JTGB-HM-TX3H01

JTGB-HM-TX3H02

JTGB-HM-TX3H03

Point-Type Infrared Flame Detector

Feature and Benefits

1. Two-Wire Bus Connection:Direct integration with the fire alarm system without additional modules.
2. High Accuracy, Low False Alarms:Smart algorithms ensure precise fire detection and interference suppression.
3. Dual Power Modes:Supports bus-powered operation and 24V independent power supply with switch output.
4. High Explosion-Proof Rating:Suitable for various hazardous environments.
5. Independent Operation Support:Includes fire alarm and fault contact outputs.

Overview

TANDA Development Pte.Ltd.
217 Kallang Bahru #04-02
Singapore 339347
Tel: (65) 6291 3176
Email: info@tandatech.com
Web: www.tnafirealarm.com

The JTGB-HM-TX3H01/JTGB-HM-TX3H02/JTGB-HM-TX3H03 series of point-type infrared flame detectors (hereinafter referred to as 'detector') use multi-spectral signal acquisition technology and full-band wave analysis to avoid the weaknesses of traditional detectors, such as susceptibility to interference. The detectors adopt progressive amplitude modulation (PAM) signal detection technology to monitor the environment, enhancing stability and minimizing false alarms while quickly detecting and identifying flames.

These detectors are suitable for environments such as oil depots, liquor warehouses, aircraft hangars, chemical plants, military facilities, liquefied gas stations, and power plants, where fire incidents involve little or no smoldering and primarily produce open flames. They have strong resistance to interference, are unaffected by wind, rain, high temperatures, high humidity, or artificial/natural light sources, and can function effectively indoors or outdoors.

The detectors use a two-wire bus connection method, allowing direct integration with TANDA fire alarm control panels for fire alarm and fault signal transmission. They can also operate independently, outputting fire alarm signals through a signal line when triggered.

Product Type:

JTGB-HM-TX3H01 Encoded	explosion-proof, two-wire system, infrared single band
JTGB-HM-TX3H02 Encoded	explosion-proof, two-wire system, infrared dual band
JTGB-HM-TX3H03 Encoded	explosion-proof, two-wire system, infrared triple band

TANDA Development Pte.Ltd.
217 Kallang Bahru #04-02
Singapore 339347
Tel: (65) 6291 3176
Email: info@tandatech.com
Web: www.tnafirealarm.com

Technical Specification

The main technical Specification of the controller are shown in the table.

Type	JTGB-HM-TX3H01 JTGB-HM-TX3H02 JTGB-HM-TX3H03
Operating Voltage	DC 24V (Range: 15V–28V) Power Consumption: ≤0.05W
Operating Current	Standby Current: 2mA
	Alarm Current: 2mA
Spectral Response	3.8μm–5.1μm
Response Time	5s–10s
Detection Angle	≤100°
Sensitivity	Level I, responsive to flames 1m–40m away (flame height: 0.1m–1.3m, flickering flame)
Explosion-Proof Rating	Ex d IIC T6 Gb / Ex tD A21 IP66 T80°C
Explosion-Proof Certificate	CE22.3505
Protection Level	IP66
Environmental Conditions	Temperature: -20°C to +60°C Humidity: ≤98%RH (45±2°C)
Adjustable Angles	360° rotation, 90° tilt
Status Indicators	Green (Normal Operation): Flashes when operational; off when internal components fail; Red (Alarm): Off during normal conditions; solid when detecting fire.
Output Modes	Bus Mode:Red/Black wires connect to loop bus.Non-Bus Mode:Red/Black wires connect to 24V power supply. Alarm Output:Yellow/White wires close when in alarm mode. Fault Output:Blue/Green wires open when in fault mode.
Contact Capacity	DC 60V/100mA
Compliance Standards	GB 15631-2008, GB 3836.1-2010, GB 3836.2-2010, GB 12476.1-2013, GB 12476.5-2013
Dimensions	Φ62mm × 163mm

TANDA Development Pte.Ltd.
217 Kallang Bahru #04-02
Singapore 339347
Tel: (65) 6291 3176
Email: info@tandatech.com
Web: www.tnafirealarm.com

Names and Location

The point-type infrared flame detector is divided into ten parts: protectum,shell outlet expansion plug, outlet pipe screws, glass, gasket, lens lock, front circuit board, circuit board and rear circuit board, as show in figure 1.

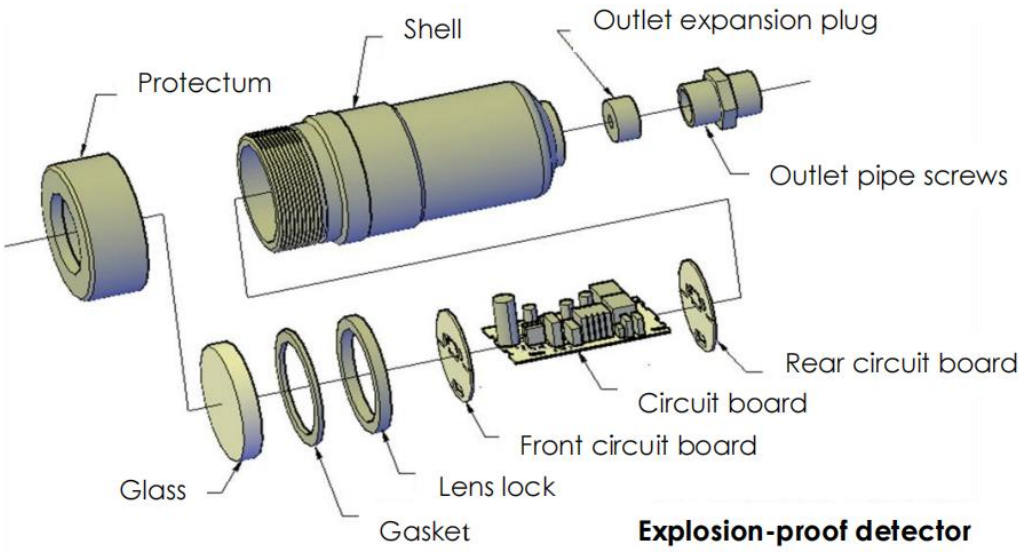

Figure 1: Schematic Diagram of the Detector Internal Structure

TANDA Development Pte.Ltd.
217 Kallang Bahru #04-02
Singapore 339347
Tel: (65) 6291 3176
Email: info@tandatech.com
Web: www.tnafirealarm.com