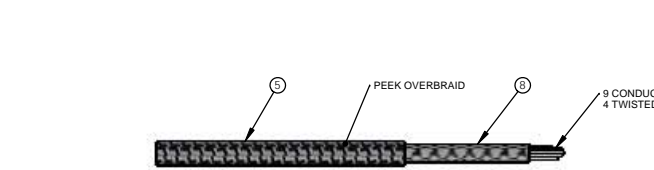
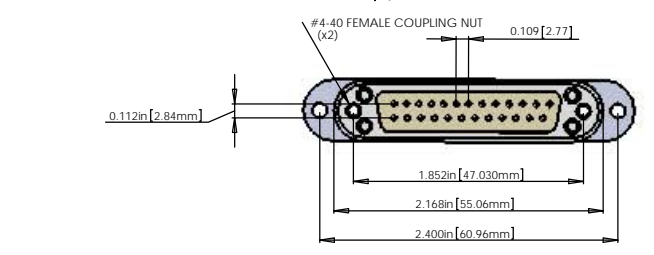
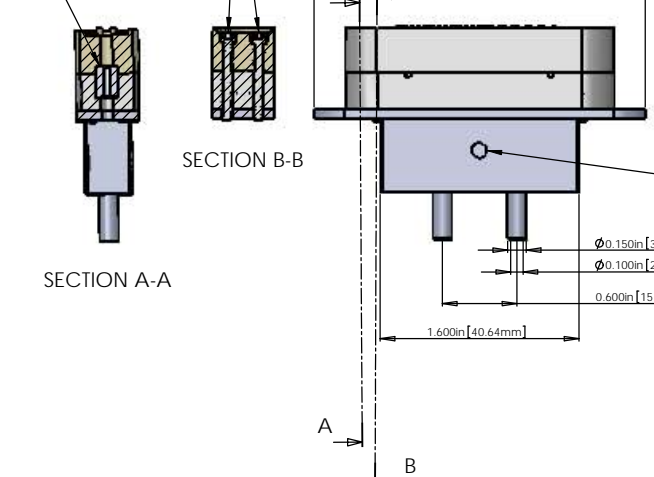
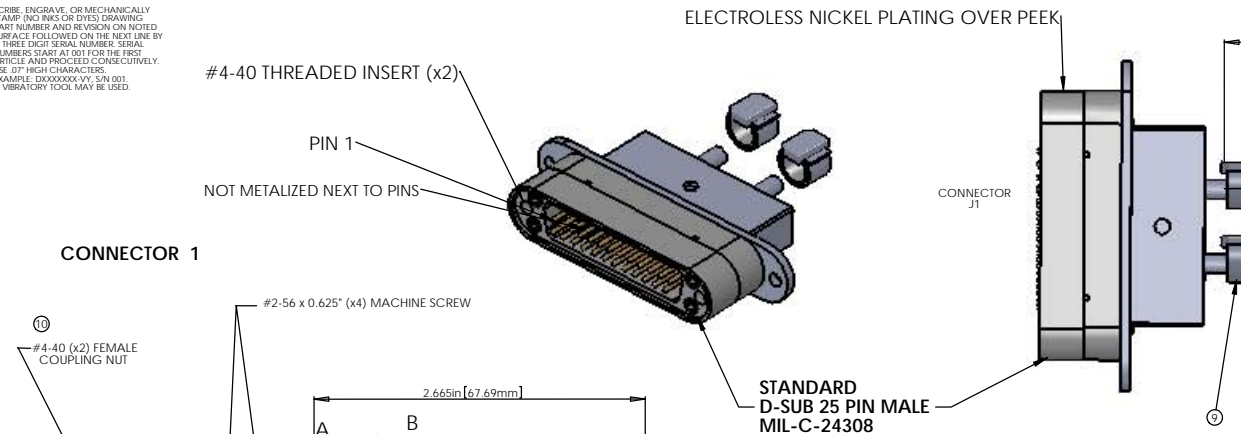


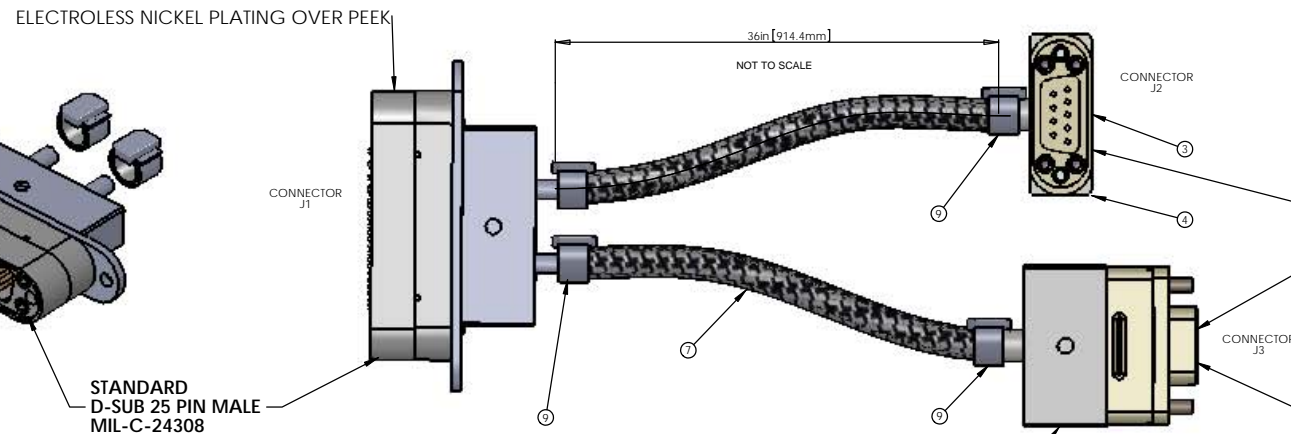
| REV. | DATE | DCN # | DRAWING TREE # |
|------|------|-------|----------------|
| | | | |
| | | | |

NOTES CONTINUED:
 ○ SCRIBE, ENGRAVE, OR MECHANICALLY STAMP TWO 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 OF HIGH CHARACTERS. EXAMPLE: D1000227-V3.001. A VIBRATORY TOOL MAY BE USED.

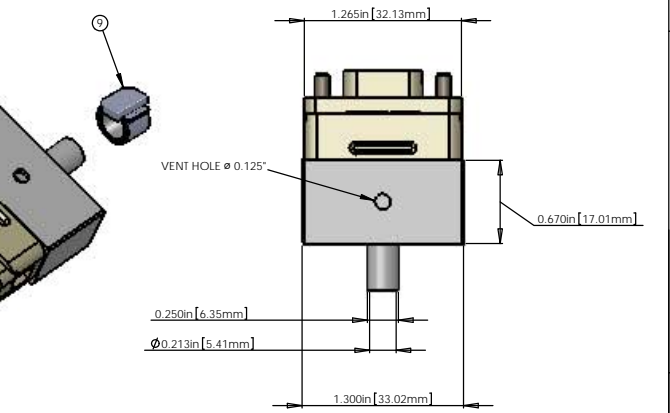
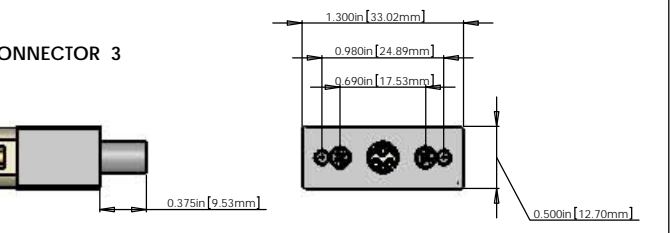
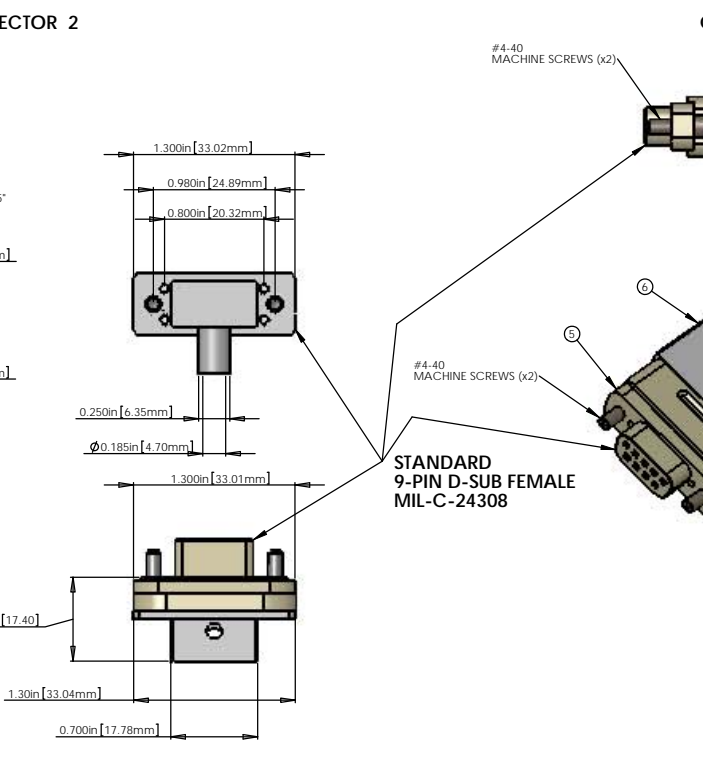
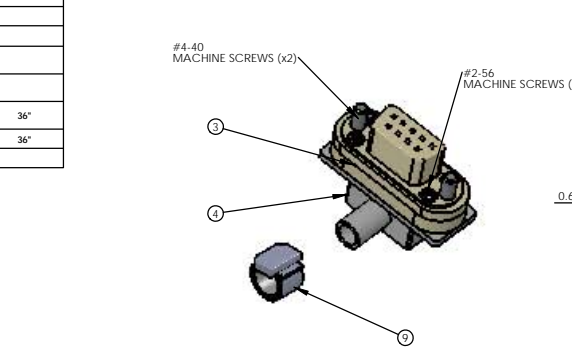
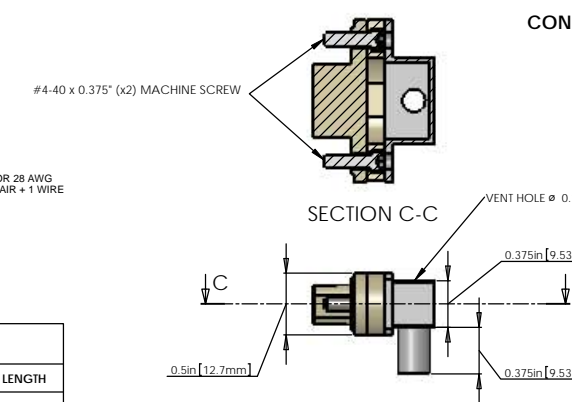
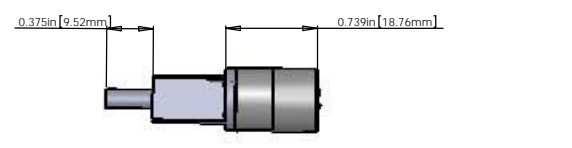


| BILL OF MATERIALS | | | | |
|-------------------|-------------------------------|---|------|--------|
| ITEM NO. | PART NUMBER | DESCRIPTION | QTY. | LENGTH |
| 1 | CUSTOM DB25 MALE | DB25 MALE CONNECTOR (J1) FOR UHV (METALIZED PEEK) | 1 | |
| 2 | CUSTOM DB25 BACKSHELL | DB25 CONNECTOR BACKSHELL FOR UHV (STAINLESS) | 1 | |
| 3 | CUSTOM DB9 RIGHT ANGLE FEMALE | DB9 RIGHT ANGLE FEMALE CONNECTOR (J2) FOR UHV (PEEK) | 1 | |
| 4 | CUSTOM DB9 BACKSHELL | DB9 CONNECTOR BACKSHELL FOR UHV (STAINLESS) | 1 | |
| 5 | CUSTOM DB9 FEMALE | DB9 FEMALE CONNECTOR (J3) FOR UHV (PEEK) | 1 | |
| 6 | CUSTOM DB9 BACKSHELL | DB9 CONNECTOR BACKSHELL FOR UHV (STAINLESS) | 1 | |
| 7 | C1 | 9 COND. (4 TW PAIR - 1 WIRE + SHIELD) CABLE WITH COPPER BRAID (SHIELD) AND PEEK OVERBRAID | 2 | 36" |
| 8 | COPPER BRAID | CONTINENTAL CORDAGE PART # 24x3x40BC | 2 | 36" |
| 9 | GLENAIR 600-052 | GLENAIR 600-052 STANDARD BRAID CLAMP | 4 | |

- NOTES: (UNLESS OTHERWISE SPECIFIED)
- MATERIAL:
 - a. CONNECTOR SHELL - PEEK OR METALIZED PEEK - VICTREX 450GL30
 - b. BACKSHELL - STAINLESS STEEL WITH VENT HOLE
 - c. CONTACTS - BERYLLIUM COPPER ALLOY, C17300
 - d. HARDWARE: CORROSION RESISTANCE STEEL, PASSIVATED
 - e. PEEK BRAID - PEEK CARBON FIBRE LOADED
 - CABLE 9 COND. 28 AWG. (40 STRD 44 AWG) WITH 2 LAYERS OF KAPTON TAPE (SUPPLIED BY LIGO) 4 TWISTED PAIRS (4 TO 5 TWISTS PER INCH) + 1 WIRE OVERALL 40AWG COPPER BRAID 50% COVERAGE (SUPPLIED BY LIGO) OVERALL PEEK BRAID MIN. 50% COVERAGE (SUPPLIED BY LIGO) OVERALL CABLE O.D. WILL BE APPROX. 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)



| V25M CABLE ASSEMBLY CIRCUIT SUMMARY | | | | | | | |
|--|-------------------|-------|--------|--|-----|-------------------|-------------|
| CONNECTOR J1 - 25 PIN SUBMINI_D MALE CONNECTOR (PEEK) | | | | CONNECTOR J2 - 9 PIN SUBMINI_D RIGHT ANGLE FEMALE CONNECTOR (PEEK) | | | |
| PIN | WIRE NAME | COLOR | LENGTH | TWISTED PAIR | PIN | WIRE NAME | SIGNAL |
| 1,9 | SHIELD (BRAID) | | 36in | | 5 | SHIELD (BRAID) | SHIELD |
| 1,9 | (CABLE 1) WIRE 1 | White | 36in | | 5 | (CABLE 1) WIRE 1 | SHIELD |
| 2 | (CABLE 1) WIRE 2 | White | 36in | TP-1 | 4 | (CABLE 1) WIRE 2 | POWER |
| 14 | (CABLE 1) WIRE 14 | White | 36in | TP-1 | 9 | (CABLE 1) WIRE 14 | POWER - RTN |
| 3 | (CABLE 1) WIRE 3 | White | 36in | TP-2 | 3 | (CABLE 1) WIRE 3 | POWER + |
| 15 | (CABLE 1) WIRE 15 | White | 36in | TP-2 | 8 | (CABLE 1) WIRE 15 | POWER + RTN |
| 4 | (CABLE 1) WIRE 4 | White | 36in | TP-3 | 2 | (CABLE 1) WIRE 4 | LOCK + |
| 16 | (CABLE 1) WIRE 16 | White | 36in | TP-3 | 7 | (CABLE 1) WIRE 16 | LOCK - |
| 5 | (CABLE 1) WIRE 5 | White | 36in | TP-4 | 1 | (CABLE 1) WIRE 5 | SIG + |
| 17 | (CABLE 1) WIRE 17 | White | 36in | TP-4 | 6 | (CABLE 1) WIRE 17 | SIG - |
| CONNECTOR J3 - 9 PIN SUBMINI_D FEMALE CONNECTOR (PEEK) | | | | CONNECTOR J3 - 9 PIN SUBMINI_D FEMALE CONNECTOR (PEEK) | | | |
| PIN | WIRE NAME | COLOR | LENGTH | TWISTED PAIR | PIN | WIRE NAME | SIGNAL |
| 1,9 | SHIELD (BRAID) | | 36in | | 5 | SHIELD (BRAID) | SHIELD |
| 1,9 | (CABLE 2) WIRE 9 | White | 36in | | 5 | (CABLE 2) WIRE 9 | SHIELD |
| 10 | (CABLE 2) WIRE 10 | White | 36in | TP-5 | 4 | (CABLE 2) WIRE 10 | POWER |
| 22 | (CABLE 2) WIRE 22 | White | 36in | TP-5 | 9 | (CABLE 2) WIRE 22 | POWER - RTN |
| 11 | (CABLE 2) WIRE 11 | White | 36in | TP-6 | 3 | (CABLE 2) WIRE 11 | POWER + |
| 23 | (CABLE 2) WIRE 23 | White | 36in | TP-6 | 8 | (CABLE 2) WIRE 23 | POWER + RTN |
| 12 | (CABLE 2) WIRE 12 | White | 36in | TP-7 | 2 | (CABLE 2) WIRE 12 | LOCK + |
| 24 | (CABLE 2) WIRE 24 | White | 36in | TP-7 | 7 | (CABLE 2) WIRE 24 | LOCK - |
| 13 | (CABLE 2) WIRE 13 | White | 36in | TP-8 | 1 | (CABLE 2) WIRE 13 | SIG + |
| 25 | (CABLE 2) WIRE 25 | White | 36in | TP-8 | 6 | (CABLE 2) WIRE 25 | SIG - |



| STANDARD USE FOR THIS CABLE | | |
|-----------------------------|---------|--------------|
| SUBSYSTEM | AIR/VAC | STANDARD USE |
| SEI | IN-VAC | GS-13.1-4C |

NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)

- INTERPRET DRAWING PER ASME Y14.5-1994.
- REMOVE ALL SHARP EDGES: R.02 MIN.
- DO NOT SCALE FROM DRAWING.
- ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.

TOLERANCES:
 .XX ±
 .XXX ±
 ANGULAR ±

MATERIAL: Material <not specified> FINISH: μinch

CAUTION: CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY

| PART NAME | | CUSTOM CABLE SPECIFICATION V25M | |
|-----------|------|---------------------------------|--------------|
| DESIGNER | DATE | SIZE | DWG. NO. |
| | | E | D1000227- |
| DRAWER | DATE | SCALE | PROJECTION |
| | | 2:1 | |
| CHECKER | DATE | REV. | SHEET 1 OF 1 |
| | | v3 | |