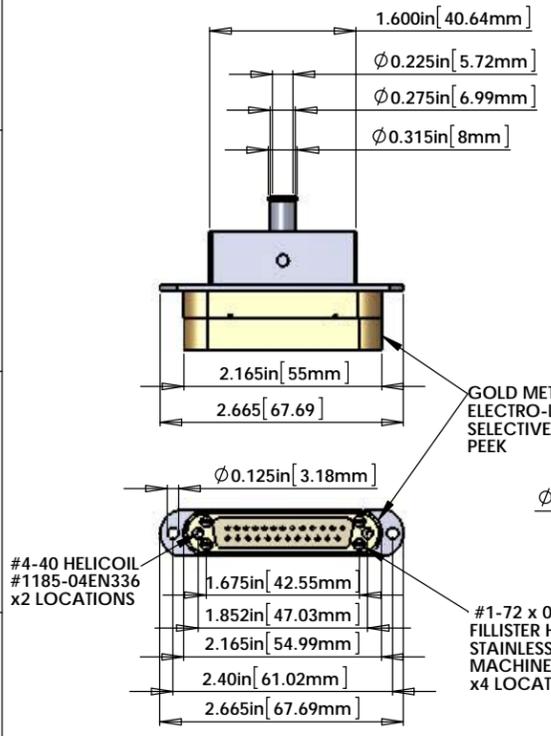


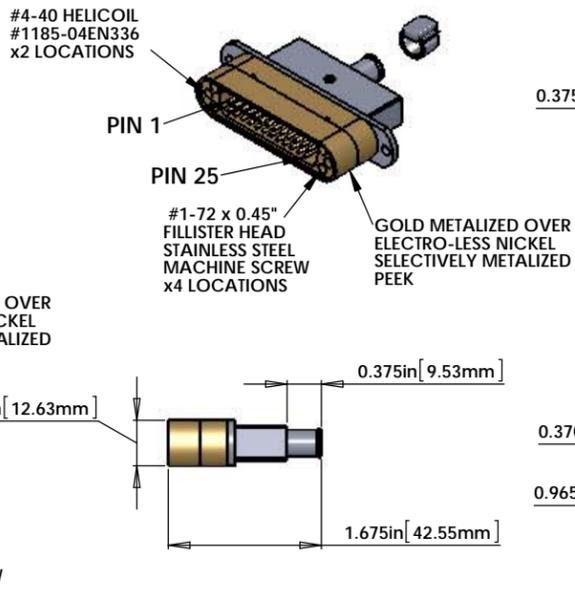
- NOTES CONTINUED:
- SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER AND REVISION ON NOTED SURFACE FOLLOWED ON THE NEXT LINE BY A THREE DIGIT SERIAL NUMBER. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. USE .07" HIGH CHARACTERS. EXAMPLE: DXXXXXX-VV, S/N 001. VIBRATORY TOOL MAY BE USED.
 - APPROXIMATE WEIGHT = X.XXX LB.
 - MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH. USE OF ABRASIVE REMOVAL TECHNIQUES IS NOT ALLOWED. REFER TO LIGO-E0900364
 - ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.
 - ALL HELI-COIL HOLES TO BE PREPARED ACCORDING TO EMHART HELI-COIL PRODUCT CATALOG, HC2000, REV 4
 - ALL HELI-COIL INSERTS TO BE INSTALLED BY LIGO PERSONNEL. AFTER DELIVERY OF FINISHED PARTS, USE NITRONIC 60 THREADED INSERTS.

- 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.
 - SURFACE FINISH TO BE AS-PROCESSED FROM MILL/SUPPLIER, FREE FROM SCRATCHES OR GOUGES.
 - 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.
 - DIMENSIONS APPLY BEFORE PORCELAIN COATING UNLESS SPECIFIED.
 - 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.
- NOTES 13 and 14 DO NOT APPLY TO THIS PART

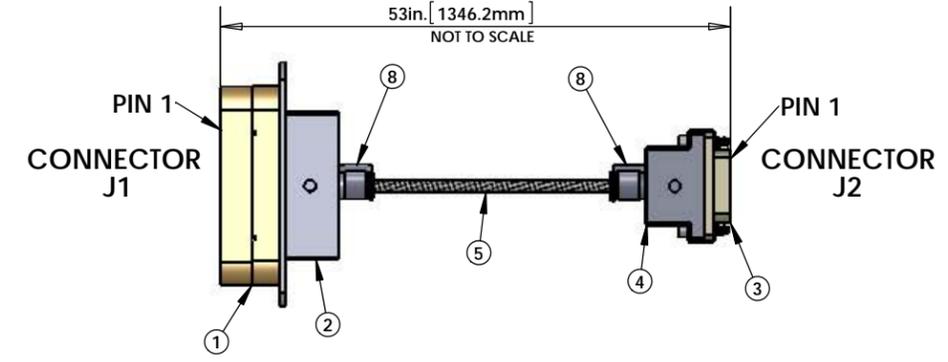
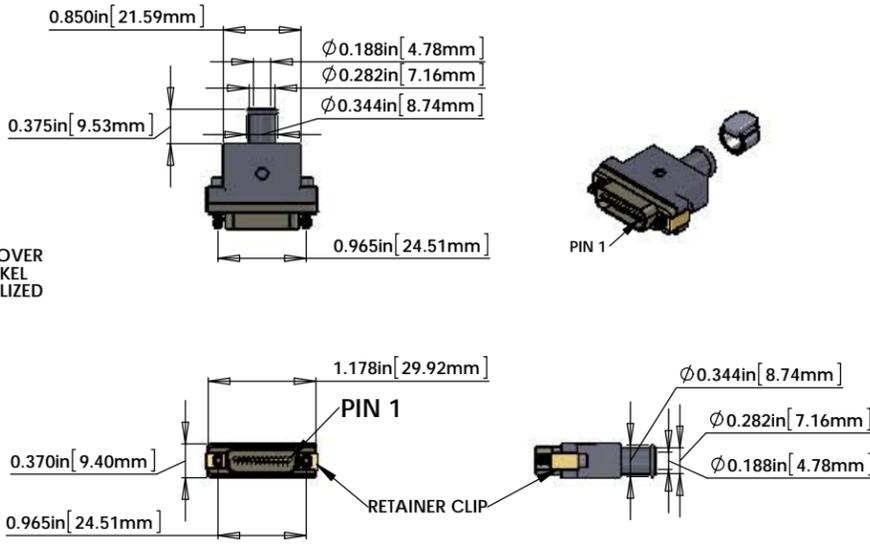
REV.	DATE	DCN #	DRAWING TREE #



CONNECTOR J1



CONNECTOR J2



V25G CABLE ASSEMBLY CIRCUIT SUMMARY
V-DB25 M/S1-53-μD25 F/S1

CABLE NAME	COND.- WIRE ID	TWISTED PAIR	LENGTH *	FROM	TO
V25G	25 COND. CABLE	(12 TOTAL)	53 in.	Conn. J1	Conn. J2
C1	SHIELD (COPPER BRAID)	SINGLE WIRE	53 in.	PIN 1, SHIELD & SHELL	PIN 1, SHIELD & SHELL
			53 in.	PIN 1, SHIELD & SHELL	PIN 1, SHIELD & SHELL
			53 in.	PIN 2	PIN 2
			53 in.	PIN 14	PIN 14
			53 in.	PIN 3	PIN 3
			53 in.	PIN 15	PIN 15
			53 in.	PIN 4	PIN 4
			53 in.	PIN 16	PIN 16
			53 in.	PIN 5	PIN 5
			53 in.	PIN 17	PIN 17
			53 in.	PIN 6	PIN 6
			53 in.	PIN 18	PIN 18
53 in.	PIN 7	PIN 7			
53 in.	PIN 19	PIN 19			
53 in.	PIN 8	PIN 8			
53 in.	PIN 20	PIN 20			
53 in.	PIN 9	PIN 9			
53 in.	PIN 21	PIN 21			
53 in.	PIN 10	PIN 10			
53 in.	PIN 22	PIN 22			
53 in.	PIN 11	PIN 11			
53 in.	PIN 23	PIN 23			
53 in.	PIN 12	PIN 12			
53 in.	PIN 24	PIN 24			
53 in.	PIN 13	PIN 13			
53 in.	PIN 25	PIN 25			

* 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.

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.	LENGTH
1	TICOR PART # TS0086-1 (TS0149-25CG20B51-225F)	DB25 MALE CONNECTOR (J1) FOR UHV (GOLD METALIZED PEEK)	1	
2		DB25 CONNECTOR BACKSHELL FOR UHV (STAINLESS)	1	
3	Glenair # DCDM255-5-MC216-225-240	MicroD25 FEMALE CONNECTOR (J2) FOR UHV	1	
4	Glenair # 500T010M25H06	MicroD25 CONNECTOR BACKSHELL FOR UHV	1	
5	C1	25 COND. (12 TW PAIR + 1 WIRE + SHIELD) CABLE WITH COPPER BRAID (SHIELD) AND PEEK OVERBRAID	1	53in *
6	CONTINENTAL PART #24x4x40BC	COPPER BRAID - CONTINENTAL CORDAGE PART #24x4x40BC	1	
7	PART #6759	PEEK BRAID - PART #6759 MANUFACTURED WITH ZEUS 0.016" BLACK PEEK DRAWN MONOFILAMENT	1	
8	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	

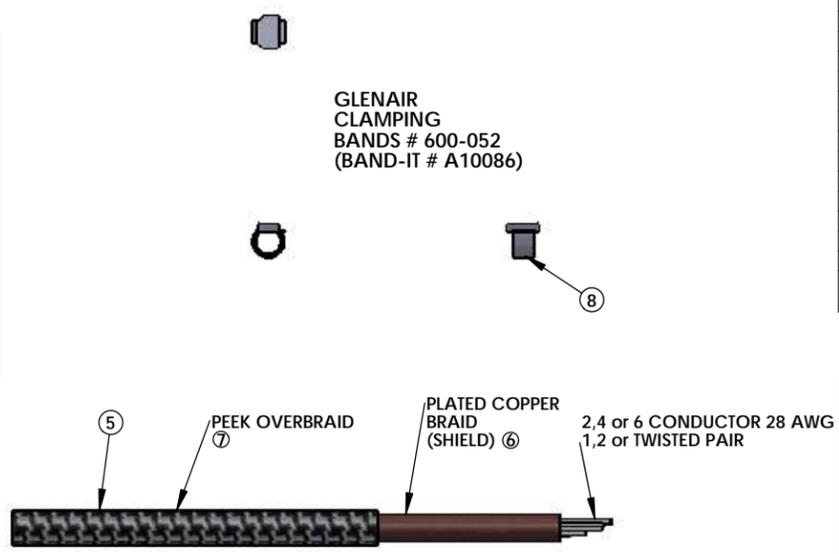
* NOTE: THE OVERALL LENGTH IS MEASURED FROM PIN TIP (25 PIN D-SUB) TO PIN TIP (25 PIN μD) OF THE CABLE. USE WHATEVER LENGTH IS NECESSARY FOR THE INTERNAL WIRING OF THE CONNECTORS AND STRIP LENGTH TO ACHIEVE THE CORRECT OVERALL LENGTH.

NOTES: (UNLESS OTHERWISE SPECIFIED)

- MATERIAL:
 - CONNECTOR SHELL - J1 - GOLD OVER ELECTRO-LESS NICKEL SELECTIVELY METALIZED PEEK VICTREX 450GL30.
 - CONNECTOR SHELL - J2 - PEEK VICTREX 450GL30.
 - BACKSHELL - STAINLESS STEEL WITH VENT HOLE.
 - CONTACTS - BERYLLIUM COPPER ALLOY C17300 0.000050 MIN. GOLD OVER NICKEL.
 - HARDWARE: STAINLESS STEEL, PASSIVATED.
 - PEEK BRAID - PEEK VICTREX GRADE TDS-450CA30 CARBON LOADED - SUPPLIED BY LIGO.

- CABLE 25 COND. 28 AWG, (40 STRD 44 AWG) WITH 2 LAYERS OF KAPTON TAPE. 12 TWISTED PAIRS (4 TO 5 TWISTS PER INCH) + 1 WIRE. OVERALL 40AWG COPPER BRAID 90% COVERAGE. OVERALL PEEK BRAID MIN. 50% COVERAGE. OVERALL CABLE O.D. WILL BE 0.240 IN.

- CONNECTORS WILL BE SUPPLIED WITH HARDWARE. SCREWS SHOULD BE THE PROPER LENGTH FOR MATING.



DIMENSIONS ARE IN		TOLERANCES:		ANGULAR ± °	
XX	±	XXX	±		
MATERIAL		FINISH		NEXT ASSY	
		μinch			

NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)

- INTERPRET DRAWING PER ASME Y14.5-1994.
- REMOVE ALL SHARP EDGES, .005-.015. FOR MACHINED PARTS. ROUND ALL EDGES APPROXIMATELY R.02 FOR SHEET METAL PARTS.
- DO NOT SCALE FROM DRAWING.
- ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.

LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY

PART NAME: **CUSTOM CABLE SPECIFICATION V25G**

DESIGNER	J. HEEFNER	MAY/10/2012	SIZE	DWG. NO.	REV.
DRAFTER	E. BROWN	MAY/10/2012	D	D1000566	v4
CHECKER					
APPROVAL					

SCALE: 1:1 PROJECTION: SHEET 1 OF 1