

TRIPPLE INFRARED FLAME DETECTOR EST-FD-IR3

EST



PRODUCT OVERVIEW

EST-FD-IR3 three-wavelength infrared flame detector is an explosion-proof intelligent fire detection device that uses advanced multi-infrared sensing technology (MIR) to use three infrared sensors with different wavelengths with narrow-band filtering, one of which works in a flame. The central wavelength of the information, the other two sensors monitor the other infrared radiation in the environment, combined with the flickering characteristics of the flame, through the high-performance microprocessor and advanced mathematical algorithm model for operational analysis, so that only the radiation spectrum that meets the flame characteristics will be confirmed as a fire alarm, and the false fire alarm signal formed by other interference factors will be excluded. The detector can suppress the interference of sunlight, lightning, electric welding, artificial light source, environment (human, etc.), heat radiation, electromagnetic interference, mechanical vibration and the like. Thereby achieving a fast response and accurate identification of the flame signal. The detector uses non-contact detection, the sensitivity is adjustable in the field, and the passive contact, standard current output and bus interface are

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1. Introduce two infrared reference wavelengths to eliminate the interference of some high-temperature objects, and eliminate the infrared radiation interference caused by low-temperature objects, and prevent false alarms. Stronger ability, strong anti-interference to sunlight, lightning, electric welding, artificial light source, heat radiation, electromagnetic interference, mechanical vibration, etc.
2. Using the point detection principle, one wavelength is the center wavelength of the flame, mainly collecting the radiation signal generated by the flame; the two wavelengths are the thermal radiation flashing wavelength, which is used to detect the ambient infrared signal (non-fire signal).
3. The built-in processor collects the signals of the three wavelengths, and determines the occurrence of the fire through the artificial intelligence algorithm, and reports the fire alarm.
4. The detector's viewing angle is 110 degrees, forming a fan-shaped viewing area in front of the detector.
5. The structure is waterproof and explosion-proof, adapting to different applications.

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SPECIFICATIONS

Operating Voltage	DC24V \pm 15% (nominal DC24V)
Static monitoring current	\leq 30mA (24VDC)
Alarm state current	\leq 40mA (24VDC)
Signal output	Relay passive point, bus output
Installation method	Wall or hoisting
Response time	10 to 30 s (high speed type \leq 3 s)
Maximum response distance	60m n-heptane brazier with bottom surface size (33cm \times 33cm)
Detection angle	\leq 110°
Operating temperature	20 ° C ~ +60 ° C (enhanced -40 ° C ~ +70 ° C)
Relative humidity	95% RH (40 \pm 2 ° C)
Cable entry device interface	M20 \times 1.5 internal thread) interface, optional 1/2" NPT or G1/2 or G3/4
Explosion-proof signs and protection levels	Exd II CT6: IP66
structure	Dimensions: 120 \times 98 \times 116mm; Weight: 1.1 \pm 0.1kg; Shell: aluminum alloy
Executive standard	GB15631-2008; 6B3836-2010

