

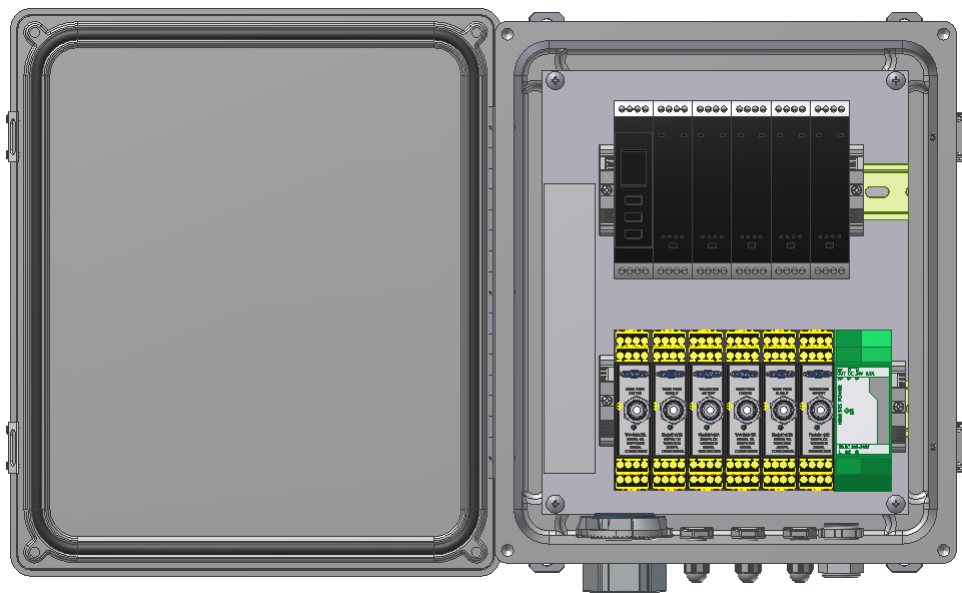


**PROTECTION & RELIABILITY
OPTIMIZATION INSTRUMENTS**

A CTC COMPANY

Product Manual

MNX10034 / REV A
MODEL RXE150



RXE150-06-CB Model Shown

Relay Enclosure



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Section I Overview

Introduction

This document contains information on the operation, installation and maintenance of the RXE150 Series Relay Enclosure. 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

The Universal Trip Amplifiers and their corresponding Signal Conditioners are mounted in a 12" x 10" x 6 ½" (30.48 cm x 25.4 cm x 16.51 cm) NEMA 4X Fiberglass Enclosure which offers resistance to hose-directed fluids and corrosion.

The universal trip amplifier features 2 relay switches which can be programmed via the display / programming front attachment. The inputs for the universal trip amplifier can be either from a standard sensor (which will be sent through an accompanying signal conditioner) or from a loop power sensor. For the universal trip amplifier specifications and programming procedures refer to MNX10035.

Each universal trip amplifier can be paired with a signal conditioner which takes a signal from a sensor and filters the vibration signal and can convert it to either acceleration, velocity or displacement waveforms. There are 3 terminals for sensor input located on the signal conditioner (which accommodate +, -, gnd). For signal conditioner specifications, operating instructions and functionality refer to MNX10020.

Power is supplied to each of the universal trip amplifiers and signal conditioners via an included power supply. The output voltage of the power supply is 24 VDC, 1.5 A which is transmitted via T-bus connection.

POWER INPUT:	100-240 VAC, .68A & 50-60 Hz
OUTPUT:	The RXE150 enclosure consists of a 0-5 or 0-10 V and a dynamic vibration output if using SC200's and 2 relay switches per channel standard.
OPERATION:	The RXE150 enclosure takes a vibration signal from either a standard sensor or a loop power sensor and sets relays which trigger off of set points
ENCLOSURE DIMENSIONS:	12" x 10" x 6 1/2" (30.48 cm x 25.4 cm x 16.51 cm)
TEMPERATURE RATING OF ENCLOSURE	-50 degrees F to + 140 degrees F (-45 degrees C to 60 degrees C)
ENCLOSURE RATING:	NEMA 4X

Table 1 - Specifications

- Specifications on a particular system may be obtained from the unit's label or by calling an Application Engineer for more information.

Selection Guide

Below is a guide to help select which RXE150 series enclosure fits your specific requirements.

Ordering Information

RXE150 - - -

# of Inputs	# of Relays	Enclosure Entry	Enclosure Exit
00 = 0	01 = 1	A = None	A = None
01 = 1	02 = 2	B = Conduit Fitting	B = 1/2" Conduit Fitting
02 = 2	03 = 3		C = Cord Grips
03 = 3	04 = 4		
04 = 4	05 = 5		
05 = 5	06 = 6		
06 = 6			

Example Part Number: RXE150-06-06-AA
6 Channel Signal Conditioner & Relay Enclosure

Figure 1 – Selection Guide

Section II Installation

Mounting

1. Attach the enclosed mounting brackets to the NEMA enclosure at the predetermined locations (if applicable).

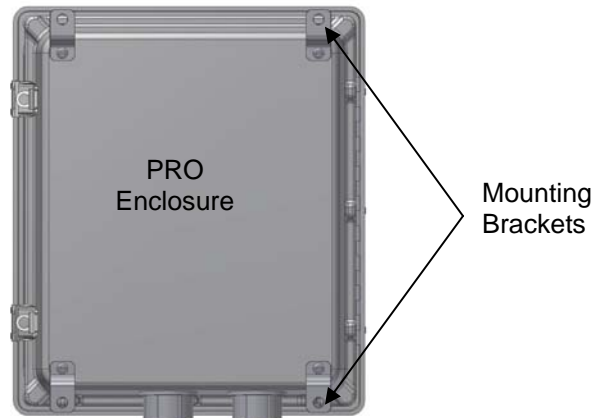


Figure 2 – Mounting Bracket Location

2. **Conduit Entry:** When using conduit entry to the enclosure, CTC recommends the conduit cable enter from the bottom of the enclosure when mounted.

NOTE: To ensure moisture will not flow into the enclosure, a hole should be drilled at the lowest point in the conduit to provide drainage for any moisture.

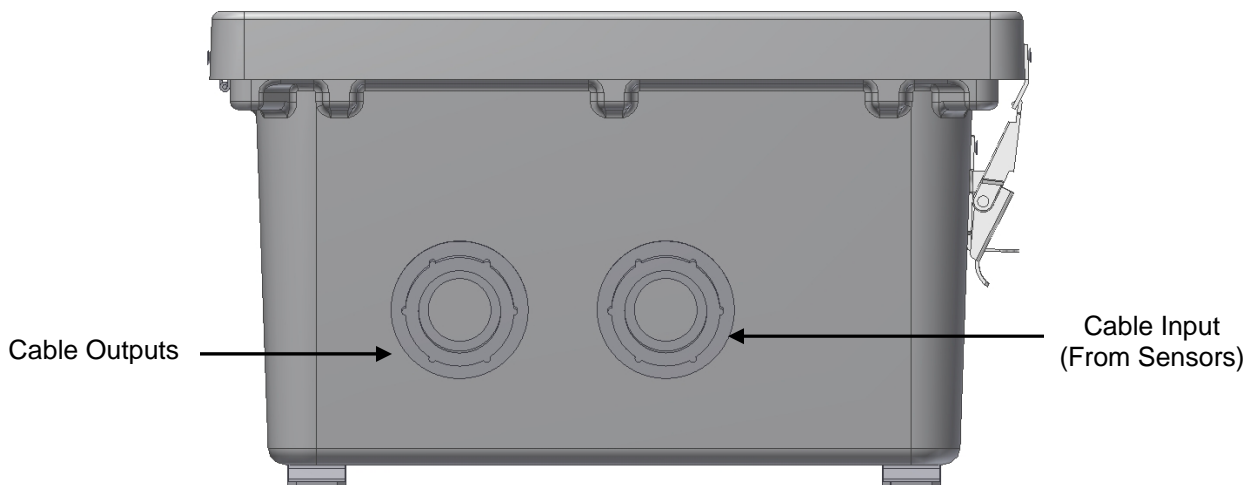


Figure 3 – Conduit Entry / Exit Layout

- Grounding of the enclosure:** Attach Shield Ground Wire to earth ground. When mounting the enclosure to an earth ground (such as an I-Beam), mount the Shield Ground Wire behind one of the mounting brackets on the enclosure.

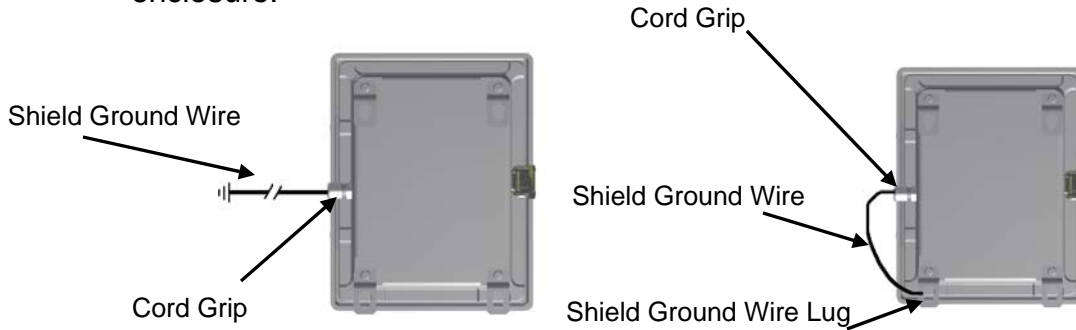
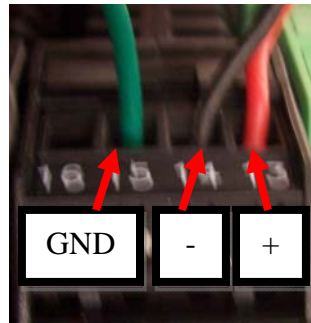


Figure 4 – Grounding Enclosure

Electrical Connections

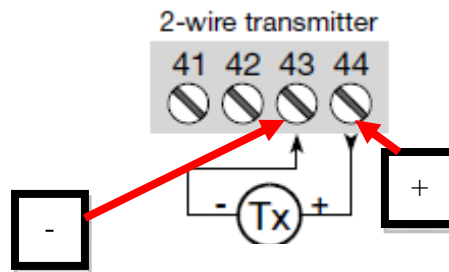
Inputs (RXE'S WITH SIGNAL CONDITIONERS SC200 SERIES)

Cables enter the enclosure through the designated entry option selected. All sensor wires are connected to the signal conditioners within the enclosure at terminals 13, 14, 15 as shown below.



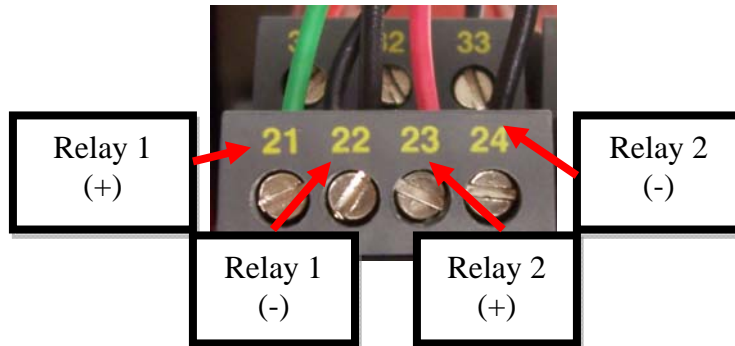
Inputs (RXE'S WITHOUT SIGNAL CONDITIONERS SC200 SERIES)

Cables enter the enclosure through the designated entry option selected. All loop powered sensor wires are connected directly to the RE200 within the enclosure at terminals 43 & 44, as shown below.



Outputs

Cables exit the enclosure through the designated exit option selected. For relay outputs, connect the relay circuit to terminals 21, 22 for relay 1 and 23, 24 for relay 2 as shown



Section III Operation

Operating Procedure

Power

Optional AC power for the enclosure enters the enclosure through a ½” conduit fitting and is connected directly to the power supply.

Signal Conditioner and Universal Trip Amplifier Configuration

Refer to MNX10020 for configuration specifications and procedure for the signal conditioners.

Refer to MNX0035 for configuration specifications and procedure for the Universal Trip Amplifier.

Operating Procedure

To operate the signal conditioners and universal trip amplifiers inside the enclosure, make sure that all wires are properly connected, and then apply power.

CAUTION: Make sure that power input does not exceed specified limits or damage to the system may result. See Table 1.

Calibration

The signal conditioners are calibrated prior to shipment and will not require any additional calibration.

Portable Data Collector Interfacing

In order to collect waveform data from the BNC jack on the signal conditioner using a portable data collector that supplies constant current power, **the data collector must be set so that power to the sensor is turned off.** Failure to do so may result in a damaged or non-functional transmitter and may also send excess voltage to monitoring system and create an undesirable shutdown condition.

Section IV Maintenance

General

There are no customer replaceable parts. It should provide trouble-free continuous service under normal operating conditions.

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.

For non-CTC or non-Pro parts (like the power supply and universal transmitters), warranty will be according to the manufacturer warranty on that product.

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