

Excellent Integrated System Limited

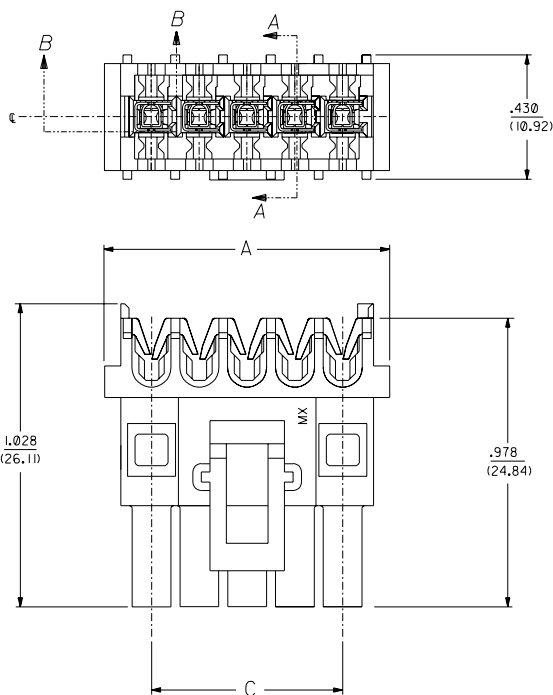
Stocking Distributor

Click to view price, real time Inventory, Delivery & Lifecycle Information:

[Molex Connector Corporation](#)
[71694-2301](#)

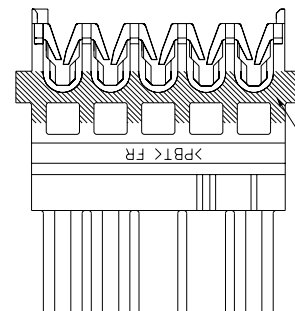
For any questions, you can email us directly:

sales@integrated-circuit.com



HOUSING MATERIAL: 94V-0
UNFILLED POLYESTER
MATERIAL COLOR: WHITE

TERMINAL MATERIAL: PHOSPHOR BRONZE



SEE NOTE 9

SECTION A-A

SECTION B-B

NOTES:

- ASSEMBLY NO. 71694-15** SHOWN FOR ILLUSTRATION.
- MATES WITH PART NUMBER 71690-****.
- SEE FOLLOWING PAGES FOR PART NUMBERS AND THEIR CONFIGURATIONS.
- FINISHES (SEE CHART):
TIN OVERALL - .000100/(0.00254) MINIMUM TIN OVERALL, OVER NICKEL UNDERPLATING OVERALL.
15 GOLD - .000015/(0.00038) MINIMUM SELECT GOLD AND .000150/(0.00380) MINIMUM SELECT TIN OVER NICKEL UNDERPLATING OVERALL.
- ITEM NOS. PRECEDED BY AN 'X' IN THE CHART ARE NOT AVAILABLE.
- RECOMMENDED FOR USE WITH UL STYLE # 1007 WIRE.
- PART CONFORMS TO SPECIFICATION NO. PS-71690-001.
- MATERIAL RECYCLING LOGO TO BE LOCATED ON SIDE OF PART.
- IDT SLOT IDENTIFIER COLOR STRIPE TO BE LOCATED ON THIS SURFACE. ID PER CHART BELOW.

WIRE GAUGE	ID COLOR
18	FLRSCNT MAGENTA
20	BLUE
22	GREEN
24	BLACK

- OPTIONAL COVER NUMBERS: 71161-**-01 (FEED THRU) OR -02 (FEED TO VERSION).
- SEE SMES-71690-0000 FOR TERMINATION SPECIFICATIONS.
- PACKAGE PER PK-71690-0000.

NOTE FOR LEAD FREE CONVERSION:

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.

N	LEAD FREE CONV ECN UCP2004-2042 ADAMS 84/04/21
M	CHANGE PROD SPEC ECN UDT2001-0195 KMS 9/22/2000
L	ADD 6 CKT MIXED UDT2000-0266 RFOX 99/9/15
K	ADD .010 MAX RADIUS UDT1999-0448 KMS 99/12/15
J	ADD VOIDS, MIXED AWG UDT1999-0370 SCHAFFER 98/11/11
II	CUST 25 NO STRIPE PER ECN U00368 ELO 97/7/25
I	ADD CUSTOM COLOR PER ECN U71576 ELO 97/6/16
H	MAT'L COLOR CHANGE PER ECN U71026 ELO 97/2/26
G	18 AWG CLR CHANGE PER ECN U70413 ELO 10/23/96
5	N
4	N
3	N
2	N
1	N

MFG.	SH.	REV.	LTR.	REVISIONS
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DIMENSIONS SHOWN (METRIC) INCH

UNLESS OTHERWISE SPECIFIED

TOLERANCES: ANGULAR ± 1/2°

± PLACE ± .010 ---

± PLACE ± .014 ± 0.25

± PLACE --- ± 0.36

DRAFT: WHERE APPLICABLE MUST

REMAIN WITHIN DIMENSIONS

DRG. RWB CHK'D. SAS

APP'D. BT SCALE 4:1

REVISIONS ONLY ON CAD SYSTEM

MINI-FIT IDT SINGLE

ROW RECEPTACLE

SALES ASSEMBLY

MOLEX INCORPORATED

SEE CHART

SDA-71694-***

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Top View Dimensions:

- DIMENSION A: INCH (MM)
- DIMENSION B: INCH (MM)
- DIMENSION C: INCH (MM)

CTKT SIZE	STAT	ASSEMBLY ITEM NUMBER	WIRE AWG	WIRE DESCRIPTION	DIMENSION A INCH (MM)	DIMENSION B INCH (MM)	DIMENSION C INCH (MM)	PLATING SEE NOTE 4
I2		71694-2301	18	SOLID, FUSED, STRANDED	2.144 (54.45)	2.032 (51.60)	1.8194 (46.20)	TIN OVERALL
I2		71694-2303	20		2.144 (54.45)	2.032 (51.60)	1.8194 (46.20)	
I2		71694-2304	22		2.144 (54.45)	2.032 (51.60)	1.8194 (46.20)	
I2		71694-2305	24		2.144 (54.45)	2.032 (51.60)	1.8194 (46.20)	
I2		71694-2307	18		2.144 (54.45)	2.032 (51.60)	1.8194 (46.20)	15 GOLD
I2		71694-2309	20		2.144 (54.45)	2.032 (51.60)	1.8194 (46.20)	
I2		71694-2310	22		2.144 (54.45)	2.032 (51.60)	1.8194 (46.20)	
I2		71694-2311	24	SOLID, FUSED, STRANDED	2.144 (54.45)	2.032 (51.60)	1.8194 (46.20)	

Side View Dimensions:

- DIMENSION D: INCH (MM)
- DIMENSION E: INCH (MM)

Assembly Specifications:

- PART NO.: SDA-71694-XXXX
- DATE: 03/10/93
- MANUFACTURER: MOLEX INCORPORATED
- REVISIONS: REV. LTR.

MOLEX INCORPORATED

LISLE, ILL. 60532

WIRE TERMINATION SPECIFICATION

- 1.0 APPLICABLE DRAWINGS:
THIS SPECIFICATION APPLIES TO A-71690 AND A-71694 SERIES OF INSULATION DISPLACEMENT CONNECTORS.
- 2.0 SCOPE:
THIS SPECIFICATION IS DESIGNED TO INSURE THE PROPER TERMINATION AND PERFORMANCE OF THE A-71690 AND A-71694 SERIES OF INSULATION DISPLACEMENT CONNECTORS.
- 3.0 GENERAL:
THE .1654/(4.20) CENTER INSULATION DISPLACEMENT CONNECTOR SYSTEM IS DESIGNED TO INTERCONNECT DISCRETE WIRE AS OUTLINED IN THIS SPECIFICATION.

4.0 CONDUCTOR REQUIREMENTS:

4.1 CONDUCTOR SIZE IDENTIFICATION:

CONDUCTOR SIZE	CONDUCTOR STYLE	HOUSING ID COLOR (SEE FIG. 4)	TERMINAL ID HOLE POSITION (SEE FIG.8; SHT.5)
18 AWG	STRANDED WITH TOPCOAT,FUSED, SOLID	RED	POSITION 1
20 AWG	STRANDED WITH TOPCOAT,FUSED, SOLID	BLUE	POSITION 2
22 AWG	STRANDED WITH TOPCOAT,FUSED, SOLID	GREEN	POSITION 3
24 AWG	STRANDED WITH TOPCOAT,FUSED, SOLID	BLACK	POSITION 4

RECOMMENDED UL STYLE: 1007, 1061

- 4.2 INSULATION REQUIREMENTS:
INSULATION DIAMETER: .090 MAX
INSULATION HARDNESS: 85 MAX ON THE SHORE A SCALE

5.0 TERMINATION REQUIREMENTS:

- 5.1 CABLE INSERTION DEPTH:
THE CABLE SHOULD BE INSERTED TO DEPTH OF .140/(3.56)* FROM THE TOP OF THE HOUSING TO THE TOP OF THE WIRE (SEE FIGURE 2). WIRE MUST BE LOCATED BELOW THE BOTTOM OF EAGLES.

* TERMINATION DEPTH FOR THE 24 AWG WIRES IN THE FOLLOWING ASSEMBLIES TO BE .138±.005/(3.51±0.13); 71690-6008 AND 71694-2402.

STRAIN RELIEF

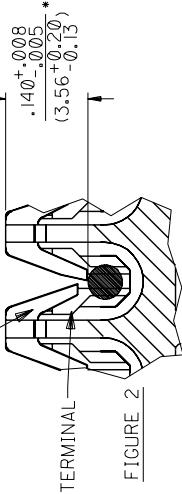


FIGURE 2

DRWG. NO. SMES-71690-0000

DRWG. NO. SMES-71690-0000

REV.	B	A	B	B	B
SHT.	1	2	3	4	5

FILE NAME	REVISION	DATE	BY	CHKD	APP'D
T71690X1					
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REVISE ONLY ON CAD SYSTEM					REV.
SHT.					SHT.
					I OF 5



WIRE TERMINATION SPECIFICATION

5.2 WIRE CUT OFF

IN THE FEED-TO VERSION THE WIRE MUST BE DISPLACED IN BOTH INSULATION DISPLACEMENT SLOTS AND MUST PROTRUDE THROUGH THE SECONDARY SLOT BY $.152 \pm .060$ MIN. AS SHOWN IN FIGURE 3.

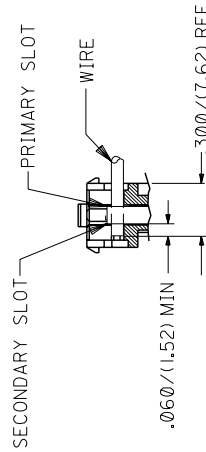


FIGURE 3

5.3 HORIZONTAL PULL OUT FORCE

THE CONNECTOR MUST MAINTAIN THE FOLLOWING MIN. PULL OUT VALUES WHEN A FORCE IS APPLIED AT A RATE OF 1 INCH PER MINUTE TO THE CABLE IN A DIRECTION PERPENDICULAR TO THE INSULATION DISPLACEMENT SECTION, AS SHOWN IN FIGURE 4. (NOTE CABLE MUST BE SLIT TO FORM INDIVIDUAL CONDUCTORS AFTER TERMINATION BUT PRIOR TO TESTING).

AWG	PULL FORCE
18 AWG	14.0 LBS. MIN.
20 AWG	TBD
22 AWG	TBD
24 AWG	8.0 LBS. MIN.

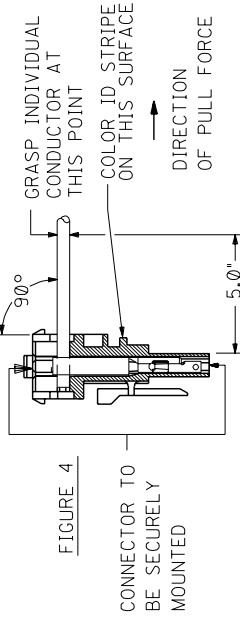


FIGURE 4

5.4 VERTICAL PULL OUT FORCE

THE CONNECTOR MUST MAINTAIN THE FOLLOWING MIN. PULL OUT VALUES WHEN A FORCE IS APPLIED AT A RATE OF 1 INCH PER MINUTE TO THE CABLE IN A DIRECTION PARALLEL TO THE INSULATION DISPLACEMENT SECTION, AS SHOWN IN FIGURE 5. (NOTE CABLE MUST BE SLIT TO FORM INDIVIDUAL CONDUCTORS AFTER TERMINATION BUT PRIOR TO TESTING).

AWG	PULL FORCE
18 AWG	5.0 LBS. MIN.
20 AWG	TBD
22 AWG	TBD
24 AWG	2.4 LBS. MIN.

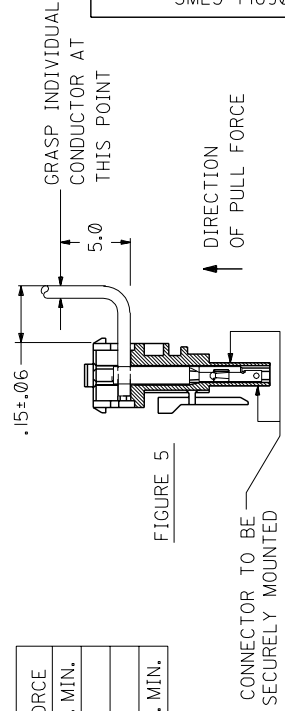


FIGURE 5

DRWG. NO. SMES-71690-0000

DRWG. NO. SMES-71690-0000

REV.
SHT.

FILE NAME
T71690X2

▽ = 0 ▴ = 0

CONNECTOR TO BE SECURELY MOUNTED

REV.

A

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SHT.

2



WIRE TERMINATION SPECIFICATION

5.5 TORSIONAL RESISTANCE:

CONNECTOR MUST WITHSTAND A MAXIMUM TWIST ON A TERMINATED CABLE OF 130° WITHOUT DISTURBING THE INSULATION DISPLACEMENT INTERFACE IN THE PRIMARY OR SECONDARY SLOTS (SEE FIGURE 3) (NOTE CABLE MUST BE SLIT TO FORM INDIVIDUAL CONDUCTORS AFTER TERMINATION BUT PRIOR TO TESTING).

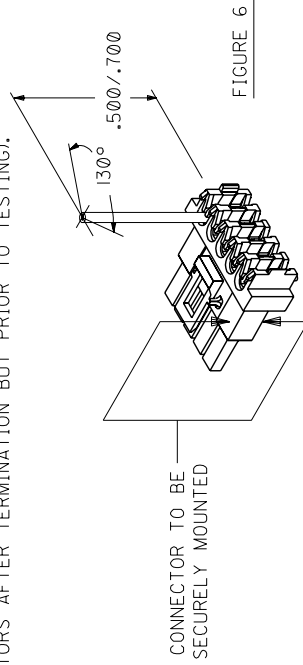


FIGURE 6

5.6 VISUAL INSPECTION:

AFTER TERMINATION, INSULATION DISPLACEMENT SECTION OF THE TERMINAL TO BE FREE OF TOOL MARKS FROM TERMINATION EQUIPMENT.

6.0 TERMINATION EVALUATION PROCEDURE:

STEP 1 -STRAIN RELIEF REMOVAL

REMOVE SHADED PORTION OF THE STRAIN RELIEF USING A RAZOR BLADE

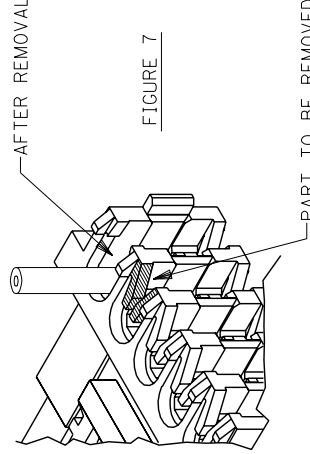


FIGURE 7

STEP 2 -REMOVAL OF TERMINAL

INSERT THE REMOVAL TOOL(HT60630A) INTO THE FRONT OF OF THE CONNECTOR (AROUND THE TERMINAL) TO DEPRESS LOCK TANGS. PUSH THE TERMINAL/WIRE OUT THE BACK OF THE CONNECTOR.

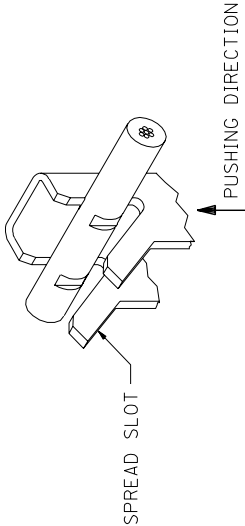
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				SHT.	
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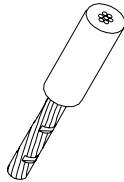
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WIRE TERMINATION SPECIFICATION

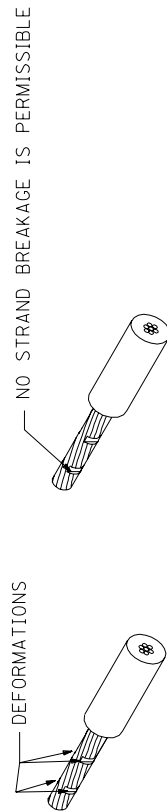
STEP 3 -CONDUCTOR REMOVAL
USING A SMALL PAIR OF PLIERS SPREAD THE I.D.T. SLOT
AND REMOVE CONDUCTOR BY PUSHING IN DIRECTION SHOWN



STEP 4 -REMOVING INSULATION
INSULATION TO BE REMOVED WITHOUT DISTURBING I.D.T. AREA



STEP 5 -CONDUCTOR INSPECTION
FOUR DEFORMATION POINTS MUST BE CLEARLY VISIBLE WHEN
USING 10X MAGNIFICATION



DRWG. NO. SMES-71690-0000

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SHT.

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REV. B

SHT. 4

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DRWG. NO. SMES-71690-0000

WIRE TERMINATION SPECIFICATION

LTR.	REVISIONS
A	RELEASED PER ECR U51189 09/15/95 sas
B	UPDATED PER ECR U70308 ELO 09/20/96

STEP 1 -REMOVAL OF TERMINAL

INSERT THE REMOVAL TOOL(HIT6030A) INTO THE FRONT OF OF THE CONNECTOR (AROUND THE TERMINAL) TO DEPRESS LOCK TANGS. PUSH THE TERMINAL/WIRE OUT THE BACK OF THE CONNECTOR.

STEP 2 - WIRE GAGE PER CHART

ID LETTER	WIRE GAGE
D	18 AWG
C	20 AWG
B	22 AWG
A	24 AWG

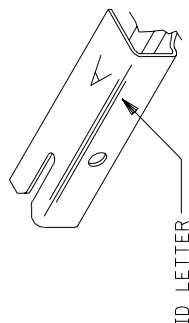


FIGURE 8

DRWG. NO.	SMES-7 1690-0000				
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SHT.	T71690X5	$\nabla = 0$	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INC. AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION.	SHT.	5
DRWG. NO.	SMES-7 1690-0000				