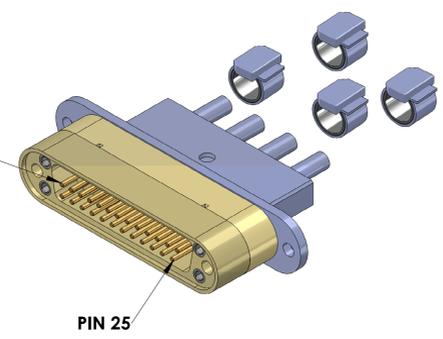


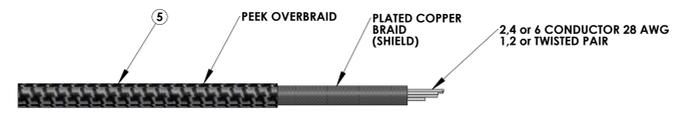
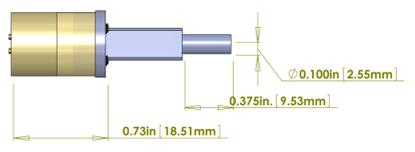
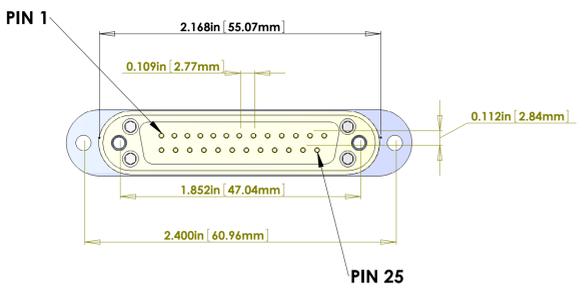
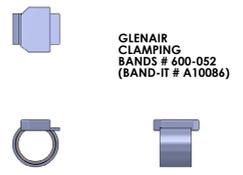
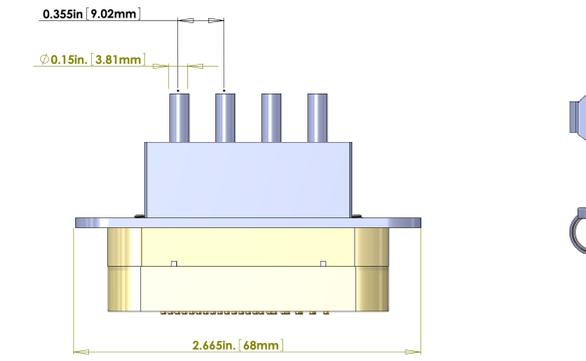
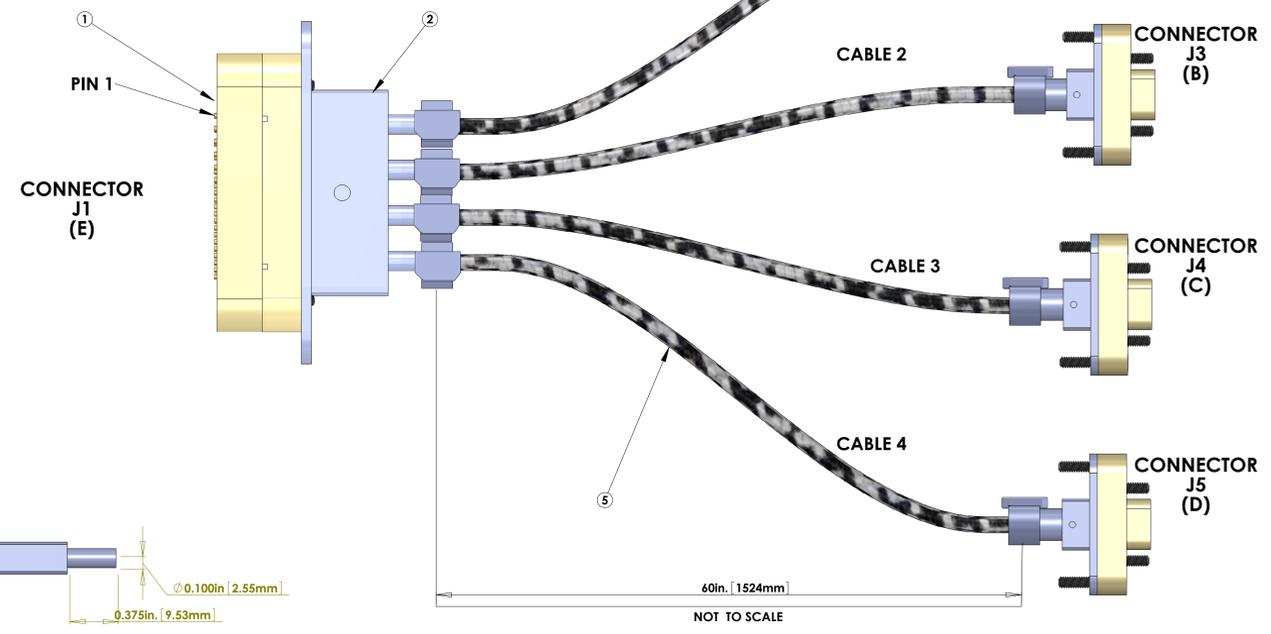
- NOTES CONTINUED:
- SCREVE, ENGRAVE, OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER AND REVISION ON NOTED SURFACE FOLLOWED ON THE NEXT LINE BY A THREE DIGIT SERIAL NUMBER. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. USE '07' HIGH CHARACTERS. EXAMPLE: DXXXXXXVY, S/N 001. A VIBRATORY TOOL MAY BE USED.
  - 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-ED900364
  - ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.
  - ALL HELI-COIL HOLES TO BE PREPARED ACCORDING TO EMBART 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-ED900364.
  - 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.



### V25R CABLE ASSEMBLY CIRCUIT SUMMARY

#### V-DB25 M/1-60-4 μD9 F/5

FROM				
CONNECTOR J1 - 25 PIN MALE SUBMINI_D CONNECTOR (PEEK)				
PIN	WIRE NAME	COLOR	LENGTH	TWISTED PAIR
1	(CABLE 1) SHIELD			(CABLE 1) SHIELD
14	(CABLE 1) WIRE 14	White		SINGLE WIRE
2	(CABLE 1) WIRE 2	White		TP-1
15	(CABLE 1) WIRE 15	White		TP-2
3	(CABLE 1) WIRE 3	White		TP-2
16	(CABLE 1) WIRE 16	White		TP-3
4	(CABLE 1) WIRE 4	White		TP-3
17	(CABLE 2) WIRE 17	White		TP-4
5	(CABLE 2) WIRE 5	White		TP-4
18	(CABLE 2) WIRE 18	White		TP-5
6	(CABLE 2) WIRE 6	White		TP-5
19	(CABLE 2) WIRE 19	White		TP-6
7	(CABLE 2) WIRE 7	White		TP-6
20	(CABLE 3) WIRE 20	White		TP-7
8	(CABLE 3) WIRE 8	White		TP-7
21	(CABLE 3) WIRE 21	White		TP-8
9	(CABLE 3) WIRE 9	White		TP-8
22	(CABLE 3) WIRE 22	White		TP-9
10	(CABLE 3) WIRE 10	White		TP-9
23	(CABLE 4) WIRE 23	White		TP-10
11	(CABLE 4) WIRE 11	White		TP-10
24	(CABLE 4) WIRE 24	White		TP-11
12	(CABLE 4) WIRE 12	White		TP-11
25	(CABLE 4) WIRE 25	White		TP-12
13	(CABLE 4) WIRE 13	White		TP-12



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.	LENGTH
1	CUSTOM DB25 MALE	DB25 MALE CONNECTOR (J1) FOR UHV (PEEK)	1	
2	CUSTOM BACKSHELL	DB25 CONNECTOR BACKSHELL FOR UHV (STAINLESS)	1	
3	CUSTOM DB9 FEMALE	DB9 FEMALE CONNECTOR (J2, J3, J4, J5) FOR UHV (PEEK)	4	
4	CUSTOM BACKSHELL	DB9 CONNECTOR BACKSHELL FOR UHV (STAINLESS)	4	
5	C1	9 COND. (1,2 or 3 TW PAIR) SHIELD/CABLE WITH COPPER BRAID (SHIELD) AND PEEK OVERBRAID	4	60"
6	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)	8	

- NOTES: ( UNLESS OTHERWISE SPECIFIED )
- MATERIAL:
    - CONNECTOR SHELL - PEEK
    - BACKSHELL - STAINLESS STEEL WITH VENT HOLE.
    - CONTACTS - BERYLLIUM COPPER ALLOY C17300 0.000050 MIN. GOLD OVER NICKEL
    - HARDWARE: CORROSION RESISTANCE STEEL, PASSIVATED
    - PEEK BRAID - PEEK CARBON LOADED
  - CABLE 2.4 or 6 COND. 28 AWG ( 40 STRD 44 AWG ) WITH 2 LAYERS OF KAPTON TAPE 1.2 or 3 TWISTED PAIRS ( 4 TO 5 TWISTS PER INCH ) OVERALL 40AWG SILVER PLATED COPPER BRAID 90% COVERAGE OVERALL PEEK BRAID MIN. 50% COVERAGE OVERALL CABLE O.D. WILL BE APPROX. 0.240 IN.

### V25R CABLE ASSEMBLY CIRCUIT SUMMARY

#### TO

CONNECTOR J2 - 9 PIN FEMALE MICRO_D CONNECTOR (PEEK)		
Pin	Wire Name	SIGNAL
5	(CABLE 1) SHIELD	SHIELD
5	(CABLE 1) WIRE 1	SHIELD
1	(CABLE 1) WIRE 14	PD-K
6	(CABLE 1) WIRE 2	PD-A
2	(CABLE 1) WIRE 15	LED-A
7	(CABLE 1) WIRE 3	LED-K
4	(CABLE 1) WIRE 16	FN COIL
9	(CABLE 1) WIRE 4	ST COIL

### V25R CABLE ASSEMBLY CIRCUIT SUMMARY

#### TO

CONNECTOR J3 - 9 PIN FEMALE MICRO_D CONNECTOR (PEEK)		
Pin	Wire Name	SIGNAL
5	(CABLE 2) SHIELD	SHIELD
5	(CABLE 2) WIRE 1	SHIELD
1	(CABLE 2) WIRE 17	PD-K
6	(CABLE 2) WIRE 5	PD-A
2	(CABLE 2) WIRE 18	LED-A
7	(CABLE 2) WIRE 6	LED-K
4	(CABLE 2) WIRE 19	FN COIL
9	(CABLE 2) WIRE 7	ST COIL

### V25R CABLE ASSEMBLY CIRCUIT SUMMARY

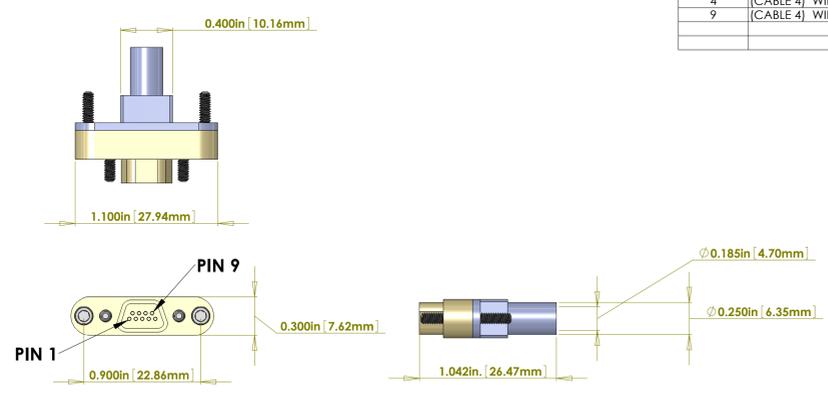
#### TO

CONNECTOR J4 - 9 PIN FEMALE MICRO_D CONNECTOR (PEEK)		
Pin	Wire Name	SIGNAL
5	(CABLE 3) SHIELD	SHIELD
5	(CABLE 3) WIRE 1	SHIELD
1	(CABLE 3) WIRE 20	PD-K
6	(CABLE 3) WIRE 8	PD-A
2	(CABLE 3) WIRE 21	LED-A
7	(CABLE 3) WIRE 9	LED-K
4	(CABLE 3) WIRE 22	FN COIL
9	(CABLE 3) WIRE 10	ST COIL

### V25R CABLE ASSEMBLY CIRCUIT SUMMARY

#### TO

CONNECTOR J5 - 9 PIN FEMALE MICRO_D CONNECTOR (PEEK)		
Pin	Wire Name	SIGNAL
5	(CABLE 4) SHIELD	SHIELD
5	(CABLE 4) WIRE 1	SHIELD
1	(CABLE 4) WIRE 23	PD-K
6	(CABLE 4) WIRE 11	PD-A
2	(CABLE 4) WIRE 24	LED-A
7	(CABLE 4) WIRE 12	LED-K
4	(CABLE 4) WIRE 25	FN COIL
9	(CABLE 4) WIRE 13	ST COIL



### V-DB25 M/1-60-4 μD9 F/5

#### STANDARD USE FOR THIS CABLE

SUBSYSTEM	AIR/VAC	STANDARD USE
SUS	IN-VAC	MC1, MC2

DIMENSIONS ARE IN		NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)		CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME	
TOLERANCES:		1. INTERPRET DRAWING PER ASME Y14.5-1994		LIGO		CUSTOM CABLE SPECIFICATION V25R-60	
.XX ±		2. REMOVE ALL SHARP EDGES, .005-.015, FOR MACHINED PARTS. ROUND ALL EDGES APPROXIMATELY R.02 FOR SHEET METAL PARTS.		SYSTEM		DESIGNER	
.XXX ±		3. DO NOT SCALE FROM DRAWING.		SUB-SYSTEM		J. HEERNER	
ANGULAR ± °		4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.		SUS		DRAFTER	
				NEXT ASSY		E. BROWN	
						CHECKER	
						APPROVAL	
						SCALE: 2:1	
						DWG. NO.	
						D1000230	
						REV.	
						v3	
						SHEET 1 OF 1	