

## FEATURES AND SPECIFICATIONS

### Features and Benefits

- Sizes 2 to 12 circuits
- Positive latching system
- Polarized
- Flanged mating envelope for ease in blind mating
- PCB pegs optional
- Surface Mount Compatible

### Reference Information

Product Specification: PS-71690-001  
 Packaging: Tray  
 UL File No.: E29179  
 CSA File No.: LR19980  
 Mates With: [71694](#) and [5557](#)  
 Designed In: Inches

### Electrical

Voltage: 600V  
 Current: Receptacle and header

Wire Gauge	2 Circuit	3 to 12 Circuit
18	7.00	6.00
20	6.00	5.25
22	5.00	4.50
24	4.50	4.00

Contact Resistance: 20mΩ max.  
 Dielectric Withstanding Voltage: 2200V AC  
 Insulation Resistance: 1000 MΩ min.

### Mechanical

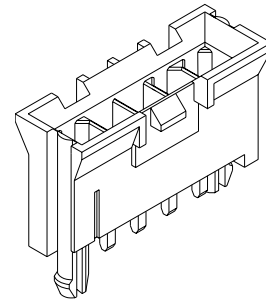
Insertion Force to PCB: 21N (4.72 lb) min.  
 Retention Force to PCB: 18N (4.05 lb) min.  
 Mating Force: 6.86N (1.54 lb) max.  
 Unmating Force: 3.92N (.89 lb) max.  
 Durability: 30 cycles

### Physical

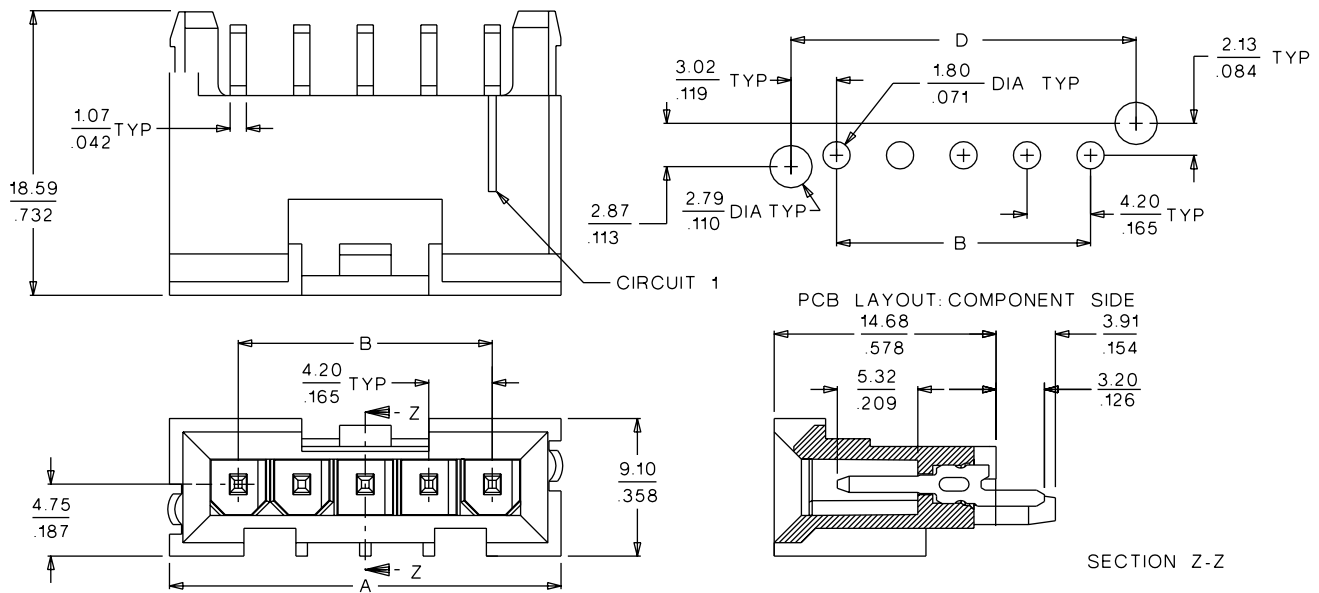
Housing: High temperature glass-filled polyester, UL 94V-0  
 Contact: Brass  
 Plating: See Table  
 Operating Temperature: -40 to +105°C

# molex® 4.20mm (.165") Pitch Mini-Fit™ Wire-to-Board Header

## 71231 Single Row, Vertical SMC



## CATALOG DRAWING (FOR REFERENCE ONLY)



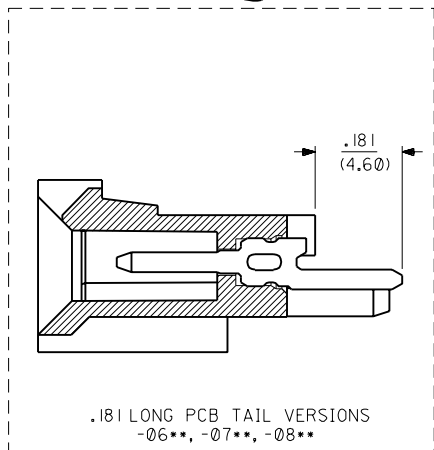
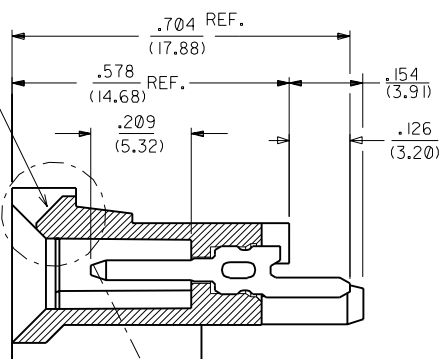
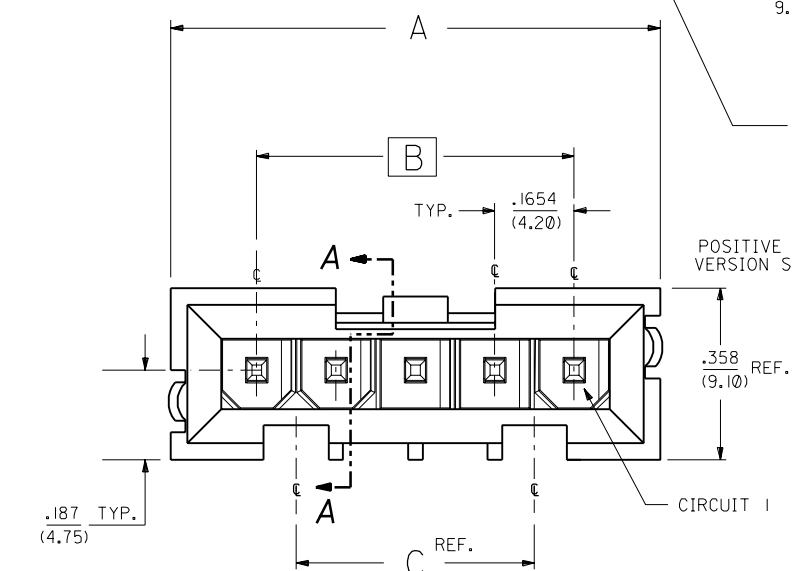
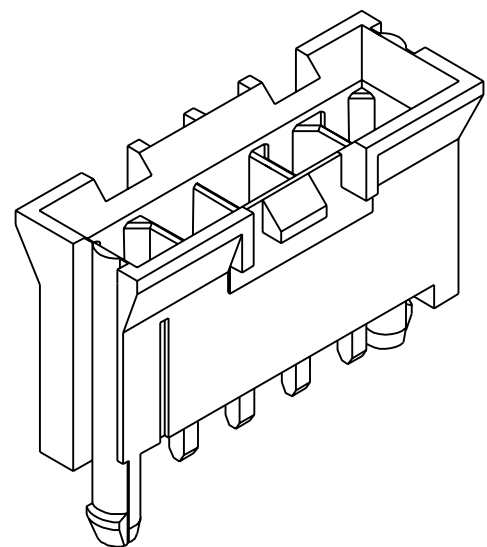
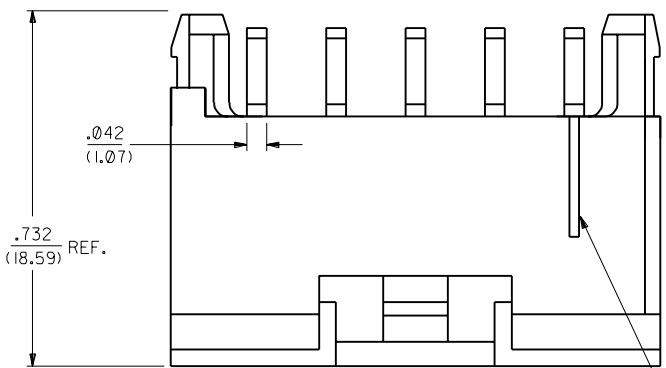
## ORDERING INFORMATION AND DIMENSIONS

Circuits	Order No.						Dimension		
	Tin/Lead		15μ" Gold		30μ" Gold		A	B	D
	With Pegs	Without Pegs	With Pegs	Without Pegs	With Pegs	Without Pegs			
2	• 71231-0001	71231-0201	71231-0401	71231-0501	71231-0101	71231-0301	13.31 (.524)	4.20 (.165)	10.24 (.403)
3	• 71231-0003	71231-0203	71231-0403	71231-0503	71231-0103	71231-0303	17.50 (.689)	8.40 (.331)	14.43 (.569)
4	• 71231-0005	71231-0205	71231-0405	71231-0505	71231-0105	71231-0305	21.71 (.855)	12.60 (.496)	18.61 (.734)
5	• 71231-0007	71231-0207	71231-0407	71231-0507	71231-0107	71231-0307	25.91 (1.020)	16.80 (.661)	22.84 (.899)
6	• 71231-0009	71231-0209	71231-0409	71231-0509	71231-0109	71231-0309	30.10 (1.185)	21.00 (.827)	27.03 (1.064)
7	• 71231-0011	71231-0211	71231-0411	71231-0511	71231-0111	71231-0311	34.31 (1.351)	25.20 (.992)	31.24 (1.230)
8	• 71231-0013	71231-0213	71231-0413	71231-0513	71231-0113	71231-0313	38.50 (1.516)	29.40 (1.158)	35.44 (1.395)
9	• 71231-0015	71231-0215	71231-0415	71231-0515	71231-0115	71231-0315	42.72 (1.682)	33.60 (1.323)	39.65 (1.561)
10	• 71231-0017	71231-0217	71231-0417	71231-0517	71231-0117	71231-0317	46.91 (1.847)	37.80 (1.488)	43.84 (1.726)
11	• 71231-0019	71231-0219	71231-0419	71231-0519	71231-0119	71231-0319	51.10 (2.012)	42.00 (1.654)	48.03 (1.891)
12	• 71231-0021	71231-0221	71231-0421	71231-0521	71231-0121	71231-0321	55.30 (2.177)	46.20 (1.819)	52.25 (2.057)

• US Standard Product, available through Molex franchised distributors

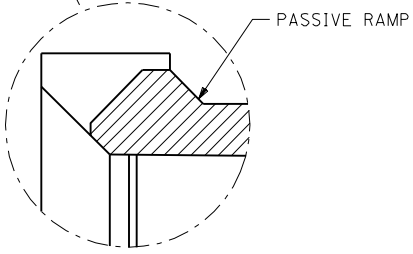
**NOTES:**

1. ASSEMBLY NO. 71233-0007 SHOWN FOR ILLUSTRATION.
2. MATES WITH PART NO. 71694-\*\*\*\*, AND 5557-..
3. SEE FOLLOWING PAGES FOR PART NOS. & CONFIGURATIONS.
4. **PLATING CODES:**
  - (164) .000150/(0.0038) MIN. TIN/LEAD OVERALL, OVER NICKEL OVERALL.
  - (569) .000030/(0.00076) MIN. SELECT GOLD AND .000100/(0.00254) MIN. SELECT TIN/LEAD OVER NICKEL OVERALL.
  - (578) .000015/(0.00038) MIN. SELECT GOLD AND .000150/(0.0038) MIN. SELECT TIN/LEAD OVER NICKEL OVERALL.
5. ITEM NO'S PRECEDED BY AN \*X\* IN THE CHARTS ARE NOT AVAILABLE.
6. HOUSING MATERIAL: HIGH TEMP. 94V-0 GLASS FILLED POLYESTER MATERIAL COLOR: WHITE
7. PIN MATERIAL: BRASS.
8. PART CONFORMS TO SPECIFICATION NO. PS-71690-001.
9. **PACKAGING SPECIFICATIONS:**  
 FOR TRAY, SEE PK-71232-0000  
 FOR TUBE, SEE PK-71233-0000



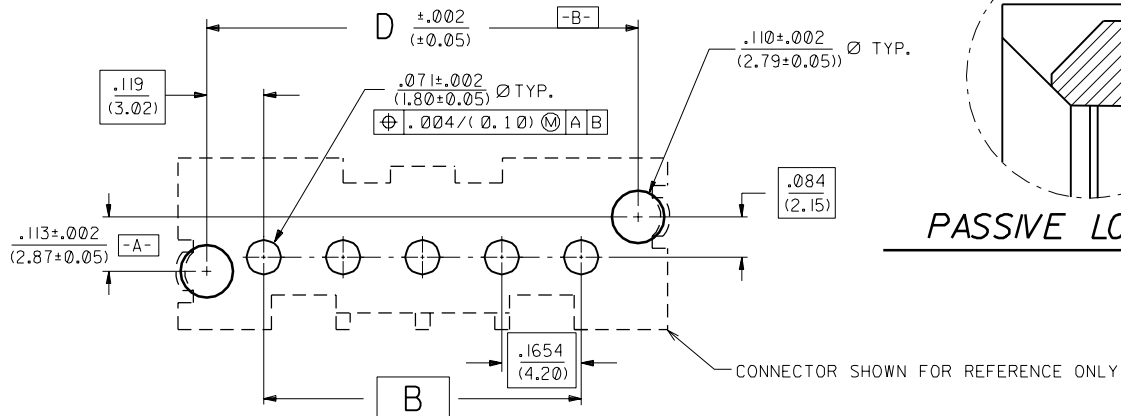
**SECTION A-A**

.126 STANDARD PCB TAIL VERSION



**PASSIVE LOCK OPTION**

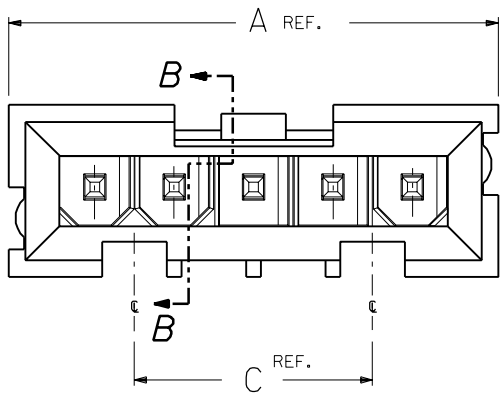
**VERTICAL TAIL HOLE PATTERN**  
CONNECTOR SIDE SHOWN



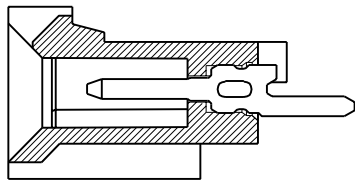
K	REVISE CHARTING ECN UDT2002-0398 SCHAFFER 01/9/7
J	REVISE PROD SPEC ECR UDT2001-0195 KMS 1/26/2001
I	ADD.REL.-06.07.08** ECN UDT2000-0495 SCHAFFER 99/11/16
H	ALL WHITE MAT'L PER ECR U71003 ELO 97/2/24
G	REVISED PER ECR U61108 03/12/96 TSE
F	REV/ADD PLATING PER ECR U60547 11/03/95 sas
E	REV PEGS-REM *X* PER ECR U51189 08/10/95 sas
D	REV VIEWS PER ECR U50607 01/27/95 sas
C	REV CKT PLATING INDICATOR U50005 08/02/94 MURPHY
B	ADD CKT INDIC ECR U40717 6/27/94 sas
A	FINAL RELEASE PER ECR * U30897 4/15/94 sas

4	K	
3	K	
2	I	
1	K	

DIMENSIONS SHOWN (METRIC) INCH		UNLESS OTHERWISE SPECIFIED TOLERANCES ANGULAR ± 1/2°	
3 PLACE	± .010	---	---
2 PLACE	± .015	± 0.38	
1 PLACE	---	± 0.25	
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS			
DRWG. NO.	71231-0007	DRWG. NO.	SDA-71231-0007
DRWG. BY	RWB	CHK'D. BY	PAR
APP'D. BY	FAH	SCALE	5: 1
FILE NAME	ST1231P1	DIV.	512E
THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INC. AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION.			



SEE SHEET 1 FOR ALL OTHER INFORMATION



SECTION B-B

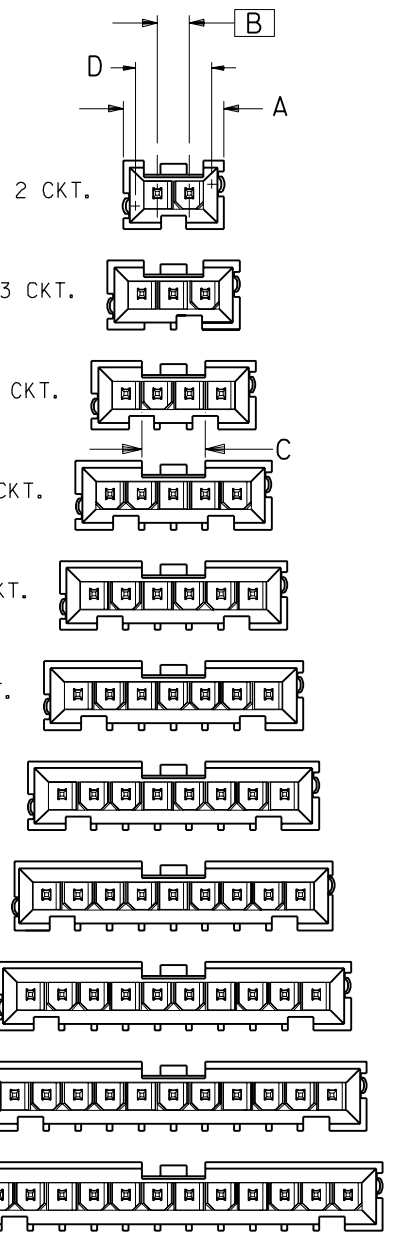
**NO PEG OPTION**  
**OVERALL DIMENSIONS**

**ASSEMBLIES WITH PEGS**

SIZE	DIM. "A"		DIM. "B" BASIC		DIM. "C" REF.		DIM. "D"	
	INCH	(MM)	INCH	(MM)	INCH	(MM)	INCH	(MM)
2	0.524	(13.31)	0.1654	(4.200)	N/A	N/A	.403	(10.24)
3	0.689	(17.51)	0.3307	(8.400)	N/A	N/A	.569	(14.44)
4	0.855	(21.71)	0.4961	(12.600)	0.330	(8.40)	.734	(18.64)
5	1.020	(25.91)	0.6614	(16.800)	0.496	(12.60)	.899	(22.84)
6	1.185	(30.11)	0.8268	(21.000)	0.661	(16.80)	1.064	(27.04)
7	1.351	(34.31)	0.9921	(25.200)	0.826	(21.00)	1.230	(31.24)
8	1.516	(38.51)	1.1575	(29.400)	0.992	(25.20)	1.395	(35.44)
9	1.682	(42.71)	1.3228	(33.600)	1.157	(29.40)	1.561	(39.64)
10	1.847	(46.91)	1.4882	(37.800)	1.322	(33.60)	1.726	(43.84)
11	2.012	(51.11)	1.6535	(42.000)	1.488	(37.80)	1.891	(48.04)
12	2.177	(55.31)	1.8189	(46.200)	1.653	(42.00)	2.057	(52.24)

**ASSEMBLIES WITHOUT PEGS**

SIZE	DIM. "A"		DIM. "B" BASIC		DIM. "C" REF.	
	INCH	(MM)	INCH	(MM)	INCH	(MM)
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7	1.351	(34.31)	0.9921	(25.200)	0.826	(21.00)
8	1.516	(38.51)	1.1575	(29.400)	0.992	(25.20)
9	1.682	(42.71)	1.3228	(33.600)	1.157	(29.40)
10	1.847	(46.91)	1.4882	(37.800)	1.322	(33.60)
11	2.012	(51.11)	1.6535	(42.000)	1.488	(37.80)
12	2.177	(55.31)	1.8189	(46.200)	1.653	(42.00)



VERTICAL CONFIGURATIONS

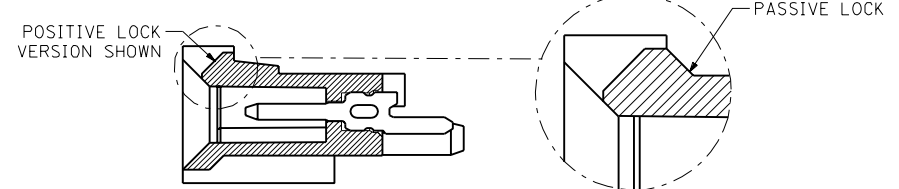
I SEE SHEET 1		DIMENSIONS SHOWN (METRIC) INCH		REVISE ONLY ON CAD SYSTEM	
G SEE SHEET 1		UNLESS OTHERWISE SPECIFIED TOLERANCES ANGULAR ± 1/2°		TITLE SINGLE ROW MINI-FIT HEADER VERTICAL THRU-HOLE BLIND MATE SALES ASSEMBLY	
E SEE SHEET 1		INCH METRIC		MOLEX INCORPORATED SHEET NO. DATE	
D SEE SHEET 1		3 PLACE ± .010 ---		L15LEJLL. 69532 U.S.A. 2 08/02/93	
C SEE SHEET 1		2 PLACE ± .015 ± 0.38		PART NO. DRWG. NO.	
B SEE SHEET 1		1 PLACE --- ± ---		SEE CHART SDA-71231-***	
A SEE SHEET 1		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		FILE NAME ST1231P2	
LTR. REVISIONS		DRWG. BY RWB CHK'D BY PAR		DIV. MOLEX INC. AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION	
LTR. REVISIONS		APP'D BY FAH SCALE :		SIZE TC C	



CKT SIZE	ASSEMBLY NUMBER	TAIL VERSION	PLATING	PEGS	LOCK	PACKAGING PER
2	71231-0401	STD. .125	578	YES	POSITIVE	PK-71232-0000
3	71231-0403	STD. .125	578	YES	POSITIVE	PK-71232-0000
4	71231-0405	STD. .125	578	YES	POSITIVE	PK-71232-0000
5	71231-0407	STD. .125	578	YES	POSITIVE	PK-71232-0000
6	71231-0409	STD. .125	578	YES	POSITIVE	PK-71232-0000
7	71231-0411	STD. .125	578	YES	POSITIVE	PK-71232-0000
8	71231-0413	STD. .125	578	YES	POSITIVE	PK-71232-0000
9	71231-0415	STD. .125	578	YES	POSITIVE	PK-71232-0000
10	71231-0417	STD. .125	578	YES	POSITIVE	PK-71232-0000
11	71231-0419	STD. .125	578	YES	POSITIVE	PK-71232-0000
12	71231-0421	STD. .125	578	YES	POSITIVE	PK-71232-0000
2	71231-0501	STD. .125	569	NO	POSITIVE	PK-71232-0000
3	71231-0503	STD. .125	569	NO	POSITIVE	PK-71232-0000
4	71231-0505	STD. .125	569	NO	POSITIVE	PK-71232-0000
5	71231-0507	STD. .125	569	NO	POSITIVE	PK-71232-0000
6	71231-0509	STD. .125	569	NO	POSITIVE	PK-71232-0000
7	71231-0511	STD. .125	569	NO	POSITIVE	PK-71232-0000
8	71231-0513	STD. .125	569	NO	POSITIVE	PK-71232-0000
9	71231-0515	STD. .125	569	NO	POSITIVE	PK-71232-0000
10	71231-0517	STD. .125	569	NO	POSITIVE	PK-71232-0000
11	71231-0519	STD. .125	569	NO	POSITIVE	PK-71232-0000
12	71231-0521	STD. .125	569	NO	POSITIVE	PK-71232-0000
2	71231-0601	LONG .181	164	YES	POSITIVE	PK-71232-0000
3	71231-0603	LONG .181	164	YES	POSITIVE	PK-71232-0000
4	71231-0605	LONG .181	164	YES	POSITIVE	PK-71232-0000
5	71231-0607	LONG .181	164	YES	POSITIVE	PK-71232-0000
6	71231-0609	LONG .181	164	YES	POSITIVE	PK-71232-0000
7	71231-0611	LONG .181	164	YES	POSITIVE	PK-71232-0000
8	71231-0613	LONG .181	164	YES	POSITIVE	PK-71232-0000
9	71231-0615	LONG .181	164	YES	POSITIVE	PK-71232-0000
10	71231-0617	LONG .181	164	YES	POSITIVE	PK-71232-0000
11	71231-0619	LONG .181	164	YES	POSITIVE	PK-71232-0000
12	71231-0621	LONG .181	164	YES	POSITIVE	PK-71232-0000
2	71231-0701	LONG .181	569	YES	POSITIVE	PK-71232-0000
3	71231-0703	LONG .181	569	YES	POSITIVE	PK-71232-0000
4	71231-0705	LONG .181	569	YES	POSITIVE	PK-71232-0000
5	71231-0707	LONG .181	569	YES	POSITIVE	PK-71232-0000
6	71231-0709	LONG .181	569	YES	POSITIVE	PK-71232-0000
7	71231-0711	LONG .181	569	YES	POSITIVE	PK-71232-0000
8	71231-0713	LONG .181	569	YES	POSITIVE	PK-71232-0000
9	71231-0715	LONG .181	569	YES	POSITIVE	PK-71232-0000
10	71231-0717	LONG .181	569	YES	POSITIVE	PK-71232-0000
11	71231-0719	LONG .181	569	YES	POSITIVE	PK-71232-0000
12	71231-0721	LONG .181	569	YES	POSITIVE	PK-71232-0000
4	71231-1005	STD. .125	164	YES	POSITIVE	PK-71233-0000
12	71231-1021	STD. .125	164	YES	POSITIVE	PK-71233-0000

CKT SIZE	ASSEMBLY NUMBER	TAIL VERSION	PLATING	PEGS	LOCK	PACKAGING PER
2	71231-0402	STD. .125	578	YES	PASSIVE	PK-71232-0000
3	71231-0404	STD. .125	578	YES	PASSIVE	PK-71232-0000
4	71231-0406	STD. .125	578	YES	PASSIVE	PK-71232-0000
5	71231-0408	STD. .125	578	YES	PASSIVE	PK-71232-0000
6	71231-0410	STD. .125	578	YES	PASSIVE	PK-71232-0000
7	71231-0412	STD. .125	578	YES	PASSIVE	PK-71232-0000
8	71231-0414	STD. .125	578	YES	PASSIVE	PK-71232-0000
9	71231-0416	STD. .125	578	YES	PASSIVE	PK-71232-0000
10	71231-0418	STD. .125	578	YES	PASSIVE	PK-71232-0000
11	71231-0420	STD. .125	578	YES	PASSIVE	PK-71232-0000
12	71231-0422	STD. .125	578	YES	PASSIVE	PK-71232-0000
2	71231-0502	STD. .125	578	NO	PASSIVE	PK-71232-0000
3	71231-0504	STD. .125	578	NO	PASSIVE	PK-71232-0000
4	71231-0506	STD. .125	578	NO	PASSIVE	PK-71232-0000
5	71231-0508	STD. .125	578	NO	PASSIVE	PK-71232-0000
6	71231-0510	STD. .125	578	NO	PASSIVE	PK-71232-0000
7	71231-0512	STD. .125	578	NO	PASSIVE	PK-71232-0000
8	71231-0514	STD. .125	578	NO	PASSIVE	PK-71232-0000
9	71231-0516	STD. .125	578	NO	PASSIVE	PK-71232-0000
10	71231-0518	STD. .125	578	NO	PASSIVE	PK-71232-0000
11	71231-0520	STD. .125	578	NO	PASSIVE	PK-71232-0000
12	71231-0522	STD. .125	578	NO	PASSIVE	PK-71232-0000

2	71231-0801	LONG .181	578	YES	POSITIVE	PK-71232-0000
3	71231-0803	LONG .181	578	YES	POSITIVE	PK-71232-0000
4	71231-0805	LONG .181	578	YES	POSITIVE	PK-71232-0000
5	71231-0807	LONG .181	578	YES	POSITIVE	PK-71232-0000
6	71231-0809	LONG .181	578	YES	POSITIVE	PK-71232-0000
7	71231-0811	LONG .181	578	YES	POSITIVE	PK-71232-0000
8	71231-0813	LONG .181	578	YES	POSITIVE	PK-71232-0000
9	71231-0815	LONG .181	578	YES	POSITIVE	PK-71232-0000
10	71231-0817	LONG .181	578	YES	POSITIVE	PK-71232-0000
11	71231-0819	LONG .181	578	YES	POSITIVE	PK-71232-0000
12	71231-0821	LONG .181	578	YES	POSITIVE	PK-71232-0000



DIMENSIONS SHOWN (METRIC) INCH UNLESS OTHERWISE SPECIFIED TOLERANCES ANGULAR ± 1/2°		REVISE ONLY ON CAD SYSTEM																									
<table border="1"> <thead> <tr> <th>3 PLACE</th> <th>±</th> <th>---</th> <th>---</th> </tr> </thead> <tbody> <tr> <td>INCH</td> <td></td> <td></td> <td></td> </tr> <tr> <td>METRIC</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>		3 PLACE	±	---	---	INCH				METRIC				<table border="1"> <thead> <tr> <th>3 PLACE</th> <th>±</th> <th>---</th> <th>---</th> </tr> </thead> <tbody> <tr> <td>INCH</td> <td></td> <td></td> <td></td> </tr> <tr> <td>METRIC</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>		3 PLACE	±	---	---	INCH				METRIC			
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DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		<table border="1"> <tr> <td>FILE NAME</td> <td>ST1231P4</td> <td>DATE</td> <td>11/07/95</td> </tr> <tr> <td>APP'D. BY</td> <td>FAH</td> <td>SCALE</td> <td></td> </tr> </table>		FILE NAME	ST1231P4	DATE	11/07/95	APP'D. BY	FAH	SCALE																	
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<table border="1"> <tr> <td>DRWG. BY</td> <td>RWB</td> <td>CHK'D. BY</td> <td>PAR</td> </tr> </table>		DRWG. BY	RWB	CHK'D. BY	PAR	<table border="1"> <tr> <td>PART NO.</td> <td>MOLEX INCORPORATED</td> <td>SHEET NO.</td> <td>4</td> </tr> <tr> <td>1315LJLL</td> <td>69532</td> <td>U.S.A.</td> <td></td> </tr> </table>		PART NO.	MOLEX INCORPORATED	SHEET NO.	4	1315LJLL	69532	U.S.A.													
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<table border="1"> <tr> <td>SEE CHART</td> <td>SDA-71231-0000</td> </tr> </table>		SEE CHART	SDA-71231-0000	<table border="1"> <tr> <td>THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INC. AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION.</td> <td>TC</td> </tr> </table>		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INC. AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION.	TC																				
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