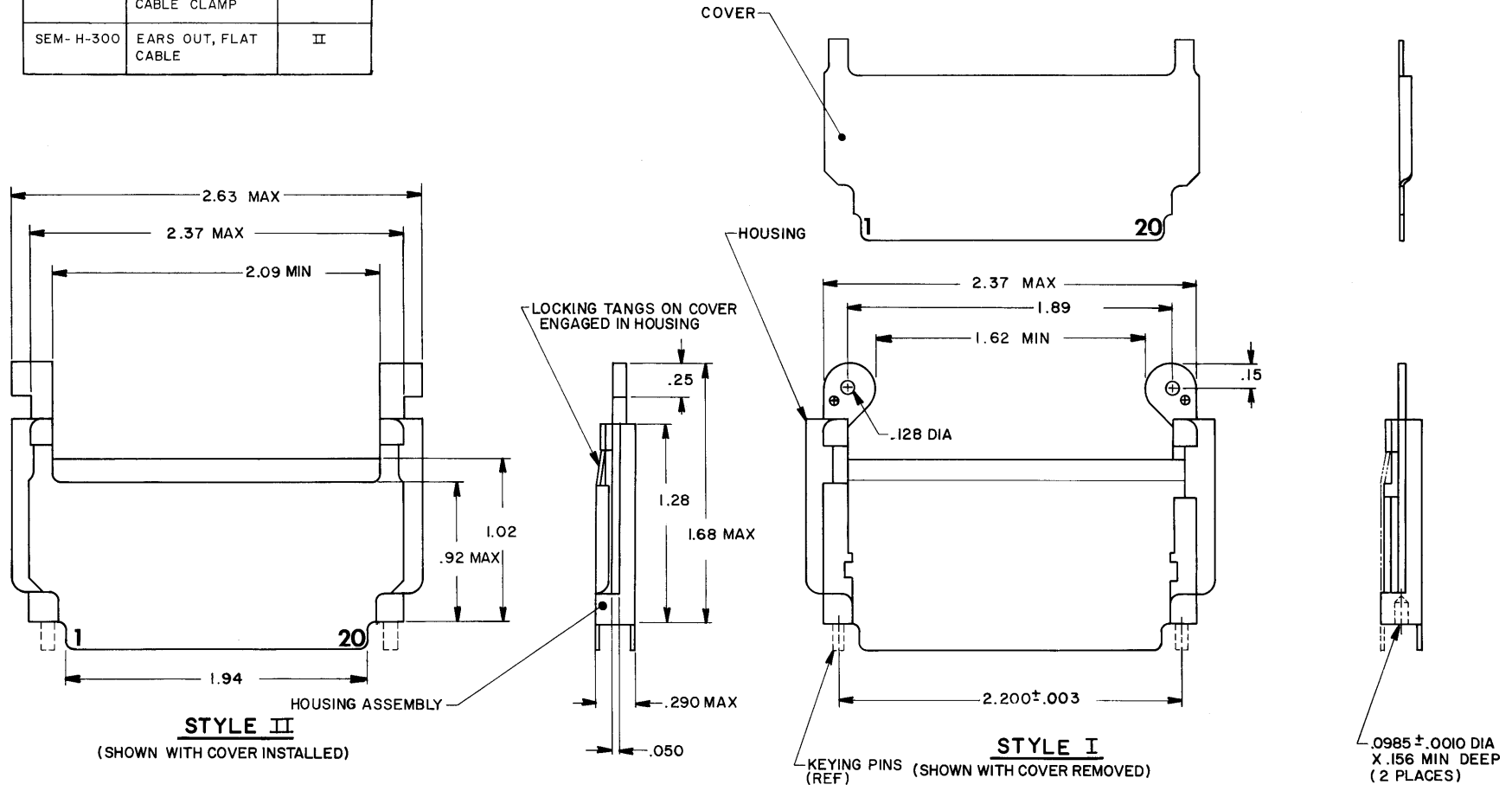


PART NO.	DESCRIPTION	STYLE
SEM-H-100	EARS IN, W/O CABLE CLAMP	I
SEM-H-200	EARS IN, WITH CABLE CLAMP	I
SEM-H-300	EARS OUT, FLAT CABLE	II

REVISIONS			
LTR	DESCRIPTION	DATE	APPROVED
F	REVISED PER LTR T-016302	9/19/79	JB



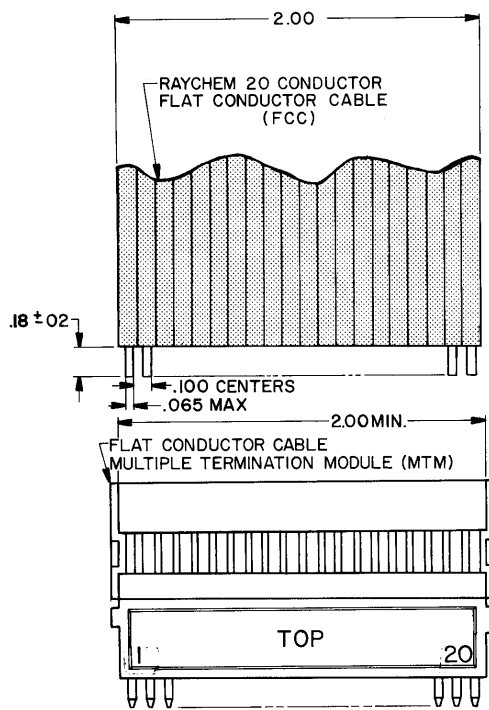
- NOTES:
1. HOUSING ASSEMBLY INCLUDES COVER.
  2. EXCEPT AS INDICATED, HOUSING STYLES ARE IDENTICAL IN BOTH INTERNAL AND EXTERNAL DIMENSIONS.

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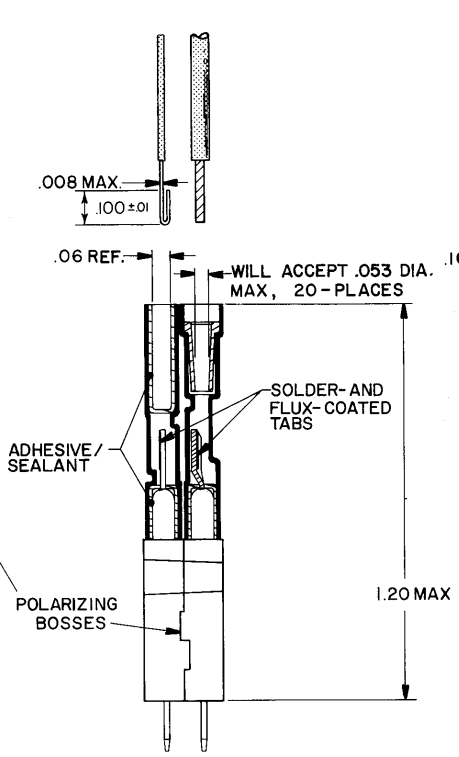
**SPECIFICATION CONTROL DRAWING**

DRAWN	V.D.T.	6-19-75	RAYCHEM © Raychem Corporation 1975	
CHECKED	<i>R.M. Keel</i>	8-5-75	RAYCHEM CORPORATION 300 CONSTITUTION DRIVE MENLO PARK, CALIFORNIA 94025	
APPROVED	<i>L.H. Ellis</i>	8-5-75	TITLE	
APPROVED			SEM CONNECTOR — HOUSING ASSEMBLY DETAIL —	
APPROVED			SIZE	CODE IDENT
PART NUMBER			C	NO. 06090
PROJECT			SCALE	WEIGHT
				DWG. NO. SEM-X-XXX
				SHEET   OF 6

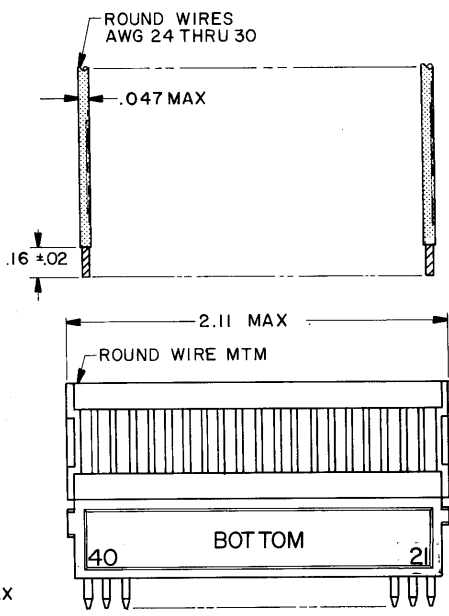
REVISIONS			
LTR	DESCRIPTION	DATE	APPROVED
-	SEE SHEET 1	-	-



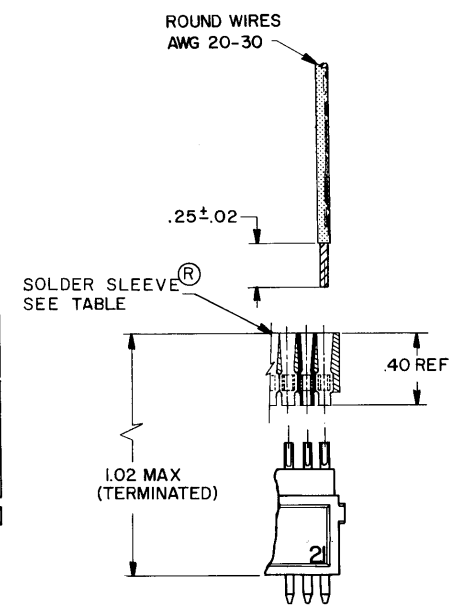
**TYPE-1 WAFER**  
(TOP WAFER SHOWN FOR REFERENCE)



**WAFER CROSS-SECTION**



**TYPE-2 WAFER**  
(BOTTOM WAFER SHOWN FOR REFERENCE)



**TYPE-3 WAFER**  
(SOLDER SLEEVE<sup>®</sup> TERMINATIONS)

NOTES:

1. TYPES 1 & 2— WAFERS ARE SUPPLIED WITH MTM PRE-INSTALLED.
2. FOR ACCOMMODATION OF DIFFERENT WIRE OF CABLE SIZES, CONSULT FACTORY.

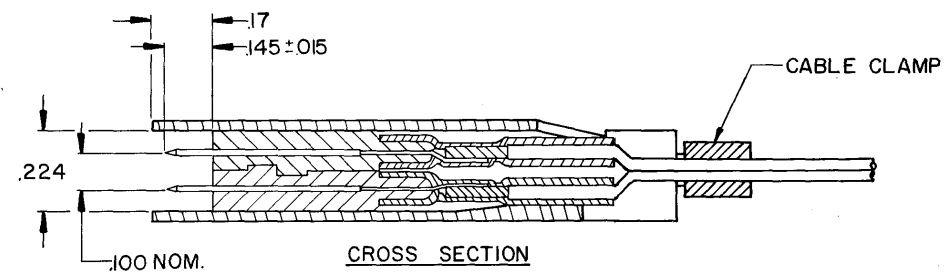
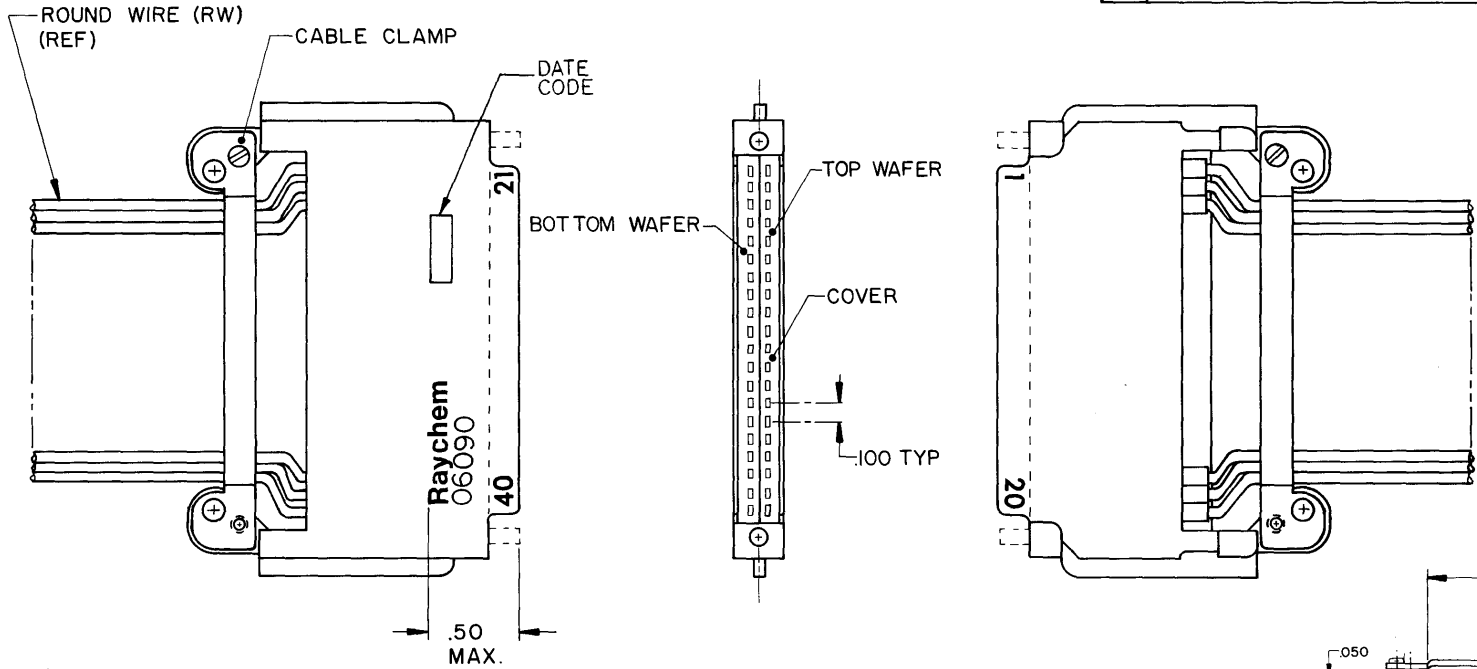
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AWG.	SOLDER SLEEVE
24-30	CTA 0050
20-22	CTA 0051

TYPE	DESCRIPTION	PART NO.	
		TOP	BOTTOM
1	FLAT CONDUCTOR CABLE - MTM	SEM-T-010	SEM-B-001
2	ROUND WIRE MTM	SEM-T-020	SEM-B-002
3	ROUND WIRE WITHOUT SOLDER SLEEVES	SEM-T-030	SEM-B-003
3	ROUND WIRE CTA 0050 SLEEVES	SEM-T-040	SEM-B-004
3	ROUND WIRE CTA 0051 SLEEVES	SEM-T-050	SEM-B-005

DRAWN	V. D.T.	6-19-75	RAYCHEM		© Raychem Corporation 1975 RAYCHEM CORPORATION 300 CONSTITUTION DRIVE MENLO PARK, CALIFORNIA 94025	
CHECKED	<i>R.M. Reed</i>	8-5-75	TITLE			
APPROVED	<i>L.H. S.L.</i>	8-5-75	<b>SEM CONNECTOR -WAFER DETAIL-</b>			
APPROVED						
APPROVED						
PART NUMBER			SIZE	CODE IDENT	DWG. NO.	SEM-X-XXX
			C	NO 06090		
PROJECT			SCALE	WEIGHT	SHEET	2 OF 6

REVISIONS			
LTR	DESCRIPTION	DATE	APPROVED
	SEE SHEET I.		



STYLE I CONNECTORS			
CONNECTOR ASSEMBLY	TOP WAFER (TYPE)	BOTTOM WAFER (TYPE)	CABLE CLAMP
SEM-A-111	1	1	NO
SEM-A-122	2	2	NO
SEM-A-133	3	3	NO
SEM-A-144	3	3	NO
SEM-A-155	3	3	NO
SEM-A-222	2	2	YES
SEM-A-233	3	3	YES
SEM-A-244	3	3	YES
SEM-A-255	3	3	YES

1

1

SEM-A-111 IS A NON-STANDARD ASSEMBLY. THE SEM-A-311 (SEE SHT. 4) IS PREFERRED FOR FLAT CABLE APPLICATIONS.

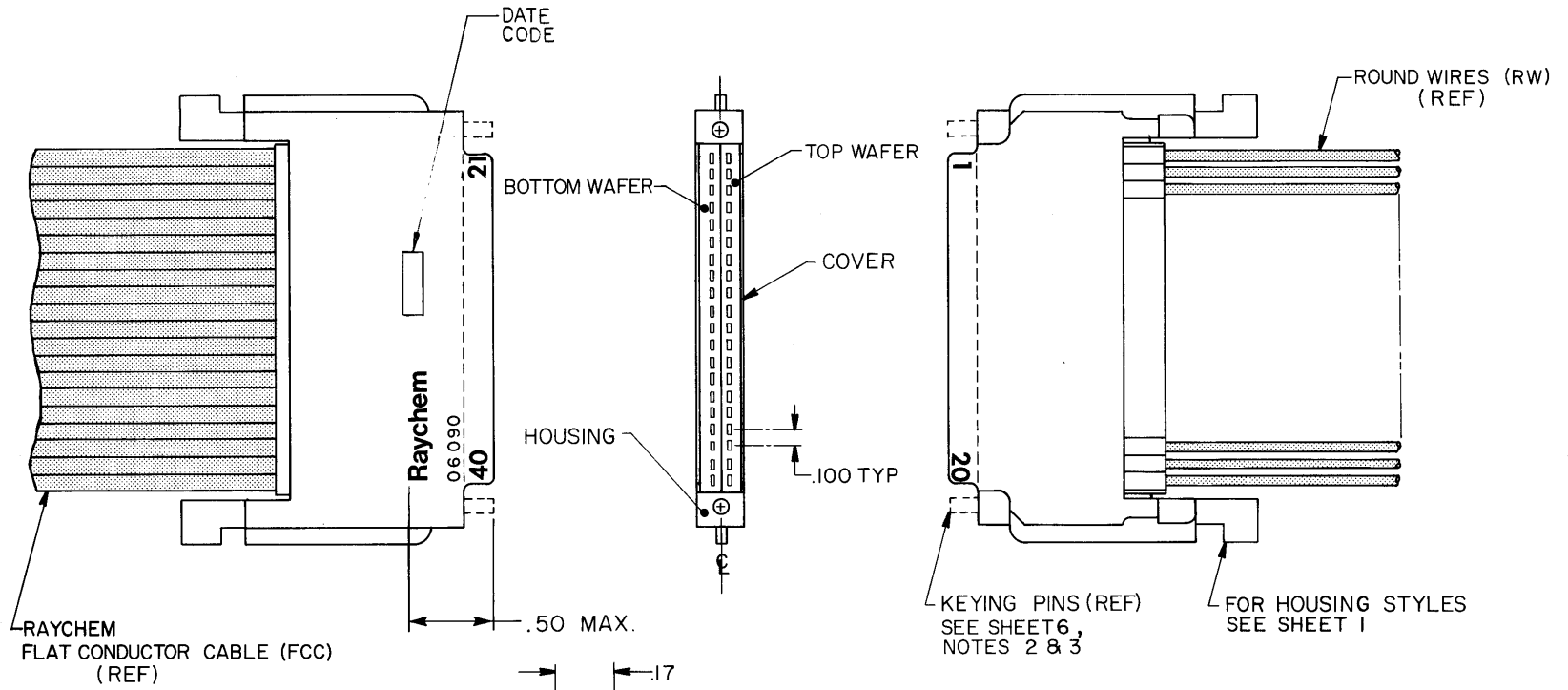
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UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES AND TOLERANCES ARE XXX -.005 XX -.01 — —	DRAWN	BITTER	10-15-75	RAYCHEM		
	CHECKED			RAYCHEM CORPORATION 500 CONSTITUTION DRIVE MENLO PARK, CALIFORNIA 94025		
	APPROVED			TITLE SEM CONNECTOR		
MATERIAL	APPROVED			—TERMINATED ASSEMBLY— STYLE I		
FINISH	APPROVED			SIZE	CODE IDENT	DWG. NO.
	PART NUMBER			C	NO. 06090	SEM-X-XXX
	PROJECT			SCALE	WEIGHT	SHEET 3 OF 6

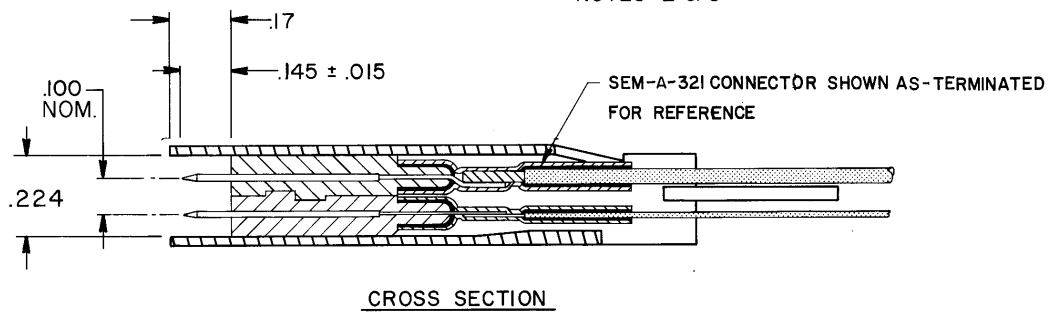
SPECIFICATION CONTROL DRAWING

REVISIONS			
LTR.	DESCRIPTION	DATE	APPROVED
-	SEE SHEET I		



RAYCHEM  
FLAT CONDUCTOR CABLE (FCC)  
(REF)

STYLE II CONNECTORS		
CONNECTOR ASSEMBLY	TOP WAFER (TYPE)	BOTTOM WAFER (TYPE)
SEM-A-311	1	1
SEM-A-322	2	2
SEM-A-333	3	3
SEM-A-344	3	3
SEM-A-355	3	3



CROSS SECTION

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**SPECIFICATION CONTROL DRAWING**

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CHECKED	<i>R.M. Neal</i>	8-5-75	RAYCHEM CORPORATION 300 CONSTITUTION DRIVE MENLO PARK, CALIFORNIA 94025		
APPROVED	<i>R.H. Ellis</i>	8-5-75	TITLE		
APPROVED			SEM CONNECTOR — TERMINATED ASSEMBLY — STYLE II		
APPROVED			SIZE	CODE IDENT	DWG. NO.
PART NUMBER			C	NO 06090	SEM-X-XXX
PROJECT			SCALE	WEIGHT	SHEET 4 OF 6

CONNECTOR SPECIFICATION

REVISIONS		
LTR	DESCRIPTION	DATE
	SEE SHEET 1	-----

NOTE: CONNECTOR IS DESIGNED TO MEET THE APPLICABLE REQUIREMENTS OF MIL-C-28754

RATINGS:

TEMPERATURE -85 C TO +105 C  
 VOLTAGE 300 VOLTS  
 CURRENT 3.0 AMPS

MATERIALS:

HOUSING DIE CAST ALUMINUM PER QQ-A-591  
 COVER SHEET ALUMINUM PER QQ-A-250  
 WAFER RIGID THERMOPLASTIC  
 CONTACTS 1/2-HARD BRASS PER QQ-B-613, COPPER ALLOY 260  
 MTM AND SOLDER SLEEVE BODY POLYVINYLIDENE FLUORIDE (PVF<sub>2</sub>)  
 SEALING MATERIAL (MTM ONLY) THERMALLY STABILIZED THERMOPLASTIC  
 SOLDER WITH FLUX Sn63 RAP PER QQ-S-571  
 HOUSING AND COVER FINISH BLACK ANODIZED PER MIL-A-8625  
 CONTACT FINISH GOLD PLATE PER TYPE I, GRADE "C", CLASS I OF MIL-G-45204

TOOLING REQUIRED:

STRIPPER - FLAT CABLE FC-6960 STRIPPER, BENCH MODEL (OR EQUIVALENT)  
 WIRE HANDLING-S/S VERSION AS-4000 WIRE HANDLING SYSTEM WITH SEM FIXTURES  
 TERMINATION-MTM VERSIONS FC-6900 CONDUCTIVE HEATING TOOL - BENCH MODEL  
 FC-6901-16 PLATEN ASSEMBLY - FLAT CABLE  
 FC 6901-19 PLATEN ASSEMBLY - ROUND WIRES  
 TERMINATION-S/S VERSIONS AA-400 SUPERHEATER

ASSEMBLY PROCEDURE

RAYCHEM INSTRUCTIONS

MTM VERSIONS APPLICATION PROCEDURE FOR TERMINATING MTMs AND CONNECTOR WAFERS WITH BENCH MODEL HEATING TOOL

S/S VERSIONS RAYCHEM INSTRUCTIONS - AS-4000 WIRE HANDLING SYSTEM

NOTES:

- 1./ REFER TO MIL-C-28754 FOR COMPLETE DETAILS.
- 2./ TEST METHODS ARE FROM MIL-STD-202, TEST METHODS FOR ELECTRONIC AND ELECTRICAL COMPONENT PARTS.
- 3./ TEST METHODS ARE FROM MIL-STD-1344, TEST METHODS FOR ELECTRICAL CONNECTORS.
- 4./ THIS SPECIFICATION SHEET TAKES PRECEDENCE OVER THE DOCUMENTS REFERENCED HEREIN, REFERENCED DOCUMENTS SHALL BE OF THE ISSUE IN EFFECT ON THE DATE OF INVITATION FOR BID OR REQUEST FOR PROPOSAL.

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SUMMARY OF TEST REQUIREMENTS 1/

DIELECTRIC WITHSTANDING VOLTAGE	METHOD 301 2/ 1000 VOLTS RMS, 60 Hz	NO BREAKDOWN OR FLASHOVER
CONTACT RESISTANCE		
RATED CURRENT	METHOD 307 2/	20 MILLIVOLTS MAXIMUM
LOW LEVEL	METHOD 3002 3/	20 MILLIVOLTS MAXIMUM
SOLDERABILITY	METHOD 208 2/ EXCEPT STEAM AGING DOES NOT APPLY	95% COVERAGE
THERMAL SHOCK	METHOD 107, COND. A 2/ EXCEPT 105 C MAXIMUM	NO PHYSICAL DAMAGE
VIBRATION	METHOD 201 2/	NO PHYSICAL DAMAGE OR LOOSENING NO DISCONTINUITY 1 MICROSECOND PASS CONTACT RETENTION, CONTACT RESISTANCE
CONTACT RETENTION	METHOD 2007 3/ 7.5 LBS. AXIAL LOAD	NO DISPLACEMENT AFTER 10 SECONDS MINIMUM DURATION
DURABILITY	500 CYCLES	PASS CONTACT RESISTANCE
SALT SPRAY	METHOD 101, COND. B (48 HRS.) 2/ EXCEPT 20% SALT SOLUTION	PASS CONTACT RESISTANCE
SHOCK (SPECIFIED PULSE)	METHOD 213, COND. B 2/ (75 G's, 6MS., HALF-SINE)	NO PHYSICAL DAMAGE
HUMIDITY	METHOD 103, COND. B 2/ (96 HRS., STEADY STATE)	50,000 MEGOHMS - BEFORE
INSULATION RESISTANCE	METHOD 302, COND. B 2/ (500 VOLTS)	18,000 MEGOHMS - AFTER 4 HRS. PER TABLE III
TERMINATION TENSILE STRENGTH	METHOD 2003 3/. 1/	
CURRENT OVERLOAD	125% RATED - 2 HOURS 150% RATED - 5 MINUTES	PASS CONTACT RESISTANCE AT RATED CURRENT

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CHECKED	R.M. NOEL	10-20-75			
APPROVED	<i>[Signature]</i>	9/9/75	TITLE <b>SEM CONNECTOR</b> (SPECIFICATION SHEET)		
APPROVED	<i>[Signature]</i>				
APPROVED					
PART NUMBER	005360-5		SIZE	CODE IDENT. NO.	DWG. NO.
PROJECT			C	06090	SEM-X-XXX
			DO NOT SCALE THIS DRAWING		SHEET 5 OF 6

**SPECIFICATION CONTROL DRAWING**

4

3

2

1

REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPROVED
—	—	SEE SHEET 1	—	—

SEM-X-A-B-C

————— BOTTOM WAFER DESIGNATOR  
 ————— TOP WAFER DESIGNATOR  
 ————— HOUSING ASSEMBLY DESIGNATOR  
 ————— END ITEM DESIGNATOR

DESCRIPTION	X	A	B	C
COMPLETE CONNECTOR ASSEMBLY	A	SEE BELOW	SEE BELOW	SEE BELOW
HOUSING ASSEMBLY STYLE I WITHOUT CABLE CLAMP	H	1	0	0
HOUSING ASSEMBLY STYLE I WITH CABLE CLAMP	H	2	0	0
HOUSING ASSEMBLY STYLE II	H	3	0	0
TOP WAFER TYPE 1	T	0	1	0
TOP WAFER TYPE 2	T	0	2	0
TOP WAFER TYPE 3 $\triangle$	T	0	3	0
TOP WAFER TYPE 3 $\triangle$	T	0	4	0
TOP WAFER TYPE 3 $\triangle$	T	0	5	0
BOTTOM WAFER TYPE 1	B	0	0	1
BOTTOM WAFER TYPE 2	B	0	0	2
BOTTOM WAFER TYPE 3 $\triangle$	B	0	0	3
BOTTOM WAFER TYPE 3 $\triangle$	B	0	0	4
BOTTOM WAFER TYPE 3 $\triangle$	B	0	0	5

$\triangle$  SEE SHEET 2 SOLDER SLEEVE TABLE

## NOTES:

- COVER IS SUPPLIED WITH HOUSING ASSEMBLY.
- KEYING PINS ARE NOT SUPPLIED WITH CONNECTOR.
- KEYING CODE DOES NOT FORM A PART OF THE RAYCHEM PART NUMBERING SYSTEM AND SHOULD BE OMITTED WHEN ORDERING.

- COMPLETE CONNECTORS ARE INDIVIDUALLY BAGGED AND LABELED,  
SUB-ASSEMBLIES ARE BAGGED INDIVIDUALLY AND LABELED.

- EXAMPLES OF PART NUMBERING: SEM-A-121 COMPLETE CONNECTOR WITH:

STYLE I HOUSING ASSEMBLY

TOP WAFER WITH ROUND WIRE MTM

BOTTOM WAFER WITH FLAT CABLE MTM

SEM-H-300 STYLE II HOUSING ASSEMBLY, LESS WAFERS

SEM-B-003 BOTTOM WAFER ONLY, SOLDER SLEEVE  $\text{\textcircled{R}}$  TERMINATIONS

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DRAWN	SA. LOPEZ	7-17-78	<b>Raychem</b>		RAYCHEM CORPORATION 300 CONSTITUTION DRIVE MENLO PARK, CALIFORNIA 94025	
CHECKED						
APPROVED			TITLE SEM CONNECTOR — PART NUMBERING —			
APPROVED						
APPROVED						
PART NUMBER			SIZE	CODE IDENT.	DWG. NO.	SEM-X-XXX
			C	NO. 06090		
PROJECT			SCALE	WEIGHT	SHEET 6 OF 6	

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SPECIFICATION CONTROL DRAWING