90629-0128	90629-0768	90629-0928	20.32 (.800)	17.78 (.700)
9	90629-0129	90629-0769	90629-0929	22.86 (.900)	20.32 (.800)
10	90629-0130	90629-0770	90629-0930	25.40 (1.000)	22.86 (.900)
11	90629-0131	90629-0771	90629-0931	27.94 (1.100)	25.40 (1.000)
12	90629-0132	90629-0772	90629-0932	30.48 (1.200)	27.94 (1.100)
13	90629-0133	90629-0773	90629-0933	33.02 (1.300)	30.48 (1.200)
14	90629-0134	90629-0774	90629-0934	35.56 (1.400)	33.02 (1.300)
15	90629-0135	90629-0775	90629-0935	38.10 (1.500)	35.56 (1.400)
16	90629-0136	90629-0776	90629-0936	40.64 (1.600)	38.10 (1.500)
17	90629-0137	90629-0777	90629-0937	43.18 (1.700)	40.64 (1.600)
18	90629-0138	90629-0778	90629-0938	45.72 (1.800)	43.18 (1.700)
19	90629-0139	90629-0779	90629-0939	48.76 (1.900)	45.72 (1.800)

Circuits	Order No.			Dimension	
	Plating A	Plating E	Plating F	A	B
20	90629-0140	90629-0780	90629-0940	50.80 (2.000)	48.76 (1.900)
21	90629-0141	90629-0781	90629-0941	53.34 (2.100)	50.80 (2.000)
22	90629-0142	90629-0782	90629-0942	55.88 (2.200)	53.34 (2.100)
23	90629-0143	90629-0783	90629-0943	58.42 (2.300)	55.88 (2.200)
24	90629-0144	90629-0784	90629-0944	60.46 (2.400)	58.42 (2.300)
25	90629-0145	90629-0785	90629-0945	63.50 (2.500)	60.46 (2.400)
26	90629-0146	90629-0786	90629-0946	66.04 (2.600)	63.50 (2.500)
27	90629-0147	90629-0787	90629-0947	68.58 (2.700)	66.04 (2.600)
28	90629-0148	90629-0788	90629-0948	71.12 (2.800)	68.58 (2.700)
29	90629-0149	90629-0789	90629-0949	73.66 (2.900)	71.12 (2.800)
30	90629-0150	90629-0790	90629-0950	76.20 (3.000)	73.66 (2.900)
31	90629-0151	90629-0791	90629-0951	78.24 (3.100)	76.20 (3.000)
32	90629-0152	90629-0792	90629-0952	81.28 (3.200)	78.24 (3.100)
33	90629-0153	90629-0793	90629-0953	83.82 (3.300)	81.28 (3.200)
34	90629-0154	90629-0794	90629-0954	86.36 (3.400)	83.82 (3.300)
35	90629-0155	90629-0795	90629-0955	88.90 (3.500)	86.36 (3.400)
36	90629-0156	90629-0796	90629-0956	91.44 (3.600)	88.90 (3.500)
37	90629-0157	90629-0797	90629-0957	93.98 (3.700)	91.44 (3.600)
38	90629-0158	90629-0798	90629-0958	96.52 (3.800)	93.98 (3.700)
39	90629-0159	90629-0799	90629-0959	99.06 (3.900)	96.52 (3.800)
40	• 90629-0160	• 90629-0800	• 90629-0960	101.60 (4.000)	99.06 (3.900)

• Molex European standard product, usually available within shorter lead times

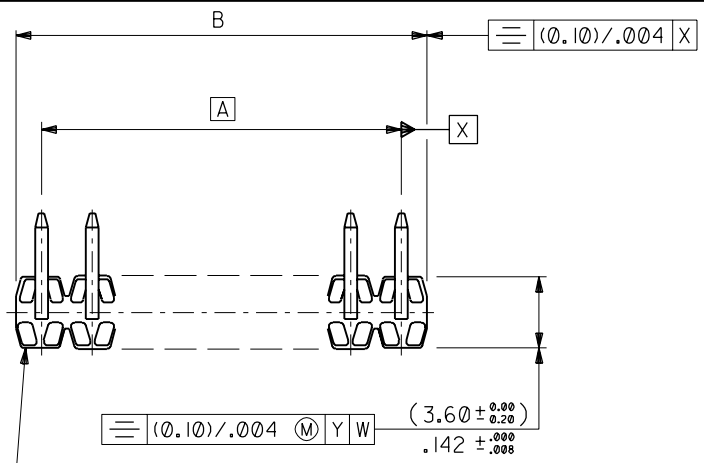
For other available versions contact Molex

Plating A: 4µm (160µ") Tin/Lead over Nickel

Plating E: 0.38µm (15µ") selective Gold over Nickel and 4µm (160µ") Tin/Lead over Nickel

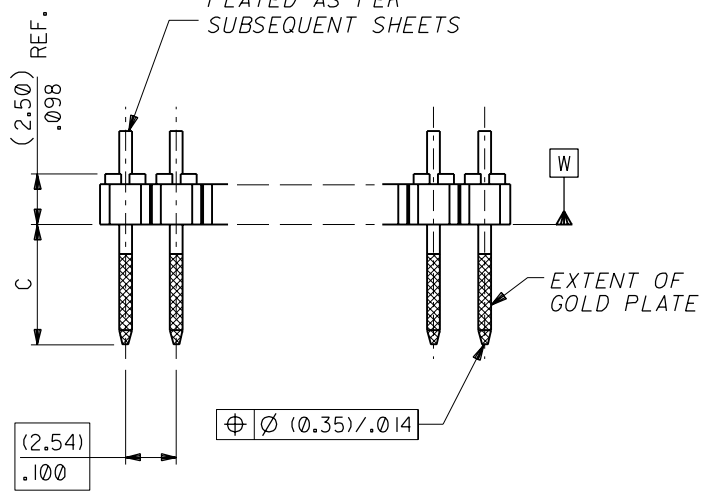
Plating F: 0.76µm (30µ") selective Gold over Nickel and 4µm (160µ") Tin/Lead over Nickel

PART NO. SEE CHART  
 DWG. NO. SDA-90629



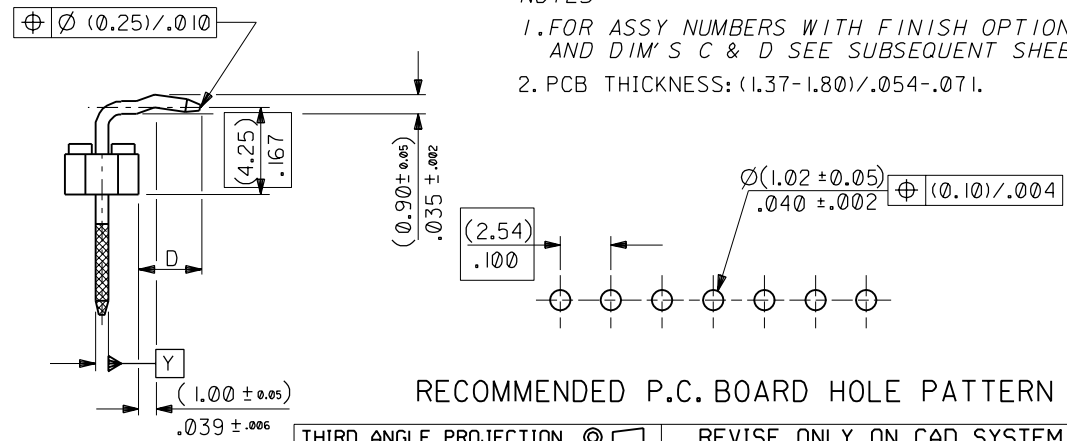
WAFER: 15% G.F. POLYESTER  
 TO UL 94V-0.  
 COLOUR: BLACK.

PINS: (0.635)/.025 SQ.  
 BRASS WIRE.  
 PLATED AS PER  
 SUBSEQUENT SHEETS



CKT SIZE	DIM. "A"		DIM. "B" ( $\pm 0.20$ / $\pm .008$ )		CKT SIZE	DIM. "A"		DIM. "B" ( $\pm 0.20$ / $\pm .008$ )	
1X 1			(2.54)	.100	1X21	(50.80)	2.000	(53.34)	2.100
1X 2	(2.54)	.100	(5.08)	.200	1X22	(53.34)	2.100	(55.88)	2.200
1X 3	(5.08)	.200	(7.62)	.300	1X23	(55.88)	2.200	(58.42)	2.300
1X 4	(7.62)	.300	(10.16)	.400	1X24	(58.42)	2.300	(60.96)	2.400
1X 5	(10.16)	.400	(12.70)	.500	1X25	(60.96)	2.400	(63.50)	2.500
1X 6	(12.70)	.500	(15.24)	.600	1X26	(63.50)	2.500	(66.04)	2.600
1X 7	(15.24)	.600	(17.78)	.700	1X27	(66.04)	2.600	(68.58)	2.700
1X 8	(17.78)	.700	(20.32)	.800	1X28	(68.58)	2.700	(71.12)	2.800
1X 9	(20.32)	.800	(22.86)	.900	1X29	(71.12)	2.800	(73.66)	2.900
1X10	(22.86)	.900	(25.40)	1.000	1X30	(73.66)	2.900	(76.20)	3.000
1X11	(25.40)	1.000	(27.94)	1.100	1X31	(76.20)	3.000	(78.74)	3.100
1X12	(27.94)	1.100	(30.48)	1.200	1X32	(78.74)	3.100	(81.28)	3.200
1X13	(30.48)	1.200	(33.02)	1.300	1X33	(81.28)	3.200	(83.82)	3.300
1X14	(33.02)	1.300	(35.56)	1.400	1X34	(83.82)	3.300	(86.36)	3.400
1X15	(35.56)	1.400	(38.10)	1.500	1X35	(86.36)	3.400	(88.90)	3.500
1X16	(38.10)	1.500	(40.64)	1.600	1X36	(88.90)	3.500	(91.44)	3.600
1X17	(40.64)	1.600	(43.18)	1.700	1X37	(91.44)	3.600	(93.98)	3.700
1X18	(43.18)	1.700	(45.72)	1.800	1X38	(93.98)	3.700	(96.52)	3.800
1X19	(45.72)	1.800	(48.26)	1.900	1X39	(96.52)	3.800	(99.06)	3.900
1X20	(48.26)	1.900	(50.80)	2.000	1X40	(99.06)	3.900	(101.60)	4.000

NOTES  
 1. FOR ASSY NUMBERS WITH FINISH OPTIONS AND DIM'S C & D SEE SUBSEQUENT SHEETS.  
 2. PCB THICKNESS: (1.37-1.80)/.054-.071.



RECOMMENDED P.C. BOARD HOLE PATTERN

FOR PREVIOUS DRAWING ISSUES SEE MRI.

CHANGED PIN POSTN ECN E2001-0726 01/01/17 FD	LTR	REVISIONS	DRWG BY <b>RD</b>	REVISE ONLY ON CAD SYSTEM							
		<table border="1"> <tr><td>3 PLACE</td><td>± .</td></tr> <tr><td>2 PLACE</td><td>± .004 ± .10</td></tr> <tr><td>1 PLACE</td><td>± .25</td></tr> </table>		3 PLACE	± .	2 PLACE	± .004 ± .10	1 PLACE	± .25	<table border="1"> <tr><td>SH.</td><td>C</td></tr> <tr><td></td><td>C</td></tr> </table>	SH.
3 PLACE	± .										
2 PLACE	± .004 ± .10										
1 PLACE	± .25										
SH.	C										
	C										
DIMENSIONS SHOWN (METRIC) INCH UNLESS OTHERWISE SPECIFIED TOLERANCES: ANGULAR $\pm 2^\circ$ INCH (METRIC)		CAD/CAM FILENAME SA90629X1 DGN	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INC. & SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION								
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS DESIGN DIMENSION <input checked="" type="checkbox"/> (MM) (PRIMARY) <input type="checkbox"/> IN. EQUIVALENT DIMENSION <input type="checkbox"/> (MM) (SECONDARY) <input checked="" type="checkbox"/> IN.		TITLE <b>C-GRID III          SINGLE ROW KINKED          RIGHT ANGLE HEADER</b>	SHEET NO. DATE 10F2 90/09/12								
SCALE <b>4:1</b>		PART NO. <b>SEE CHART</b>	DWG NO. <b>SDA-90629</b>	SIZE <b>B</b>							

	13	12	11	10	9	8	7	6	5	4	3	2	1	
J														J
I														I
H														H
G														G
F														F
E														E
D														D
C														C
B														B
A														A

PART NO. SEE CHART  
 ENG. NO. SDA-90629

CIRCUIT SIZE	PLATING TYPE 'A' PART NO.	PLATING TYPE 'B' PART NO.	PLATING TYPE 'F' PART NO.	KINKED PIN POSITION
I X 1	90629-0121	90629-0761	90629-0921	1
I X 2	-0122	-0762	-0922	1 & 2
I X 3	-0123	-0763	-0923	2
I X 4	-0124	-0764	-0924	2
I X 5	-0125	-0765	-0925	3
I X 6	-0126	-0766	-0926	3
I X 7	-0127	-0767	-0927	4
I X 8	-0128	-0768	-0928	4
I X 9	-0129	-0769	-0929	5
I X 10	-0130	-0770	-0930	5
I X 11	-0131	-0771	-0931	1,6 & 11
I X 12	-0132	-0772	-0932	1,6 & 12
I X 13	-0133	-0773	-0933	1,7 & 13
I X 14	-0134	-0774	-0934	1,7 & 14
I X 15	-0135	-0775	-0935	1,8 & 15
I X 16	-0136	-0776	-0936	1,8 & 16
I X 17	-0137	-0777	-0937	1,9 & 17
I X 18	-0138	-0778	-0938	1,9 & 18
I X 19	-0139	-0779	-0939	1,10 & 19
I X 20	-0140	-0780	-0940	1,10 & 20
I X 21	-0141	-0781	-0941	1,11 & 21
I X 22	-0142	-0782	-0942	1,12 & 22
I X 23	-0143	-0783	-0943	1,12 & 23
I X 24	-0144	-0784	-0944	1,13 & 24
I X 25	-0145	-0785	-0945	1,13 & 25
I X 26	-0146	-0786	-0946	1,14 & 26
I X 27	-0147	-0787	-0947	1,14 & 27
I X 28	-0148	-0788	-0948	1,15 & 28
I X 29	-0149	-0789	-0949	1,15 & 29
I X 30	-0150	-0790	-0950	1,16 & 30
I X 31	-0151	-0791	-0951	1,16 & 31
I X 32	-0152	-0792	-0952	1,17 & 32
I X 33	-0153	-0793	-0953	1,17 & 33
I X 34	-0154	-0794	-0954	1,18 & 34
I X 35	-0155	-0795	-0955	1,18 & 35
I X 36	-0156	-0796	-0956	1,19 & 36
I X 37	-0157	-0797	-0957	1,19 & 37
I X 38	-0158	-0798	-0958	1,20 & 38
I X 39	-0159	-0799	-0959	1,20 & 39
I X 40	90629-0160	90629-0800	90629-0960	1,21 & 40

DIM 'C'  
 (+0.25)  
 (+0.10)  
 (6.75)  
 .266

DIM 'D'  
 (+0.30)  
 (+0.12)  
 (2.90)  
 .114

NOTES:  
 1. FOR PLATING VARIATIONS SEE ENG. STD. SDES-99000-0003

QUALITY SYMBOLS	GENERAL TOLERANCES: (UNLESS SPECIFIED)	SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION	DIMENSIONS: <input type="checkbox"/> MM <input type="checkbox"/> INCH	SHT	REV
MAJOR	QUALITY SYMBOLS	GENERAL TOLERANCES: (UNLESS SPECIFIED)	SCALE	DESIGN UNITS	DIMENSIONS: <input type="checkbox"/> MM <input type="checkbox"/> INCH	SHT	REV
CRITICAL	DESCRIPTION	GENERAL TOLERANCES: (UNLESS SPECIFIED)	SCALE	DESIGN UNITS	DIMENSIONS: <input type="checkbox"/> MM <input type="checkbox"/> INCH	SHT	REV
REV	DESCRIPTION	GENERAL TOLERANCES: (UNLESS SPECIFIED)	SCALE	DESIGN UNITS	DIMENSIONS: <input type="checkbox"/> MM <input type="checkbox"/> INCH	SHT	REV
REV	DESCRIPTION	GENERAL TOLERANCES: (UNLESS SPECIFIED)	SCALE	DESIGN UNITS	DIMENSIONS: <input type="checkbox"/> MM <input type="checkbox"/> INCH	SHT	REV

DATE: 13 9 90  
 DRAWN BY: MW  
 CHECKED BY: RD  
 APPROVED BY: MW  
 CAD FILENAME: S:\90629X2.DGN  
 MATERIAL: MOLEX INCORPORATED  
 DRAWING NO. SDA-90629  
 SHEET NO. 2 OF 2