TX3222

Addressable Zone Monitor Module
Installation and Operation Manual

Product Safety

To prevent severe injury and loss of life or property, read the instruction carefully before installing the module to ensure proper and safe operation of the system.

European Union directive
2012/19/EU (WEEE directive): Products marked with this symbol cannot be disposed of as unsorted municipal waste in the European Union. For proper recycling, return this product to your local supplier upon the purchase of equivalent new equipment, or dispose of it at designated collection points.

For more information please visit the website at www.recyclethis.info

Table of Content

1 Introduction

1.1 Overview

The TX3222 addressable zone monitor module (hereafter referred to as the module) complies with the national standard GB 16806-2006 'Fire Linkage Control System.This module is mainly used to monitor the working status of non-coded detectors, explosion-proof detectors, and other on-site equipment, transmitting the action signals of the monitored devices to the fire linkage control panel through the bus.

1.2 Features

● Equipped with a specialized integrated chip, with input line open circuit detection;

● Isolated design to reduce the impact of external interference;

● Input can be set to normally open or normally closed mode;

● Plug-in structure with anti-loose wiring terminal design for easy installation and wiring.

1.3 Technical Parameters

Working Voltage	Bus Voltage: DC24V (15V～28V)
Power Supply Voltage	DC24V (20V～28V)
Working Current	Bus Monitoring Current: ≤1.0mA
	Bus Action Current: ≤2mA
	Power Current: ≤100mA
Indicator Lights	Action Indicator: Red (flashes once in normal monitoring state, flashes twice in fault state, stays on in action state)
Coding Mode	Electronic encoding (occupies one bus address, set within a range of 1–242)
Terminal Resistance	6.8KΩ
Number of Devices	The total number of devices connected to the module should not exceed 32.
Operating Environment	Temperature: 0℃～40℃
	Relative Humidity: ≤95% RH, non-condensing
Dimensions	86mm×86mm×33mm (including base)
Shell Color	White
Weight	Approximately 92g (including base)
Standard	GB 16806-2006

2 Structure Features and Working Principle

1. The external dimensions and installation specifications of the module are shown in Figure 1 (unit: mm).
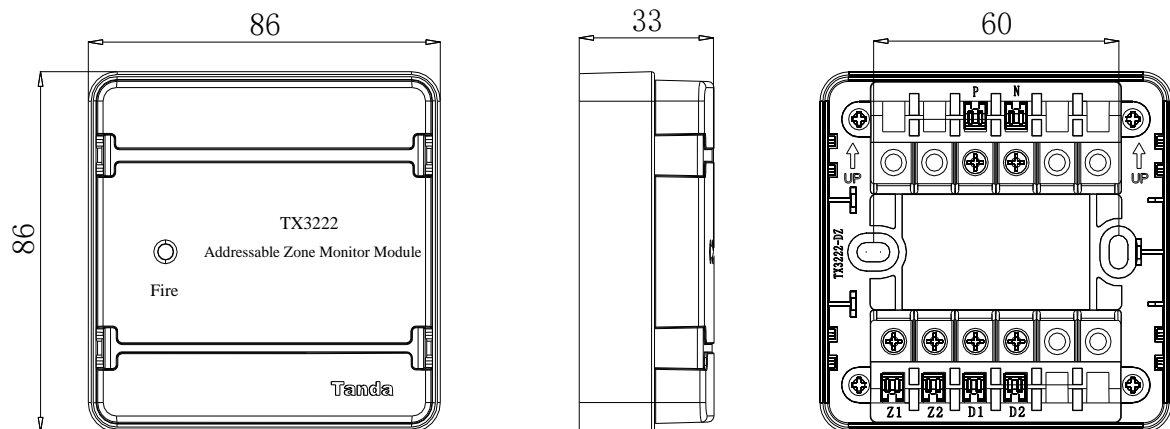
Figure 1: Diagram of Dimensions and Installation Measurements

Working Principle:

The module has a built-in specialized integrated chip, responsible for monitoring the working status of non-coded detectors, explosion-proof detectors, and other switches or current-triggered detectors that comply with the EN54 standard. It uploads the status (normal, action, fault) to the fire linkage control panel.

3 Installation and Wiring

3.1 Installation Method

Before installation, use our company's encoder to address the module. The coding range is between 1 and 242, and each loop must have a unique address. Please refer to the encoder's manual for specific steps and methods.

The module is installed in the module box. Correctly connect the wiring to the module base, then secure the module in place. The installation schematic is shown in Figure 2.
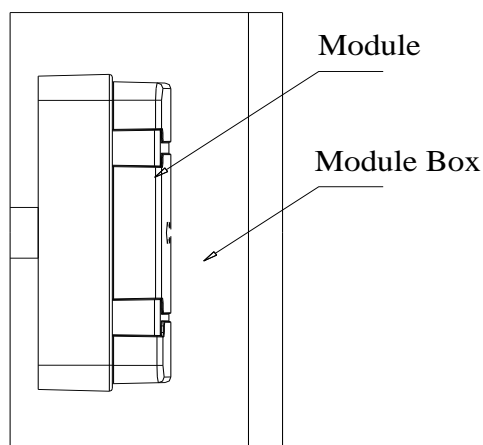

Figure 2: Installation Diagram

3.2 Wiring

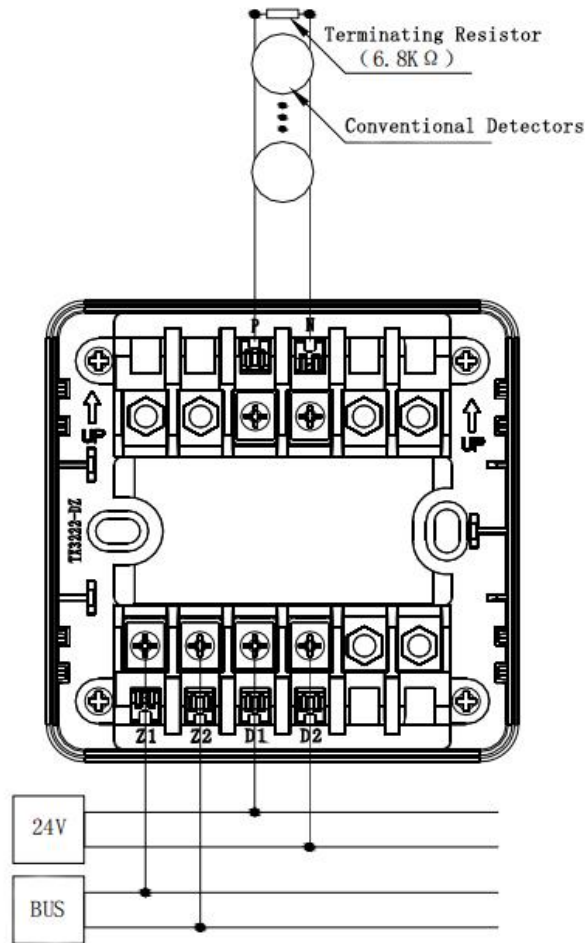The wiring method for the module is shown in Figure 3.

Figure 3: Wiring Method Diagram

Wiring Terminals:
Z1, Z2: Bus signal input, non-polar;
D1, D2: 24V power supply input, non-polar;
N: Monitoring signal input;
Note: P, N Alarm Current: ≥10.0mA, Power Current: <3.0mA (fault), 4.0mA–9.0mA (normal), >10.0mA (fire alarm).

3.3 Wiring Requirements

The bus and input lines should use RVS-2×1.0mm² or 1.5mm² flame-retardant wire. The 24V power supply lines should use BV-2×1.5mm² or 2.5mm² wire, and be laid in metal pipes (or cable trays) or flame-retardant PVC pipes.

4.Usage and Operation

Register through the fire linkage control panel. Once registration is normal, after the non-coded detector triggers an alarm, the action indicator light will illuminate, and feedback information will be reported.

5.Troubleshooting

Fault Phenomenon:	Cause Analysis:	Troubleshooting Methods:
Abnormal Registration	Line issues	Check for any line problems
Abnormal Encoding	Module internal capacitor not fully discharged	Wait for 1 minute and re-encode.
	Component Failure	Replace the module.
High Voltage After Power-On	Multiple components with duplicate addresses on the bus	Unplug the module and check for communication faults
Alarm Abnormality	Short circuit on the response terminal or resistance too small	Ensure correct connection of 6.8KΩ resistance on the response terminal.
Communication Abnormality	Line issues	Check the wiring.
Module Fault	Poor contact	Reconnect the wiring
	Wiring Error	Rewire according to the instructions on the label
	Missing Terminal Resistor	Ensure the correct connection of a 6.8KΩ terminal resistor.
	Damaged Circuit Components	Replace the module.

6.Handling and Storage

Handle gently during loading and unloading to avoid collision damage. The storage environment should be ventilated, dry, and avoid exposure to the outdoors.

7.Precautions

- A 6.8KΩ terminal resistor must be connected in parallel at the output terminal N and P (away from the module).

- Before installing the module, disconnect the circuit power. Do not operate under live conditions.

- Regular functionality tests of the module should be conducted.