



## **AT-EH01**

### **Installation and Operation Manual**

#### **I. Overview**

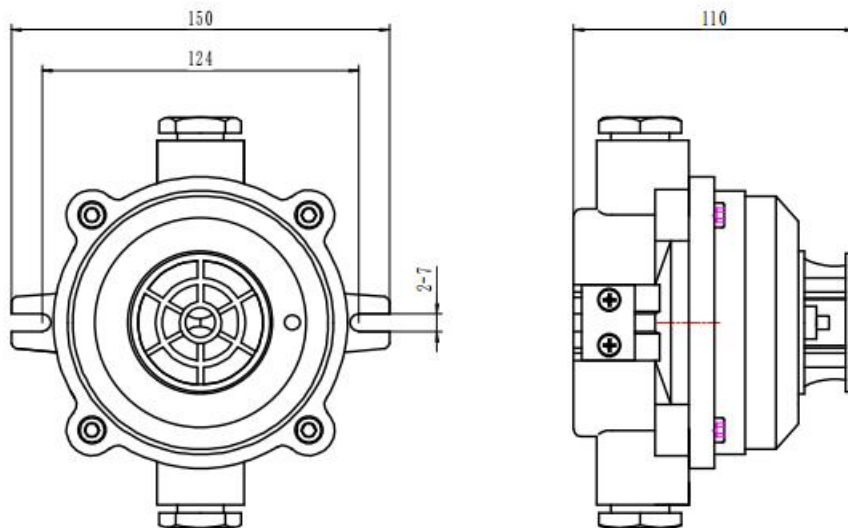
The AT-EH01 Explosion-Proof Point Thermal Fire Detector meets the explosion-proof performance requirements of the GB3836 and GB12476 standards series. It has passed inspection by nationally authorized agencies and holds both the 3C certification and explosion-proof certification. This detector is suitable for use in Zone 1 and Zone 2 explosive gas atmospheres of Group IIA, IIB, IIC, Temperature Classes T1 to T6, as well as Zone 21 and Zone 22 combustible dust atmospheres.

The AT-EH01 detector is a non-addressable switch type (relay output) device, compatible with fire alarm control panels from any manufacturer. It utilizes a thermal element to sense ambient temperature and features a built-in microcontroller programmed with reliable fire detection algorithms. Processed with special techniques, it operates stably and reliably, making it particularly suited for locations where fire causes rapid temperature rise.

#### **II. Main Technical Parameters**

Parameter	Specification
<b>Explosion-Proof Marking</b>	Ex db ib IIB T6 Gb / Ex ib tb IIIC T80°C Db
<b>Operating Voltage</b>	DC 24V ± 2V (Non-polarized)
<b>Alarm Category</b>	A1R
<b>Standby Current</b>	≤ 60 μA
<b>Alarm Current</b>	10 mA to 30 mA
<b>Alarm Output</b>	One set of Normally Open (NO) + One set of Normally Closed (NC) dry contacts
<b>Alarm Reset</b>	Momentary power interruption (Min. 10s, Max. DC 2.5V)
<b>Power-up Time</b>	≤ 10 Seconds
<b>Alarm Indicator</b>	Red LED (Flashes during normal operation; Steady light during alarm)
<b>Coverage Area</b>	30 m <sup>2</sup> (when space height is ≤ 8m)
<b>Ambient Temperature</b>	-20°C to +50°C
<b>Relative Humidity</b>	≤ 95% RH (Non-condensing)
<b>Atmospheric Pressure</b>	80 kPa to 110 kPa
<b>Cable Entry Threads</b>	2 x G3/4"
<b>Weight</b>	1.2 kg

### III. Outline Drawing



(Note: Visual representation not provided in text)

### IV. Installation and Wiring

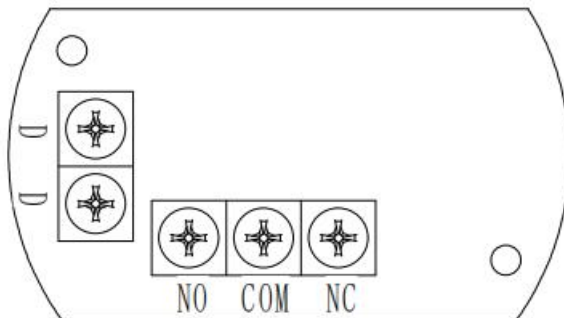
**1 Installation:** Secure the detector's explosion-proof housing to the ceiling using M6 screws through its mounting feet, according to site conditions.

## **2 Cable Entry:**

For Group IIB: Uses a structure with a sealing cap compressing a sealing ring.

For Group IIC: Uses a sealed filler structure.

**Wiring:** (Refer to diagram below)



**DD:** DC 24V (Non-polarized)

**NO:** Normally Open contact

**COM:** Common terminal

**NC:** Normally Closed contact

(Note: Wiring diagram not provided in text)

## **V. Precautions**

- 1 Do NOT perform live disassembly in hazardous areas.
- 2 During installation, avoid damaging the flameproof joint surfaces and keep them clean. Tighten 3 the flameproof joint screws evenly, ensuring no foreign objects are present on the joint surfaces.
- 3 For long-term use, inspect the detector's performance regularly. If faulty or damaged, it must be serviced by qualified personnel.