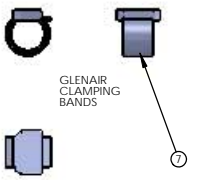
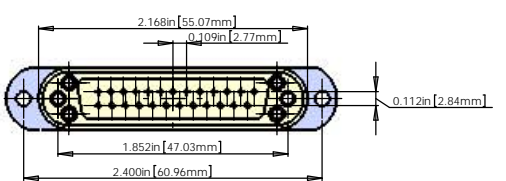
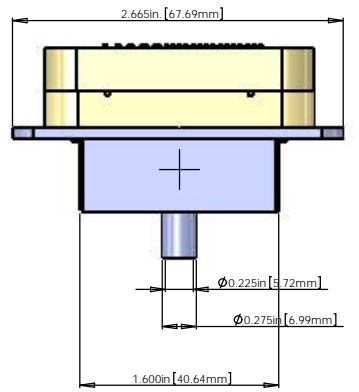
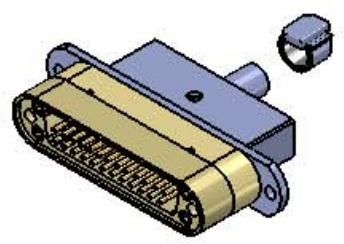


REV.	DATE	DCN #	DRAWING TREE #

NOTES CONTINUED:
 5. 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: A DXXXXXX.YY.S/N.001 VIBRATORY TOOL MAY BE USED.

6. APPROXIMATE WEIGHT - 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 80 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 IN 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 E1000083 AFTER FABRICATION. THE INDICATED HOLES WILL BE MAPPED PRIOR TO PORCELAIN COATING TO APPROXIMATELY 2-3X 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



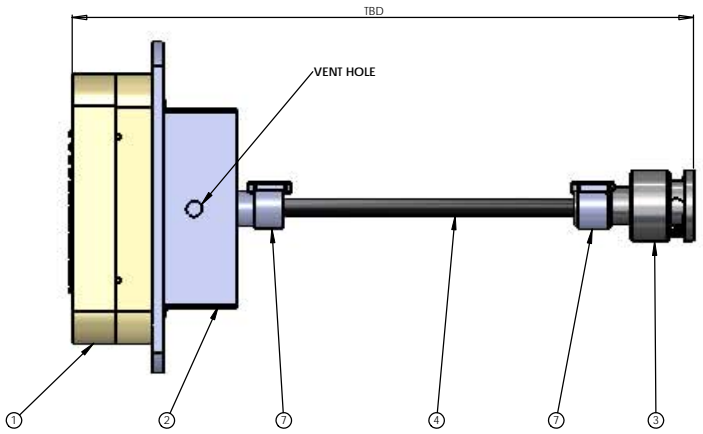
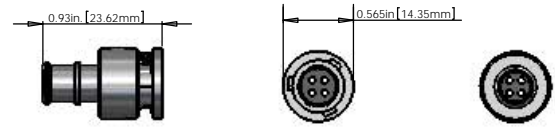
CONNECTOR J1

V25AB CABLE ASSEMBLY CIRCUIT SUMMARY V-DB25 M/S1-TBD-MM4PIN F/S

FROM				
CONNECTOR J1 - 25 PIN SUBMINI_D CONNECTOR (PEEK)				
PIN	WIRE NAME	COLOR	LENGTH	TWISTED PAIR
1	(SHIELD)			(SHIELD)
1	(CABLE 1) WIRE 1A	White	TBD	
2	(CABLE 1) WIRE 2A, WIRE 2B	White		TP-1
14	(CABLE 1) WIRE 14A, WIRE 14B	White		TP-1
3	(CABLE 1) WIRE 3A, WIRE 3B	White		TP-2
15	(CABLE 1) WIRE 15A, WIRE 15B	White		TP-2



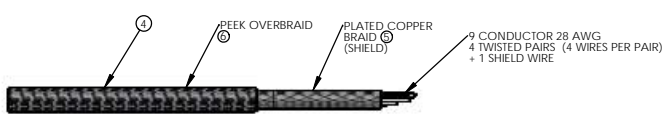
CONNECTOR J2



2 WIRES PER CONNECTION AS SHOWN (ONLY ONE CONNECTION SHOWN FOR CLARITY)

V25AB CABLE ASSEMBLY CIRCUIT SUMMARY TO

TO			
CONNECTOR J2 - 4 PIN PLUG MIGHTY MOUSE CONNECTOR			
Pin	Wire Name	Signal	
SHELL	SHIELD WIRE 1A	SHIELD	
1	(CABLE 1) WIRE 2A, WIRE 2B	PICOMOTOR #1 XY M1	
2	(CABLE 1) WIRE 14A, WIRE 14B	PICOMOTOR #1 XY M2	
3	(CABLE 1) WIRE 3A, WIRE 3B	PICOMOTOR #1 XY M3	
4	(CABLE 1) WIRE 15A, WIRE 15B	PICOMOTOR #1 XY M4	

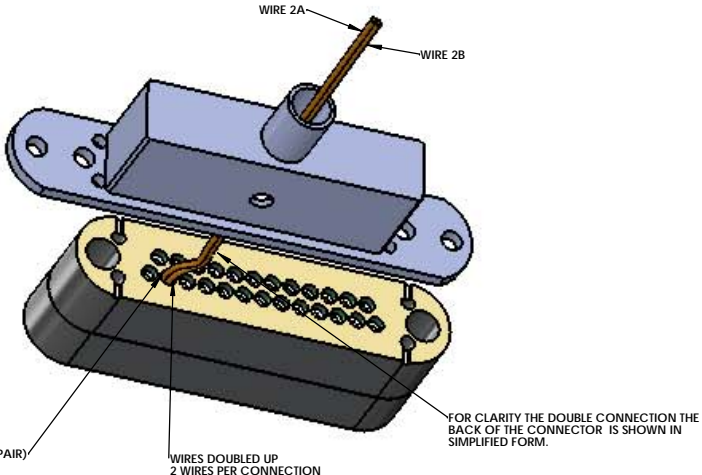


BILL OF MATERIALS				
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.	LENGTH
1	TICOR #TS0125-3	DB25 MALE CONNECTOR (J1) FOR UHV (PEEK)	1	
2		DB25 CONNECTOR BACKSHELL FOR UHV (STAINLESS)	1	
3	GLENAIR # 803-001-06M6-4SN-598A	MIGHTY MOUSE SOCKET CONNECTOR (J2)	1	
4	C1	9 COND. (2 TWISTED PAIR) (4 WIRES PER TWISTED PAIR) CABLE (ADD COPPER BRAID (SHIELD) AND PEEK OVERBRAID)	1	TBDin.*
5	CONTINENTAL PART #24x3x40BC	COPPER BRAID - CONTINENTAL CORDAGE PART #24x3x40BC	1	
6	PART #6759	PEEK BRAID - PART #6759 MANUFACTURED WITH ZEUS 0.016" BLACK PEEK DRAWN MONOFILAMENT	4	
7	GLENAIR 600-052	GLENAIR 600-052 STANDARD BRAID CLAMP	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:**
 - CONNECTOR SHELL - PEEK VICTREX GRADE TDS-450G.
 - BACKSHELL - STAINLESS STEEL WITH VENT HOLE.
 - CONTACTS - BERYLLIUM COPPER ALLOY C17300 0.00050 MIN. GOLD OVER NICKEL.
 - HARDWARE: CORROSION RESISTANCE STEEL, PASSIVATED.
 - PEEK BRAID - PEEK VICTREX GRADE TDS-450CA30 CARBON LOADED.
- CABLE:** 9 COND. 28 AWG, (40 STRD 44 AWG) WITH 2 LAYERS OF KAPTON TAPE 4 TWISTED PAIRS (4 TO 5 TWISTS PER INCH) + SHIELD WIRE (WIRES DOUBLED UP) (4 WIRES PER TWISTED PAIR) OVERALL: 40AWG SILVER PLATED COPPER BRAID 90% COVERAGE OVERALL PEEK BRAID MIN. 50% COVERAGE OVERALL CABLE O.D. WILL BE APPROX. 0.240 IN.



V25AB - V-DB25 M/S1-TBD-MM4PIN F/S

STANDARD USE FOR THIS CABLE		
SUBSYSTEM	AIR/VAC	STANDARD USE
ISC	IN-VAC	PICOMOTORS (WITH DOUBLE WIRES)

NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)		CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME CUSTOM CABLE SPECIFICATION V25AB	
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.		DESIGNER: J. ABRAHAM DRAFTER: E. BROWN CHECKER: APPROVAL:	DATE: 10/8/11/2011 DATE: 10/8/11/2011	SIZE: E SCALE: 2:1	DWG. NO.: D1000237 PROJECTION: 1st ANGLE SHEET 1 OF 1
DIMENSIONS ARE IN: TOLERANCES: .XX ± .XXX ± ANGULAR: °		MATERIAL: FINISH: INCH		REV: v1	