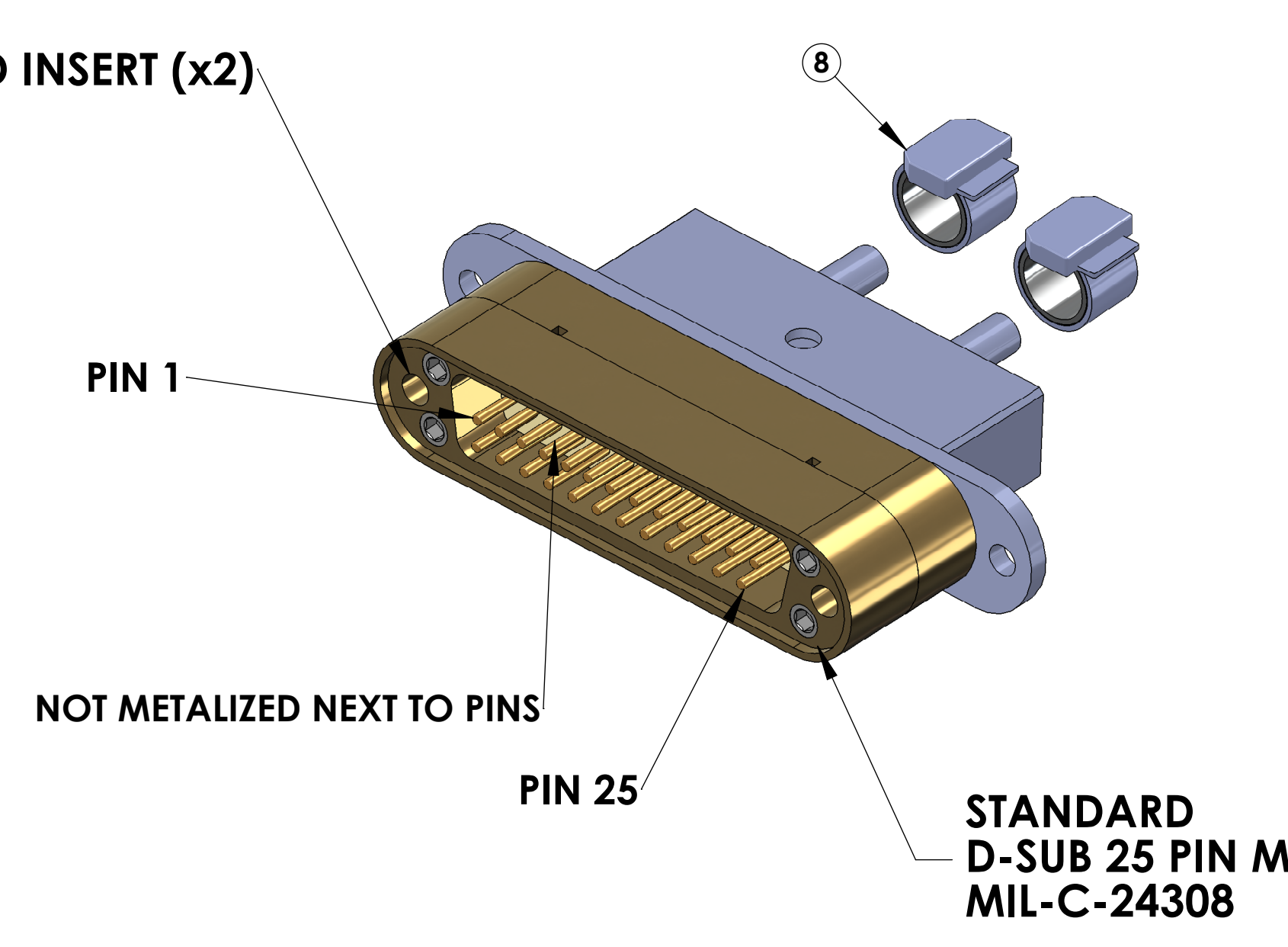


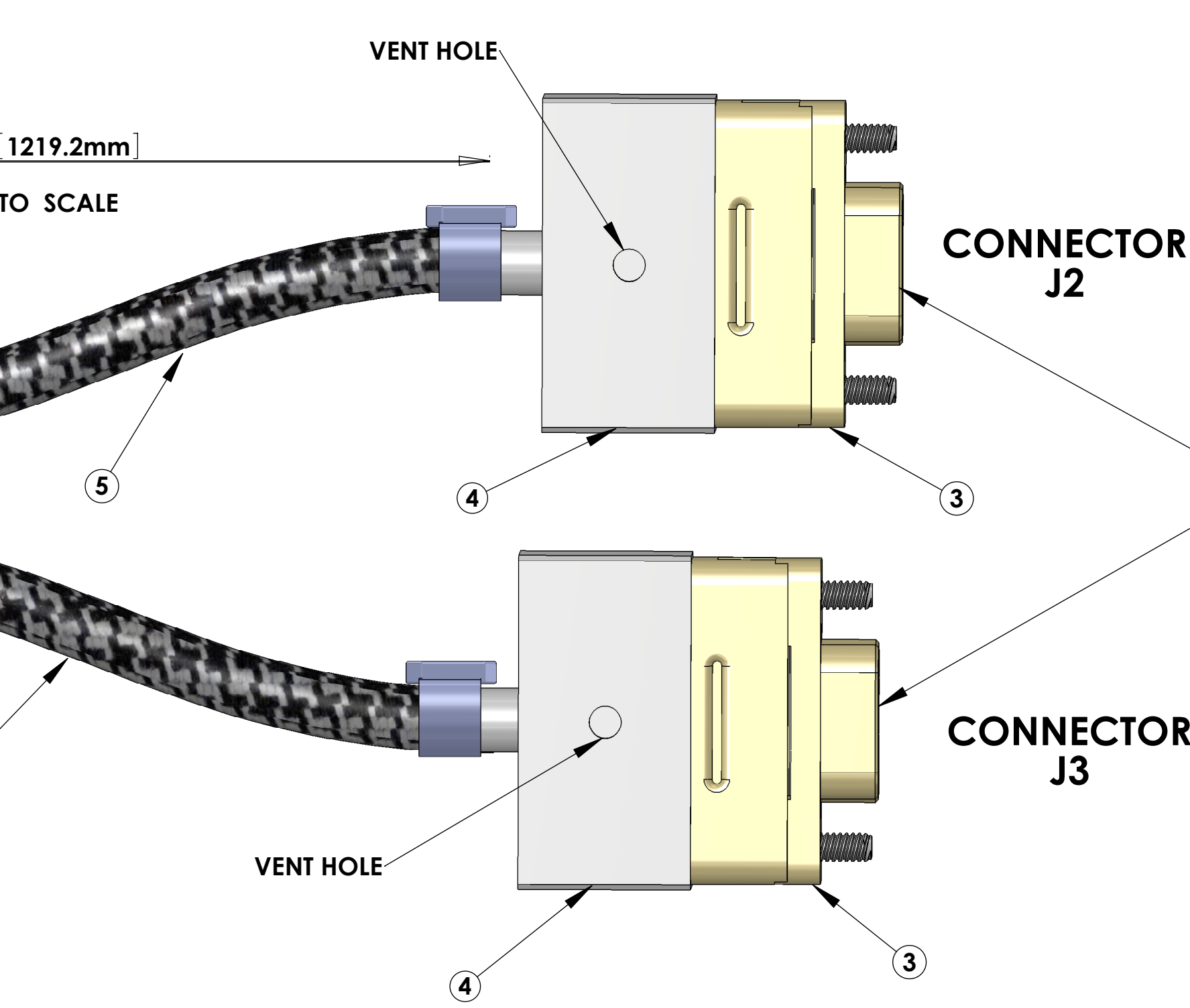
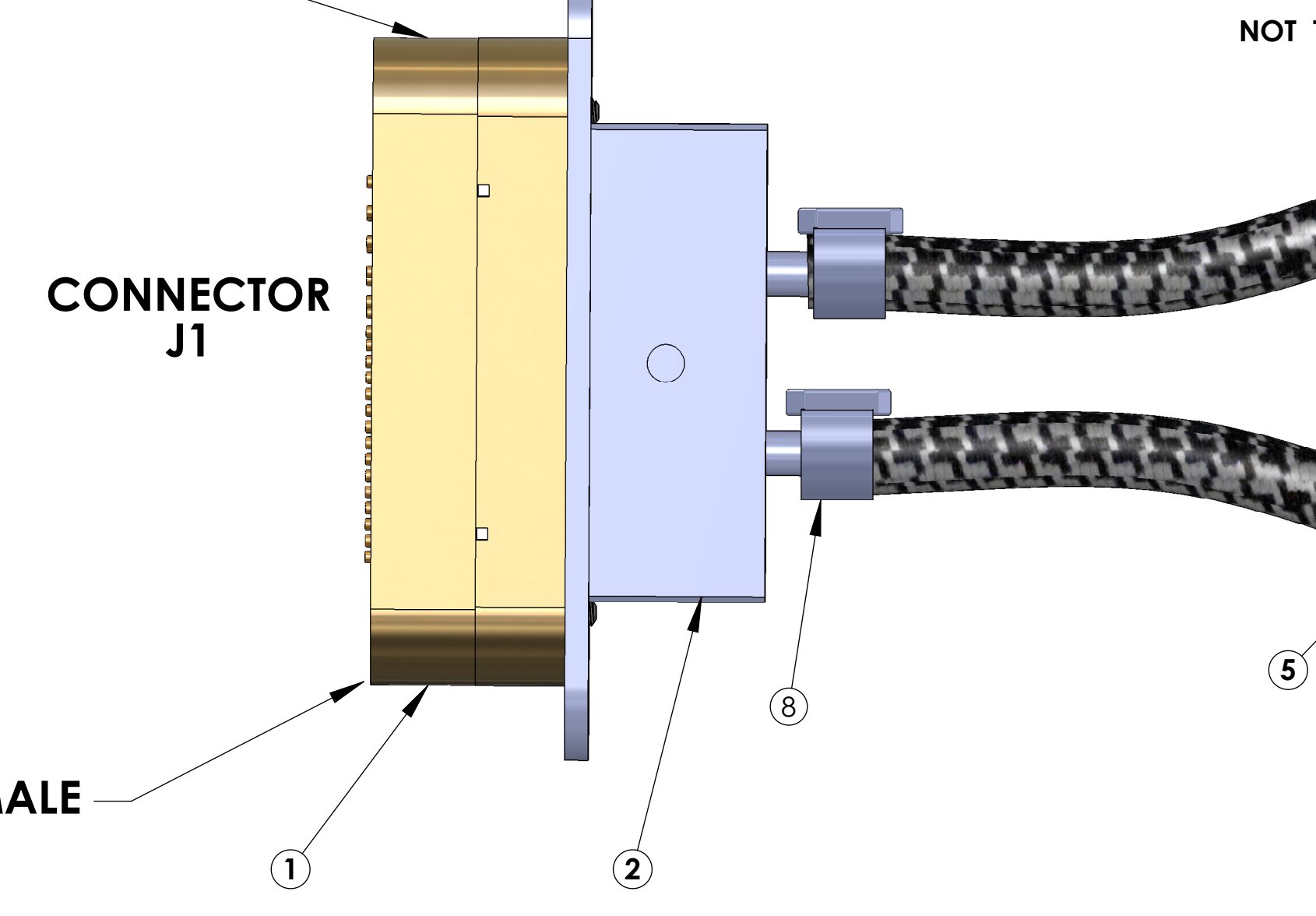
NOTES CONTINUED:
 3. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER AND REVISION ON NOTED SURFACE FOLLOWED ON THE NEXT LINE BY A THREE DIGIT SERIAL NUMBER. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. USE 07" HIGH CHARACTERS. EXAMPLE: DXXXXXXV, S/N 001. VIBRATORY TOOL MAY BE USED.

6. APPROXIMATE WEIGHT = X.XXXX LB.
 7. MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH. USE OF ABRASIVE REMOVAL TECHNIQUES IS NOT ALLOWED. REFER TO LIGO-ED900364
 8. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION ED900364.
 9. ALL HELI-COIL HOLES TO BE PREPARED ACCORDING TO EMHART HELI-COIL PRODUCT CATALOG, HC2000, REV. 4
 10. ALL HELI-COIL INSERTS TO BE INSTALLED BY LIGO PERSONNEL AFTER DELIVERY OF FINISHED PARTS. USE NITRONIC 40 THREADED INSERTS.
 11. ALL MATERIAL IS TO BE VIRGIN MATERIAL (I.E. NO WELD REPAIRS, PLUGS OR RECYCLED MATERIAL). NO REPAIRS SHALL BE MADE UNLESS APPROVED BY ADVANCE, AND IN WRITING, BY LIGO LABORATORY. REFER TO LIGO-ED900364.
 12. SURFACE FINISH TO BE AS PROCESSED FROM MILL/SUPPLIER, FREE FROM SCRATCHES OR GOUGES.
 13. PART WILL BE PORCELAIN COATED PER LIGO SPECIFICATION E100083 AFTER FABRICATION. THE INDICATED HOLES WILL BE MASKED PRIOR TO PORCELAIN COATING TO APPROXIMATELY 2.5-3X HOLE DIAMETER CENTERED ON BOTH SIDES OF THE HOLE.
 14. DIMENSIONS APPLY BEFORE PORCELAIN COATING UNLESS SPECIFIED.
 15. 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.

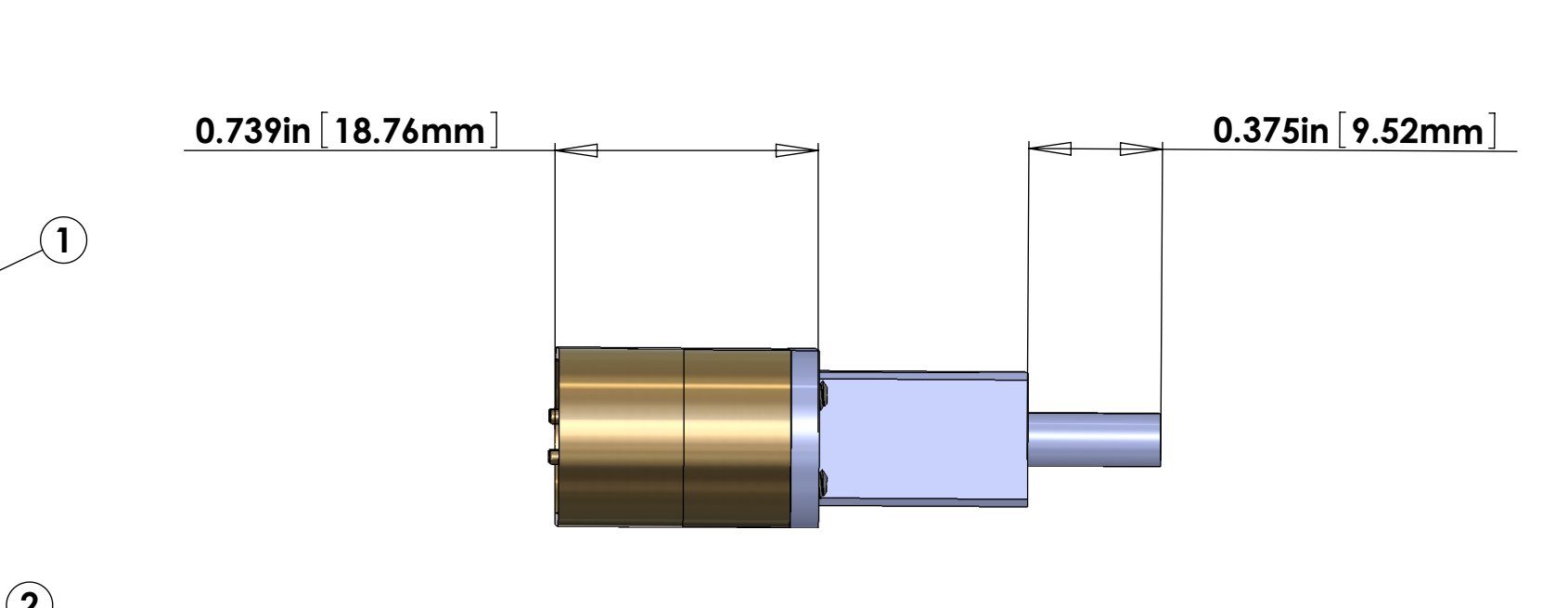
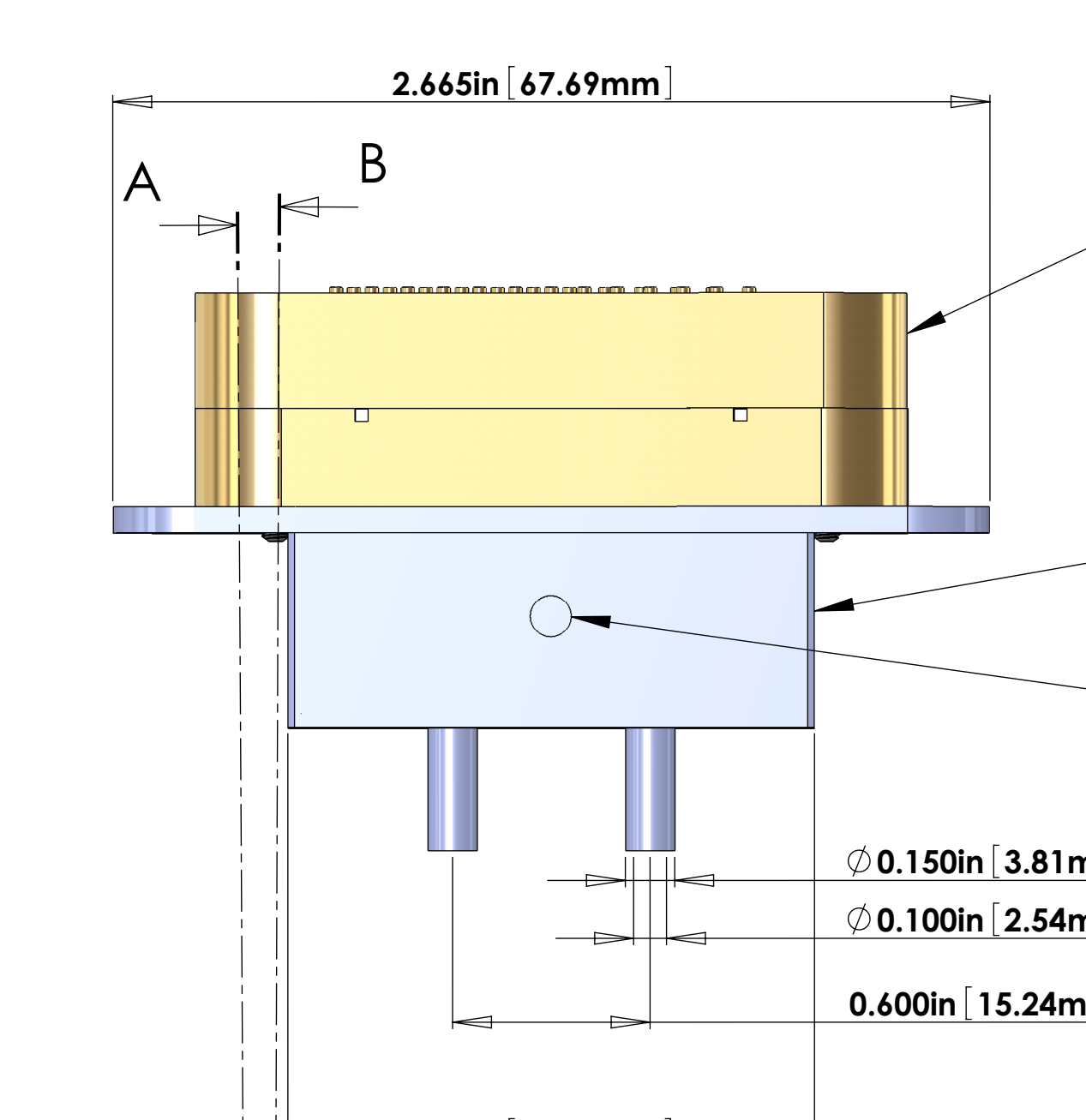
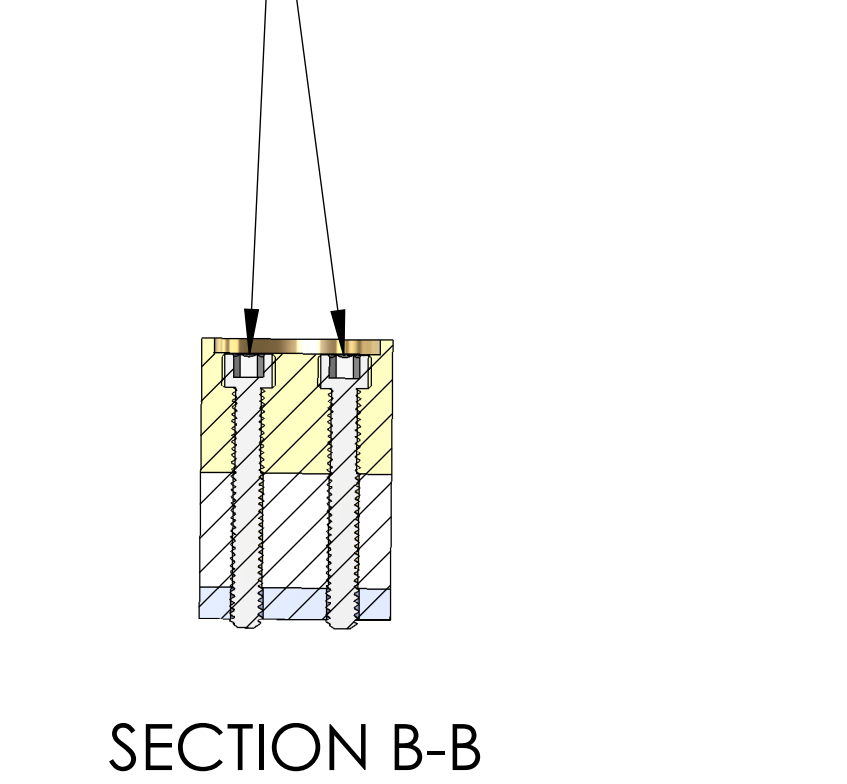
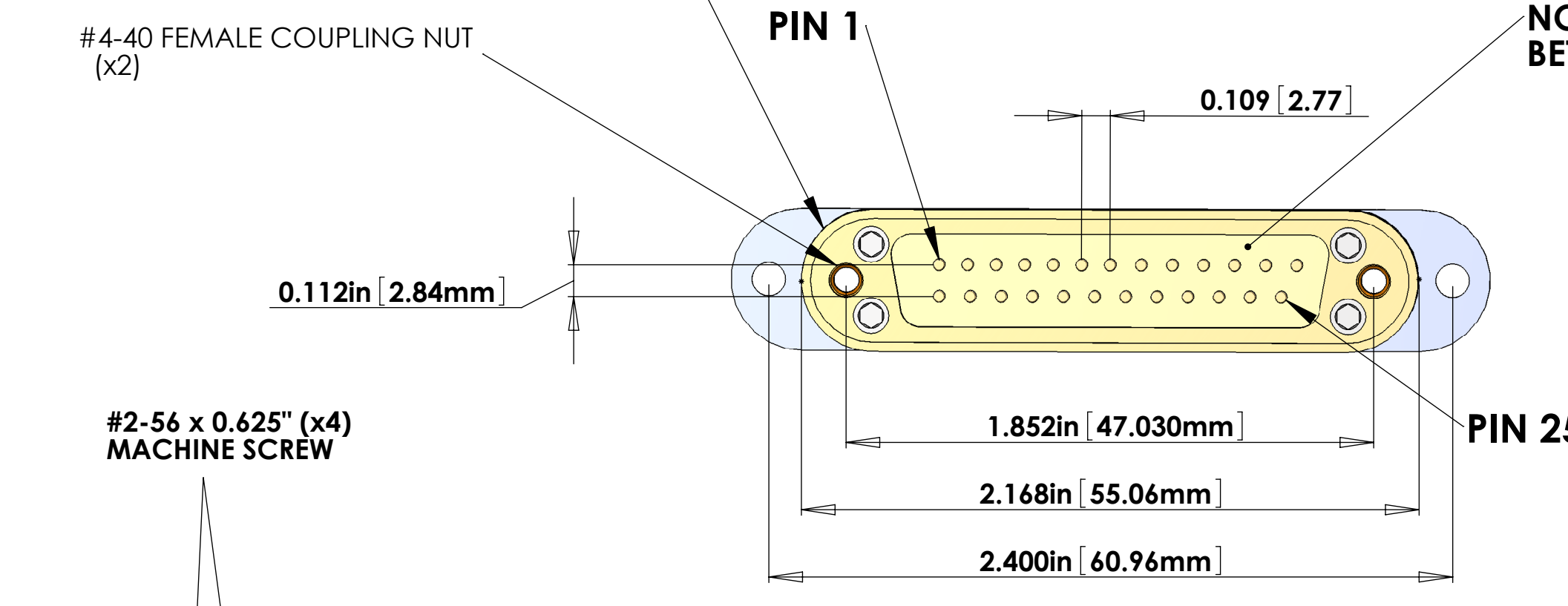
CONNECTOR J1



GOLD METALIZED OVER ELECTRO-LESS NICKEL SELECTIVELY METALIZED PEEK



GOLD METALIZED OVER ELECTRO-LESS NICKEL SELECTIVELY METALIZED PEEK

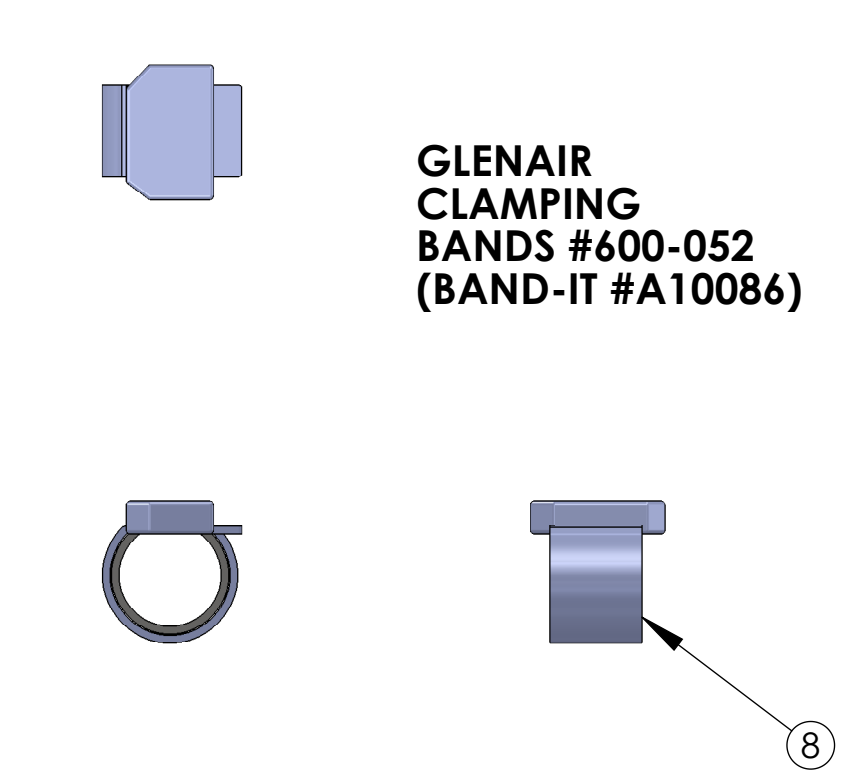


V25Q-48 CABLE ASSEMBLY CIRCUIT SUMMARY V-DB25 M/S1,9-48-2_DB9 F/S5

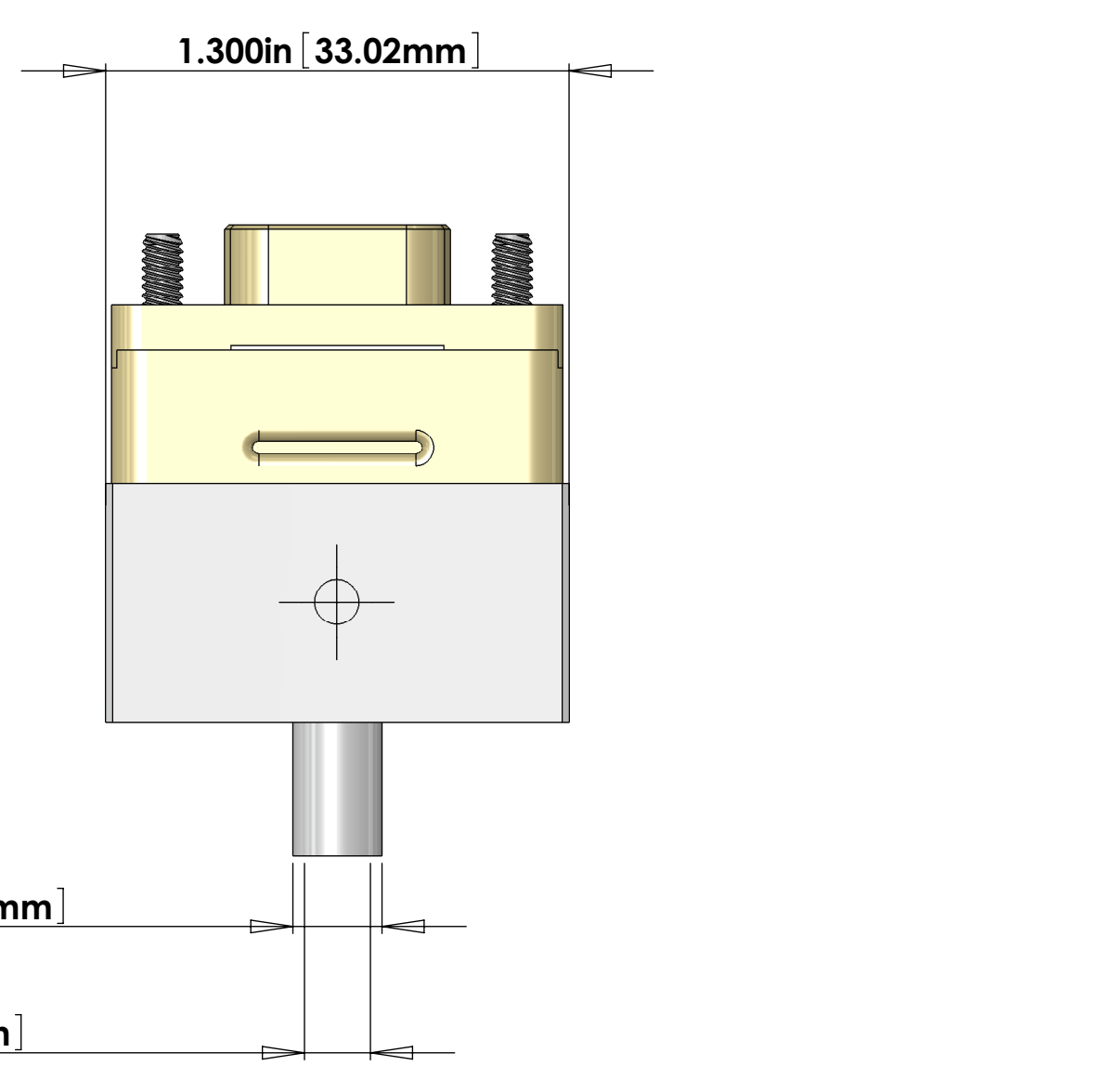
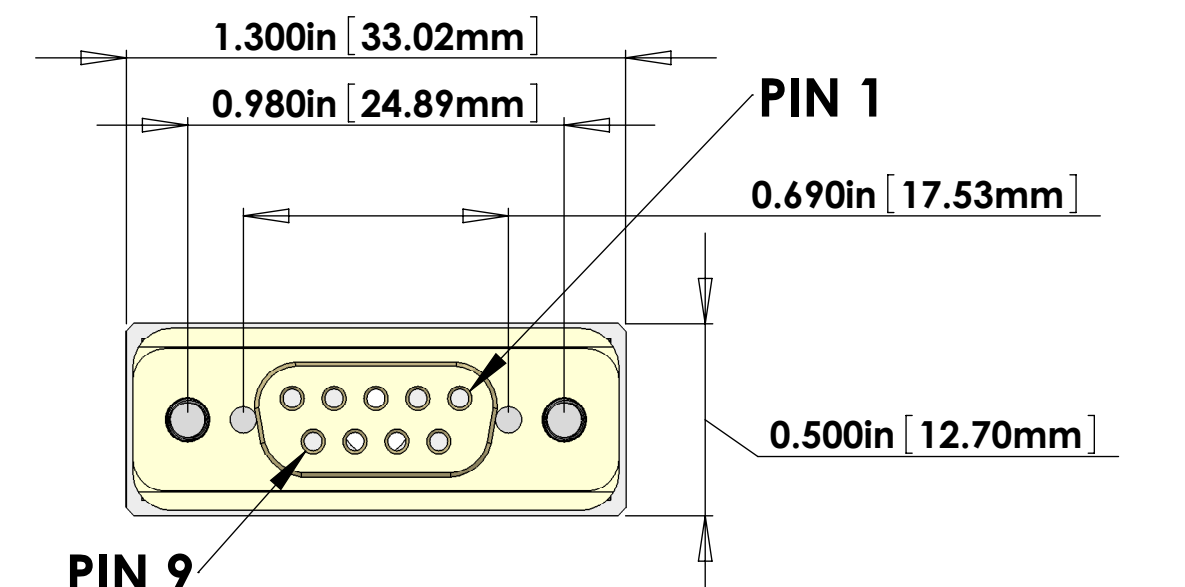
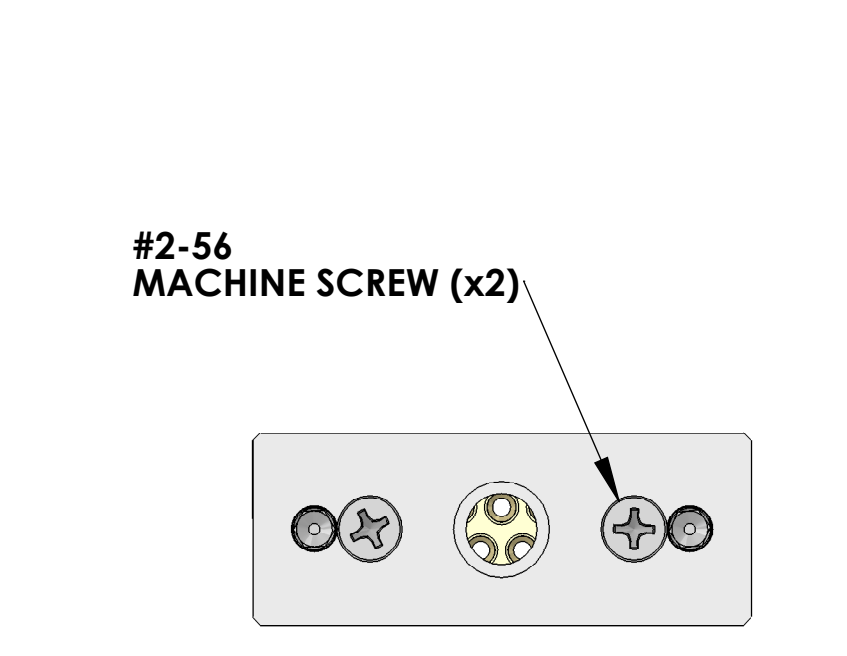
FROM				TO			
CONNECTOR J1 - 25 PIN SUBMINI D MALE CONNECTOR (PEEK)				CONNECTOR J2 - 9 PIN SUBMINI D FEMALE CONNECTOR (PEEK)			
PIN	WIRE NAME	COLOR	LENGTH	TWISTED PAIR	PIN	WIRE NAME	SIGNAL
1,9	SHELL	SHIELD (BRAID)	48in.		5	SHELL	SHIELD (BRAID)
1,9	SHELL	(CABLE 1) WIRE 1	48in.		5	SHELL	(CABLE 1) WIRE 1
2	(CABLE 1) WIRE 2	White	48in.	TP-1	4	(CABLE 1) WIRE 2	POWER -
14	(CABLE 1) WIRE 14	White	48in.	TP-1	9	(CABLE 1) WIRE 14	POWER - RTN
3	(CABLE 1) WIRE 3	White	48in.	TP-2	3	(CABLE 1) WIRE 3	POWER +
15	(CABLE 1) WIRE 15	White	48in.	TP-2	8	(CABLE 1) WIRE 15	POWER + RTN
4	(CABLE 1) WIRE 4	White	48in.	TP-3	2	(CABLE 1) WIRE 4	LOCK +
16	(CABLE 1) WIRE 16	White	48in.	TP-3	7	(CABLE 1) WIRE 16	LOCK -
5	(CABLE 1) WIRE 5	White	48in.	TP-4	1	(CABLE 1) WIRE 5	SIG +
17	(CABLE 1) WIRE 17	White	48in.	TP-4	6	(CABLE 1) WIRE 17	SIG -

CONNECTOR J3 - 9 PIN SUBMINI D FEMALE CONNECTOR (PEEK)							
PIN	WIRE NAME	COLOR	LENGTH	TWISTED PAIR	PIN	WIRE NAME	SIGNAL
1,9	SHELL	SHIELD (BRAID)	48in.		5	SHELL	SHIELD (BRAID)
1,9	SHELL	(CABLE 2) WIRE 9	48in.		5	SHELL	(CABLE 2) WIRE 9
10	(CABLE 2) WIRE 10	White	48in.	TP-5	4	(CABLE 2) WIRE 10	POWER -
22	(CABLE 2) WIRE 22	White	48in.	TP-5	9	(CABLE 2) WIRE 22	POWER - RTN
11	(CABLE 2) WIRE 11	White	48in.	TP-6	3	(CABLE 2) WIRE 11	POWER +
23	(CABLE 2) WIRE 23	White	48in.	TP-6	8	(CABLE 2) WIRE 23	POWER + RTN
12	(CABLE 2) WIRE 12	White	48in.	TP-7	2	(CABLE 2) WIRE 12	LOCK +
24	(CABLE 2) WIRE 24	White	48in.	TP-7	7	(CABLE 2) WIRE 24	LOCK -
13	(CABLE 2) WIRE 13	White	48in.	TP-8	1	(CABLE 2) WIRE 13	SIG +
25	(CABLE 2) WIRE 25	White	48in.	TP-8	6	(CABLE 2) WIRE 25	SIG -

CONNECTOR J2, J3



STANDARD 9-PIN D-SUB FEMALE MIL-C-24308



BILL OF MATERIALS				
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.	LENGTH *
1	CUSTOM DB25 MALE	DB25 MALE CONNECTOR (J1) FOR UHV (METALIZED PEEK)	1	
2	CUSTOM DB25 BACKSHELL	DB25 CONNECTOR BACKSHELL FOR UHV (STAINLESS)	1	
3	CUSTOM DB9 FEMALE	DB9 FEMALE CONNECTOR (J2 and J3) FOR UHV (PEEK)	2	
4	CUSTOM DB9 BACKSHELL	DB9 CONNECTOR BACKSHELL FOR UHV (STAINLESS)	2	
5	C1	9 COND. (4 TW PAIR + 1 WIRE + SHIELD) CABLE WITH 6 COPPER BRAID (SHIELD) AND 7 PEEK OVERBRAID	2	48"
6	COPPER BRAID	CONTINENTAL CORDAGE PART # 24x3x40BC	2	48"
7	PEEK BRAID	PART #6759 MANUFACTURED WITH ZEUS 0.018" BLACK PEEK DRAWN MONOFILAMENT	2	48"
8	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)	4	

* NOTE: USE WHATEVER LENGTH IS NECESSARY FOR THE INTERNAL WIRING OF THE CONNECTORS AND STRIP LENGTH TO ACHIEVE THE CORRECT OVERALL LENGTHS.

NOTES: (UNLESS OTHERWISE SPECIFIED)

- MATERIAL: a. CONNECTOR SHELL - PEEK OR METALIZED PEEK - VICTREX 450GL30
 b. BACKSHELL - STAINLESS STEEL WITH VENT HOLE
 c. CONTACTS - BERYLLIUM COPPER ALLOY C17300 0.000050 MIN. GOLD OVER NICKEL
 d. HARDWARE: CORROSION RESISTANCE STEEL, PASSIVATED
 e. PEEK BRAID - PEEK VICTREX GRADE TDS-450CA30 CARBON LOADED - SUPPLIED BY LIGO
- CABLE 9 COND. 28 AWG. (40 STRD 44 AWG) WITH 2 LAYERS OF KAPTON TAPE 4 TWISTED PAIRS (4 TO 5 TWISTS PER INCH) + 1 WIRE OVERALL 40AWG COPPER BRAID 50% COVERAGE (SUPPLIED BY LIGO) OVERALL PEEK BRAID MIN. 50% COVERAGE (SUPPLIED BY LIGO) OVERALL CABLE O.D. WILL BE APPROX. 0.240 IN.
- CONNECTORS WILL BE SUPPLIED WITH HARDWARE (LENGTH OF SCREWS AS SHOWN ARE APPROXIMATE SCREWS SHOULD BE THE PROPER LENGTH FOR PROPER MATING)

DIMENSIONS ARE IN		NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)		CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME		
TOLERANCES: .XX ± .XXX ±		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 V25Q-48		REV.
ANGULAR ± °		MATERIAL N/A FINISH N/A µinch		SYSTEM SUB-SYSTEM SEI		DESIGNER E.ABBOIT OCT/03/2011 SIZE DWG. NO. E D1100154		
				NEXT ASSY		CHECKER APPROVAL		
						SCALE: 2:1 PROJECTION: SHEET 1 OF 1		

V-DB25 M/S1,9-48-2_DB9 F/S5		
STANDARD USE FOR THIS CABLE		
SUBSYSTEM	AIR/VAC	STANDARD USE
SEI	IN-VAC	FROM BRACKET TO L4-C PODS