

REV.	DATE	DCN #	DRAWING TREE #

NOTES CONTINUED:

① 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 ANGLE AND PROCEED CONSECUTIVELY. USE 07 HIGH CHARACTERS. EXAMPLE: DXXXXX.VY.5N.001 A VIBRATORY TOOL MAY BE USED.

6. APPROXIMATE WEIGHT = X.XXX LB.

7. MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH. USE OF ABRASIVE REMOVAL TECHNIQUES IS NOT ALLOWED. REFER TO LIGO 0090034.

8. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION 0900364.

9. ALL HELI-COIL HOLES TO BE PREPARED ACCORDING TO EMHART HELI-COIL PRODUCT CATALOG, HC0300, REV 4.

10. ALL HELI-COIL INSERTS TO BE INSTALLED BY LIGO PERSONNEL AFTER DELIVERY OF FINISHED PARTS. USE NITRONIC 60 THREADED INSERTS.

11. ALL MATERIAL IS TO BE VIRGIN MATERIAL (I.E. NO WELD REPAIRS, FLECS OR RECYCLED MATERIAL). NO REPAIRS SHALL BE MADE UNLESS APPROVED IN ADVANCE, AND IN WRITING, BY LIGO LABORATORY. REFER TO LIGO 0090034.

12. SURFACE FINISH TO BE AS-PROCESSED FROM MILL/SUPPLIER, FREE FROM SCRATCHES OR GOUGES.

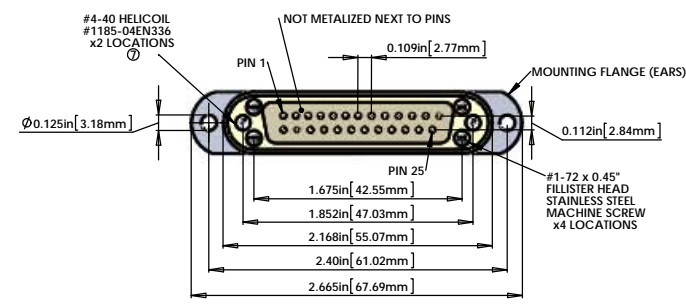
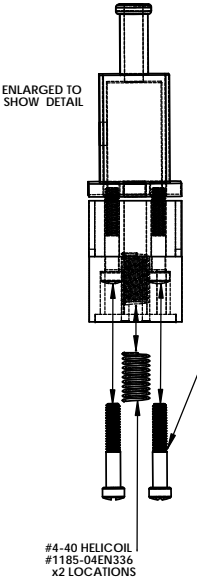
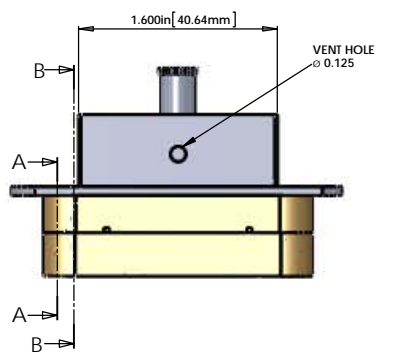
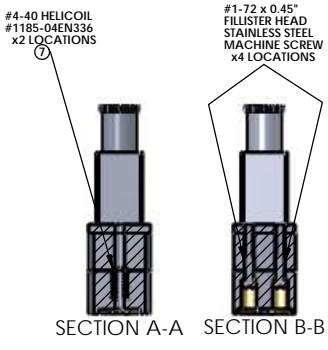
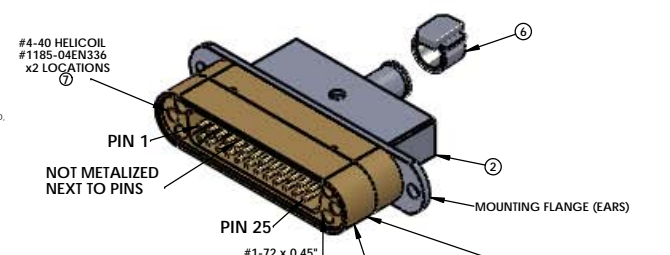
13. PORTS WILL BE PORCELAIN COATED PER LIGO SPECIFICATION 040003 AFTER FABRICATION. TECHNICAL DRAWINGS WILL BE MARKED PRIOR TO PORCELAIN COATING TO INDICATE LOCATION AND HOLE DIAMETER. MARKED ON BOTH SIDES OF THE HOLE.

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15. BEND RADII: UNLESS OTHERWISE NOTED, THE BEND RADIUS SHOULD BE THE MINIMUM REQUIRED TO FORM WITHOUT CRACKING OR BE SCRIBING ADDITIONAL WORK WHEN FORMING. IN PARTICULAR, SHEET METAL IS TO BE PORCELAIN COATED. THE BEND RADII SHALL BE A MINIMUM OF 1" OUTSIDE RADIUS OF BEND UNLESS OTHERWISE NOTED.

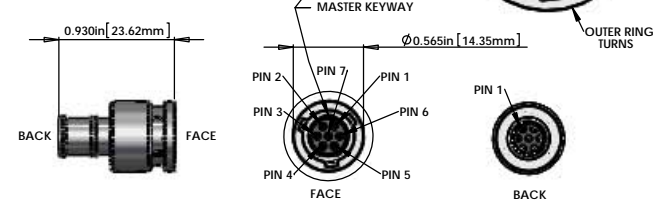
NOTES 13 and 14 DO NOT APPLY TO THIS PART

CONNECTOR J1



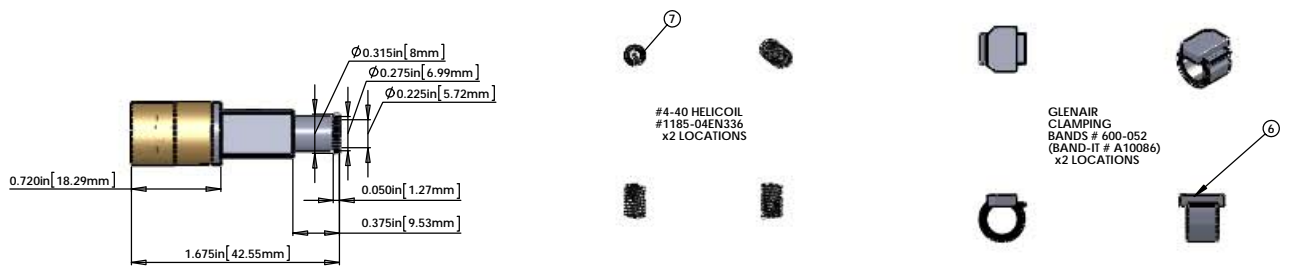
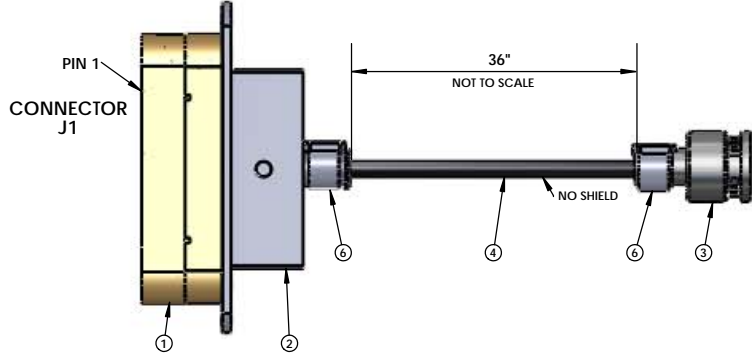
V25AB-36 CABLE ASSEMBLY CIRCUIT SUMMARY				
V-DB25HD M/S1-36-MM7PINHD F/X				
FROM				
CONNECTOR J1 - 25 PIN SUBMINI_D CONNECTOR (GOLD METALIZED PEEK)				
PIN	WIRE NAME	LENGTH *	TWISTED PAIR	
1	(SHIELD) NOT CONNECTED			
13	WIRE 13	36"		
25	WIRE 25	36"	TP-1	
12	WIRE 12	36"		
24	WIRE 24	36"	TP-2	
11	WIRE 11	36"		
23	WIRE 23	36"	TP-3	
PIN 2,14,3,15,4,16,5,17,6,18,7,19,8,20,9,21,10,22 AND SHIELD N/C (NOT CONNECTED)				

CONNECTOR J2

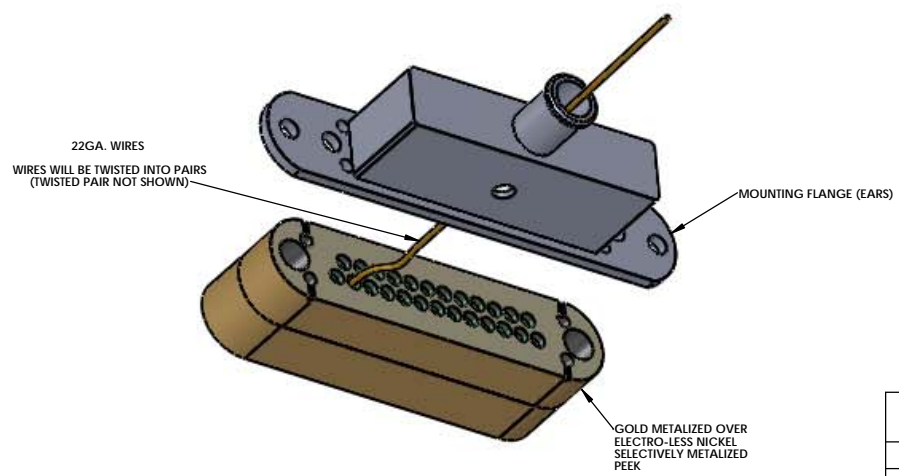


7 PIN MIGHTY MOUSE SOCKET CONNECTOR
 GLENAIR # 803-001-06M6-7SN-598A
 (MATES WITH GLENAIR # 803-003-07M6-7PN-598A)

V25AB-36 CABLE ASSEMBLY CIRCUIT SUMMARY				
TO				
CONNECTOR J2 - 7 PIN SOCKET MIGHTY MOUSE CONNECTOR				
PIN	WIRE NAME	TWISTED PAIR	SIGNAL	
SHELL	NOT CONNECTED			
1	WIRE 13		+ COIL	
2	WIRE 25	TP-1	- COIL	
3	WIRE 12		+ CLOSED SENSOR	
4	WIRE 24	TP-2	- CLOSED SENSOR	
5	WIRE 11		+ OPEN SENSOR	
6	WIRE 23	TP-3	- OPEN SENSOR	
7	N/C		N/C	



INTERNAL WIRING (ONLY ONE WIRE SHOWN FOR CLARITY)



TEST LIST	
FROM	TO
J1	J2
PIN	PIN
N/C	J2 - SHELL
J1 - SHELL	NOT CONNECTED
J1 - 13	J2 - 1
J1 - 25	J2 - 2
J1 - 12	J2 - 3
J1 - 24	J2 - 4
J1 - 11	J2 - 5
J1 - 23	J2 - 6
NOT CONNECTED	J2 - 7

BILL OF MATERIALS

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.	LENGTH
①	TICOR #TS0149-25CG20BS1-225F (TICOR #TS0125-3) OR EQUIVALENT	CUSTOM DB25 MALE CONNECTOR (J1) FOR UHV (GOLD METALIZED PEEK)	1	
②		DB25 CONNECTOR BACKSHELL FOR UHV (STAINLESS STEEL)	1	
③	GLENAIR # 803-001-06M6-7SN-598A	7 PIN MIGHTY MOUSE SOCKET CONNECTOR (J2)	1	
④	COONER WIRE # C22205 22GA PFA INSULATED BIOMEDICAL WIRE PART #6759	6 COND. (3 TWISTED PAIR) CABLE WITH ⑤ PEEK OVERBRAID, AND NO SHIELD	1	36in.*
⑤		PEEK BRAID - PART #6759 MANUFACTURED WITH ZEUS 0.016" BLACK PEEK DRAWN MONOFILAMENT	1	
⑥	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	
⑦	HELICOIL #1185-04EN336	#4-40 Nitronic 60® HELICOIL 0.336" LENGTH	2	

* NOTE: THE OVERALL LENGTH IS MEASURED FROM BRAID CLAMP (25 PIN D) TO BRAID CLAMP (7 PIN MIGHTY MOUSE) 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)

- A. MATERIAL: a. J1 - CONNECTOR SHELL - GOLD OVER ELECTRO-LESS NICKEL SELECTIVELY METALIZED PEEK VICTREX 450GL30.
 b. BACKSHELL - STAINLESS STEEL WITH VENT HOLE
 c. CONTACTS - BERYLLIUM COPPER ALLOY C117300, 0.000050 MIN. GOLD OVER NICKEL.
 d. HARDWARE - STAINLESS STEEL, PASSIVATED.
 e. PEEK BRAID - PEEK VICTREX GRADE TDS-450CA30 CARBON LOADED.
- B. CABLE 6 COND. 22 AWG, (150 STRD 44 AWG) WITH PFA INSULATION. 3 TWISTED PAIRS (4 TO 5 TWISTS PER INCH). OVERALL PEEK BRAID MIN. 50% COVERAGE. OVERALL CABLE O.D. WILL BE APPROX. 0.240 IN.
- C. CONNECTORS WILL BE SUPPLIED WITH HARDWARE.

ISC TRANSMON BEAM DIVERTER CABLE			
SUSPENDED TRANSMON TABLE TO BEAM DIVERTER			
V25AB-36 - V-DB25HD M/S1-36-MM7PINHD F/X			
STANDARD USE FOR THIS CABLE			
SUBSYSTEM	AIR/VAC	STANDARD USE	
ISC	IN-VAC	TRANSMON BEAM DIVERTER	

NOTES AND TOLERANCES: UNLESS OTHERWISE SPECIFIED

1. INTERPRET DRAWING PER ASME Y14.5-1994.

2. REMOVE ALL SHARP EDGES. 0.05-0.15 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.

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

MATERIAL FINISH NEXT ASSY

CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY

PART NAME: CUSTOM CABLE SPECIFICATION V25AB-36

DESIGNER: R. ABBOTT DATE: 2018/06/20/22 SITE: DWG. NO: E D1000237 REV: v5

DRAWER: E. BROWN DATE: 2018/06/20/22 SCALE: 2:1 PROJECTION: SHEET 1 OF 1