



1 PINOUT: A- SIGNAL
B- GROUND RETURN

| EXCEPT AS OTHERWISE NOTED | |
|---|----------|
| ALL DIMENSIONS IN INCHES TOLERANCE: .XXX = ± .XX = ± | |
| SURFACE FINISH EXCEPT AS NOTED | ✓ |
| BREAK EDGES TO DEBURR RADIUS OR CHAMFER | |
| THESE DIAS TO T.I.R. | |
| FILLETS - | MAX RAD. |



CHATSWORTH, CA.

| | | | | | | | | | |
|--|--------|----------|-------------|---------------|---------|-----|---|--------------|--|
| SCALE | 1X | REV | - | DATE | - | ECN | - | | |
| DATE | 5-2-02 | PART NO. | MODEL 3176B | | | | | | |
| DRAWN | N.C. | CHECKED | R.A. | MAT'L | | | | | |
| APPROVED | | | | NEXT ASSEMBLY | USED ON | | | | |
| TITLE | | | | | | | | DWG NO. | |
| OUTLINE/INSTALLATION DRAWING, MODEL 3176B | | | | | | | | 127-3176B | |
| | | | | | | | | SHEET 1 OF 1 | |



SPECIFICATIONS

MODELS 3176B & 3176B1 LIVM ACCELEROMETERS

| SPECIFICATION (Common to both models) | VALUE | UNITS |
|--|-------------------------------------|----------------------------------|
| PHYSICAL | | |
| WEIGHT | 44 | GRAMS |
| SIZE, HEX x HEIGHT | .69 x 1.66 | IN |
| MOUNTING PROVISION (Model 3176B) | TAPPED HOLE AT CENTER | 10-32 |
| (Model 3176B1) | TAPPED HOLE AT CENTER | 1/4-28 |
| ELECTRICAL CONNECTOR, AXIAL | 2-PIN MILITARY Mil-C-5015, HERMETIC | |
| MATERIAL CASE/CONNECTOR | 300 SERIES | ST. STEEL |
| ELEMENT TYPE | PIEZOCERAMIC, PLANAR SHEAR | |
| PERFORMANCE | | |
| SENSITIVITY, $\pm 5\%$ [1] | 100 | mV/G |
| RANGE FOR ± 5 VOLTS OUT | ± 50 | G |
| FREQUENCY RESPONSE, $\pm 10\%$ | 0.3 to 10,000 | Hz |
| MOUNTED RESONANT FREQUENCY, TYP. | 27 | kHz |
| EQUIVALENT ELECTRICAL NOISE FLOOR, (RESOLUTION) | .00002 | G RMS |
| AMPLITUDE NON-LINEARITY (ZERO BASED BEST FIT ST.LINE METHOD) | 2.0 | % F.S., MAX. |
| TRANSVERSE SENSITIVITY, MAX. | 5 | PERCENT |
| STRAIN SENSITIVITY | .0001 | G's PER MICROSTRAIN @ 250/ μ |
| ENVIRONMENTAL | | |
| MAXIMUM VIBRATION | 500 | G's, RMS |
| MAXIMUM SHOCK | 5000 | G's, PEAK |
| TEMPERATURE RANGE | -60 TO +250 | $^{\circ}$ F |
| ENVIRONMENTAL SEAL | GLASS TO METAL/WELDED,HERMETIC | |
| ELECTRICAL | | |
| COMPLIANCE (SUPPLY) VOLTAGE RANGE [2] | +20 to +30 | VDC |
| EXCITATION CURRENT RANGE | 2 to 20 | mA |
| OUTPUT IMPEDANCE, NOM. | 200 | OHMS |
| OUTPUT BIAS VOLTAGE, ± 1 . VOLTS | 13 | VDC |
| DISCHARGE TIME CONSTANT, MIN. | .5 | SEC. |
| OUTPUT SIGNAL POLARITY FOR ACCELERATION TOWARD TOP | POSITIVE GOING | |
| POWER/SIGNAL GROUND to CASE ISOLATION, MIN. | 10 | MEGOHMS |

ACCESSORIES PROVIDED

MODEL 3176B [1] MODEL 6200S MOUNTING STUD
 MODEL 3176B1 [1] MODEL 6176 MOUNTING STUD

NOTES

[1] MEASURED AT 100 Hz, 1 G RMS. A CALIBRATION CERTIFICATE TRACEABLE TO **NIST** IS SUPPLIED WITH EACH INSTRUMENT.

[2] THE USE OF DYTRAN LIVM CURRENT SOURCE POWER UNITS IS RECOMMENDED. **DO NOT CONNECT THIS INSTRUMENT TO A SOURCE OF DC VOLTAGE WITHOUT CURRENT LIMITING PROTECTION, 20 mA MAX.** TO DO SO WILL DESTROY THE INTERNAL AMPLIFIER AND VOID THE WARRANTY.