CONNECTION TECHNOLOGY CENTER, INC.

PRODUCT MANUAL

MX102/202 Series

MAXX Box

CONTENTS

F I G U R E S

SECTION 1: OVERVIEW

Introduction

This document contains information on the operation, installation and maintenance of the MX102 & MX202 MAXX Box enclosures.

Description

The MAXX Box connects remotely installed sensors to portable data collectors via BNC connectors. Up to 12 Single Axis sensors can be wired to removable spring cage terminal blocks (1 per channel). All outputs are provided via BNC connectors (1 per channel).

Ordering Information

The MAXX Box is available in multiple channels with multiple input options. Below is the standard selection guide to use to determine the correct configuration.

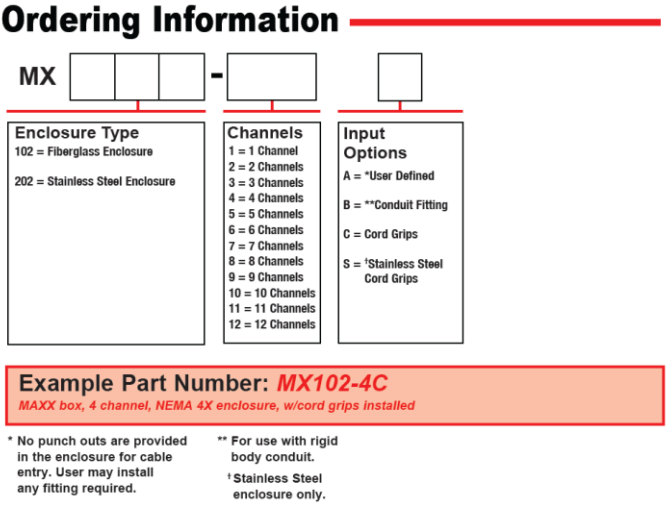

Figure 1. MAXX Box Series Selection Guide

Specifications

Environmental

- Operating Temperature Range: **-58°F(-50°C)** to **180°F(82°C)**
- Humidity Range: 0-95% Relative, Non-Condensing

Electrical

- 3 Inputs per channel
  - (+) Sensor Signal
  - (-) Common
  - Shield Cable Drain Wire

Physical

- NEMA 4X (IP66) Rated Enclosures
- Resistant to Hose Directed Fluid and Corrosion

MX102

- Material: Fiberglass
- Door Closure: Snap Latch

MX202

- Material: 304 Stainless Steel
- Door Closure: Twist Lock

- Overall Dimensions:
    - Fiberglass:

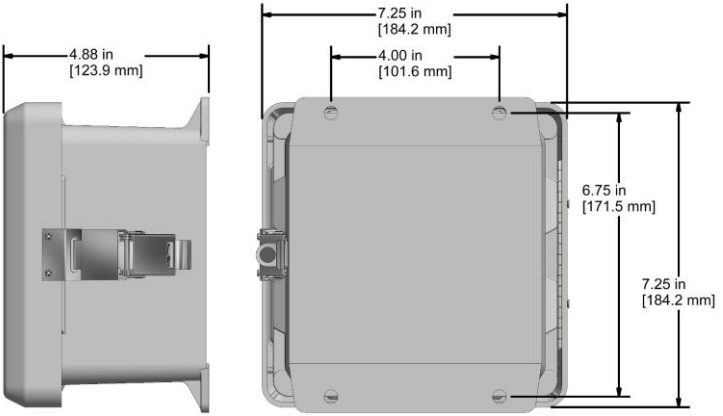

Figure 2. MAXX Box Series Fiberglass Overall Dimensions

    - Stainless Steel:

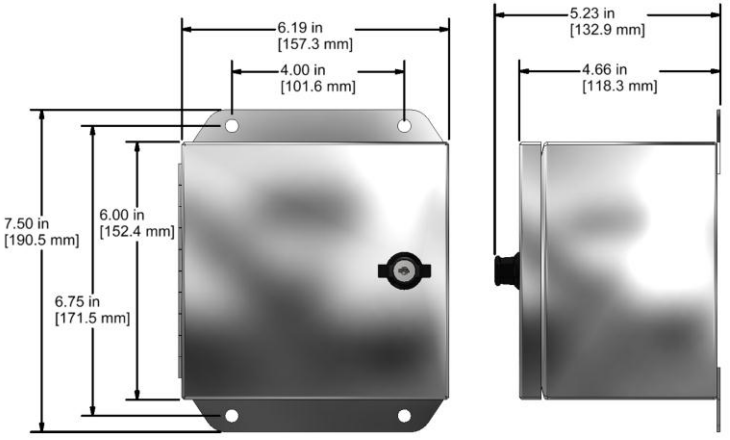

Figure 3. MAXX Box Series Stainless Steel Overall Dimensions

SECTION 2: INSTALLATION

Mounting Instructions

Mounting

The MAXX Box series enclosures may be mounted by the incorporated mounting brackets on the enclosure.

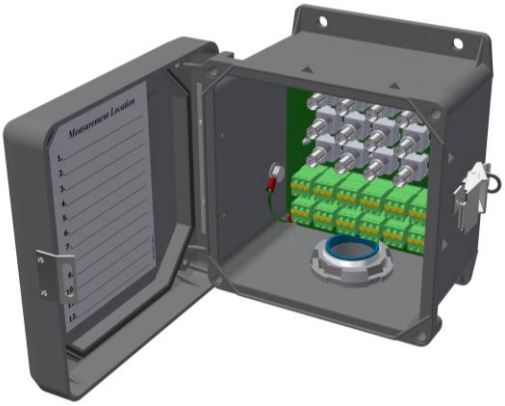

Figure 4. MAXX Box Mounting

If the MAXX Box enclosure is a user defined input option, CTC recommends adding your own entry prior to mounting the enclosure. CTC does not recommend putting holes in the top of the enclosure due to access and moisture concerns.

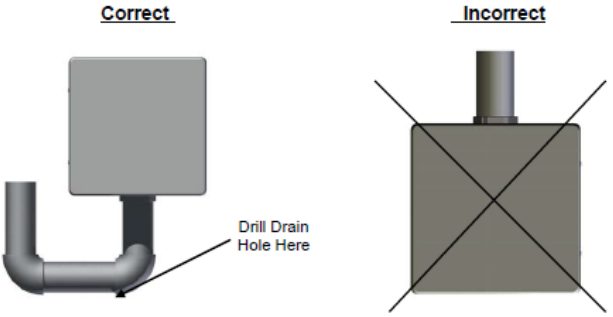

Figure 5. Conduit Entry

When mounting the MAXX Box enclosure, the customer is required to supply wire from an earth ground to the ground lug. Stainless steel enclosures are internally grounded to the enclosure.

Figure 6. MX102 Enclosure Grounding

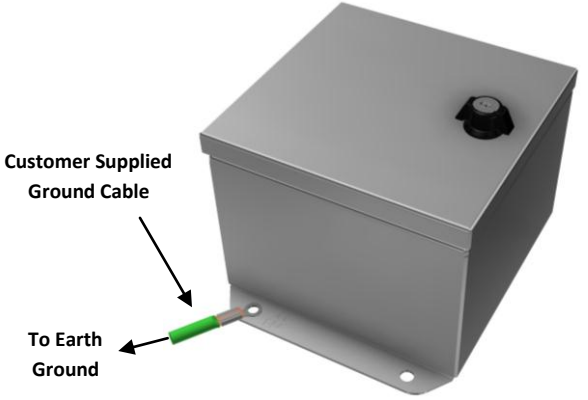

Figure 7. MX202 Enclosure Grounding

Electrical Connections

All inputs are routed through cord grips (1 per ch) or a conduit fitting:

- ¾" Conduit for 1 – 5 channel enclosures
- 1" Conduit for 6 – 9 channel enclosures
- 1 ¼" Conduit for 10 – 12 channel enclosures

Each input will be wired to its specified spring cage terminal block. The terminal block is removable from the circuit board for ease of wiring. Once the three wires are plugged into the spring cage terminal block, plug the terminal block into its header and readings may be made from the appropriate BNC connector.

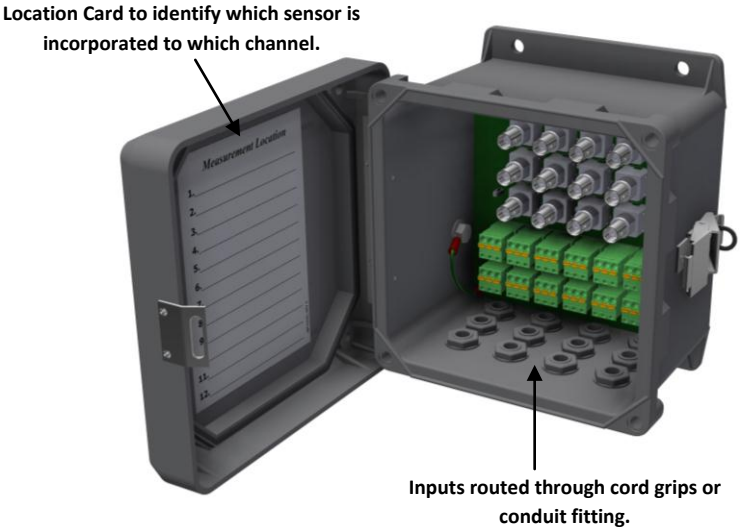

Figure 8. MAXX Box Electrical Connections

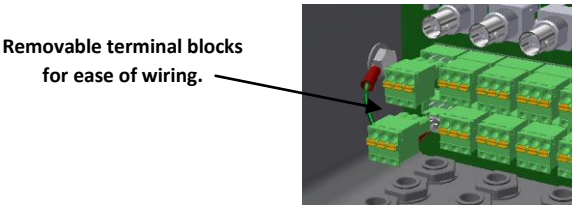

Figure 9. Removable Terminal Blocks

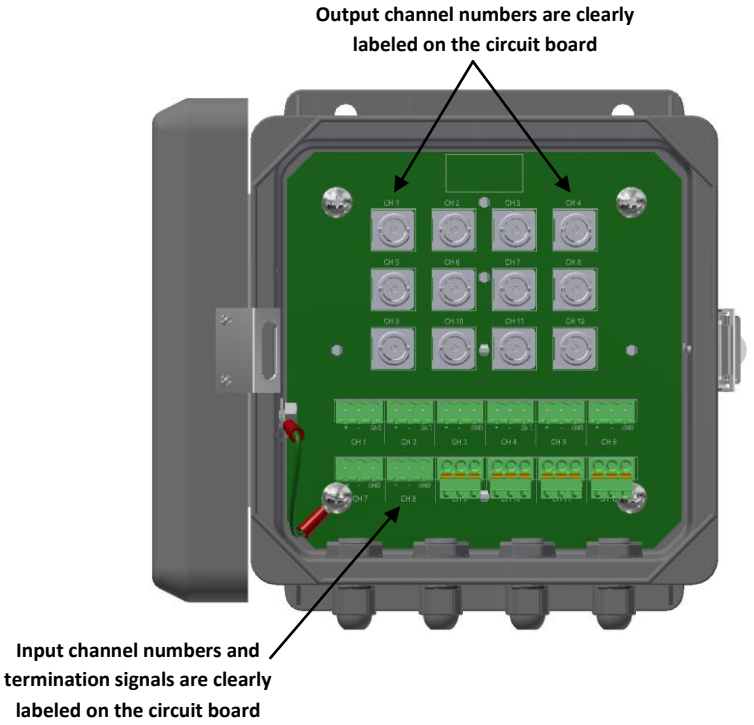

Figure 10. Input / Output Labeling

The MAXX Box is intended to be wired with single axis sensors, but dual output, biaxial, and triaxial may be wired to the MAXX Box. When wiring for dual output or biaxial sensors, a total of 6 sensors may be wired to a 12 channel MAXX Box. If wiring triaxial sensors, a total of 4 sensors may be wired.

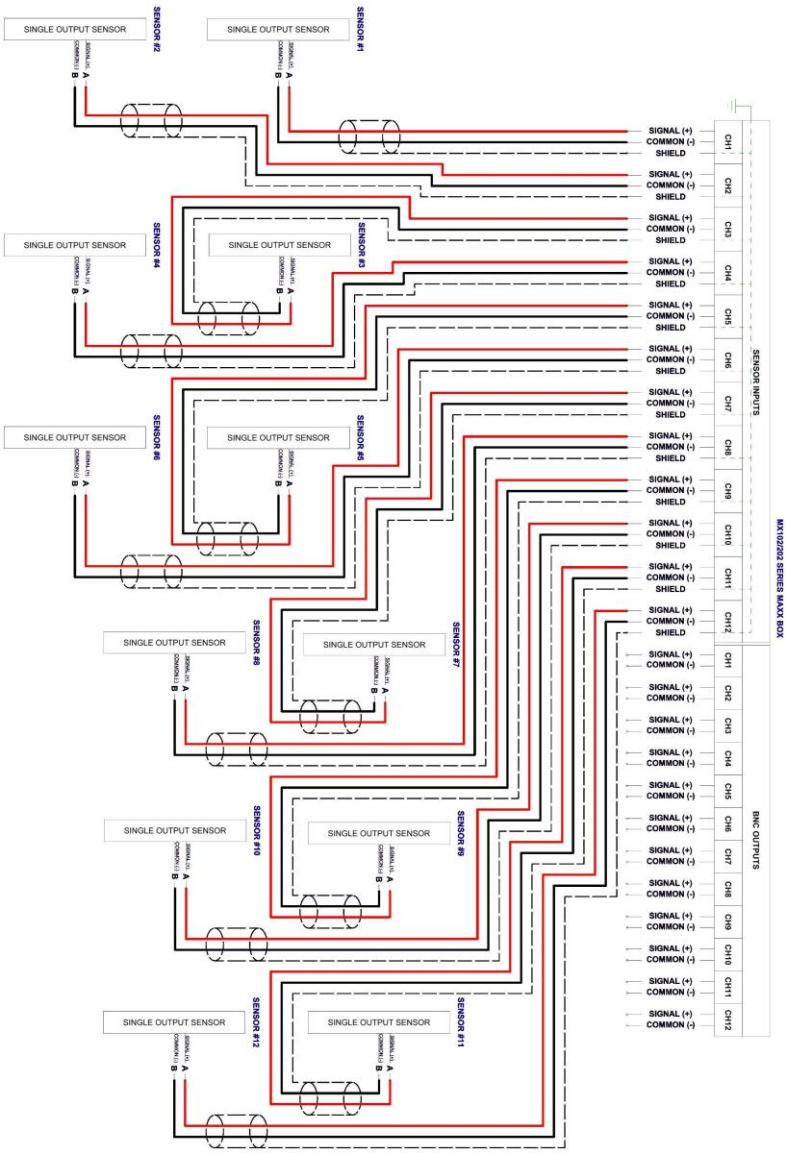

Figure 11. Single Output Sensor Wiring

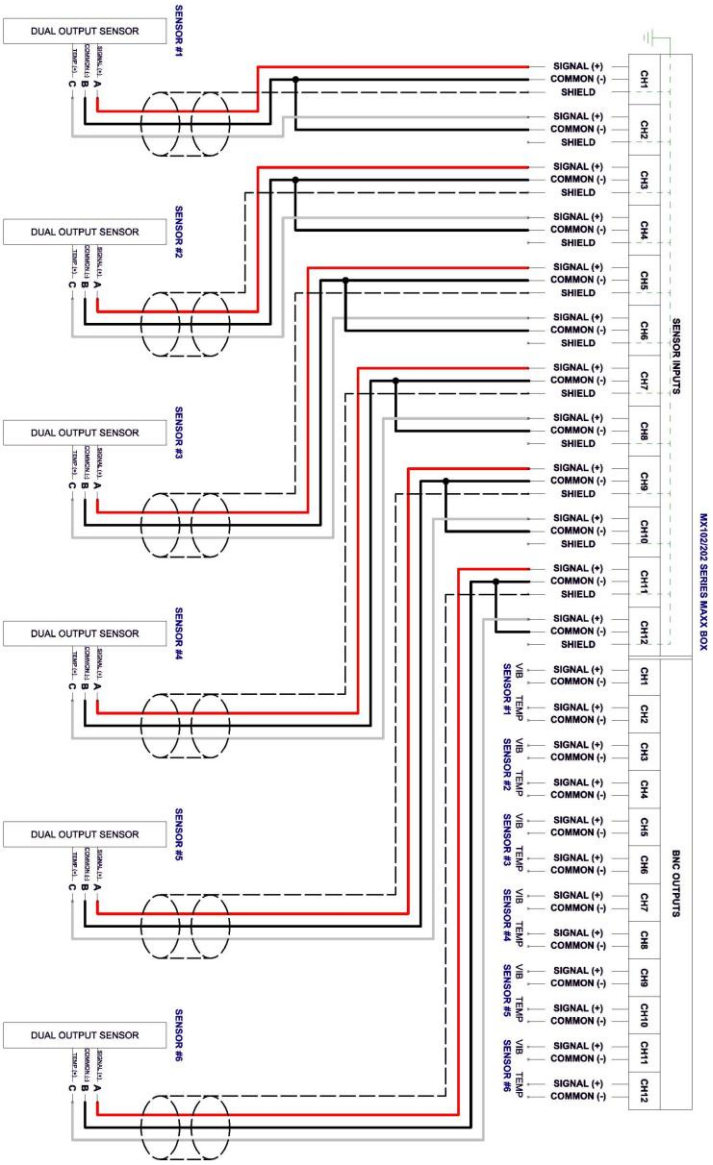

Figure 12. TA Sensor Wiring

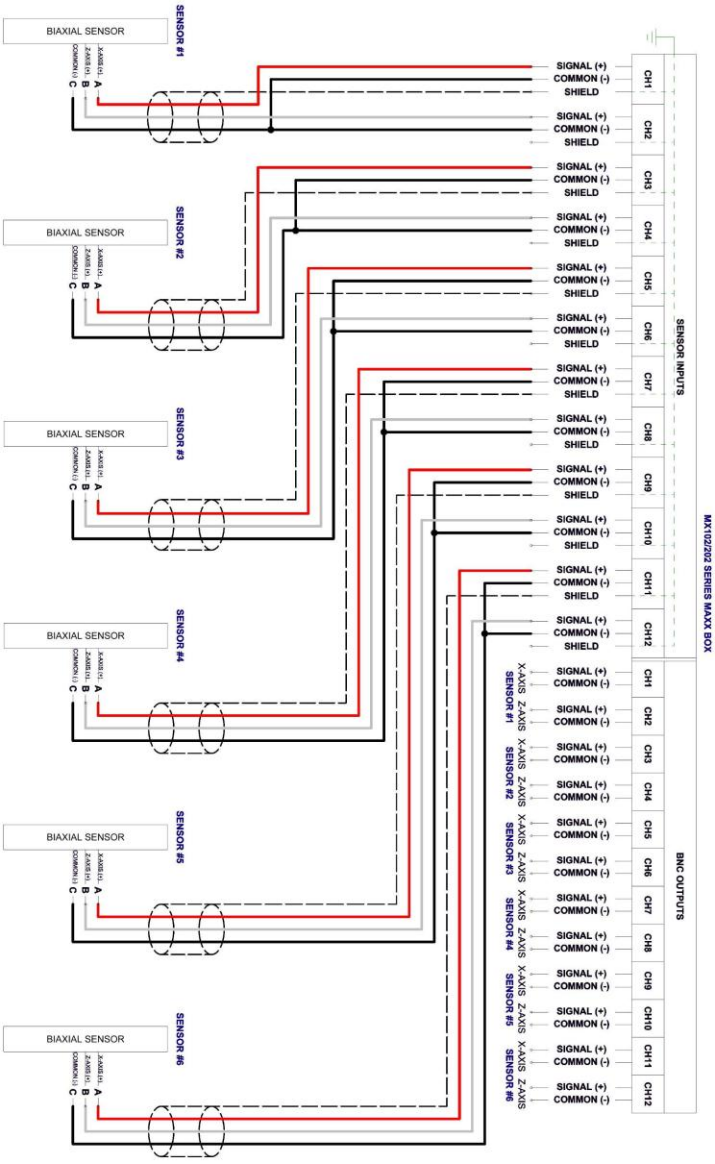

Figure 13. Biaxial Sensor Wiring

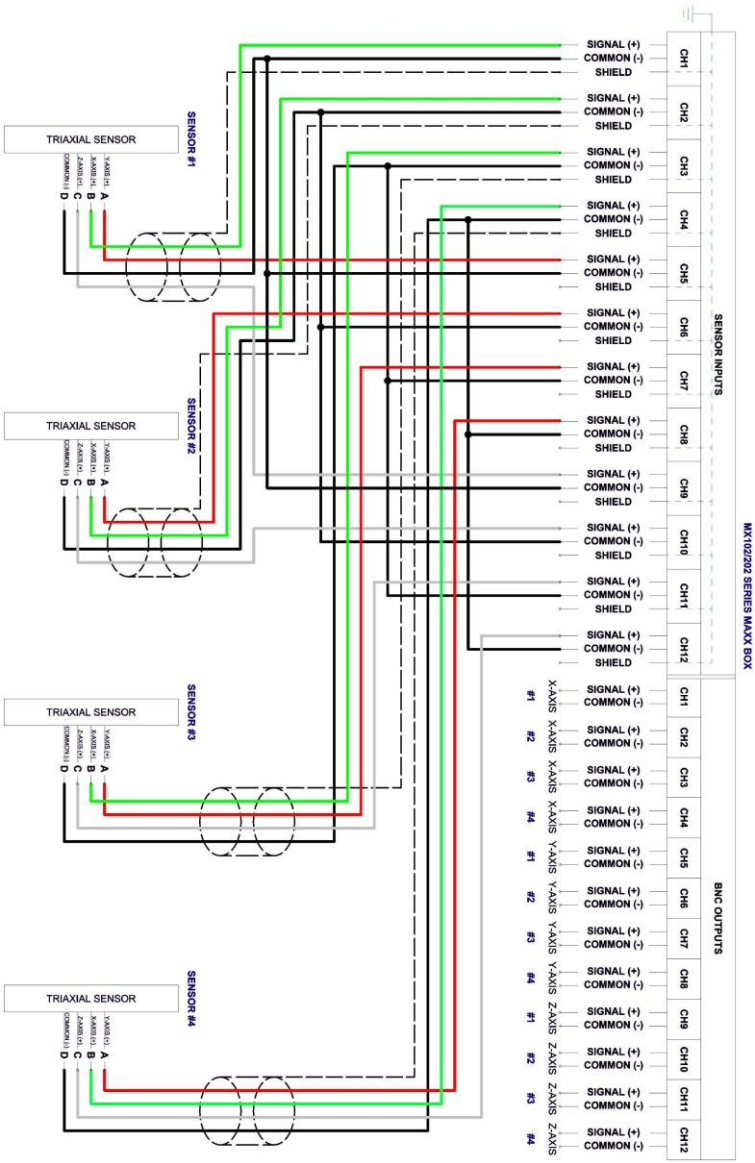

Figure 14. Triaxial Sensor Wiring

SECTION 3: OPERATION

Operation

The MAXX Box series enclosures are made to be a “plug and play” enclosure. All that is needed is to wire in the input signals and start taking measurements from the BNC connectors.

SECTION 4: TROUBLESHOOTING

For specific problem resolution, please call an Applications Engineer at 1-800-999-5290.

SECTION 5: MAINTENANCE

General

There are no customer replaceable parts. The MAXX Box series enclosures have been designed for trouble-free service under normal operating conditions.

Warranty

If any CTC vibration analysis hardware product should ever fail, we will repair or replace it at no charge.