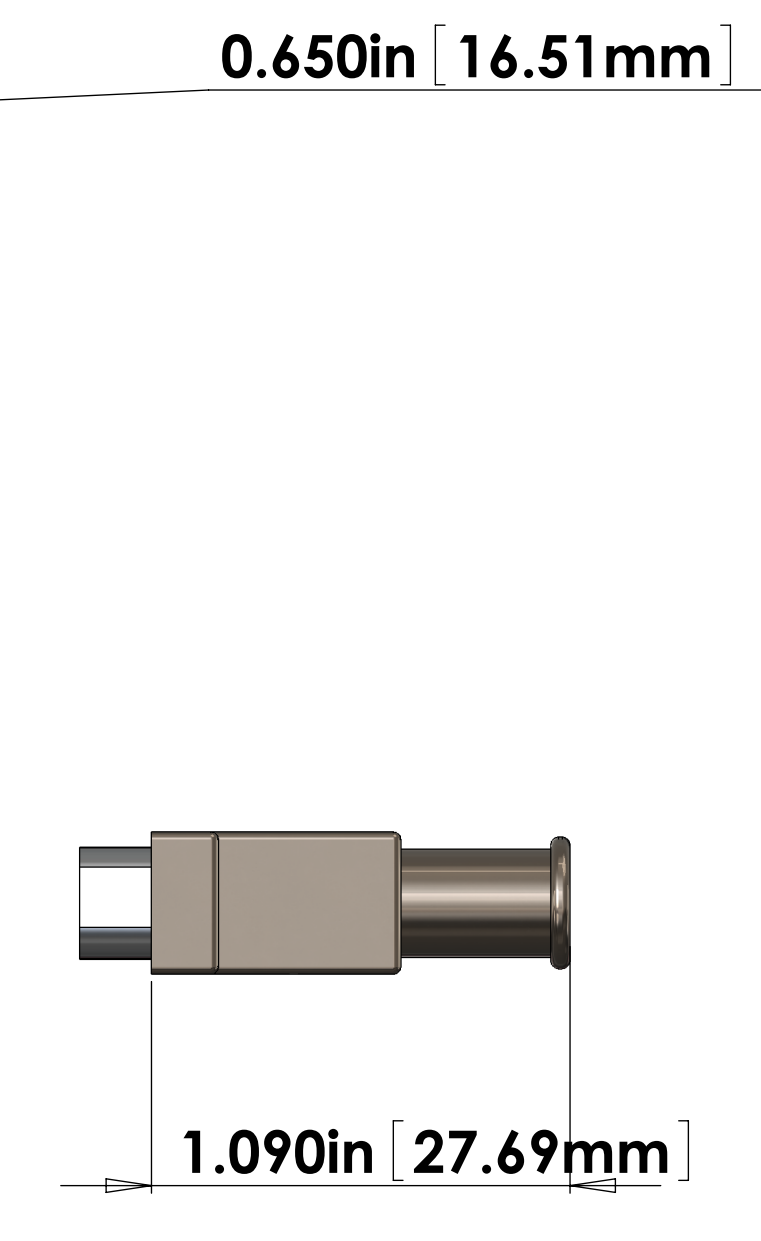
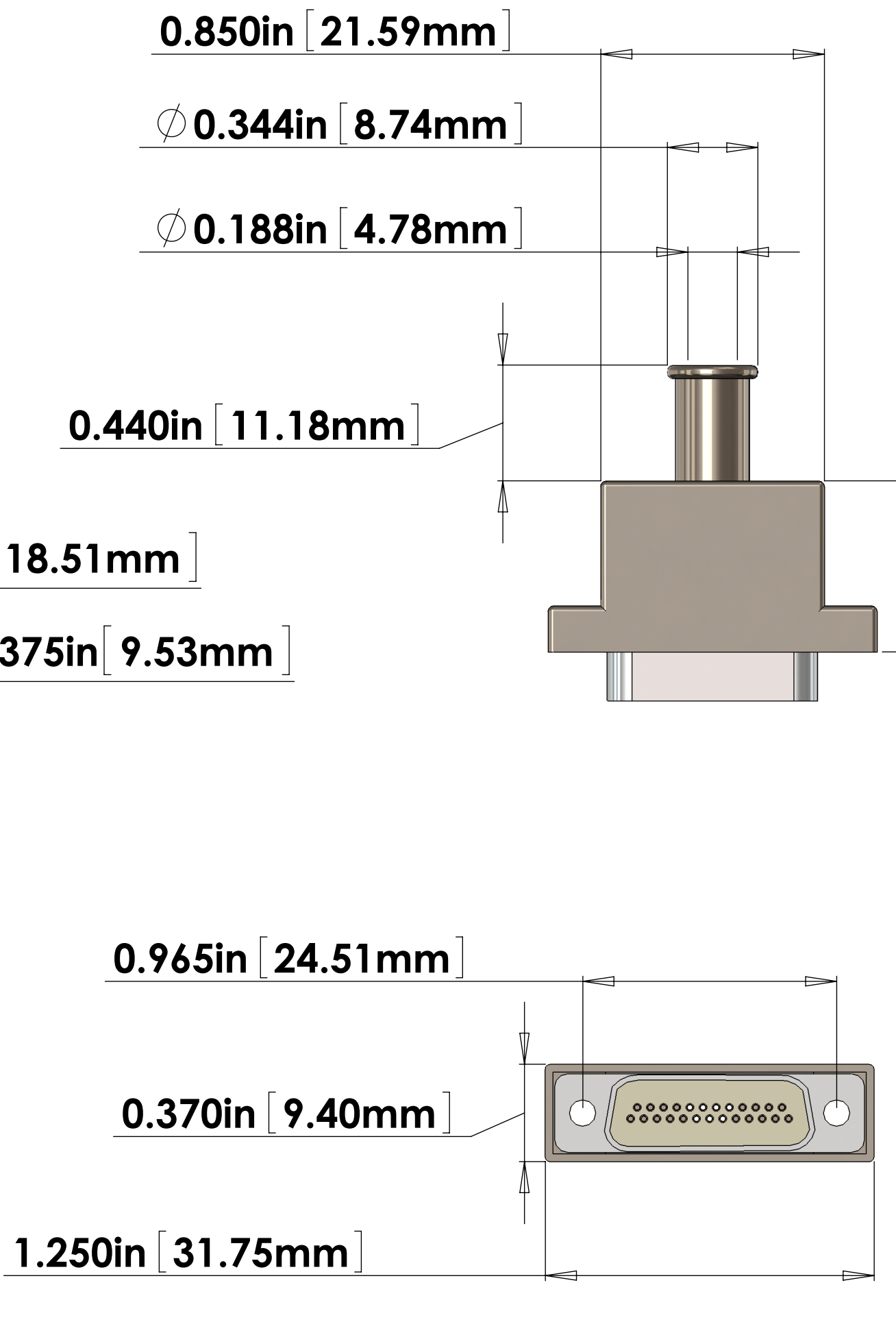
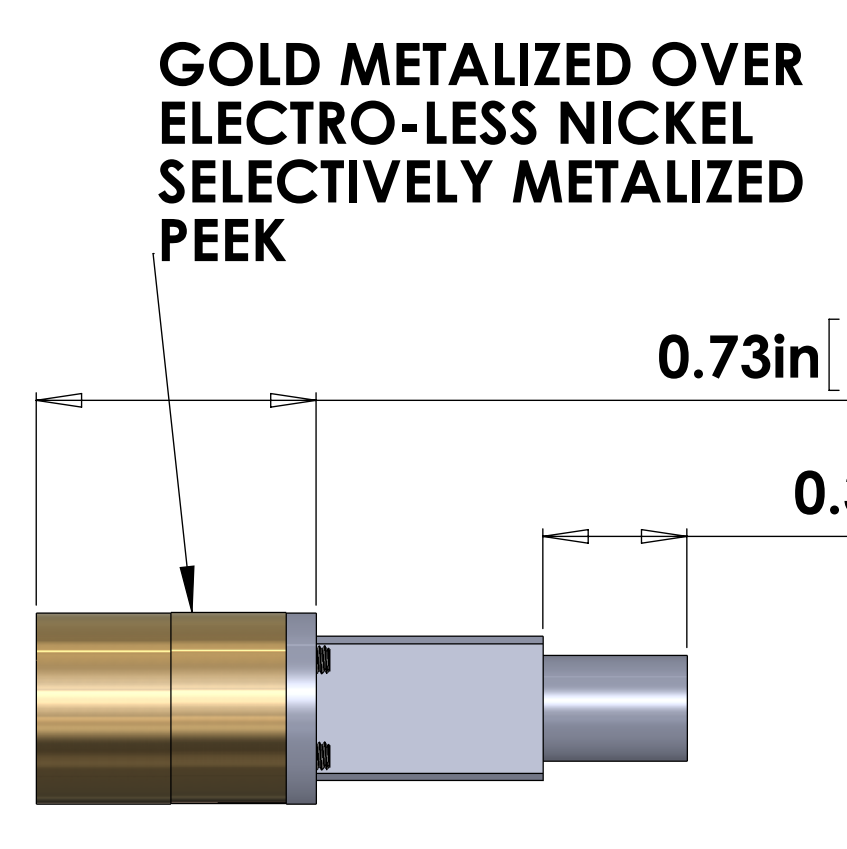
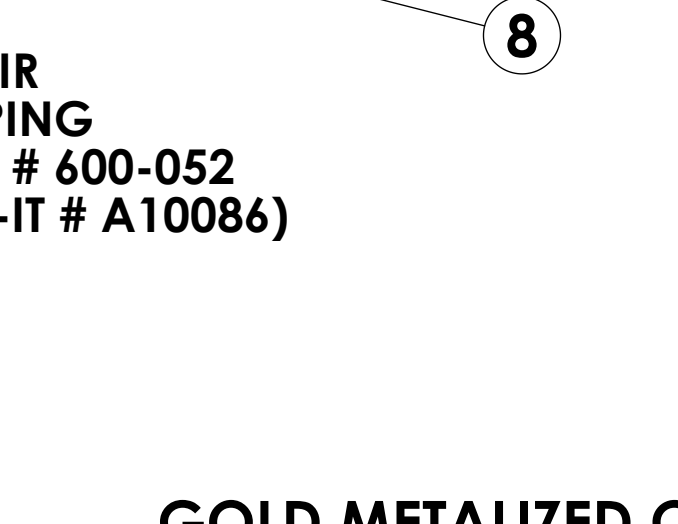
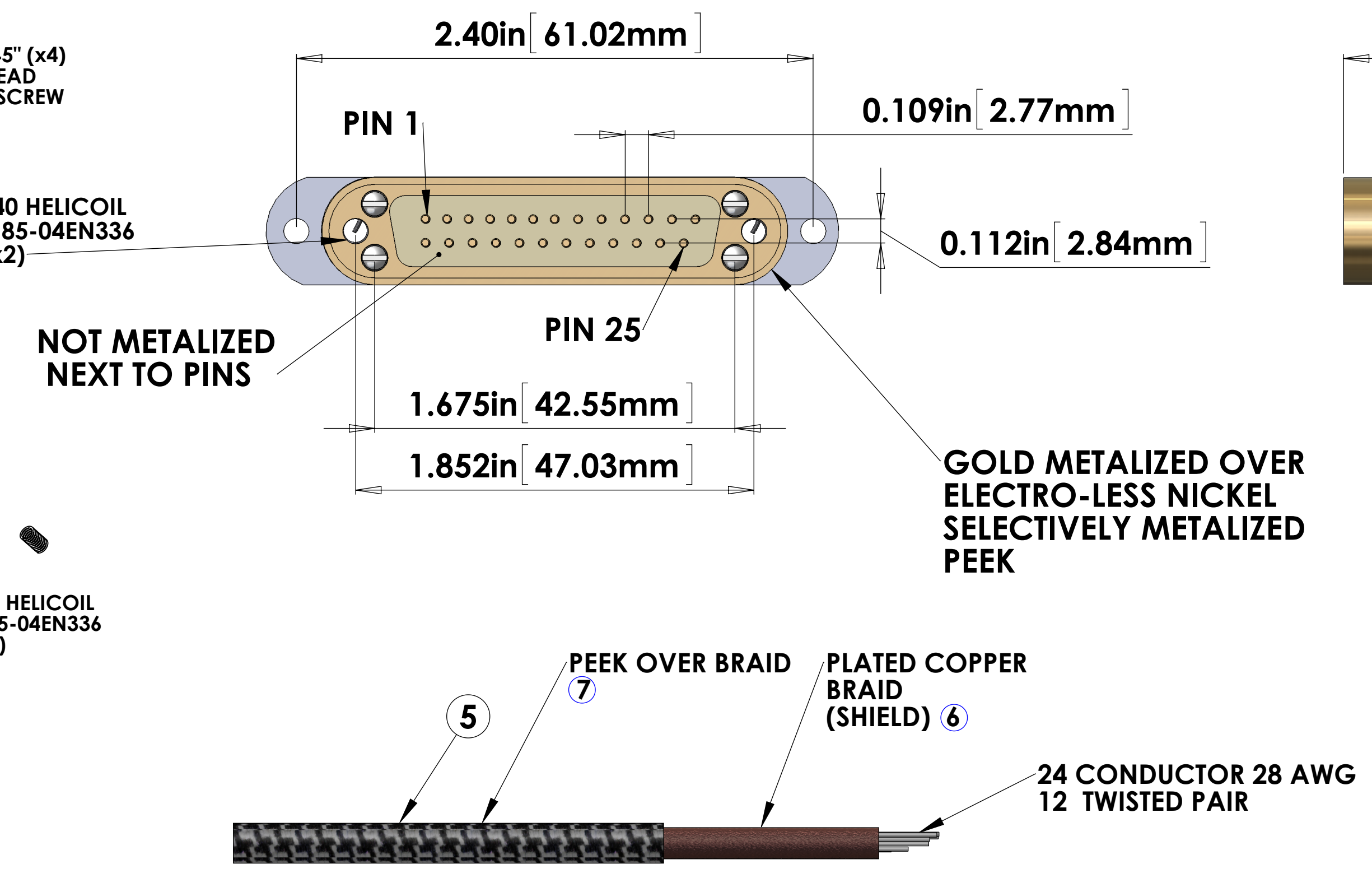
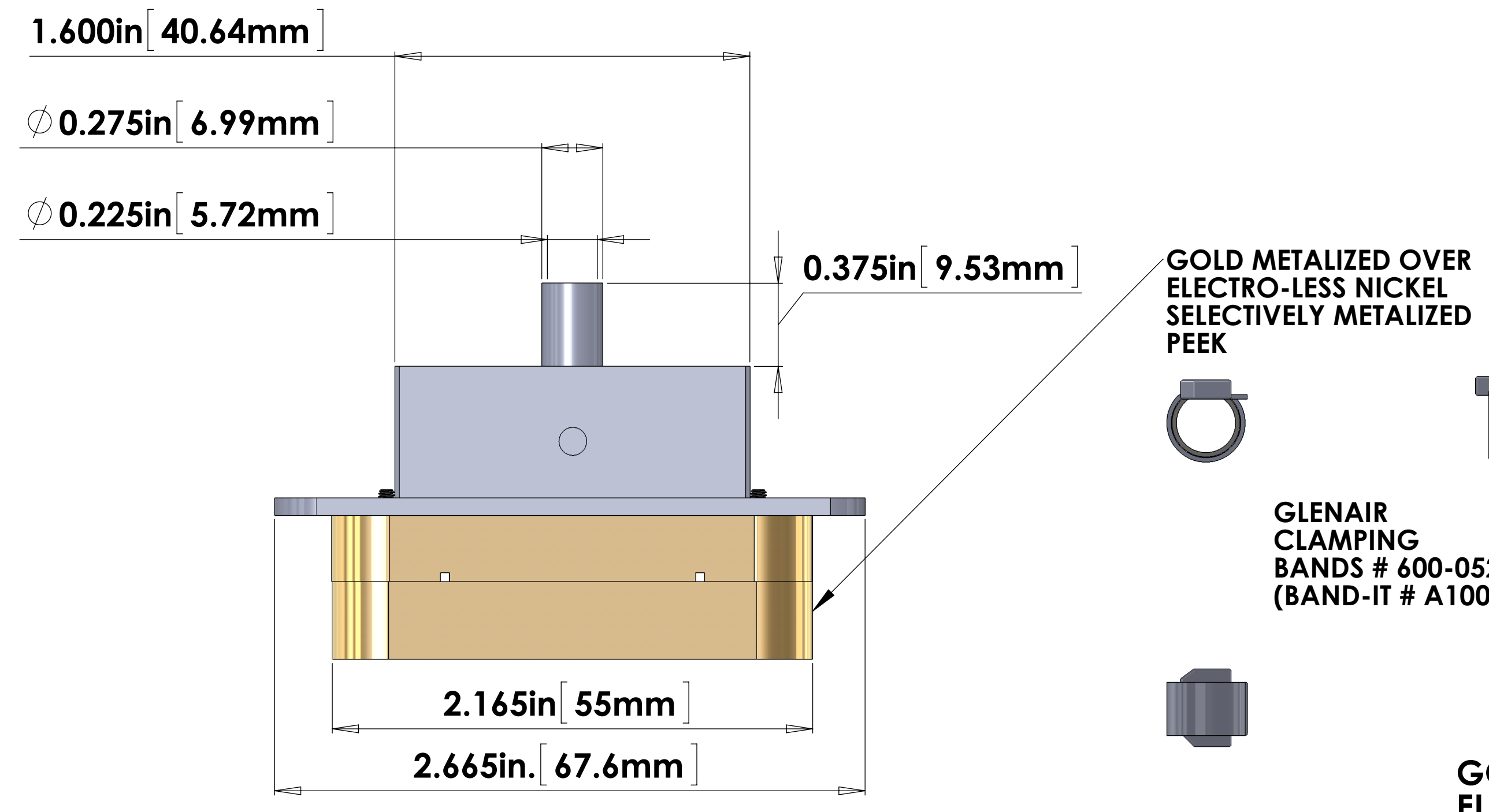
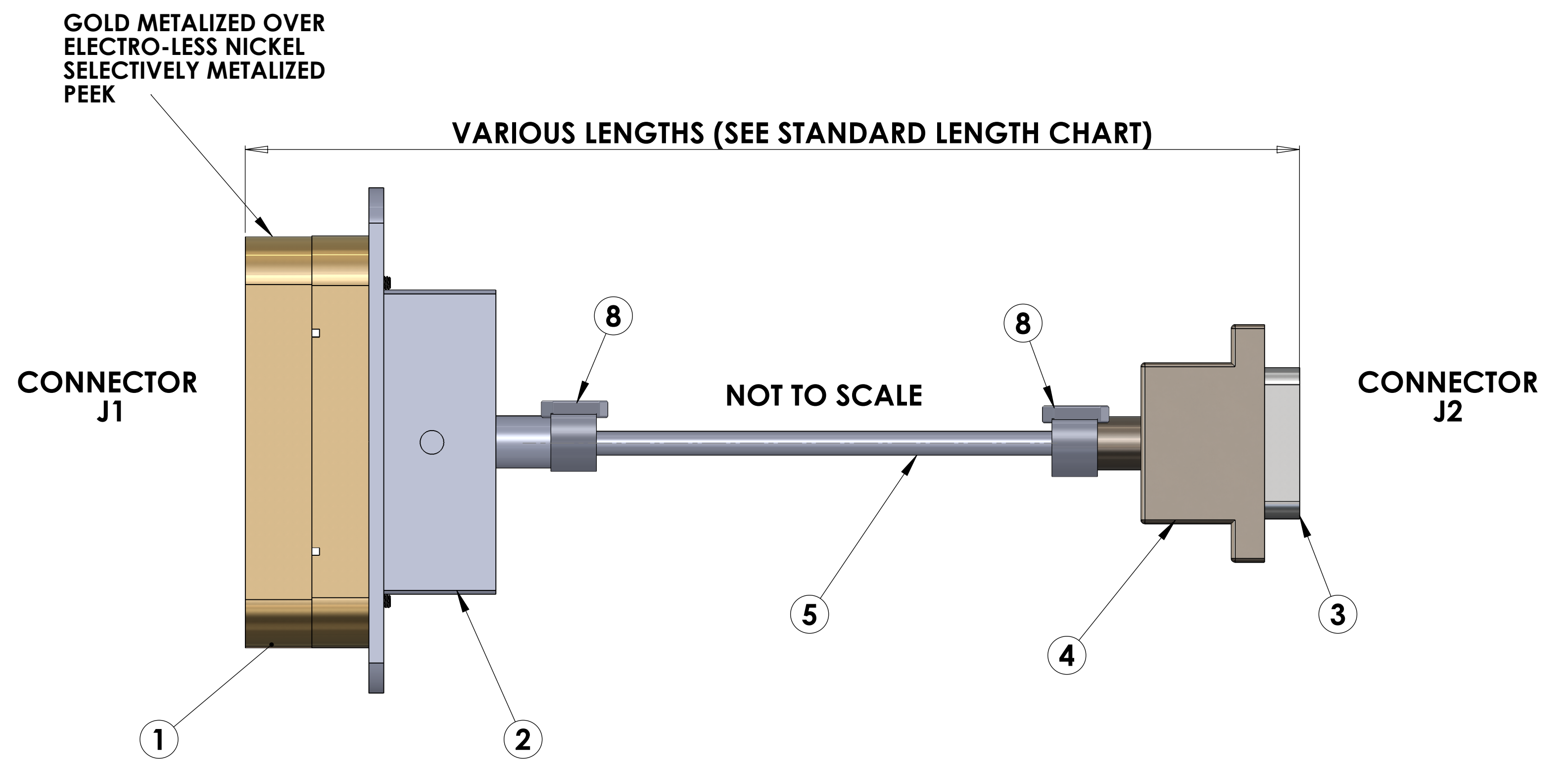
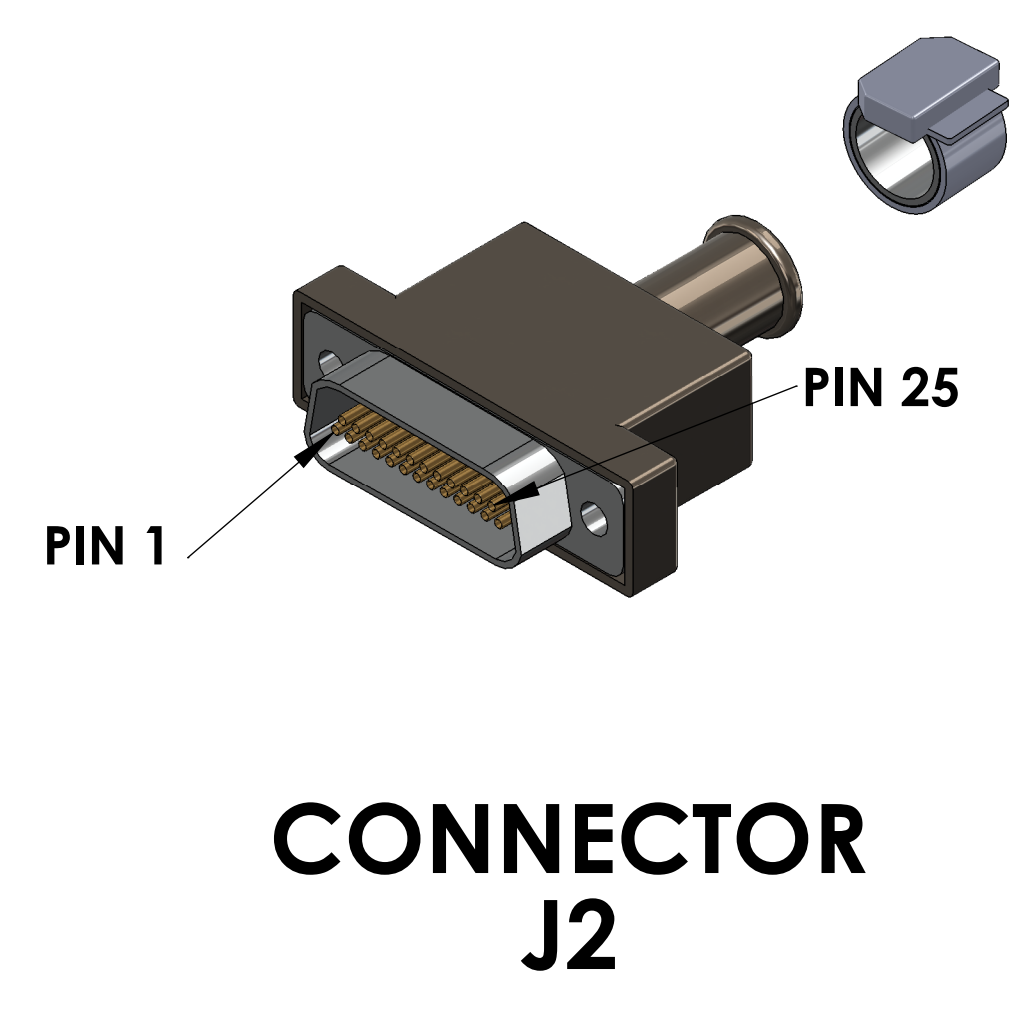
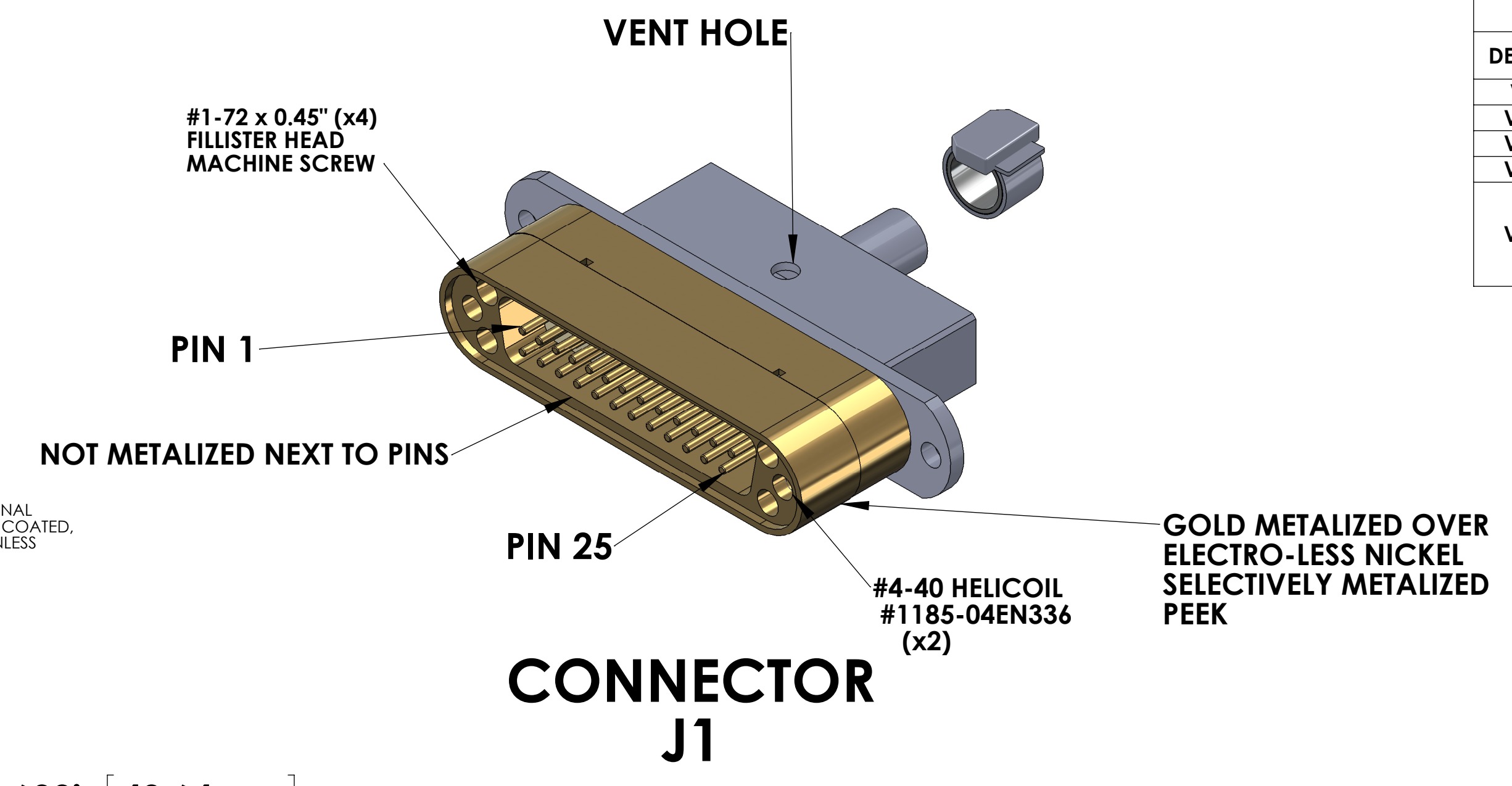


- NOTES CONTINUED:
- SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER AND REVISION ON NOTED SURFACE FOLLOWED ON THE NEXT LINE BY A THREE DIGIT SERIAL NUMBER. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. USE 07" HIGH CHARACTERS. EXAMPLE: DXXXXXXVY, S/N 001. 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-E0900364.
 - ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.
 - ALL HELI-COIL HOLES TO BE PREPARED ACCORDING TO EINHART HELI-COIL PRODUCT CATALOG, HC2000, REV 4.
 - ALL HELI-COIL INSERTS TO BE INSTALLED BY LIGO PERSONNEL AFTER DELIVERY OF FINISHED PARTS. USE NITRONIC 60 THREADED INSERTS.
 - 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-E0900364.
 - SURFACE FINISH TO BE AS-PROCESSED FROM MILL/SUPPLIER, FREE FROM SCRATCHES OR GOUGES.
 - PART WILL BE PORCELAIN COATED PER LIGO SPECIFICATION E1000883 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.
 - 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.

STANDARD CABLE LENGTH CHART		
DESIGNATOR	INCHES	FEET and INCHES
V25G-90	90	7 ft. 2 in.
V25G-110	110	9 ft. 2 in.
V25G-121	121	10 ft. 1 in.
V25G-156	156	13 ft.
V25G-TBD	TBD + ADDITIONAL CUSTOM LENGTHS	LENGTH TO BE DETERMINED AT TIME OF ORDER



V25G-TBD CABLE ASSEMBLY CIRCUIT SUMMARY V-DB25 M/S1-TBD-μD25 F/S1							
CABLE NAME	COND.- WIRE ID	TWISTED PAIR	LENGTH **	FROM	TO		
V25G-TBD	25 COND. CABLE	(12 TOTAL)	TBD in. *	Conn. J1	Conn. J2		
C1	SHIELD (COPPER BRAID)	SINGLE WIRE	TBD in. *	PIN 1, SHIELD & SHELL	PIN 1, SHIELD & SHELL		
			TBD in. *	PIN 1, SHIELD & SHELL	PIN 1, SHIELD & SHELL		
			W1	TP-1	TBD in. *	PIN 2	PIN 2
			W2	TP-1	TBD in. *	PIN 14	PIN 14
			W3	TP-2	TBD in. *	PIN 3	PIN 3
			W4	TP-2	TBD in. *	PIN 15	PIN 15
			W5	TP-3	TBD in. *	PIN 4	PIN 4
			W6	TP-3	TBD in. *	PIN 16	PIN 16
			W7	TP-4	TBD in. *	PIN 5	PIN 5
			W8	TP-4	TBD in. *	PIN 17	PIN 17
			W9	TP-5	TBD in. *	PIN 6	PIN 6
			W10	TP-5	TBD in. *	PIN 18	PIN 18
W11	TP-6	TBD in. *	PIN 7	PIN 7			
W12	TP-6	TBD in. *	PIN 19	PIN 19			
W13	TP-7	TBD in. *	PIN 8	PIN 8			
W14	TP-7	TBD in. *	PIN 20	PIN 20			
W15	TP-8	TBD in. *	PIN 9	PIN 9			
W16	TP-8	TBD in. *	PIN 21	PIN 21			
W17	TP-9	TBD in. *	PIN 10	PIN 10			
W18	TP-9	TBD in. *	PIN 22	PIN 22			
W19	TP-10	TBD in. *	PIN 11	PIN 11			
W20	TP-10	TBD in. *	PIN 23	PIN 23			
W21	TP-11	TBD in. *	PIN 12	PIN 12			
W22	TP-11	TBD in. *	PIN 24	PIN 24			
W23	TP-12	TBD in. *	PIN 13	PIN 13			
W24	TP-12	TBD in. *	PIN 25	PIN 25			
W25	TP-12	TBD in. *	PIN 13	PIN 13			

TBD in. * = LENGTH TO BE DETERMINED AT TIME OF ORDER - see STANDARD CABLE LENGTH CHART

** The length shown in this list is the overall length of the cable from connector end to connector end. Change length as necessary to compensate for the internal wiring of the connectors and strip length.

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.	LENGTH
1	TICOR PART #TS0149-25CG20B51-225F	CUSTOM DB25 MALE CONNECTOR (J1) FOR UHV (METALIZED PEEK)	1	
2	TICOR PART #TS-0143-1	DB25 CONNECTOR BACKSHELL FOR UHV (STAINLESS)	1	
3	TICOR PART #TS-0143-1	MicroD25 FEMALE CONNECTOR (J2) FOR UHV	1	
4	BACKSHELL (included in PART #TS-0143-1)	MicroD25 CONNECTOR BACKSHELL FOR UHV	1	
5	C1	25 COND. (12 TW PAIR + 1 WIRE + SHIELD) CABLE WITH COPPER BRAID (SHIELD) 6 AND PEEK OVERBRAID 7	1	TBD in. *
6	CONTINENTAL PART #24x4x40BC	COPPER BRAID - CONTINENTAL CORDAGE PART #24x4x40BC	1	
7	PART #6759	PEEK BRAID - PART #6759 MANUFACTURED WITH ZEUS 0.016" BLACK PEEK DRAWN MONOFILAMENT	1	
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)	2	
9	HELICOIL #1185-04EN336	#4-40 Nitronic 60® HELICOIL 0.336" LENGTH	2	

* NOTE: THE OVERALL LENGTH IS MEASURED FROM PIN TIP (25 PIN D-SUB) TO PIN TIP (25 PIN μD) OF THE CABLE. Use whatever length is necessary for the internal wiring of the connectors and strip length to achieve the correct overall length.

ELECTRICAL NOTES: (UNLESS OTHERWISE SPECIFIED)

- A. MATERIAL:
- a. CONNECTOR SHELL - PEEK - VITREX 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 CARBON LOADED
- B. CABLE 25 COND. 28 AWG. (65 STRD 46 AWG) WITH PFA INSULATION COONER WIRE #CZ1105 12 TWISTED PAIRS (4 TO 5 TWISTS PER INCH) + 1 WIRE OVERALL 40AWG COPPER BRAID 90% COVERAGE OVERALL PEEK BRAID MIN. 50% COVERAGE OVERALL CABLE O.D. WILL BE ~ 0.240 IN.

V-DB25 M/S1-TBD-μD25 F/S1		
STANDARD USE FOR THIS CABLE		
SUBSYSTEM	AIR/VAC	STANDARD USE
SUS	IN-VAC	QUAD SUSPENSION UIM

DIMENSIONS ARE IN		NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)		LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME	
TOLERANCES:		1. INTERPRET DRAWING PER ASME Y14.5-1994		SYSTEM		CUSTOM CABLE SPECIFICATION V25G-TBD	
ANGULAR ± °		2. REMOVE ALL SHARP EDGES .005-.015. FOR MACHINED PARTS. ROUND ALL EDGES APPROXIMATELY R.02 FOR SHEET METAL PARTS.		SUB-SYSTEM		DESIGNER J. HEEFNER	
		3. DO NOT SCALE FROM DRAWING.		SUS		DRAFTER E. BROWN	
		4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.		NEXT ASSY		DATE DEC/19/2011	
						SIZE DWG. NO.	
						E D1002522	
						REV. V5	
						SCALE: 1:1	
						PROJECTION:	
						SHEET 1 OF 1	