

# TF Smoke & Heat Detector

## INSTALLATION INSTRUCTIONS

### Description

The TF base is a common base for Ionisation (TFI-330), Optical (TFO-440) smoke detector and Fix Temperature @ 65° C Heat Detector (TFH-220) operating on 12-28V DC supply. These professional smoke and Heat detectors are applicable at both Fire and Alarm systems.

### Installation Instructions

- Before wiring the smoke detector, verify the wiring terminals sign
- When using a non-*EasyLoader* panel verify compatibility

#### Step One: Mounting

Remove the smoke base cover by inserting a tiny screwdriver (there are three clips) between the clips and base case to free the clips. Remove the base, attach to ceiling with two screws, enter the wires via the central round hole. Install one smoke per 20 M<sup>2</sup>, at 3 meters ceiling high. Heat detectors install at one to two meters from the heat source, but all according to the installation design and engineer.

#### Step Two: Wiring

The detector drives -V (negative voltage) during alarm at the tag marked as LAMP, the (-) is the negative side. DC supply connects to LINE IN, the DC OUT is not used (connects the DC supply to next detector).

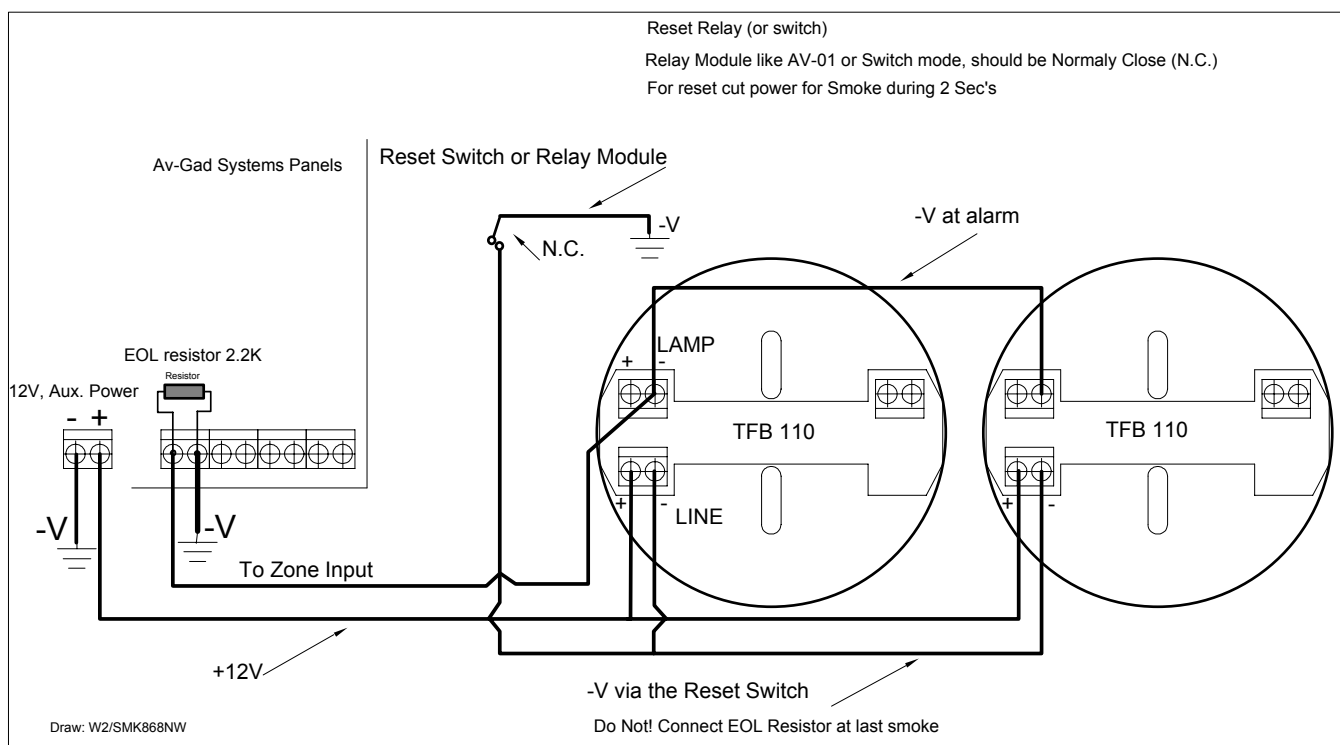


Figure 1: TF base smoke wiring to Av-Gad panels

Connect the EOL (end of line) resistor (2.2K-0.25W) at the last detector. It's recommended to connect no more than five detectors to each zone.

For RESET the smoke use a 12V relay (like AV01 module), with N.O. and N.C. contacts. Add relay coil surge protection.

Connect the relay common terminal to +12V Aux. Power, the N.C. contact to the smoke + Power input terminal. The relay coil is energized by applying -12V from the alarm panel SLO terminal and constant +12V, refer to Fig. 1 drawing. To reset the smoke interfaced to EasyLoader panels, hold-down key 9, or use a manual N.C. switch (replace the relay).

During reset, the power to the smoke is disconnected for few seconds to clear alarm and rest the LED (to off).

### ***Step Three: Control Panel Setting***

Refer to the control panel manual:

Program the zone/s as N.O. and Fire type.

Program the SLO output to be a Smoke Reset output.

When alarm is ON, the smoke will sink -V at LAMP tag, this -V will trig zone to alarm.

To reset the detector apply -V to the AV-01 relay coil. Resetting with Av-Gad panels: Hold-down key '9' at keypad.

When the AV-2008ELT is used, Tamper alarm is available when the smoke head is removed.

### ***Step Four: Testing***

Verify that the wiring is correctly wired, attach the base cover by aligning the three clips, note there is **one wider clip**, when 3 clips meet push to insert. Rotate and insert the detector head, power-up the control panel; the zone status should be clear, use Smoke Tester Spray to test each connected detector.

Make sure all smokes are operative and after alarm test, the smoke LED is turned on. Test the reset by holding-down key '9', or the manual reset switch if so used, the LEDs should go off and zone cleared, reset the panel alarm by entering the user code.

**Safety:** Clean and test the smoke frequently. Never open or paint the head unit.

It's recommended to send the smokes to approved cleaning laboratory every two years or earlier if installation is at dusty site. **Do not try to open or clean the unit by yourself.**

<b>TFB-110 base and Ionization Optic &amp; Heat Smoke Specifications</b>		
Operating Temp: -10 to +55 C°	DC Input: 12 to 28V DC	Activity (TFH220): Semi Conductor
Humidity: 80%	DC Current on standby: 40 uA	Activity (TFI330): 0.7 uCi AM 241
Wiring: Screw Wire Terminals	DC current on alarm: 100 mA	Activity (TFO440): Optical Diode
Color: Off White	Alarm type: Red LED	Weight with base: 0.2 kg
EMI and RFI Filter: Varistor	Area cover: 20 m <sup>2</sup> at 3m high	Size: 120 x 40 m <sup>2</sup> m

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