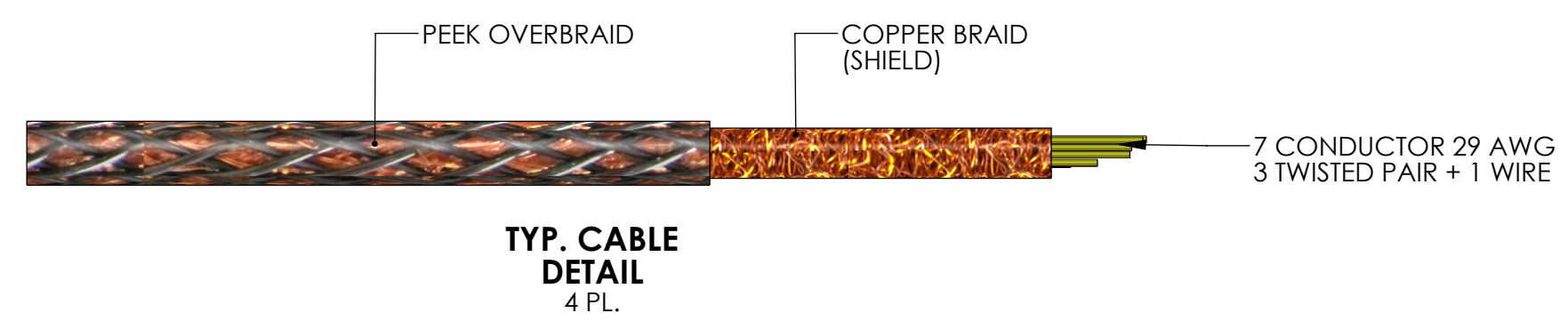
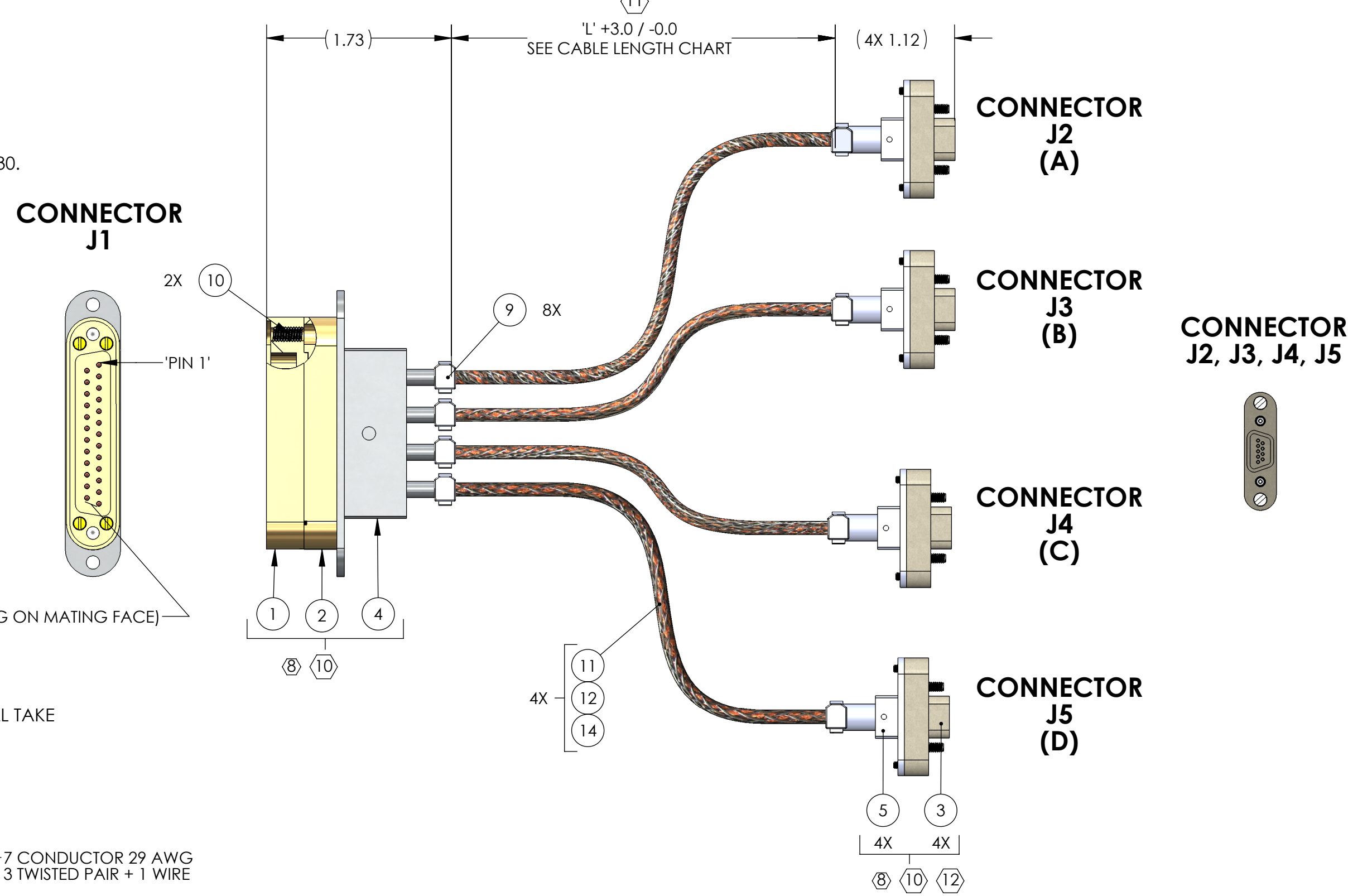


5. CABLE IDENTIFICATION: IDENTIFY PER STATEMENT OF WORK.
6. ALL HELI-COIL HOLES TO BE PREPARED ACCORDING TO EMHART HELI-COIL PRODUCT CATALOG, HC2000, REV 4
7. ALL HELI-COIL INSERTS TO BE INSTALLED BY LIGO PERSONNEL. AFTER DELIVERY OF FINISHED PARTS, USE NITRONIC 60 THREADED INSERTS.
8. MATERIAL:
- a. J1 CONNECTOR SHELL - GOLD OVER ELECTRO-LESS NICKEL SELECTIVELY METALIZED PEEK VICTREX 450GL30.
 - b. J2, J3, J4, J5 CONNECTOR SHELL - PEEK VICTREX 450GL30.
 - c. BACKSHELL - STAINLESS STEEL WITH VENT HOLE.
 - d. CONTACTS - BERYLLIUM COPPER ALLOY C17300, 0.000050 MIN. GOLD OVER NICKEL.
 - e. HARDWARE: STAINLESS STEEL, PASSIVATED.
 - f. PEEK BRAID - PEEK VICTREX GRADE TDS-450CA30 CARBON LOADED.
9. CABLE: 7 COND. 29 AWG, (51/46), WITH PFA INSULATION (COONER WIRE #CZ1104) 3 TWISTED PAIRS (4 TO 5 TWISTS PER INCH)+ 1 WIRE OVERALL 40AWG COPPER BRAID 50% COVERAGE. OVERALL PEEK BRAID MIN. 50% COVERAGE. OVERALL CABLE O.D. WILL BE APPROX. 0.240 IN.
10. CONNECTORS WILL BE SUPPLIED WITH HARDWARE. LENGTH OF SCREWS SHOULD BE THE PROPER LENGTH FOR MATING.
11. INDICATED LENGTH IS FROM CONNECTOR END TO CONNECTOR END. USE APPROPRIATE LENGTH TO COMPENSATE FOR THE INTERNAL WIRING OF THE CONNECTORS AND STRIP LENGTH.
12. ADEQUATE POTTING COMPOUND REQUIRED FOR 'J2' CONNECTOR. SEE SOW FOR ACCEPTABLE MATERIALS.
13. INDICATED DIMENSIONS SHOWN FOR REFERENCE ONLY.
14. FILL UNUSED CONTACT POSITIONS WITH UNCRIMPED CONTACTS.
15. PART NO. SHOWN CORRESPONDS TO UNPLATED PARTS. MATERIALS/FINISH AS SPECIFIED ON NOTE 8, SHALL TAKE PRECEDENCE AT ALL TIMES.



SUS, AOS - SUSPENSION CUSTOM CABLE		
V-DB25 M/1 -TBD-μD9 F/5		
STANDARD USE FOR THIS CABLE		
SUBSYSTEM	AIR/VAC	STANDARD USE
SUS	IN-VAC	QUAD SUSPENSION TOP
		HAM SMALL TRIPLE SUSPENSION (HSTS)
		HAM LARGE TRIPLE SUSPENSION (HLTS)
SUS (TMS)		TRANSMISSION MONITOR SUSPENSION (TMS)

STANDARD CABLE LENGTH CHART		
IDENTIFYING NO.	DESIGNATOR	'L' (INCHES)
D1000234-60	V25X-60	60
D1000234-66	V25X-66	66
D1000234-78	V25X-78	78
D1000234-88	V25X-88	88
D1000234-96	V25X-96	96
D1000234-125	V25X-125	125
D1002522-TBD	V25X-TBD	LENGTH TO BE DETERMINED AT TIME OF ORDER

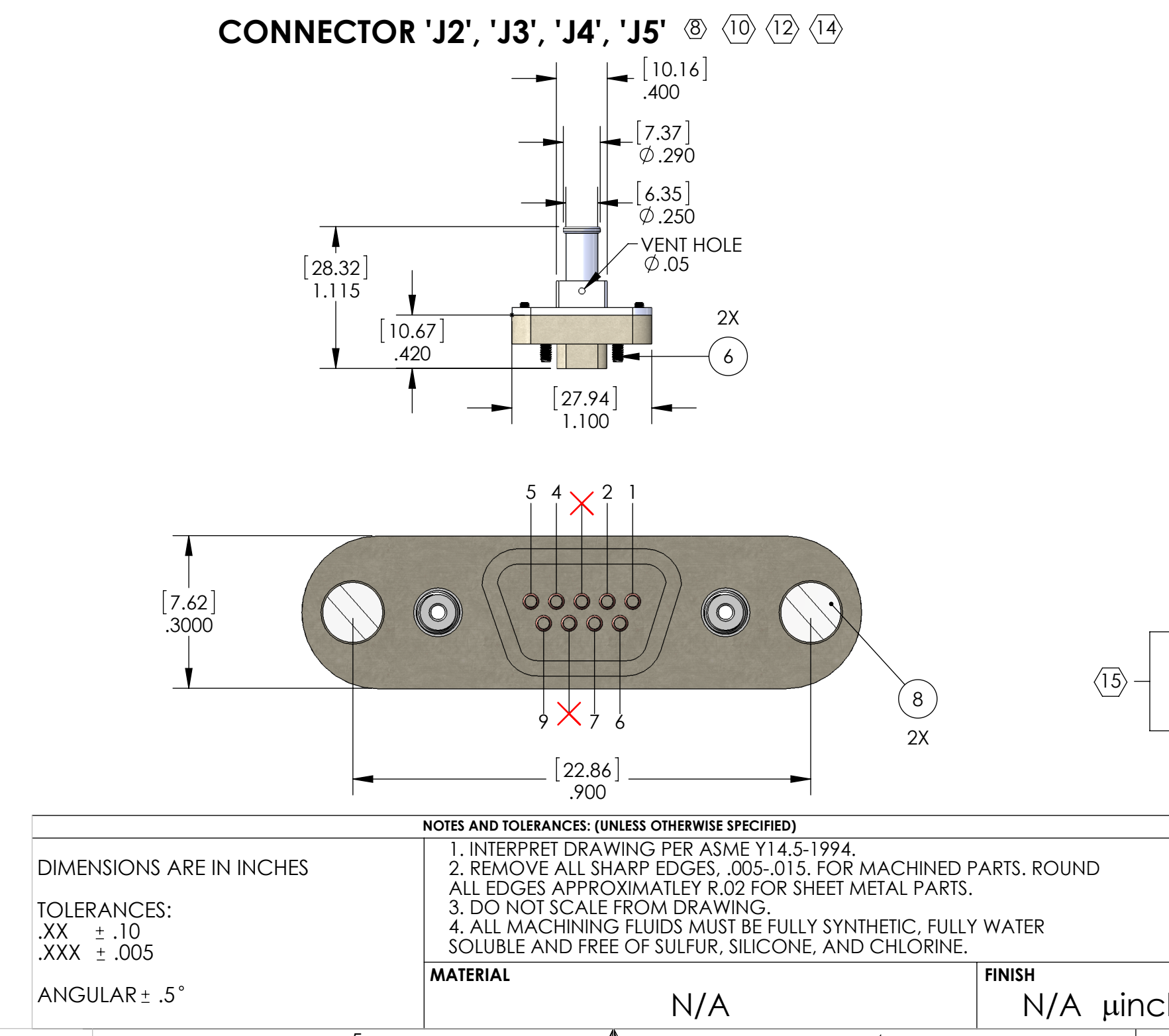
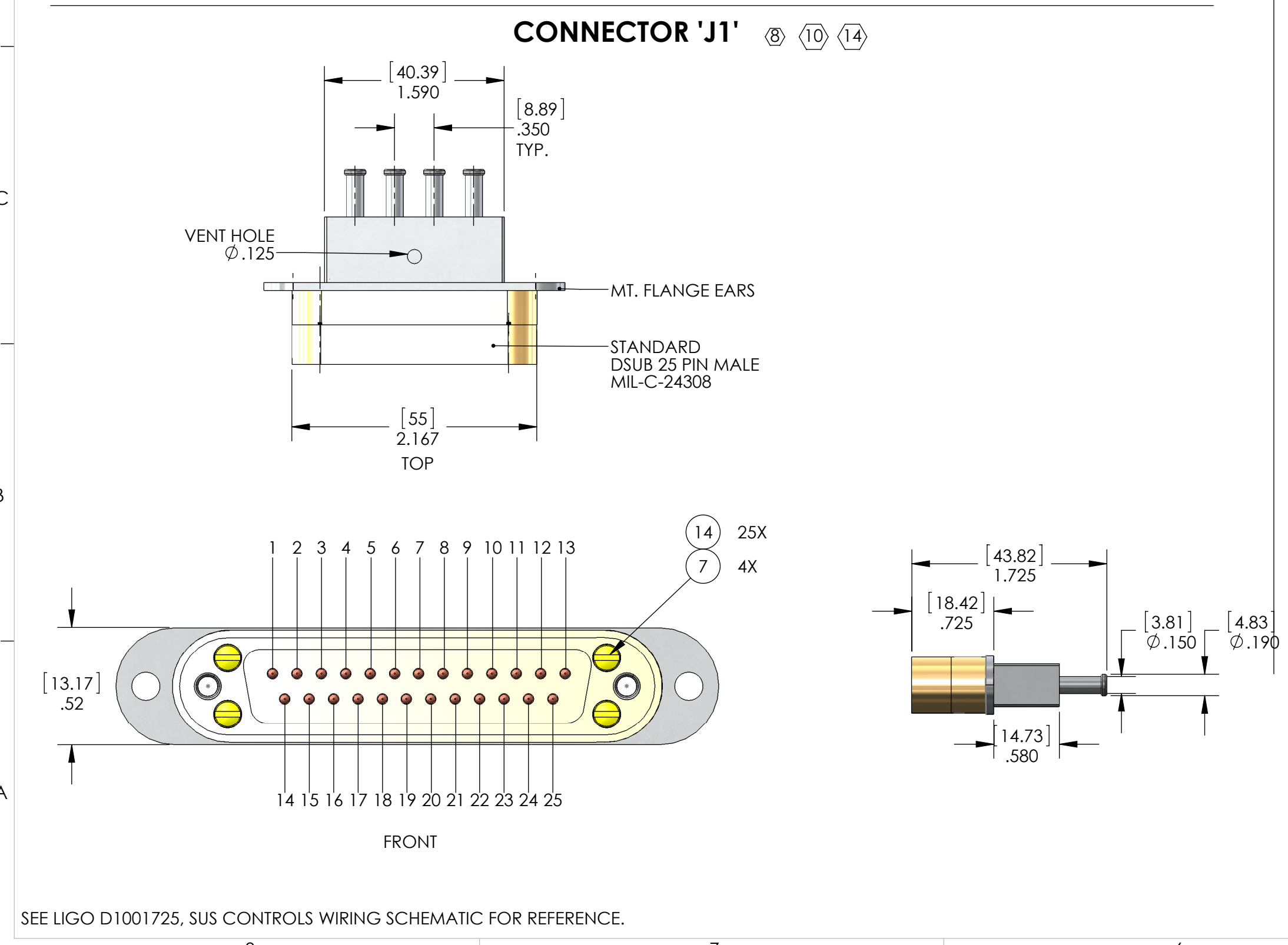
V25X-TBD CABLE ASSEMBLY CIRCUIT SUMMARY

V-DB25 M/S1-TBD-4μD9 F/5

FROM 'J1'		TO 'J2'		SIGNAL
PIN	CABLE NO.	WIRE NAME	TWISTED PAIR	
N/C		(CONNECTOR SHELL)		
J1-1	CBL-1	CBL-1 SHIELD	N/C	SHIELD
J1-14		WIRE 14	TP-1A	J2-1 PD1-K
J1-2		WIRE 2		J2-6 PD1-A
J1-15		WIRE 15	TP-2A	J2-2 LED1-A
J1-3		WIRE 3		J2-7 LED1-K
J1-16		WIRE 16	TP-3A	J2-4 COIL1-FN
J1-4		WIRE 4		J2-9 COIL1-ST
		TO 'J3'		
		TWISTED PAIR	PIN	
J1-1	CBL-2	CBL-2 SHIELD	N/C	SHIELD
J1-17		WIRE 17	TP-1B	J3-1 PD2-K
J1-5		WIRE 5		J3-6 PD2-A
J1-18		WIRE 18	TP-2B	J3-2 LED2-A
J1-6		WIRE 6		J3-7 LED2-K
J1-19		WIRE 19	TP-3B	J3-4 COIL2-FN
J1-4		WIRE 7		J3-9 COIL2-ST
		TO 'J4'		
		TWISTED PAIR	PIN	
J1-1	CBL-3	CBL-3 SHIELD	N/C	SHIELD
J1-20		WIRE 20	TP-7C	J4-1 PD3-K
J1-8		WIRE 8		J4-6 PD3-A
J1-21		WIRE 21	TP-8C	J4-2 LED3-A
J1-9		WIRE 9		J4-7 LED3-K
J1-22		WIRE 22	TP-9C	J4-4 COIL3-FN
J1-10		WIRE 10		J4-9 COIL3-ST
		TO 'J5'		
		TWISTED PAIR	PIN	
J1-1	CBL-4	CBL-4 SHIELD	N/C	SHIELD
J1-23		WIRE 23	TP-10D	J5-1 PD4-K
J1-11		WIRE 11		J5-6 PD4-A
J1-24		WIRE 24	TP-11D	J5-2 LED4-A
J1-12		WIRE 12		J5-7 LED4-K
J1-25		WIRE 25	TP-12D	J5-4 COIL4-FN
J1-13		WIRE 13		J5-9 COIL4-ST

TEST LIST

FROM	TO
'J1'	'J2'
PIN	PIN
1, SHELL	SHELL
14	1
2	6
15	2
3	7
16	4
4	9
FROM	TO
'J1'	'J3'
PIN	PIN
1, SHELL	SHELL
17	1
5	6
18	2
6	7
19	4
7	9
FROM	TO
'J1'	'J4'
PIN	PIN
1, SHELL	SHELL
20	1
8	6
21	2
9	7
22	4
10	9
FROM	TO
'J1'	'J5'
PIN	PIN
1, SHELL	SHELL
23	1
11	6
24	2
12	7
25	4
13	9



14	037-5001-2022 TICOR OR EQ.	SIZE 20 PIN CONTACT, 22D CRIMP BARREL	SEE NOTE 8	25
13	6759	PEEK OVERBRAID, 50% COVERAGE MIN.	ZEUS, .016 BLK PEEK DRAWN MONOFILAMENT	A/R
12	24X3X40BC CONTINENTAL CORDAGE	1/8 DIA. COPPER BRAID	COPPER	A/R
11	CZ1104 COONER WIRE	WIRE, 29 AWG (51/46), .023 DIA	SEE NOTE 9	A/R
10	1185-04EN-336	HELICOIL, 4-40 X .336 LG., NITRONIC60	NITRONIC 60	2
9	600-057 GLENAIR OR EQ.	BRAID CLAMPING BAND, .120 WIDE	SSTL	8
8	013-2704-0000 TICOR OR EQ.	SCREW, FILLISTER HEAD, 1-72 X .25 LG., SLOTTED	SEE NOTE 8	8
7	013-2701-0001 TICOR OR EQ.	SCREW, FILLISTER HEAD, 1-72 X .450 LG., SLOTTED		4
6	013-200-0015 TICOR OR EQ.	SCREW, SHC, 2-56 X .255 LG., VENTED		8
5		BACKSHELL, DSUB9 CONNECTOR		4
4		BACKSHELL, DSUB25 CONNECTOR	1	
3		CONNECTOR INTERFACE, DSUB9 (FEMALE)	4	
2	034-1002-2520 TICOR OR EQ.	CONTACT RETAINER, DSUB25, UHV, SHIELDED	1	
1	034-1006-2520 TICOR OR EQ.	CONNECTOR INTERFACE, DSUB25, UHV, SHIELDED (MALE)	1	
ITEM NO.	PART NUMBER	DESCRIPTION	MATERIAL	QTY.

NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)

- INTERPRET DRAWING PER ASME Y14.5-1994.
- REMOVE ALL SHARP EDGES, .005-.015. FOR MACHINED PARTS. ROUND ALL EDGES APPROXIMATELY R.02 FOR SHEET METAL PARTS.
- DO NOT SCALE FROM DRAWING.
- ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.

DIMENSIONS ARE IN INCHES

TOLERANCES:
 .XX ± .10
 .XXX ± .005

ANGULAR ± .5°

MATERIAL	N/A	FINISH	N/A μinch
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LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY

SYSTEM: ADVANCED LIGO SUB-SYSTEM: SUS

PART NAME: CUSTOM CABLE SPECIFICATION, V25X-TBD

DESIGNER	J.HEEFNER	03 MAR 2010	SIZE	DWG. NO.	REV.
DRAFTER	E.BROWN	03 MAR 2011	D	D1000234	v11
CHECKER	SEE DCC	SEE DCC	SCALE:	NTS	PROJECTION:
APPROVAL	SEE DCC	SEE DCC	SCALE:	NTS	PROJECTION:

SHEET 1 OF 1