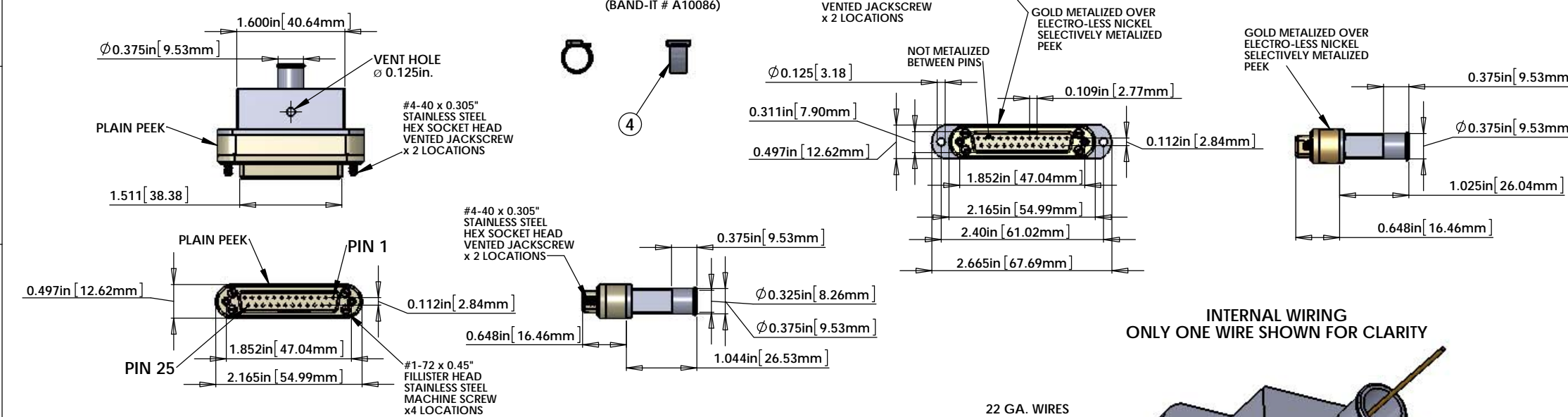
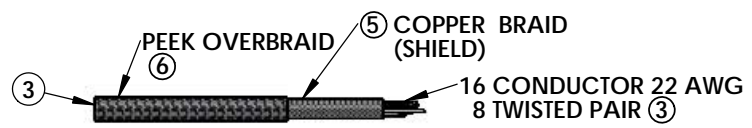
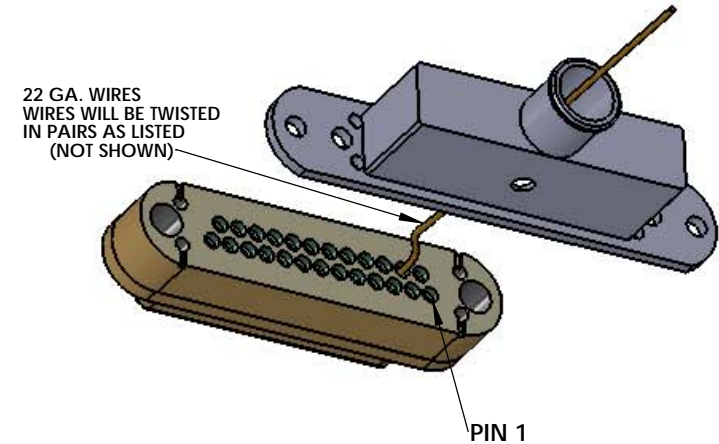


- NOTES CONTINUED:
- SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER AND REVISION ON NOTED SURFACE FOLLOWED ON THE NEXT LINE BY A THREE DIGIT SERIAL NUMBER. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. USE .07" HIGH CHARACTERS. EXAMPLE: DXXXXX-VY, 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.

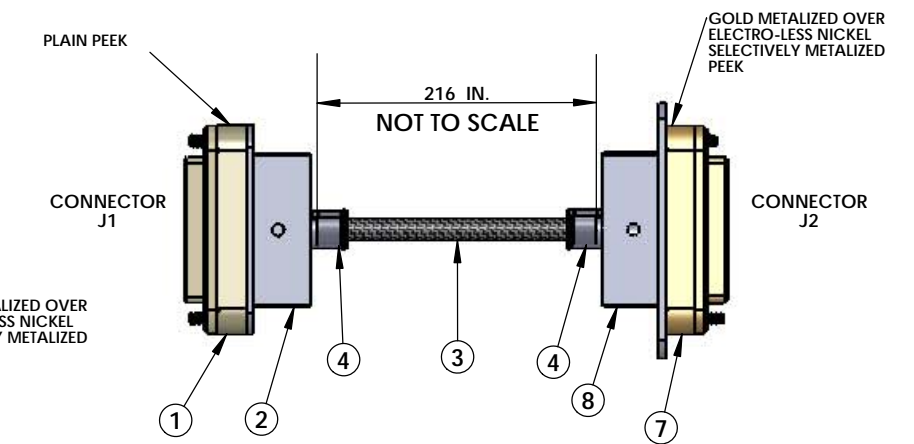
NOTES 13 and 14 DO NOT APPLY TO THIS PART



INTERNAL WIRING ONLY ONE WIRE SHOWN FOR CLARITY



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



V25B-216 CABLE ASSEMBLY CIRCUIT SUMMARY V-DB25HD F/S1-216-DB25HD F/S1

| CABLE NAME | COND.- WIRE ID | DOUBLE TWISTED PAIR | LENGTH * | FROM | TO |
|------------|----------------|---------------------|----------|--------------|--------------|
| V25B-216 | 16 COND. CABLE | (12 TOTAL) | 216 in. | Conn. J1 | Conn. J2 |
| | SHIELD | | 216 in | PIN 1, SHELL | PIN 1, SHELL |
| | W13 | TP-1 | 216 in | PIN 13 | PIN 13 |
| | W25 | | 216 in | PIN 25 | PIN 25 |
| | W12 | TP-2 | 216 in | PIN 12 | PIN 12 |
| | W24 | | 216 in | PIN 24 | PIN 24 |
| | W11 | TP-3 | 216 in | PIN 11 | PIN 11 |
| | W23 | | 216 in | PIN 23 | PIN 23 |
| | W10 | TP-4 | 216 in | PIN 10 | PIN 10 |
| | W22 | | 216 in | PIN 22 | PIN 22 |
| | W9 | TP-5 | 216 in | PIN 9 | PIN 9 |
| | W21 | | 216 in | PIN 21 | PIN 21 |
| | W8 | TP-6 | 216 in | PIN 8 | PIN 8 |
| | W20 | | 216 in | PIN 20 | PIN 20 |
| | W7 | TP-7 | 216 in | PIN 7 | PIN 7 |
| | W19 | | 216 in | PIN 19 | PIN 19 |
| | W6 | TP-8 | 216 in | PIN 6 | PIN 6 |
| | W18 | | 216 in | PIN 18 | PIN 18 |

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

ISC TRANSMON PICOMOTOR CABLE VACUUM FLANGE TO SEISMIC TABLE

| V-DB25HD F/S1-216-DB25HD F/S1 | | |
|-------------------------------|---------|----------------------------|
| STANDARD USE FOR THIS CABLE | | |
| SUBSYSTEM | AIR/VAC | STANDARD USE |
| ISC & ISC(TMS) | IN-VAC | PICOMOTORS - FLANGE TO TOP |

| ITEM NO. | PART NUMBER | DESCRIPTION | QTY. | LENGTH |
|----------|---|--|------|---------|
| 1 | CUSTOM DB25 FEMALE | DB25 FEMALE CONNECTOR (J1) FOR UHV (PLAIN PEEK) | 1 | |
| 2 | CUSTOM BACKSHELL | DB25 CONNECTOR BACKSHELL (NO EARS) FOR UHV (STAINLESS) WITH \varnothing 0.375" PORT | 1 | |
| 3 | COONER WIRE # CZ2205 22GA PFA INSULATED BIOMEDICAL WIRE | 16 COND. (8 TW PAIR) CABLE WITH COPPER BRAID (SHIELD) AND PEEK OVERBRAID | 1 | 216in * |
| 4 | GLENRAIR # 600-052 or BAND-IT # A10086 | GLENRAIR # 600-052 STANDARD BRAID CLAMP or BAND-IT PART # A10086 (0.240" WIDE) ("BAG OF 100" # A10089) | 2 | |
| 5 | CONTINENTAL PART #24x3x40BC | COPPER BRAID - CONTINENTAL CORDAGE PART #24x3x40BC | | |
| 6 | PART # 6759 | PEEK BRAID - PART #6759 MANUFACTURED WITH ZEUS 0.016" BLACK PEEK DRAWN MONOFILAMENT - SUPPLIED BY LIGO | | |
| 7 | CUSTOM DB25 FEMALE | DB25 FEMALE CONNECTOR (J2) FOR UHV (GOLD METALIZED PEEK) | 1 | |
| 8 | CUSTOM BACKSHELL | DB25 CONNECTOR BACKSHELL (WITH EARS) FOR UHV (STAINLESS) WITH \varnothing 0.375" PORT | 1 | |

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

- NOTES: (UNLESS OTHERWISE SPECIFIED)
- MATERIAL:
 - J1 CONNECTOR SHELL - PEEK VICTREX 450GL30
 - J2 CONNECTOR SHELL - GOLD OVER ELECTRO-LESS NICKEL SELECTIVELY METALIZED PEEK VICTREX 450GL30.
 - BACKSHELLS - STAINLESS STEEL WITH VENT HOLE.
 - CONTACTS - BERYLLIUM COPPER ALLOY C17300 0.00050 MIN. GOLD OVER NICKEL
 - HARDWARE: STAINLESS STEEL, PASSIVATED.
 - PEEK BRAID - PEEK VICTREX GRADE TDS-450CA30 CARBON LOADED - SUPPLIED BY LIGO
 - CABLE 16 COND. 22 AWG (150/44), WITH PFA INSULATION COONER WIRE #CZ2205 8 TWISTED PAIRS (4 TO 5 TWISTS PER INCH) OVERALL 40AWG COPPER BRAID SHIELD MIN. 50% COVERAGE - SUPPLIED BY LIGO OVERALL PEEK BRAID MIN. 50% COVERAGE OVERALL CABLE O.D. ~ 0.260 IN.
 - CONNECTORS WILL BE SUPPLIED WITH HARDWARE (LENGTH OF SCREWS AS SHOWN ARE APPROXIMATE SCREWS SHOULD BE THE PROPER LENGTH FOR PROPER MATING)

| DIMENSIONS ARE IN | | TOLERANCES: | | ANGULAR ± | |
|--------------------------|--|-------------|--|-----------|--|
| Material <not specified> | | μinch | | | |

| NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED) | | LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY | | PART NAME | |
|---|--|---|--|-------------------------------------|--|
| 1. INTERPRET DRAWING PER ASME Y14.5-1994. | | SYSTEM LIGO | | CUSTOM CABLE SPECIFICATION V25B-216 | |
| 2. REMOVE ALL SHARP EDGES, .005-.015, FOR MACHINED PARTS. ROUND ALL EDGES APPROXIMATELY R.02 FOR SHEET METAL PARTS. | | SUB-SYSTEM ISC & ISC(TMS) | | DESIGNER R. ABBOTT APR/6/2012 | |
| 3. DO NOT SCALE FROM DRAWING. | | NEXT ASSY | | CHECKER E. BROWN APR/6/2012 | |
| 4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE. | | APPROVAL | | SIZE DWG. NO. D D1000223 | |
| | | | | REV. v3 | |
| | | | | SCALE: 1:1 PROJECTION: SHEET 1 OF 1 | |