

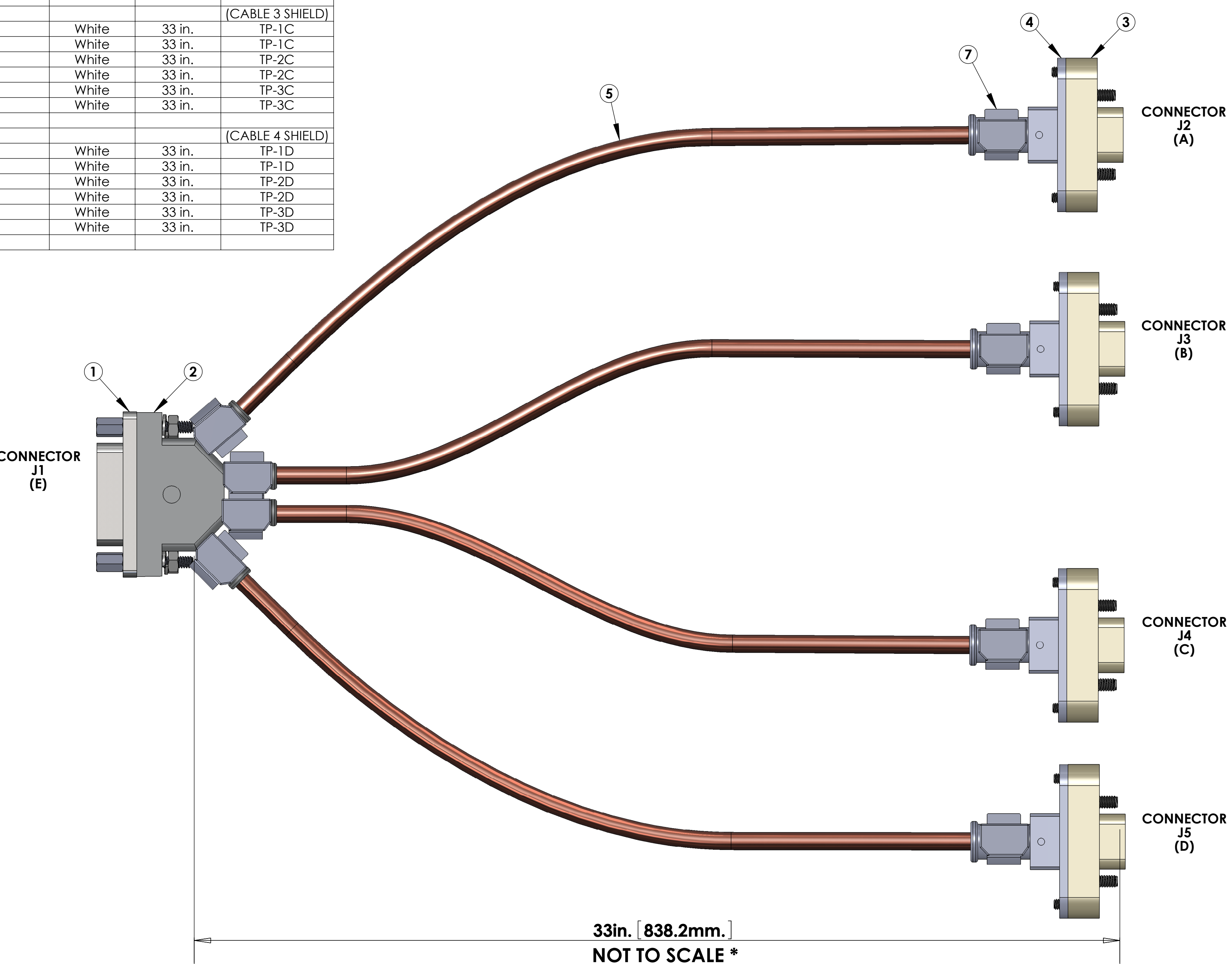
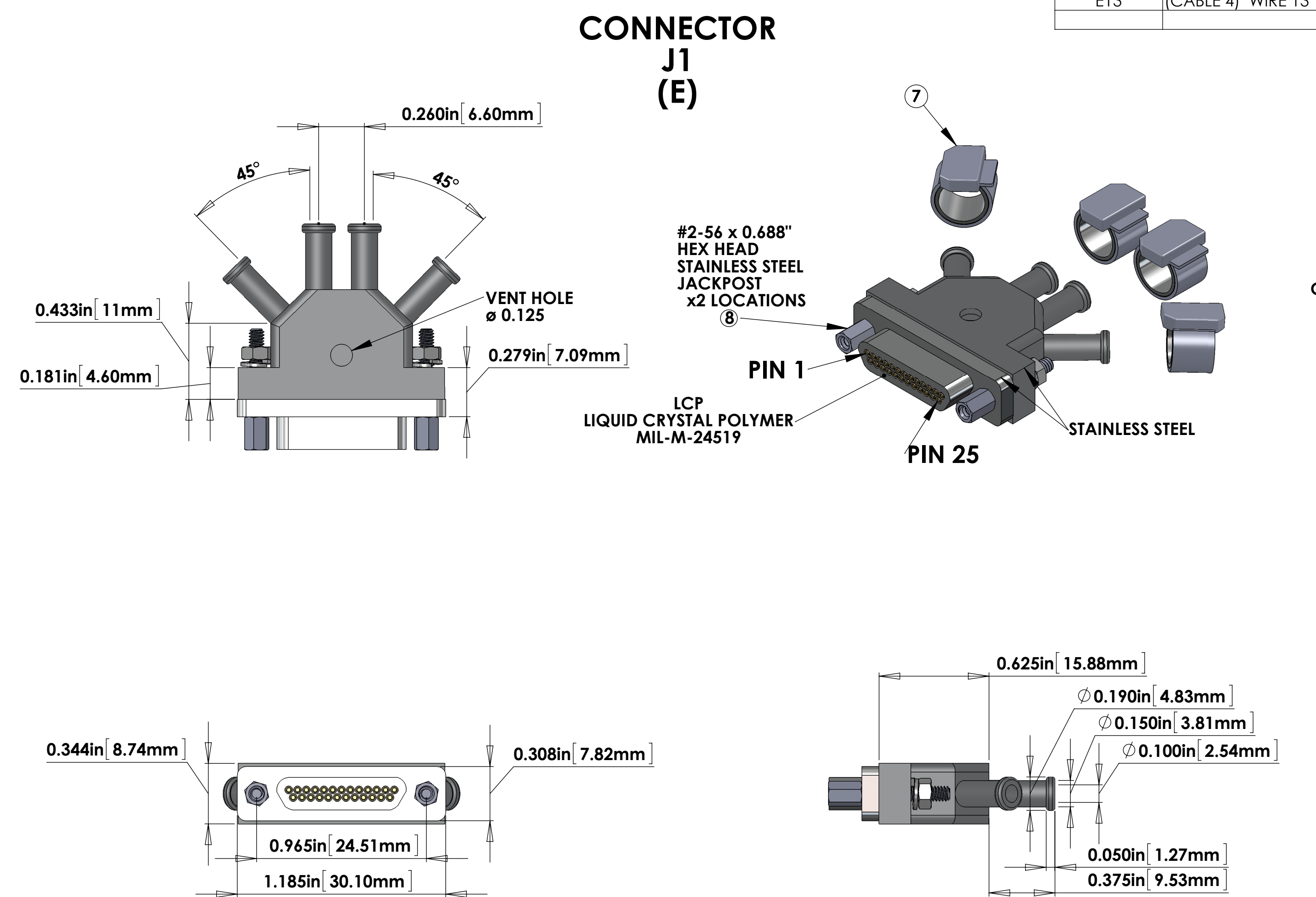
- NOTES CONTINUED:
- SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER AND REVISION ON NOTED SURFACE FOLLOWED BY THE NEXT LINE BY A THREE DIGIT SERIAL NUMBER. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. USE OF "HIGH" CHARACTERS IS PERMITTED. EXAMPLE: DXXXXXXVY, S/N 001. A VIBRATORY TOOL MAY BE USED.
 - APPROXIMATE WEIGHT = X.XXXX LB.
 - MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH. USE OF ABRASIVE REMOVAL TECHNIQUES IS NOT ALLOWED. REFER TO LIGO-6990364.
 - ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E090364.
 - ALL HELIX HOLES TO BE PREPARED ACCORDING TO BAHARF HELIX COIL PRODUCT CATALOG, HE2006, REV.14
 - ALL HELIX COILS TO BE AS-PROCESSED FROM MILLS/SUPPLIER, FREE FROM SCRATCHES OR GOUGES.
 - PART WILL BE PORCELAIN COATED PER LIGO SPECIFICATION E4000083 AFTER FABRICATION. THE INDICATED HOLES WILL BE MASKED PRIOR TO PORCELAIN COATING TO APPROXIMATELY 0.004" HOLE DIAMETER, CENTERED ON BOTH SIDES OF THE HOLE.
 - DIMENSIONS APPLY BEFORE PORCELAIN COATING UNLESS SPECIFIED.
 - BEND RADIUS, UNLESS OTHERWISE NOTED, THE BEND RADIUS SHOULD BE THE MINIMUM REQUIRED TO FORM WITHOUT CRACKING OR REQUIRING ADDITIONAL WORK WHEN FORMING. IN PARTICULAR IF SHEET METAL IS TO BE PORCELAIN COATED, THE BEND RADIUS SHALL BE A MINIMUM OF .12" OUTSIDE RADIUS OF BEND UNLESS OTHERWISE NOTED.

NOTES 9, 10, 13 and 14 DO NOT APPLY TO THIS PART

V25AM-33-B CABLE ASSEMBLY CIRCUIT SUMMARY

V_μD25 M/1S-33-4_μD9 F/5S:B

FROM					
CONNECTOR J1 - 25 PIN MALE MICRO_D CONNECTOR					
PIN	WIRE NAME	COLOR	LENGTH	TWISTED PAIR	
E1	(CONNECTOR SHELL)				
E1	(CABLE 1) SHIELD				(CABLE 1) SHIELD
E1	(CABLE 1) WIRE 1	White	33 in.		SINGLE WIRE
E14	(CABLE 1) WIRE 14	White	33 in.		TP-1A
E2	(CABLE 1) WIRE 2	White	33 in.		TP-1A
E15	(CABLE 1) WIRE 15	White	33 in.		TP-2A
E3	(CABLE 1) WIRE 3	White	33 in.		TP-2A
E16	(CABLE 1) WIRE 16	White	33 in.		TP-3A
E4	(CABLE 1) WIRE 4	White	33 in.		TP-3A
FROM					
CONNECTOR J1 - 25 PIN MALE MICRO_D CONNECTOR					
PIN	WIRE NAME	COLOR	LENGTH	TWISTED PAIR	
E1	(CABLE 2) SHIELD				(CABLE 2) SHIELD
E17	(CABLE 2) WIRE 17	White	33 in.		TP-1B
E5	(CABLE 2) WIRE 5	White	33 in.		TP-1B
E18	(CABLE 2) WIRE 18	White	33 in.		TP-2B
E6	(CABLE 2) WIRE 6	White	33 in.		TP-2B
E19	(CABLE 2) WIRE 19	White	33 in.		TP-3B
E7	(CABLE 2) WIRE 7	White	33 in.		TP-3B
FROM					
CONNECTOR J1 - 25 PIN MALE MICRO_D CONNECTOR					
PIN	WIRE NAME	COLOR	LENGTH	TWISTED PAIR	
E1	(CABLE 3) SHIELD				(CABLE 3) SHIELD
E20	(CABLE 3) WIRE 20	White	33 in.		TP-1C
E8	(CABLE 3) WIRE 8	White	33 in.		TP-1C
E21	(CABLE 3) WIRE 21	White	33 in.		TP-2C
E9	(CABLE 3) WIRE 9	White	33 in.		TP-2C
E22	(CABLE 3) WIRE 22	White	33 in.		TP-3C
E10	(CABLE 3) WIRE 10	White	33 in.		TP-3C
FROM					
CONNECTOR J1 - 25 PIN MALE MICRO_D CONNECTOR					
PIN	WIRE NAME	COLOR	LENGTH	TWISTED PAIR	
E1	(CABLE 4) SHIELD				(CABLE 4) SHIELD
E23	(CABLE 4) WIRE 23	White	33 in.		TP-1D
E11	(CABLE 4) WIRE 11	White	33 in.		TP-1D
E24	(CABLE 4) WIRE 24	White	33 in.		TP-2D
E12	(CABLE 4) WIRE 12	White	33 in.		TP-2D
E25	(CABLE 4) WIRE 25	White	33 in.		TP-3D
E13	(CABLE 4) WIRE 13	White	33 in.		TP-3D



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

V25AM-33-B CABLE ASSEMBLY CIRCUIT SUMMARY

FROM		TO			
CONN J1		CONNECTOR J2 - 9 PIN FEMALE MICRO_D CONNECTOR (PEEK)			
PIN	PIN	WIRE NAME	SIGNAL		
E1	A5	(CABLE 1) SHIELD	SHIELD		
E1	A5	(CONNECTOR SHELL)	SHIELD		
E1	A5	(CABLE 1) WIRE 1	SHIELD		
E14	A1	(CABLE 1) WIRE 14	PD1-K		
E2	A6	(CABLE 1) WIRE 2	PD1-A		
E15	A2	(CABLE 1) WIRE 15	LED1-A		
E3	A7	(CABLE 1) WIRE 3	LED1-K		
E16	A4	(CABLE 1) WIRE 16	COIL1-FN		
E4	A9	(CABLE 1) WIRE 4	COIL1-ST		

V25AM-33-B CABLE ASSEMBLY CIRCUIT SUMMARY

FROM		TO			
CONN J1		CONNECTOR J3 - 9 PIN FEMALE MICRO_D CONNECTOR (PEEK)			
PIN	PIN	WIRE NAME	SIGNAL		
E1	B5	(CONNECTOR SHELL)	SHIELD		
E1	B5	(CABLE 2) SHIELD	SHIELD		
E1	B5	(CABLE 2) WIRE 1	SHIELD		
E17	B1	(CABLE 2) WIRE 17	PD2-K		
E5	B6	(CABLE 2) WIRE 5	PD2-A		
E18	B2	(CABLE 2) WIRE 18	LED2-A		
E6	B7	(CABLE 2) WIRE 6	LED2-K		
E19	B4	(CABLE 2) WIRE 19	COIL2-FN		
E7	B9	(CABLE 2) WIRE 7	COIL2-ST		

V25AM-33-B CABLE ASSEMBLY CIRCUIT SUMMARY

FROM		TO			
CONN J1		CONNECTOR J4 - 9 PIN FEMALE MICRO_D CONNECTOR (PEEK)			
PIN	PIN	WIRE NAME	SIGNAL		
E1	C5	(CONNECTOR SHELL)	SHIELD		
E1	C5	(CABLE 3) SHIELD	SHIELD		
E1	C5	(CABLE 3) WIRE 1	SHIELD		
E20	C1	(CABLE 3) WIRE 20	PD3-K		
E8	C6	(CABLE 3) WIRE 8	PD3-A		
E21	C2	(CABLE 3) WIRE 21	LED3-A		
E9	C7	(CABLE 3) WIRE 9	LED3-K		
E22	C4	(CABLE 3) WIRE 22	COIL3-FN		
E10	C9	(CABLE 3) WIRE 10	COIL3-ST		

V25AM-33-B CABLE ASSEMBLY CIRCUIT SUMMARY

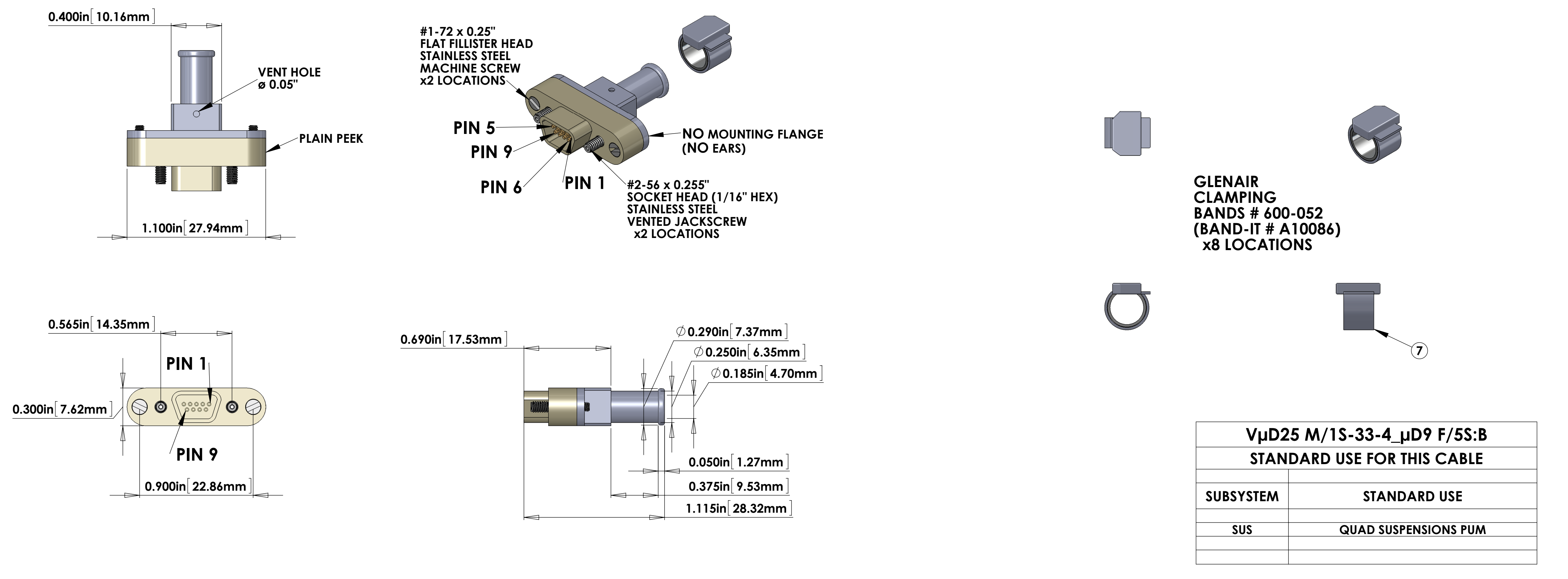
FROM		TO			
CONN J1		CONNECTOR J5 - 9 PIN FEMALE MICRO_D CONNECTOR (PEEK)			
PIN	PIN	WIRE NAME	SIGNAL		
E1	D5	(CONNECTOR SHELL)	SHIELD		
E1	D5	(CABLE 4) SHIELD	SHIELD		
E1	D5	(CABLE 4) WIRE 1	SHIELD		
E23	D1	(CABLE 4) WIRE 23	PD4-K		
E11	D6	(CABLE 4) WIRE 11	PD4-A		
E24	D2	(CABLE 4) WIRE 24	LED4-A		
E12	D7	(CABLE 4) WIRE 12	LED2-K		
E25	D4	(CABLE 4) WIRE 25	COIL4-FN		
E13	D9	(CABLE 4) WIRE 13	COIL4-ST		

BILL OF MATERIALS

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.	LENGTH
1	GLENAIR # MWD3ML-25SP-598A TICOR # 040-1243-0025 OR EQUIVALENT	MicroD25 MALE CONNECTOR (J1) FOR UHV (STAINLESS STEEL OVER LCP)	1	
2	TICOR # 040-1243-0025 OR EQUIVALENT	MicroD25 CONNECTOR 4-PORT BACKSHELL FOR UHV (STAINLESS STEEL) WITH Ø0.100" I.d. PORTS	1	
3	TICOR # TS0094 WITH 60in. FLYING LEADS WITH BACKSHELL OR EQUIVALENT	MicroD9 FEMALE CONNECTOR (J2,J3,J4,J5) FOR UHV (PEEK)	4	
4	TICOR # TS0094 WITH 60in. FLYING LEADS WITH BACKSHELL OR EQUIVALENT	MicroD9 CONNECTOR BACKSHELL FOR UHV (STAINLESS STEEL) WITH Ø0.185" I.d. PORT	4	
5	C1	7 COND. (3 TWISTED PAIR) CABLE WITH 6 COPPER BRAID (SHIELD)	4	33in.*
6	CONTINENTAL PART # 24x3x40BC	COPPER BRAID - CONTINENTAL CORDAGE PART # 24x3x40BC	4	
7	GLENAIR # 600-052 or BAND-IT # A10086	GLENAIR # 600-052 STANDARD BRAID CLAMP or BAND-IT PART # A10086 (0.240" WIDE) ("BAG OF 100" # A10089)	8	
8	GLENAIR # 500-069-2-1 OR EQUIVALENT	#2-56 x 0.688" HEX HEAD (1/8") STAINLESS STEEL JACKPOST	2	

* NOTE: THE OVERALL LENGTH IS MEASURED FROM PIN TIP (25 PIN) TO PIN TIP (9 PIN) OF THE CABLE. USE WHATEVER LENGTH IS NECESSARY FOR THE INTERNAL WIRING OF THE CONNECTORS AND STRIP LENGTH TO ACHIEVE THE CORRECT OVERALL LENGTH.

- NOTES: (UNLESS OTHERWISE SPECIFIED)
- MATERIAL: a. 25 PIN MicroD CONNECTOR SHELL - J1 (E) STAINLESS STEEL OVER LCP - (LIQUID CRYSTAL POLYMER per MIL-M-24519). b. 9 PIN MicroD CONNECTOR SHELL - J2 (A), J3 (B), J4 (C), J5 (D) - PEEK - VICTREX 450GL30. c. CONTACTS - BERYLLIUM COPPER ALLOY C17300, 0.00050 MIN. GOLD OVER NICKEL. d. HARDWARE: STAINLESS STEEL, PASSIVATED. e. PEEK BRAID - PEEK VICTREX GRADE TDS-450CA30 CARBON LOADED - SUPPLIED BY LIGO.
 - CABLE 7 COND. 28 AWG, (40 STRD 44 AWG) WITH PFA INSULATION. 3 TWISTED PAIRS (4 TO 5 TWISTS PER INCH). OVERALL 40AWG COPPER BRAID 90% COVERAGE. OVERALL CABLE O.D. WILL BE APPROX. 0.240 IN.
 - CONNECTORS WILL BE SUPPLIED WITH HARDWARE. SCREWS SHOULD BE THE PROPER LENGTH FOR MATING.



V_μD25 M/1S-33-4_μD9 F/5S:B

STANDARD USE FOR THIS CABLE

SUBSYSTEM	STANDARD USE
SUS	QUAD SUSPENSIONS PUM

DIMENSIONS ARE IN		TOLERANCES:		ANGULAR ± °	
.XX	±	.XX	±		
.XXX	±	.XXX	±		

NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)		CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME	
1. INTERPRET DRAWING PER ASME Y14.5-1994. 2. REMOVE ALL SHARP EDGES, .005-.015, FOR MACHINED PARTS. ROUND ALL EDGES APPROXIMATELY R.02 FOR SHEET METAL PARTS. 3. DO NOT SCALE FROM DRAWING. 4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.		LIGO		CUSTOM CABLE SPECIFICATION V25AM-33-B	
MATERIAL		SUB-SYSTEM		DESIGNER	
FINISH		SUS		E. BROWN	
NEXT ASSY		APPROVAL		SCALE: 2:1	
μinch		APPROVAL		DWG. NO. E D1000565	
				REV. v6	
				SHEET 1 OF 1	