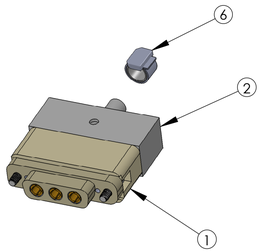
REV.	DATE	DCN #	DRAWING TREE #

NOTES CONTINUED:

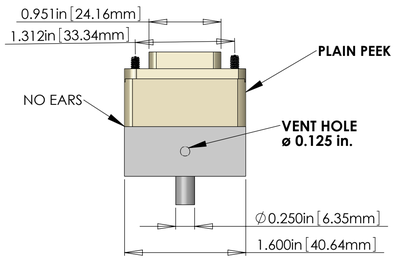
Ⓢ SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER AND REVISION ON NOTED SURFACE FOLLOWED ON THE NEXT LINE BY A THREE DIGIT SERIAL NUMBER. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. USE .07" HIGH CHARACTERS. EXAMPLE: DXXXXXXX-VY, S/N 001.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

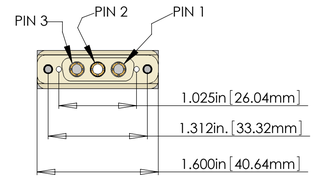
6. APPROXIMATE WEIGHT = X.XXX LB.
7. MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH, USE OF ABRASIVE REMOVAL TECHNIQUES IS NOT ALLOWED. REFER TO LIGO-E0900364
8. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.
9. ALL HELI-COIL HOLES TO BE PREPARED ACCORDING TO EMHART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

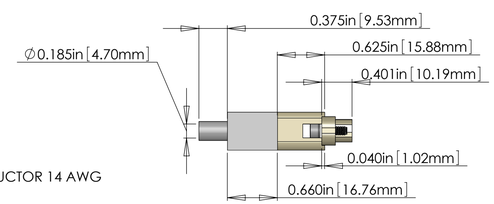
CONNECTOR J1

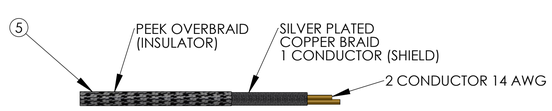


GLENAIR CLAMPING BANDS

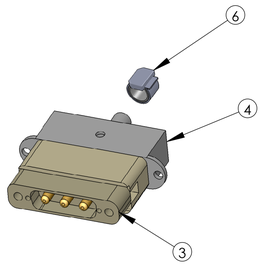


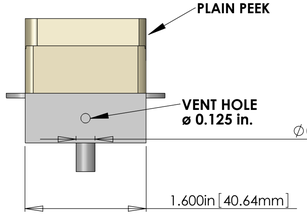


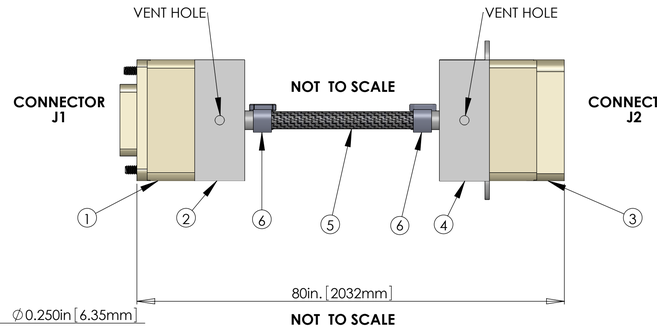


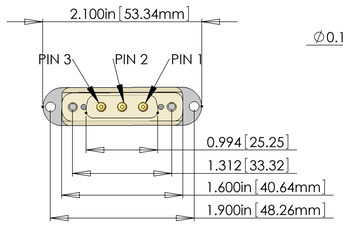


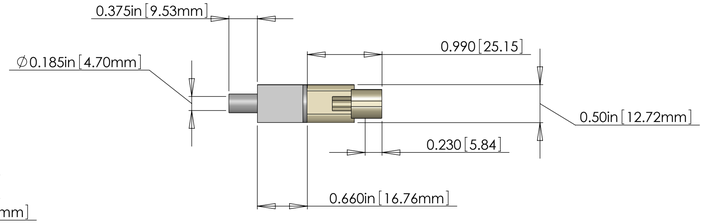
CONNECTOR J2











BILL OF MATERIALS

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.	LENGTH *
①	CUSTOM DB3 FEMALE	DB3 FEMALE CONNECTOR (J1) FOR UHV (PEEK)	1	
②	CUSTOM BACKSHELL	DB3 CONNECTOR BACK SHELL (NO EARS) FOR UHV (STAINLESS)	1	
③	CUSTOM DB3 MALE	DB3 MALE CONNECTOR (J2) FOR UHV (PEEK)	1	
④	CUSTOM BACKSHELL	DB3 CONNECTOR BACK SHELL (with EARS) FOR UHV (STAINLESS)	1	
⑤	C1	2 COND. (2 WIRES + SHIELD) CABLE WITH SILVER PLATED COPPER BRAID (SHIELD) AND PEEK OVERBRAID	1	80in.
⑥	GLENAIR 600-052	GLENAIR 600-052 STANDARD BRAID CLAMP (BAND - IT)	2	

* NOTE: THE OVERALL LENGTH IS MEASURED FROM PIN TIP (3 PIN) TO PIN TIP (CRIMP PINS) OF THE CABLE. THE OTHER MEASUREMENT IS SPACER TO PIN TIPS (CRIMP PINS). USE WHATEVER LENGTH IS NECESSARY FOR THE INTERNAL WIRING OF THE CONNECTORS AND STRIP LENGTH TO ACHIEVE THE CORRECT OVERALL LENGTHS.

V3B-80 CABLE ASSEMBLY CIRCUIT SUMMARY
V-DB3 F/S1-80-DB3 M/S1

CABLE NAME	WIRE NAME	WIRE SIZE	LENGTH *	FROM	TO
V3B-80					
	SHIELD	COPPER BRAID		J1 PIN 1	J2 PIN 1
	W1	14 AWG	80in.	J1 PIN 2	J2 PIN 2
	W2	14AWG	80in.	J1 PIN 3	J2 PIN 3

V-DB3 F/S1-80-DB3 M/S1
STANDARD USE FOR THIS CABLE

SUBSYSTEM	AIR/VAC	STANDARD USE
SEI	IN-VAC	FROM FLANGE TO TABLE

NOTES: (UNLESS OTHERWISE SPECIFIED)

1. **MATERIAL:**
   a. CONNECTOR SHELL - 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
2. CABLE 2 COND. 14 AWG, (STRANDED) WITH 2 LAYERS OF KAPTON TAPE
   OVERALL 40AWG COPPER BRAID 50% COVERAGE - SUPPLIED BY LIGO
   OVERALL PEEK BRAID MIN. 50% COVERAGE
   OVERALL CABLE O.D. WILL BE 0.240 IN.
3. CONNECTORS WILL BE SUPPLIED WITH HARDWARE (LENGTH OF SCREWS AS SHOWN ARE APPROXIMATE SCREWS SHOULD BE THE PROPER LENGTH FOR PROPER MATING)

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

NEXT ASSY

LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY

SYSTEM

SUB-SYSTEM ISC

PART NAME **CUSTOM CABLE SPECIFICATION V3B-80**

DESIGNER	R.ABBOTT	SEP/21/2011	SIZE	DWG. NO.	REV.
DRAFTER	E.BROWN	FEB/08/2011	D	D1100148	v1
CHECKER					
APPROVAL			SCALE: 1:1	PROJECTION:	SHEET 1 OF 1

D1100148_J1 cable V3B-80, PART PDM REV:, DRAWING PDM REV: