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 ARTICLE AND

CHARACTERS. EXAMPLE: DXXXXXXX-VY, S/N 001. VIBRATORY TOOL MAY BE USED. 6. APPROXIMATE WEIGHT = X.XXX LB.

PROCEED CONSECUTIVELY. USE .07" HIGH

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.

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.

11. ALL MATERIAL IS TO BE VIRGIN MATERIAL (i.e. NO WELD REPAIRS, PLUGS OR RECYCLED MATERIAL). NO REPAIRS SHALL BE MADE UNLESS

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.

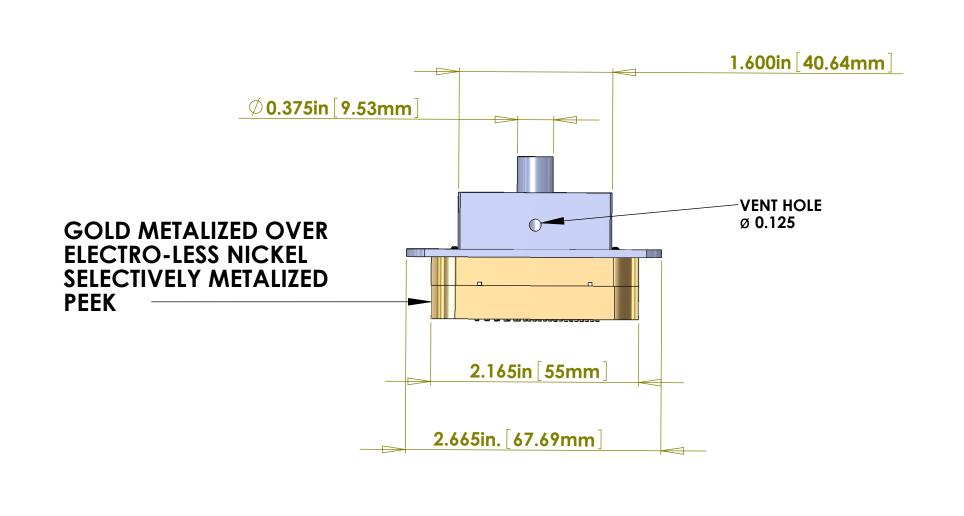
14. DIMENSIONS APPLY BEFORE PORCELAIN COATING UNLESS SPECIFIED. 15. BEND RADIUS: UNLESS OTHERWISE NOTED, THE BEND RADIUS SHOULD BE THE MINIMUM REQUIRED TO FORM WITHOUT CRACKING OR REQUIRING ADDITIONAL

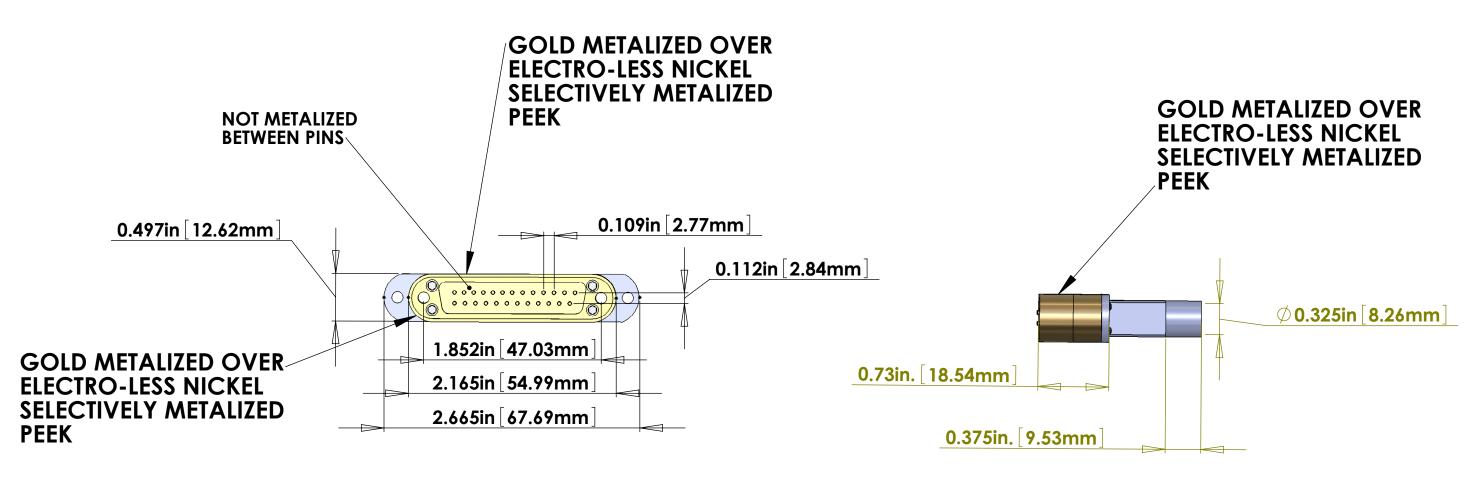
WORK WHEN FORMING. IN PARTICULAR IF SHEET METAL IS TO BE PORCELAIN COATED,

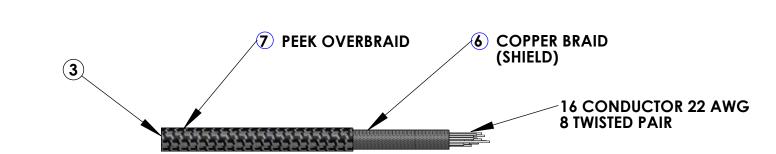
THE BEND RADIUS SHALL BE A MINIMUM OF .12" OUTSIDE RADIUS OF BEND UNLESS OTHERWISE NOTED.

GOLD METALIZED OVER ELECTRO-LESS NICKEL SELECTIVELY METALIZED **VENT HOLE** Ø 0.125 PIN 1 EARS (MOUNTING FLANGE) #2-56 4 LOCATIONS

CONNECTOR







ITEM NO.	PART NUMBER DESCRIPTION		QTY.	LENGTH
1	CUSTOM DB25 MALE	DB25 MALE CONNECTOR (J1) FOR UHV (METALIZED PEEK)	1	
2	CUSTOM BACKSHELL	DB25 CONNECTOR BACKSHELL (WITH EARS) (LARGE PORT) FOR UHV (STAINLESS)	2	
3	COONER WIRE # CZ2205 + 6 + 7	1	143in *	
4	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	
<u>5</u>	CUSTOM DB25 FEMALE	DB25 FEMALE CONNECTOR (J2) FOR UHV (METALIZED PEEK)	1	
6	CONTINENTAL PART #24x3x40BC	CONTINENTAL PART #24x3x40BC COPPER BRAID - CONTINENTAL CORDAGE PART #24x3x40BC		143in *
7	#6759 PEEK BRAID - PART #6759 MANUFACTURED WITH ZEUS 0.016" BLACK PEEK DRAWN MONOFILAMENT		1	143in *

* NOTE: USE WHATEVER LENGTH IS NECESSARY FOR THE INTERNAL WIRING OF THE CONNECTORS AND STRIP LENGTH TO ACHIEVE THE CORRECT OVERALL LENGTHS.

OVERALL PEEK BRAID MIN. 50% COVERAGE

NOTES: (UNLESS OTHERWISE SPECIFIED) 1. MATERIAL: a. J1 CONNECTOR SHELL - PEEK VICTREX 450GL30 b. J2 CONNECTOR SHELL - SELECTIVELY METALIZED OVER PEEK VICTREX 450GL30.

c. BACKSHELLS - STAINLESS STEEL WITH VENT HOLE. d. CONTACTS - BERYLLIUM COPPER ALLOY C17300 0.000050 MIN. GOLD OVER NICKEL

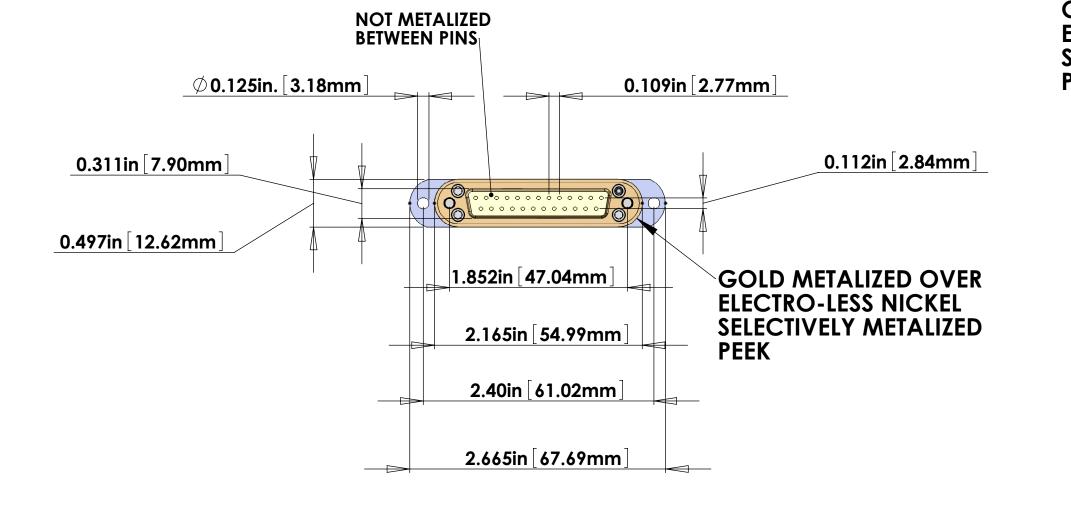
e. HARDWARE: CORROSION RESISTANCE STEEL, PASSIVATED f. PEEK BRAID - PEEK VICTREX GRADE TDS-450CA30 CARBON LOADED - SUPPLIED BY LIGO

2. CABLE 16 COND. 22 AWG, (150 STRD 44 AWG) WITH 0.005" PFA INSULATION (COONER WIRE #CZ2205) 8 TWISTED PAIRS (4 TO 5 TWISTS PER INCH) OVERALL 40AWG COPPER BRAID 50% COVERAGE - SUPPLIED BY LIGO

OVERALL CABLE O.D. WILL BE 0.240 IN.

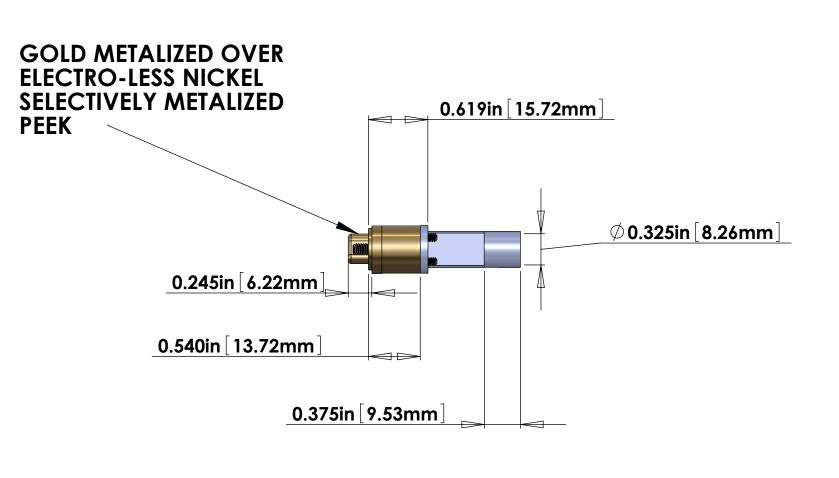
CONNECTORS WILL BE SUPPLIED WITH HARDWARE (LENGTH OF SCREWS AS SHOWN ARE APPROXIMATE SCREWS SHOULD BE THE PROPER LENGTH FOR PROPER MATING)

GOLD METALIZED OVER **ELECTRO-LESS NICKEL VENT HOLE** ø 0.125∖ **SELECTIVELY METALIZED /EARS (MOUNTING FLANGE)** PIN 1 **GOLD METALIZED OVER GOLD METALIZED OVER ELECTRO-LESS NICKEL ELECTRO-LESS NICKEL SELECTIVELY METALIZED SELECTIVELY METALIZED** #2-56 4 LOCATIONS PEEK 1.600in [40.64mm] \emptyset 0.375in [9.53mm] 143 IN. PIN 1 **VENT HOLE** EARS (MOUNTING FLANGE) ø **0**.125 CONNECTOR CONNECTOR GOLD METALIZED OVER 1.511in. [38.38mm] **ELECTRO-LESS NICKEL SELECTIVELY METALIZED** CONNECTOR 2 LOCATIONS



GLENAIR CLAMPING

BANDS # 600-052 (BAND-IT # A10086)



CABLE NAME	COND WIRE ID	TWISTED PAIR	LENGTH *	FROM	то
V25A-143	16 COND. CABLE	(8 TOTAL)	143 in.	Conn. J1	Conn. J
	SHIELD		143 in	PIN 1, SHELL	PIN 1, SHELL
	W13	TD 1	143 in	PIN 13	PIN 13
	W25	TP-1	143 in	PIN 25	PIN 25
	W12	TD O	143 in	PIN 12	PIN 12
	W24	TP-2	143 in	PIN 24	PIN 24
	W11	TD 2	143 in	PIN 11	PIN 11
	W23	TP-3	143 in	PIN 23	PIN 23
	W10	TP-4	143 in	PIN 10	PIN 10
	W22	117-4	143 in	PIN 22	PIN 22
	W9	TD 5	143 in	PIN 9	PIN 9
	W21	TP-5	143 in	PIN 21	PIN 21
	W8	TD /	143 in	PIN 8	PIN 8
	W20	TP-6	143 in	PIN 20	PIN 20
	W7	TD 7	143 in	PIN 7	PIN 7
	W19	TP-7	143 in	PIN 19	PIN 19
	W6	TP-8	143 in	PIN 6	PIN 6
	W18		143 in	PIN 18	PIN 18

V25C-143 CABLE ASSEMBLY CIRCUIT SUMMARY

* The length shown in this list is the length of the cable between the two connectors. Add additional length as necessary for the internal wiring of the connectors and strip length. SEE REFERENCE DCC# LIGO-D1100670

PIN 14,2,15,3,16,4,17,5 N/C (NOT CONNECTED)

		OMOTOR CABLE DED TRANSMON TABLI
V-I	DB25HD M/S1-14	3-DB25HD F/S1
	STANDARD USE FO	R THIS CABLE
SUBSYSTEM	AIR/VAC	STANDARD USE

DRAWING TREE #

DATE

DCN#

	NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)		اااااا	CALIFORNIA INSTITUTE OF TECHNIQUOCY	PART NAM	<u> </u>					
DIMENSIONS ARE IN	1. INTERPRET DRAWING PER ASME Y14.5- 2. REMOVE ALL SHARP EDGES, .005015 EDGES APPROXIMATLEY R.02 FOR SHEET	. FOR MACHINED PARTS. ROUND ALL	LIGO	CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY	C	USTOM	CABL	E SPEC	IFICATIO	N V25C	-143
TOLERANCES:	3. DO NOT SCALE FROM DRAWING.		SYSTEM	SUB-SYSTEM	DESIGNER	R.ABBOTT	OCT/13/2011	SIZE DWG. I	NO.		REV.
.XX ± .XXX ±	4. ALL MACHINING FLUIDS MUST BE FULL AND FREE OF SULFUR, SILICONE, AND C			ISC	DRAFTER	E.BROWN	OCT/13/2011	F	D100	0921	v4
ANIGURAD : °	MATERIAL	FINISH	NEXT ASSY		CHECKER			_	D 100	0/21	▼
ANGULAR ± °	Material <not spec<="" td=""><td>ified> μir</td><td>ich</td><td></td><td>APPROVAL</td><td></td><td></td><td>SCALE: 1:1</td><td>PROJECTION:</td><td>+ -</td><td>SHEET 1 OF 1</td></not>	ified> μir	ich		APPROVAL			SCALE: 1:1	PROJECTION:	+ -	SHEET 1 OF 1