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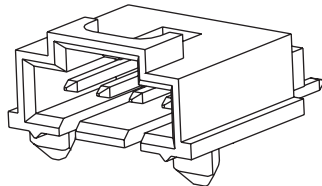
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Jameco Part Number 1961444

2.54mm (.100") Pitch SL™ Wire-to-Board Shrouded Header

70634

Single Row, .120" Pocket
Right Angle, Low Profile
SMT with Tri Peg



Features and Benefits

- Sizes 2 to 25 circuits
- Press-fit peg maximizes retention to PCB during soldering process
- Locking crown secures positive latch to header
- Standoffs minimize flux interference

Reference Information

Product Specification: PS-70541
Packaging: Tube
UL File No.: E29179
CSA File No.: LR19980
Mates with: 70066G, 70066N, 70400G and 70430G
Designed in: Inches

Electrical

Voltage: 250V
Current: 3.0A
Contact Resistance: 15 milliohms max.
Dielectric Withstanding Voltage: 1500V
Insulation Resistance: 10,000 Megohms min.

Mechanical

Insertion force to PCB: 44.48N (10 lbs.)
Durability: Tin — 25 cycles; Gold — 50 cycles

Physical

Housing: Black polyester, UL 94V-0
Contact: Copper Alloy
Operating Temperature: -40 to +105°C

Circuits	Order No.			Lead-free
	Tin	15µ" Gold	30µ" Gold	
2	15-91-3024	15-91-2025	15-91-3023	Yes
3	15-91-3034	15-91-2035	15-91-3033	
4	15-91-3044	15-91-2045	15-91-3043	
5	15-91-3054	15-91-2055	15-91-3053	
6	15-91-3064	15-91-2065	15-91-3063	
7	15-91-3074	15-91-2075	15-91-3073	
8	15-91-3084	15-91-2085	15-91-3083	
9	15-91-3094	15-91-2095	15-91-3093	
10	15-91-3104	15-91-2105	15-91-3103	
11	15-91-3114	15-91-2115	15-91-3113	
12	15-91-3124	15-91-2125	15-91-3123	
13	15-91-3134	15-91-2135	15-91-3133	

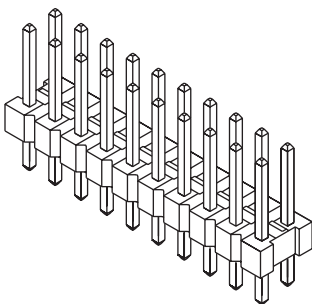
Circuits	Order No.			Lead-free
	Tin	15µ" Gold	30µ" Gold	
14	15-91-3144	15-91-2145	15-91-3143	Yes
15	15-91-3154	15-91-2155	15-91-3153	
16	15-91-3164	15-91-2165	15-91-3163	
17	15-91-3174	15-91-2175	15-91-3173	
18	15-91-3184	15-91-2185	15-91-3183	
19	15-91-3194	15-91-2195	15-91-3193	
20	15-91-3204	15-91-2205	15-91-3203	
21	15-91-3214	15-91-2215	15-91-3213	
22	15-91-3224	15-91-2225	15-91-3223	
23	15-91-3234	15-91-2235	15-91-3233	
24	15-91-3244	15-91-2245	15-91-3243	
25	15-91-3254	15-91-2255	15-91-3253	

www.molex.com/product/sl_products.html

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

70280

Dual Row, Vertical
High-Temperature



Features and Benefits

- Sizes 4 to 100 circuits
- Stackable side-to-side and 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 Specifications: PS-70280
Packaging: Bag
UL File No.: E29179
CSA File No.: LR19980
Mates With: 7859 Shunts, C-Grid Receptacles, SL Crimp, FFC and IDT Housings
Designed In: Inches

Electrical

Voltage: 250V
Current: 3.0A
Contact Resistance: 15 milliohms max.
Dielectric Withstanding Voltage: 1500V
Insulation Resistance: 1000 Megohms min.

Mechanical

Pin Retention to Header: 17.79N (4 lb)
Durability: Tin—25 cycles; Gold—50 cycles

Physical

Housing: Black high-temperature thermal plastic, UL 94V-0
Contact: Copper Alloy
Plating: See Table
Operating Temperature: -40 to +105°C

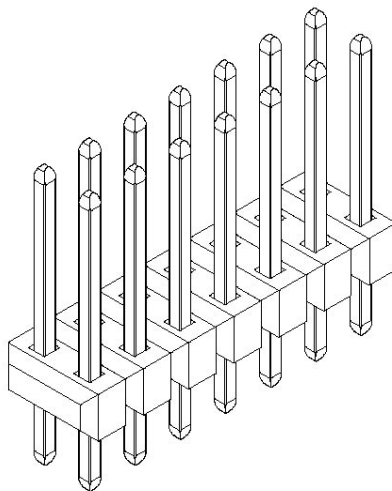
Not For Use With Molex C-Grid III™ Components

Plating Option	Order No.	Lead-free
150µ" Tin	10-89-7XX1	Yes
15µ" Gold	10-89-7XX2	
30µ" Gold	10-89-7XX0	

Replace XX with no. of circuits, 04-80 (even only). See sales drawing for 82-100.



PRODUCT SPECIFICATION



SERIES 70280 / 70287

C-GRID[®] VERTICAL THROUGH HOLE .100" GRID DUAL ROW HEADER WITH BREAK OFF OPTION SERIES 70280 / 70287

- 1.0 SCOPE
- 2.0 PRODUCT DESCRIPTION
 - 2.1 PRODUCT NAME AND SERIES NUMBER
 - 2.2 DIMENSIONS, MATERIALS, PLATINGS AND MARKINGS
 - 2.3 SAFETY AGENCY APPROVALS
- 3.0 APPLICABLE DOCUMENTS AND SPECIFICATIONS
- 4.0 RATINGS
 - 4.1 VOLTAGE
 - 4.2 CURRENT
 - 4.3 TEMPERATURE
- 5.0 PERFORMANCE
 - 5.1 ELECTRICAL REQUIREMENTS
 - 5.2 MECHANICAL REQUIREMENTS
- 6.0 PACKAGING

REVISION:	ECR/ECN INFORMATION:	TITLE:	SHEET No.
B3	EC No: UCP2008-0465 DATE: 9/5/2007	.100" GRID VERTICAL MOUNT DUAL ROW BREAKAWAY HEADER	1 of 3
DOCUMENT NUMBER:	CREATED / REVISED BY:	CHECKED BY:	APPROVED BY:
PS-70280	ADERR	LSCHMIDT	FSMITH



PRODUCT SPECIFICATION

1.0 SCOPE:

This specification covers the C-Grid® vertical dual row header with break-off option. The wafer (header body) is designed to be easily modified to a smaller circuit size in the field if required. The mating pins are .025in (0.64mm) square and have .100in (2.54mm) grid spacing.

2.0 PRODUCT DESCRIPTION

2.1 PRODUCT NAME AND SERIES NUMBER

SERIES 70280: Vertical mount through hole dual row header with break off option.

SERIES 70287: Vertical mount through hole dual row header with retention pins and break off option.

2.2 DIMENSIONS, PLATINGS, AND MARKINGS

The products are available in circuit sizes of 4 through 100 circuits and are end to end stackable. Product can also be ordered with selective voids. The wafer is produced from glass filled Liquid Crystal Polymer, (LCP) having a UL 94V-0 flammability rating. Mating pin lengths are .240in (6.0mm), and .320in (8.1mm) with gold or tin plating. For further details, please refer to the sales documents in section 3.0.

2.3 RECOGNIZED AGENCY APPROVALS:

2.3.1 Underwriters' Laboratories: E29179

2.3.2 Canadian Standards Association: LR19980

3.0 APPLICABLE DOCUMENTS AND SPECIFICATIONS:

3.1 MOLEX DOCUMENTS

SDA-70280-0001-4000	SALES DRAWING, VERTICAL MOUNT THROUGH HOLE DUAL ROW HEADER WITH BREAK OFF OPTION
SDA-70280-5001-9999	SALES DRAWING, VERTICAL MOUNT THROUGH HOLE DUAL ROW HEADER WITH BREAK OFF OPTION AND SELECTIVE VOIDS
SD-70280-001	SALES DRAWING, VERTICAL MOUNT THROUGH HOLE DUAL ROW HEADER WITH BREAK OFF OPTION
SD-70280-002	SALES DRAWING, VERTICAL MOUNT THROUGH HOLE DUAL ROW HEADER WITH BREAK OFF OPTION, CUSTOM HEADERS
SDA-70280-003	SALES DRAWING, VERTICAL MOUNT THROUGH HOLE DUAL ROW HEADER WITH BREAK OFF OPTION
SD-70287-003	SALES DRAWING, VERTICAL MOUNT THROUGH HOLE DUAL ROW HEADER WITH RETENTION PINS AND BREAK OFF OPTION
PK-70873-0353	PACKAGING SPECIFICATION VERTICAL MOUNT THROUGH DUAL ROW HEADER WITH BREAK OFF OPTION
PK-70873-0276	PACKAGING SPECIFICATION VERTICAL MOUNT THROUGH DUAL ROW HEADER WITH BREAK OFF OPTION

REVISION: B3	ECR/ECN INFORMATION: EC No: UCP2008-0465 DATE: 9/5/2007	TITLE: .100" GRID VERTICAL MOUNT DUAL ROW BREAKAWAY HEADER	SHEET No. 2 of 3
DOCUMENT NUMBER: PS-70280	CREATED / REVISED BY: ADERR	CHECKED BY: LSCHMIDT	APPROVED BY: FSMITH



PRODUCT SPECIFICATION

PK-70873-0090

PACKAGING SPECIFICATION VERTICAL MOUNT
THROUGH DUAL ROW HEADER WITH BREAK OFF
OPTION

PS-45499-002

COSMETIC SPECIFICATION

3.2 OTHER DOCUMENTS

MIL STD 202F

4.0 RATINGS

4.1 **VOLTAGE:** 250 Volts D.C.

4.2 **CURRENT:** 3.0 Amp D.C. maximum.

4.3 **TEMPERATURE:**

4.3.1 **PROCESSING TEMPERATURE:** (see SMES-152)

Wave Solder Process

Dip connector pin tails in solder;

Solder Temperature: 260°C MAX

Solder Duration: 5 +/- 0.5 seconds

4.3.2 **OPERATING TEMPERATURE** (ambient +30° temp rise): -40 °C to +120 °C

NON-OPERATING TEMPERATURE: -30 °C to +60 °C

5.0 PERFORMANCE

5.1 ELECTRICAL REQUIREMENTS

5.1.1 **INSULATION RESISTANCE:** Greater than 1,000MΩ at sea level.

5.1.2 **DIELECTRIC WITHSTANDING VOLTAGE:** Greater than 600 Volts at sea level.

5.1.3 **TEMPERATURE RISE:** 30°C maximum at rated current

5.2 MECHANICAL REQUIREMENTS:

5.2.1 **Header pin retention** (push out force): 3 lbs minimum before soldering.

5.2.2 **Durability:** Mate connectors up to 25 cycles at a maximum rate of 10 cycles/minute prior to environmental testing. 10 milliohms maximum (change from initial).

5.3 ENVIRONMENTAL REQUIREMENTS:

5.3.1 **THERMAL SHOCK**

10 Cycles from -40°C to 105°C, ½ hour at each temperature setting.

5.3.2 **CHEMICAL RESISTANCE**

Per Mil. Std. 202F, Method 215A.

6.0 **PACKAGING** Refer to section 3.0 for packaging documents

REVISION:	ECR/ECN INFORMATION:	TITLE:	SHEET No.
B3	EC No: UCP2008-0465 DATE: 9/5/2007	.100" GRID VERTICAL MOUNT DUAL ROW BREAKAWAY HEADER	3 of 3
DOCUMENT NUMBER:	CREATED / REVISED BY:	CHECKED BY:	APPROVED BY:
PS-70280	ADERR	LSCHMIDT	FSMITH

13		12		11		10		9		8		7		6		5		4		3		2		1					
J	ENGINEERING NUMBER A-70280-		RELEASE FOR MANUFACTURE						E REF.		J REF.		C ±(0.25) .010				CONNECTOR END PLATING		P.C. BOARD END PLATING				FOR PACKAGING INFORMATION, SEE NOTE 4, SHEET 1 (UNLESS OTHERWISE SPECIFIED BELOW)						
																	TYPE		D MEAS.				TYPE		F MEAS.				
I	-0001/-0040		R.F.M.						(2.72) .107		(11.10) .437		(6.10) .240				TIN		(2.54) .100				TIN		(1.27) .050				
	-0041/-0080		R.F.M.						(2.72) .107		(11.10) .437		(6.10) .240				15 GOLD		(2.54) .100				TIN		(1.27) .050				
	-0081/-0120		R.F.M.						(2.72) .107		(11.10) .437		(6.10) .240				30 GOLD		(2.54) .100				TIN		(1.27) .050				
H	-0121/-0160		R.F.M.						(2.79) .110		(13.21) .520		(8.13) .320				TIN		(4.57) .180				TIN		(1.27) .050				
	-0161/-0200		R.F.M.						(2.79) .110		(13.21) .520		(8.13) .320				15 GOLD		(4.57) .180				TIN		(1.27) .050				
	-0201/-0240		R.F.M.						(2.79) .110		(13.21) .520		(8.13) .320				30 GOLD		(4.57) .180				TIN		(1.27) .050				
	-0241/-0280		R.F.M.						(3.94) .155		(12.32) .485		(6.10) .240				30 GOLD		(2.54) .100				TIN		(1.27) .050				
CKTS		EDP NUMBER		ENG NUMBER		EDP NUMBER		ENG NUMBER		EDP NUMBER		ENG NUMBER		EDP NUMBER		ENG NUMBER		EDP NUMBER		ENG NUMBER		EDP NUMBER		ENG NUMBER		CKTS			
		N.A.		AX-70280-0001		N.A.		AX-70280-0041		N.A.		AX-70280-0081		N.A.		AX-70280-0121		N/A		AX-70280-0161		N/A		AX-70280-0201		N/A		AX-70280-0241	
G	04	010-89-7041	A-70280-0002	010-89-7042	A-70280-0042	010-89-7040	A-70280-0082	010-97-7045	A-70280-0122	010-97-7046	A-70280-0162	010-89-7043	A-70280-0202	010-87-9045	A-70280-0242	04												04	
	06	010-89-7061	A-70280-0003	010-89-7062	A-70280-0043	010-89-7060	A-70280-0083	010-97-7065	A-70280-0123	010-97-7066	A-70280-0163	010-89-7063	A-70280-0203	010-87-9065	A-70280-0243	06												06	
	08	010-89-7081	A-70280-0004	010-89-7082	A-70280-0044	010-89-7080	A-70280-0084	010-97-7085	A-70280-0124	010-97-7086	A-70280-0164	010-89-7083	A-70280-0204	010-87-9085	A-70280-0244	08												08	
F	10	010-89-7101	A-70280-0005	010-89-7102	A-70280-0045	010-89-7100	A-70280-0085	010-97-7105	A-70280-0125	010-97-7106	A-70280-0165	010-89-7103	A-70280-0205	010-87-9105	A-70280-0245	10												10	
	12	010-89-7121	A-70280-0006	010-89-7122	A-70280-0046	010-89-7120	A-70280-0086	010-97-7125	A-70280-0126	010-97-7126	A-70280-0166	010-89-7123	A-70280-0206	010-87-9125	A-70280-0246	12												12	
	14	010-89-7141	A-70280-0007	010-89-7142	A-70280-0047	010-89-7140	A-70280-0087	010-97-7145	A-70280-0127	010-97-7146	A-70280-0167	010-89-7143	A-70280-0207	010-87-9145	A-70280-0247	14												14	
E	16	010-89-7161	A-70280-0008	010-89-7162	A-70280-0048	010-89-7160	A-70280-0088	010-97-7165	A-70280-0128	010-97-7166	A-70280-0168	010-89-7163	A-70280-0208	010-87-9165	A-70280-0248	16												16	
	18	010-89-7181	A-70280-0009	010-89-7182	A-70280-0049	010-89-7180	A-70280-0089	010-97-7185	A-70280-0129	010-97-7186	A-70280-0169	010-89-7183	A-70280-0209	010-87-9185	A-70280-0249	18												18	
	20	010-89-7201	A-70280-0010	010-89-7202	A-70280-0050	010-89-7200	A-70280-0090	010-97-7205	A-70280-0130	010-97-7206	A-70280-0170	010-89-7203	A-70280-0210	010-87-9205	A-70280-0250	20												20	
D	22	010-89-7221	A-70280-0011	010-89-7222	A-70280-0051	010-89-7220	A-70280-0091	010-97-7225	A-70280-0131	010-97-7226	A-70280-0171	010-89-7223	A-70280-0211	010-87-9225	A-70280-0251	22												22	
	24	010-89-7241	A-70280-0012	010-89-7242	A-70280-0052	010-89-7240	A-70280-0092	010-97-7245	A-70280-0132	010-97-7246	A-70280-0172	010-89-7243	A-70280-0212	010-87-9245	A-70280-0252	24												24	
	26	010-89-7261	A-70280-0013	010-89-7262	A-70280-0053	010-89-7260	A-70280-0093	010-97-7265	A-70280-0133	010-97-7266	A-70280-0173	010-89-7263	A-70280-0213	010-87-9265	A-70280-0253	26												26	
C	28	010-89-7281	A-70280-0014	010-89-7282	A-70280-0054	010-89-7280	A-70280-0094	010-97-7285	A-70280-0134	010-97-7286	A-70280-0174	010-89-7283	A-70280-0214	010-87-9285	A-70280-0254	28												28	
	30	010-89-7301	A-70280-0015	010-89-7302	A-70280-0055	010-89-7300	A-70280-0095	010-97-7305	A-70280-0135	010-97-7306	A-70280-0175	010-89-7303	A-70280-0215	010-87-9305	A-70280-0255	30												30	
	32	010-89-7321	A-70280-0016	010-89-7322	A-70280-0056	010-89-7320	A-70280-0096	010-97-7325	A-70280-0136	010-97-7326	A-70280-0176	010-89-7323	A-70280-0216	010-87-9325	A-70280-0256	32												32	
B	34	010-89-7341	A-70280-0017	010-89-7342	A-70280-0057	010-89-7340	A-70280-0097	010-97-7345	A-70280-0137	010-97-7346	A-70280-0177	010-89-7343	A-70280-0217	010-87-9345	A-70280-0257	34												34	
	36	010-89-7361	A-70280-0018	010-89-7362	A-70280-0058	010-89-7360	A-70280-0098	010-97-7365	A-70280-0138	010-97-7366	A-70280-0178	010-89-7363	A-70280-0218	010-87-9365	A-70280-0258	36												36	
	38	010-89-7381	A-70280-0019	010-89-7382	A-70280-0059	010-89-7380	A-70280-0099	010-97-7385	A-70280-0139	010-97-7386	A-70280-0179	010-89-7383	A-70280-0219	010-87-9385	A-70280-0259	38												38	
A	40	010-89-7401	A-70280-0020	010-89-7402	A-70280-0060	010-89-7400	A-70280-0100	010-97-7405	A-70280-0140	010-97-7406	A-70280-0180	010-89-7403	A-70280-0220	010-87-9405	A-70280-0260	40												40	
	42	010-89-7421	A-70280-0021	010-89-7422	A-70280-0061	010-89-7420	A-70280-0101	010-97-7425	A-70280-0141	010-97-7426	A-70280-0181	010-89-7423	A-70280-0221	010-87-9425	A-70280-0261	42												42	
	44	010-89-7441	A-70280-0022	010-89-7442	A-70280-0062	010-89-7440	A-70280-0102	010-97-7445	A-70280-0142	010-97-7446	A-70280-0182	010-89-7443	A-70280-0222	010-87-9445	A-70280-0262	44												44	
Z	46	010-89-7461	A-70280-0023	010-89-7462	A-70280-0063	010-89-7460	A-70280-0103	010-97-7465	A-70280-0143	010-97-7466	A-70280-0183	010-89-7463	A-70280-0223	010-87-9465	A-70280-0263	46												46	
	48	010-89-7481	A-70280-0024	010-89-7482	A-70280-0064	010-89-7480	A-70280-0104	010-97-7485	A-70280-0144	010-97-7486	A-70280-0184	010-89-7483	A-70280-0224	010-87-9485	A-70280-0264	48												48	
	50	010-89-7501	A-70280-0025	010-89-7502	A-70280-0065	010-89-7500	A-70280-0105	010-97-7505	A-70280-0145	010-97-7506	A-70280-0185	010-89-7503	A-70280-0225	010-87-9505	A-70280-0265	50												50	
Y	52	010-89-7521	A-70280-0026	010-89-7522	A-70280-0066	010-89-7520	A-70280-0106	010-97-7525	A-70280-0146	010-97-7526	A-70280-0186	010-89-7523	A-70280-0226	010-87-9525	A-70280-0266	52												52	
	54	010-89-7541	A-70280-0027	010-89-7542	A-70280-0067	010-89-7540	A-70280-0107	010-97-7545	A-70280-0147	010-97-7546	A-70280-0187	010-89-7543	A-70280-0227	010-87-9545	A-70280-0267	54												54	
	56	010-89-7561	A-70280-0028	010-89-7562	A-70280-0068	010-89-7560	A-70280-0108	010-97-7565	A-70280-0148	010-97-7566	A-70280-0188	010-89-7563	A-70280-0228	010-87-9565	A-70280-0268	56												56	
X	58	010-89-7581	A-70280-0029	010-89-7582	A-70280-0069	010-89-7580	A-70280-0109	010-97-7585	A-70280-0149	010-97-7586	A-70280-0189	010-89-7583	A-70280-0229	010-87-9585	A-70280-0269	58												58	
	60	010-89-7601	A-70280-0030	010-89-7602	A-70280-0070	010-89-7600	A-70280-0110	010-97-7605	A-70280-0150	010-97-7606	A-70280-0190	010-89-7603	A-70280-0230	010-87-9605	A-70280-0270	60												60	
	62	010-89-7621	A-70280-0031	010-89-7622	A-70280-0071	010-89-7620	A-70280-0111	010-97-7625	A-70280-0151	010-97-7626	A-70280-0191	010-89-7623	A-70280-0231	010-87-9625	A-70280-0271	62												62	
W	64	010-89-7641	A-70280-0032	010-89-7642	A-70280-0072	010-89-7640	A-70280-0112	010-97-7645	A-70280-0152	010-97-7646	A-70280-0192	010-89-7643	A-70280-0232	010-87-9645	A-70280-0272	64												64	
	66	010-89-7661	A-70280-0033	010-89-7662	A-70280-0073	010-89-7660	A-70280-0113	010-97-7665</																					