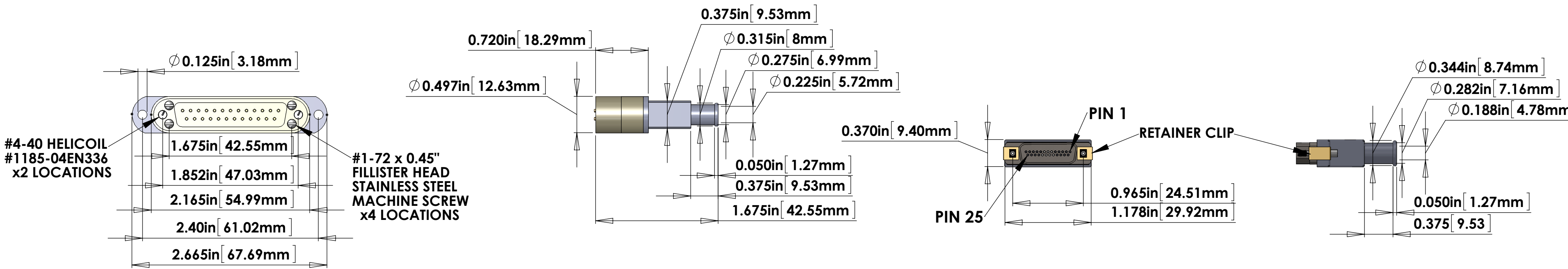
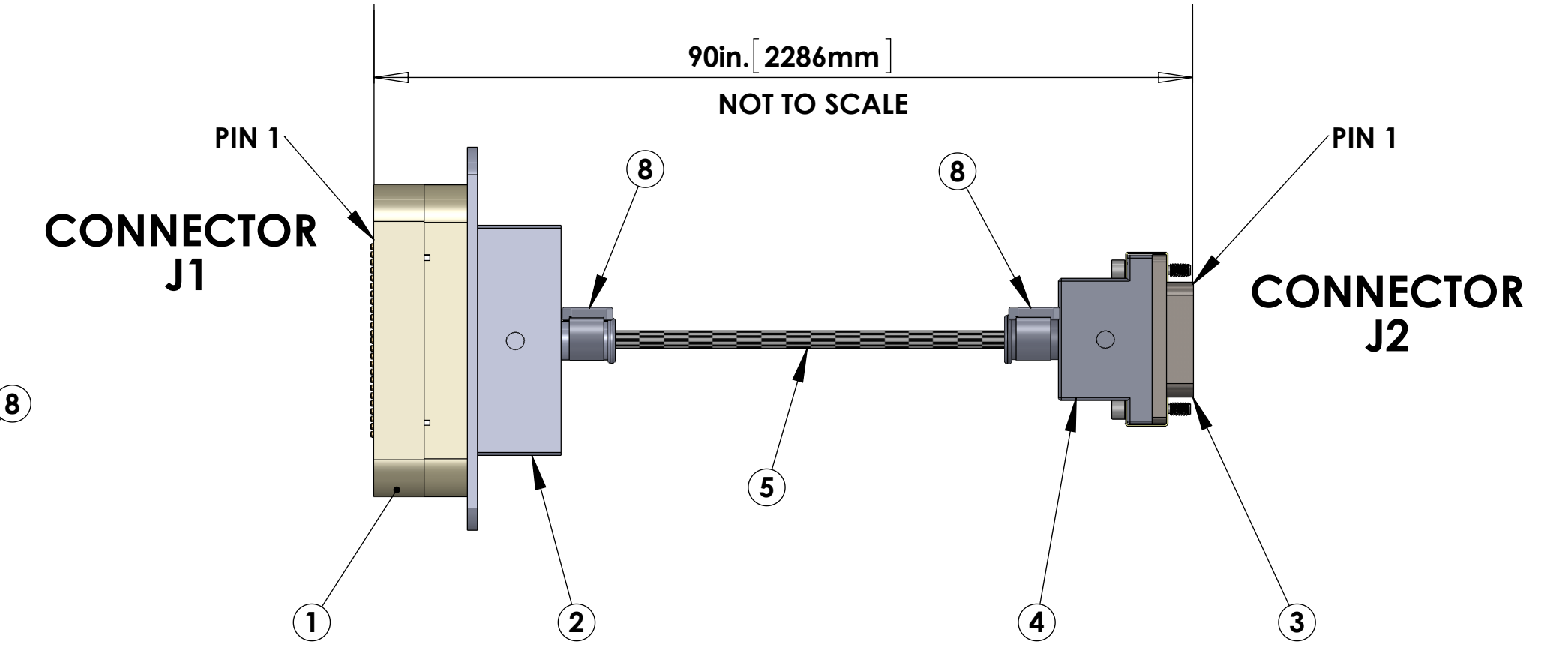
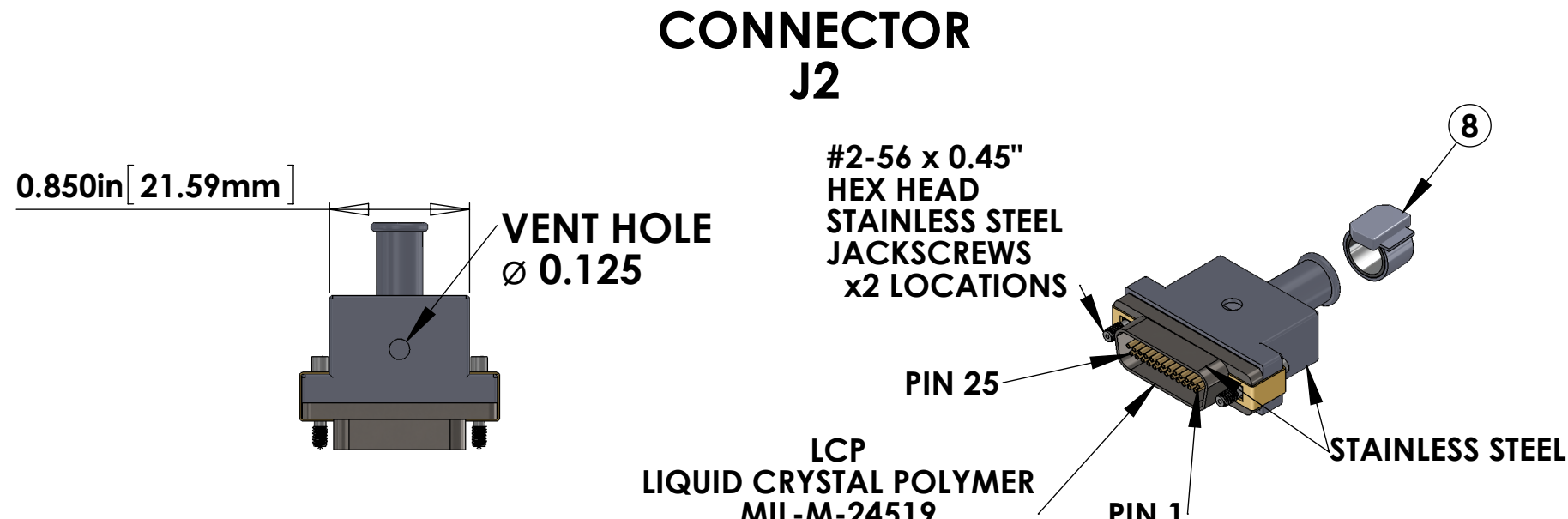
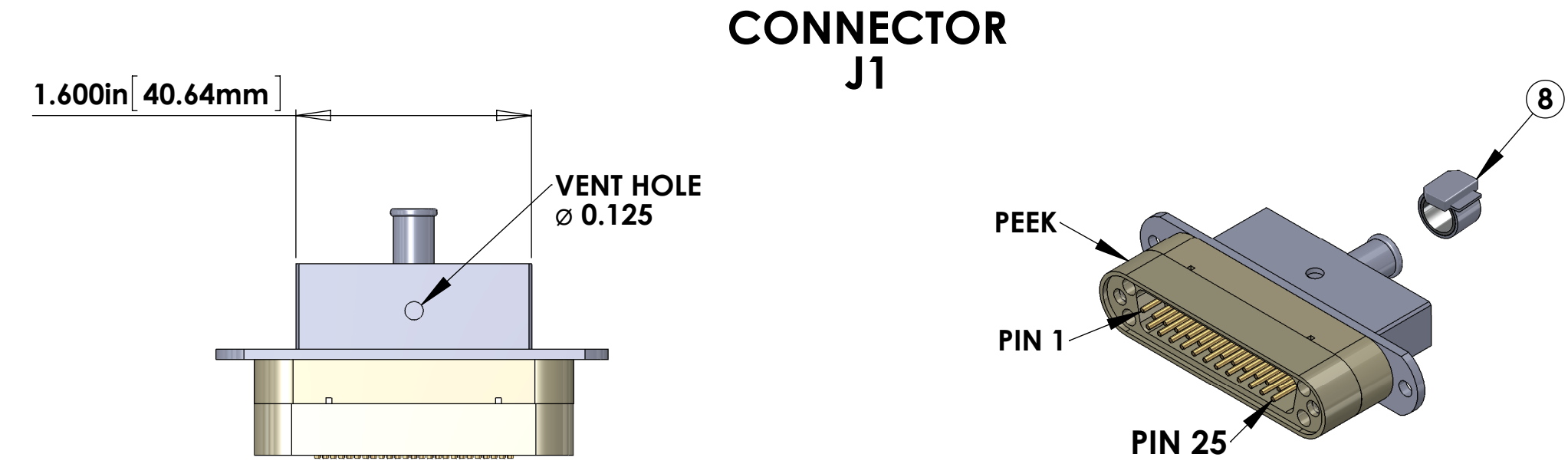


- NOTES CONTINUED:**
- SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER AND REVISION ON NOTED SURFACE FOLLOWED ON THE NEXT LINE BY A THREE DIGIT SERIAL NUMBER. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. USE .07" HIGH CHARACTERS. EXAMPLE: DXXXXXX-VY, S/N 001. VIBRATORY TOOL MAY BE USED. A
 - APPROXIMATE WEIGHT = X.XXXX 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 9, 10, 13 and 14 DO NOT APPLY TO THIS PART

REV.	DATE	DCN #	DRAWING TREE #



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.	LENGTH
1	TICOR PART # TS0086-1 (TS0149-25C020BS1-225F)	DB25 MALE CONNECTOR (J1) FOR UHV (PEEK)	1	
2	TICOR PART # TS-0143-1	DB25 CONNECTOR BACKSHELL FOR UHV (STAINLESS STEEL)	1	
3	TICOR PART # TS-0143-1	MicroD25 FEMALE CONNECTOR (J2) FOR UHV	1	
4	BACKSHELL (included in PART # TS-0143-1)	MicroD25 CONNECTOR BACKSHELL FOR UHV (STAINLESS STEEL)	1	
5	C1	25 COND. (12 TW PAIR + 1 WIRE + SHIELD) CABLE WITH COPPER BRAID (SHIELD) 6 AND PEEK OVERBRAID 7	1	90in *
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	

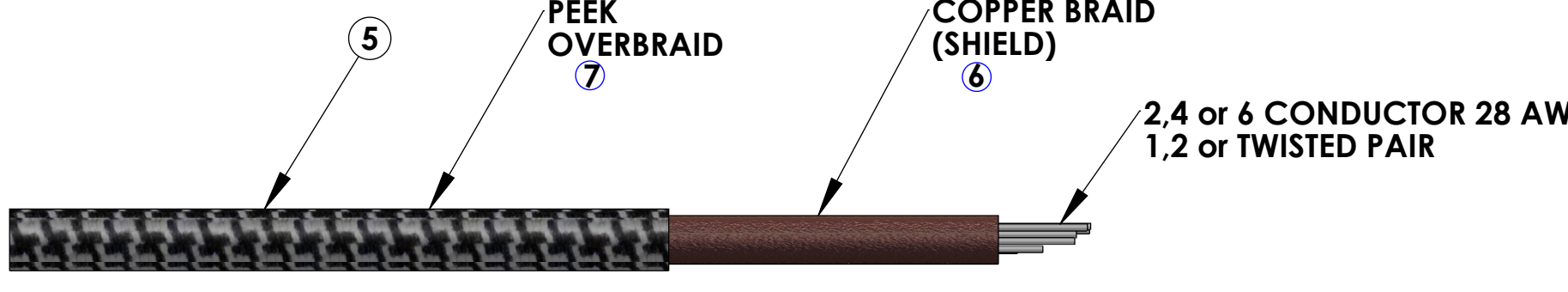
* NOTE: THE OVERALL LENGTH IS MEASURED FROM PIN TIP (25 PIN D-SUB) TO PIN TIP (25 PIN µD) OF THE CABLE. USE WHATEVER LENGTH IS NECESSARY FOR THE INTERNAL WIRING OF THE CONNECTORS AND STRIP LENGTH TO ACHIEVE THE CORRECT OVERALL LENGTH.

NOTES: (UNLESS OTHERWISE SPECIFIED)

- A. MATERIAL:**
- CONNECTOR SHELL - J1 - PEEK VICTREX 450GL30.
 - CONNECTOR SHELL - J2 - STAINLESS STEEL OVER LCP - (LIQUID CRYSTAL POLYMER per MIL-M-24519).
 - 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.

- B. CABLE 25 COND. 28 AWG (65/46), WITH PFA INSULATION COONER WIRE #CZ1105. 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.**

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



V25G-90 CABLE ASSEMBLY CIRCUIT SUMMARY V-DB25 M/S1-90-µD25 F/S1

CABLE NAME	COND.- WIRE ID	TWISTED PAIR	LENGTH *	FROM	TO
V25G-90	25 COND. CABLE	(12 TOTAL)	90 in.	Conn. J1	Conn. J2
C1	SHIELD (COPPER BRAID)		90 in.	PIN 1, SHIELD & SHELL	PIN 1, SHIELD & SHELL
	W1	SINGLE WIRE	90 in.	PIN 1, SHIELD & SHELL	PIN 1, SHIELD & SHELL
	W2		90 in.	PIN 2	PIN 2
	W14	TP-1	90 in.	PIN 14	PIN 14
	W3		90 in.	PIN 3	PIN 3
	W15	TP-2	90 in.	PIN 15	PIN 15
	W4		90 in.	PIN 4	PIN 4
	W16	TP-3	90 in.	PIN 16	PIN 16
	W5		90 in.	PIN 5	PIN 5
	W17	TP-4	90 in.	PIN 17	PIN 17
	W6		90 in.	PIN 6	PIN 6
	W18	TP-5	90 in.	PIN 18	PIN 18
W7		90 in.	PIN 7	PIN 7	
W19	TP-6	90 in.	PIN 19	PIN 19	
W8		90 in.	PIN 8	PIN 8	
W20	TP-7	90 in.	PIN 20	PIN 20	
W9		90 in.	PIN 9	PIN 9	
W21	TP-8	90 in.	PIN 21	PIN 21	
W10		90 in.	PIN 10	PIN 10	
W22	TP-9	90 in.	PIN 22	PIN 22	
W11		90 in.	PIN 11	PIN 11	
W23	TP-10	90 in.	PIN 23	PIN 23	
W12		90 in.	PIN 12	PIN 12	
W24	TP-11	90 in.	PIN 24	PIN 24	
W13		90 in.	PIN 13	PIN 13	
W25	TP-12	90 in.	PIN 25	PIN 25	

* The length shown in this list is the overall length of the cable from connector end to connector end. Change length as necessary to compensate for the internal wiring of the connectors and strip length.

V-DB25 M/S1-90-µD25 F/S1		
STANDARD USE FOR THIS CABLE		
SUBSYSTEM	AIR/VAC	STANDARD USE
SUS	IN-VAC	QUAD SUSPENSION UIM

DIMENSIONS ARE IN		NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)		LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME	
TOLERANCES: .XX ± .XXX ±		1. INTERPRET DRAWING PER ASME Y14.5-1994. 2. REMOVE ALL SHARP EDGES, R.02 MIN. 3. DO NOT SCALE FROM DRAWING. 4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.		SYSTEM		CUSTOM CABLE SPECIFICATION V25G	
ANGULAR ± °		MATERIAL		SUB-SYSTEM		DESIGNER J. HEEFNER APR/15/2012 SIZE DWG. NO.	
		FINISH		SUS		DRAFTER E. BROWN JUL/13/2012 D D1002521	
		NEXT ASSY				CHECKER	
						APPROVAL	
						SCALE: NONE PROJECTION: SHEET 1 OF 1	

D:\002521-14-cable\25G-90-Part-PDM-REV-1-DRAWING-FDM-REV-1