PROTECTION & RELIABILITY
OPTIMIZATION INSTRUMENTS
A CTC COMPANY

Product Manual

MNX10026 REV C

MODEL CM362-7A

&

KT-CM602

Mounting Hardware and High Temperature Accelerometer

Contents

Section I
Overview

Introduction

This document contains information on the operation, installation and maintenance of the high temperature accelerometer. This manual is an overview of the system and references the specific component manuals. User manuals are provided with the system for all configurable internal components.

Description

1. Flexible, hardline integral cable system ensures that the resistance is controlled and constant to the amplifier (# HA602), providing superior signal quality and reliability.

    - Integral cable provides optimal reliability by positioning the connector one meter from measurement point outside of the high temperature environment.
    - Mineral insulated cable, similar to that used with the thermocouples, protects conductors from the environment to ensure stable internal resistance levels.
    - Flexible, hardline cable provides rigidity to protect data from triboelectric effects.

2. Proprietary compression design and build techniques ensure precise and reliable data in the harshest environments, while reducing effects of thermal transients.

Section II
Installation

Mounting Surface Preparation:

This mounting technique requires a smooth, flat mounting surface while tapping a ¼-28 hole for stud mounting. The smooth, flat surface and drilling of a pilot hole can be achieved together by using the MH117 Series Installation Tool Kit.

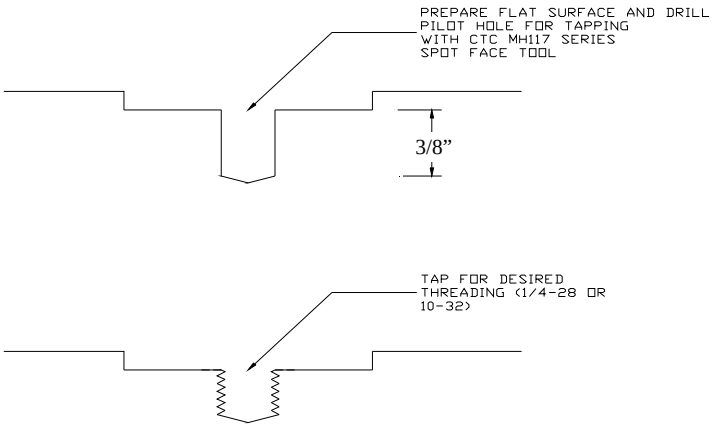

Figure 1. Surface Preparation

Sensor Installation with Mounting Hardware/Stud Mounting:

Sensor Mounting

1. Recommend straightening of hard line cable for ease of installation
2. Hand tighten the sensor to the mounting disk and tighten using 2 to 5 foot-pounds mounting torque
3. The mounting torque is important to the frequency response of the sensor for the following reasons:
    a. If the sensor is not tight enough, proper coupling between the base of the sensor and the mounting surface will not be achieved.
    b. If the sensor is over tightened, stud failure may occur.

Securing Sensor Cabling

1. The cable can be bent at an angle for installation.

Note: Minimum bend radius of 3" is required.

2. It is critical to properly secure the cable as soon as possible to a rigid support in order to prevent the cable from moving, causing erroneous voltage outputs due to a triboelectric effect on the high impedance output of the sensor.
3. Figure 2 shows a properly mounted and secured sensor

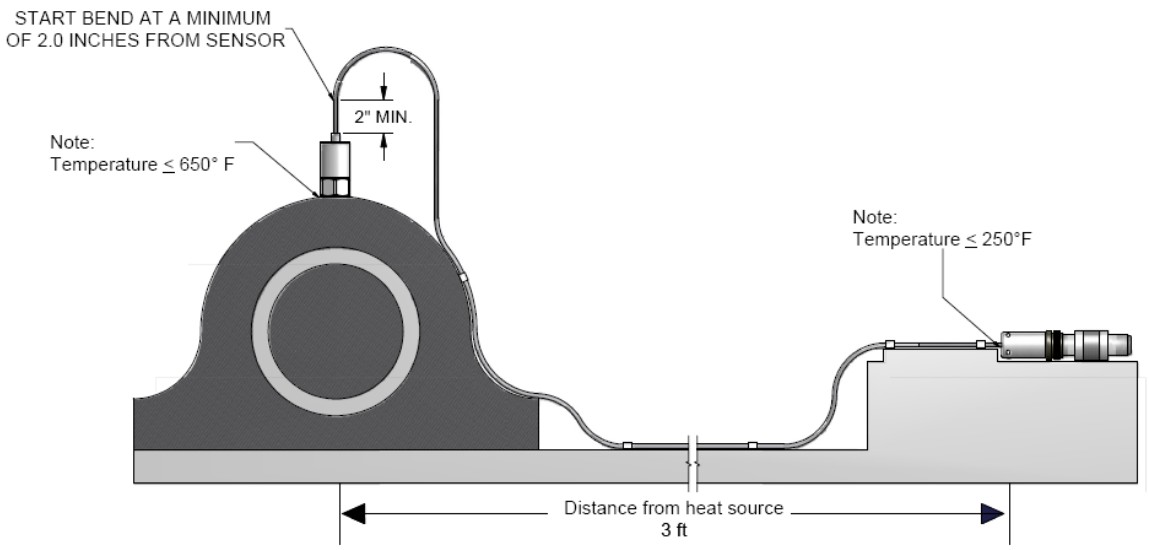

Figure 2. Sensor Mounting & Securing Cable

4. If a charge amplifier is used, attach to the sensor cable connector. The INPUT should go to the High Temperature Sensor. The OUTPUT is the converted signal, and should be connected to a standard signal cable. Figure 3 shows the INPUT and OUTPUT markings. If no charge amplifier, then attach appropriate cable.

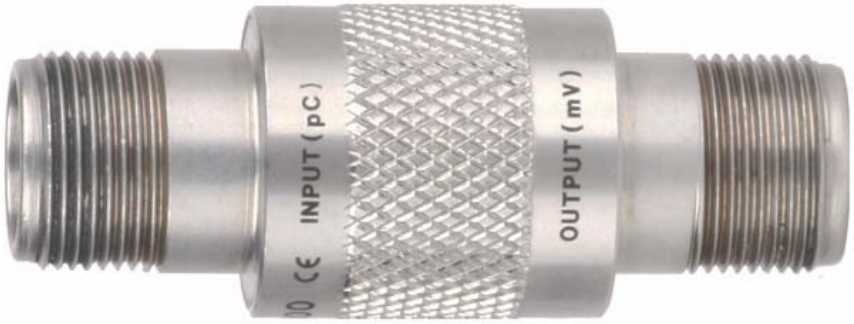

Figure 3. Charge Amplifier

5. If charge amplifier is not used, use low noise cabling and properly secure to minimize cable movement. Movement in the cable can cause triboelectric noise and corrupt the vibration signal. See Figure 2.

Section III
Operation

Operating Procedure:

The high temperature sensor with the amplifier will output a voltage output for use with industry standard data collectors and online monitoring systems.

Section IV
Maintenance

General

There are no customer replaceable parts. The device should provide trouble-free continuous service under normal operating conditions. Should your instrument require repair, you may contact our customer service representatives at 1-800-999-5290.

Warranty

If any PRO product should ever fail, we will repair or replace it at no charge, as long as the product was not subjected to misuse, natural disasters, improper installation or modification which caused the defect.

CONTACT INFORMATION:
Connection Technology Center, Inc (CTC)
7939 Rae Blvd.
Victor, NY 14564
1-800-999-5290 (US & Canada) 1-585-924-5900 (International)
sales@ctconline.com – www.ctconline.com