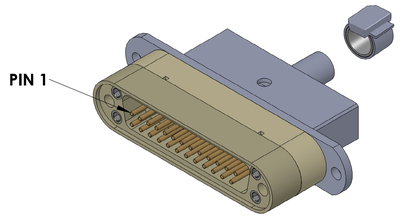
REV.	DATE	DCN #	DRAWING TREE #

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: DXXXXXXX-YY, S/N 001. A VIBRATORY TOOL MAY BE USED.

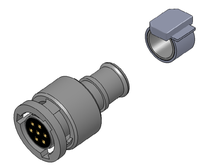
6. APPROXIMATE WEIGHT = X.XXX LB.
7. MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH. USE OF ABRASIVE REMOVAL TECHNIQUES IS NOT ALLOWED. REFER TO LIGO-E0900364
8. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.
9. ALL HELI-COIL HOLES TO BE PREPARED ACCORDING TO EMHART 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 60 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-E0900364.
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 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.

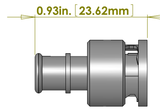
CONNECTOR J1

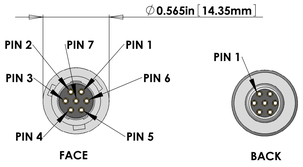


V25AB-36 CABLE ASSEMBLY CIRCUIT SUMMARY V-DB25HD M/S1-36-MM7PINHD F/X			
FROM			
CONNECTOR J1 - 25 PIN SUBMINI_D CONNECTOR (PEEK)			
PIN	WIRE NAME	LENGTH *	TWISTED PAIR
1,	(SHIELD) NOT CONNECTED		
13	WIRE 13	36"	TP-1
25	WIRE 25	36"	
12	WIRE 12	36"	TP-2
24	WIRE 24	36"	
11	WIRE 11	36"	TP-3
23	WIRE 23	36"	
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

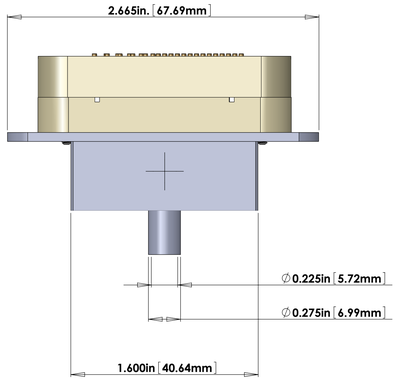


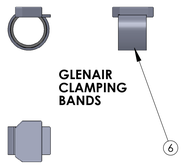




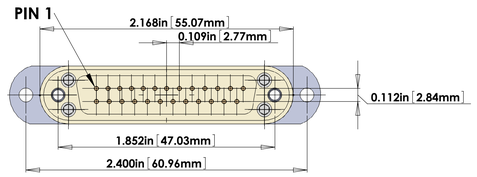
7 PIN MIGHTY MOUSE SOCKET CONNECTOR GLENAIR # 803-001-06M6-7SN-598A

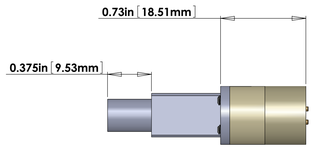
(MATES WITH GLENAIR # 803-003-07M6-7PN-598A)

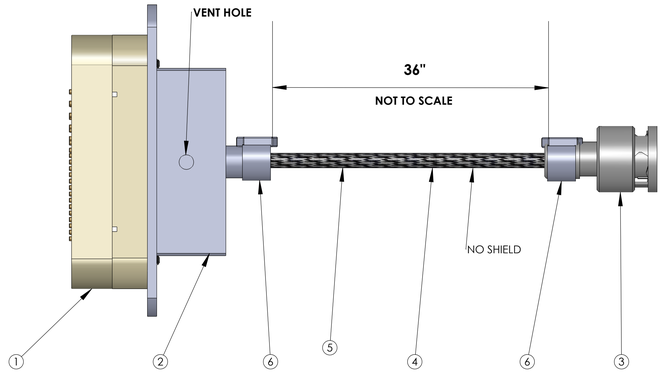




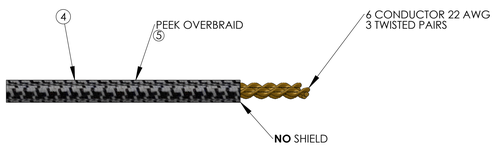
CONNECTOR J1



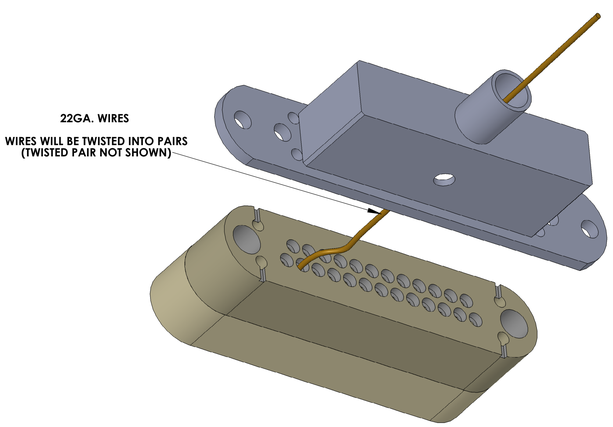




V25AB-36 CABLE ASSEMBLY CIRCUIT SUMMARY			
TO			
CONNECTOR J2 - 7 PIN SOCKET MIGHTY MOUSE CONNECTOR			
Pin	WIRE NAME	TWISTED PAIR	SIGNAL
SHELL	NOT CONNECTED		
1	WIRE 13	TP-1	+ COIL
2	WIRE 25		- COIL
3	WIRE 12	TP-2	+ LEFT SENSOR
4	WIRE 24		- LEFT SENSOR
5	WIRE 11	TP-3	+ RIGHT SENSOR
6	WIRE 23		- RIGHT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



INTERNAL WIRING
(ONLY ONE WIRE SHOWN FOR CLARITY)



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)		
③	GLENAIR # 803-001-06M6-7SN-598A	7 PIN MIGHTY MOUSE SOCKET CONNECTOR (J2)	1	
④	COONER WIRE # CZ2205 22GA PFA INSULATED BIOMEDICAL WIRE	6 COND. (3 TWISTED PAIR) CABLE (WITH PEEK OVERBRAID)⑤. AND NO SHIELD	1	36in.*
⑤	PART #6759	PEEK BRAID - PART #6759 MANUFACTURED WITH ZEUS 0.016" BLACK PEEK DRAWN MONOFILAMENT	1	36in.*
⑥	GLENAIR 600-052	GLENAIR 600-052 STANDARD BRAID CLAMP	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.

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: (UNLESS OTHERWISE SPECIFIED)

1. **MATERIAL:**
   a. **CONNECTOR SHELL - PEEK VICTREX GRADE TDS-450G.**
   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**
2. **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.

NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)

DIMENSIONS ARE IN

TOLERANCES:
.XX ±
.XXX ±

ANGULAR ± °

1. INTERPRET DRAWING PER ASME Y14.5-1994.
2. REMOVE ALL SHARP EDGES, .005-.015, FOR MACHINED PARTS. ROUND ALL EDGES APPROXIMATLEY 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.

MATERIAL

FINISH µinch

LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY

SYSTEM ISC

SUB-SYSTEM

NEXT ASSY

PART NAME **CUSTOM CABLE SPECIFICATION V25AB-36**

DESIGNER	R.ABBOTT	SEP/21/2011	SIZE	DWG. NO.	REV.
DRAFTER	E.BROWN	SEP/21/2011	E	D1000237	v2
CHECKER					
APPROVAL			SCALE: 2:1	PROJECTION:	SHEET 1 OF 1

D1000237_v2 cable V25AB-36 PART PDM REV: - DRAWING PDM REV: