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OPERATING INSTRUCTIONS
MODEL 3152C2 CHARGE MODE
HIGH TEMPERATURE PIEZOELECTRIC ACCELEROMETER



INCLUDES:

- 1) SPECIFICATION SHEET MOD. 3152C2
- 2) OUTLINE/INSTALLATION DWG. 127-3152C2
- 3) GENERAL OPERATING GUIDE TO CHARGE MODE ACCELEROMETERS

OPERATING INSTRUCTIONS MODEL 3152C2 CHARGE MODE ACCELEROMETER

INTRODUCTION

Model 3152C2 is a high-temperature charge-mode piezoelectric accelerometer featuring hermetic sealing and mounting with a single 10-32 mounting stud. Model 3152C2 is designed to operate continuously at +500°F.

This accelerometer utilizes a top mounted 10-32 hermetic connector to which a coaxial cable must be attached to provide connection to a charge amplifier.

Model 3152C2 is structured in compression mode utilizing 2 washer shaped, special high temperature piezoceramic crystals under compressive preload against a toroidal seismic mass. This seismic element structure is attached to the element base by use of a special preload screw which puts the piezo crystals under high compressive force. The instrument is hermetically sealed to preclude loss of insulation resistance which can result in loss of low frequency response and instability of operation in the presence of moisture and other contaminants.

DESCRIPTION

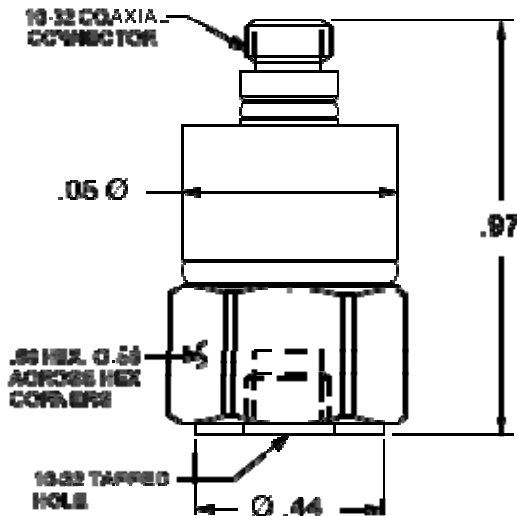


FIGURE 1: MODEL 3152C2

Refer to outline/Installation drawing 127-3152C for an overall dimensional and more detailed view of Model 3152C2.

INSTALLATION

Refer to instructions on Outline /Installation Drawing 127-3152C2.

To install model 3152C2, it is necessary to select or prepare a flat mounting surface over a $.450$ (min.) diameter area. The area should be flat to $.001$ TIR for best high frequency fidelity. At the center of the circular area, drill and tap a 10-32 threaded hole in accordance with directions on drawing 127-3152C2.

Inspect the mounting surface and remove any machining burrs and other debris which could preclude intimate contact between the mounting surface and the accelerometer. This type of matter could adversely affect the high frequency response of the accelerometer.

To mount the accelerometer, use the Model 6200 10-32 mounting stud provided. Torque the accelerometer in place with 15 to 20 in-lbs of torque.

CABLES

The recommended cable for the 3252C for connection to a charge amplifier with a 10-32 input connector is the 10-32 to 10-32 model 6013AX (X is the length in feet). If it is required to connect to a device with a BNC connector, such as several of the inline Dytran charge amplifiers, the recommended cable is the Model 6019AX which is 10-32 to BNC.

MAINTENANCE AND REPAIR

The sealed construction and miniature size of the Model 3152C2 precludes field repair.

Should the electrical connector become contaminated with moisture, oil, grease, etc., the cable end may be immersed in degreasing solvents (no acetone) to remove the contaminants. After degreasing, place the instrument in a +200 to +250 degree F oven for one hour to remove all traces of the solvent.

Should a problem be encountered with the operation of the instrument, contact the factory for trouble-shooting advice. Often our service engineers may point out something which may have been overlooked and which may save the expense and time of returning the 3152C2 to the factory.

If the instrument must be returned, the service department will issue you a **Returned Materials Authorization (RMA)** number to aid in tracking the repair through the system. Do not send the instrument back without first obtaining an RMA number. At this time you will be advised of the preferred shipping method.

A short note describing the problem, if it is not obvious, included with the returned instrument, will aid in trouble shooting at the factory and will be appreciated.

We will not proceed with a non-warranty repair without first calling to notify you of the expected charges. There is no charge for evaluation of the unit.