DUT-3000AD ADDRESSABLE UNIVERSAL SMOKE AND HEAT DETECTOR WITH SOUNDER

Purpose

The DUT-3000AD universal addressable smoke and heat detector with acoustic sounder is designed to detect the initial stage of fire during which smoke appears and/or the temperature increases. It is characterized by significant resistance to air movement and pressure changes. The use of a double system smoke detection and a double heat detection system ensures increased immunity to false alarms caused by e.g. water vapor and dust, while maintaining the small dimensions and high aesthetics of the detector. The detector has a built-in acoustic alarm.

The DUT-3000AD universal addressable smoke and heat detector with acoustic siren is designed to operate in addressable detection lines of the POLON 3000 fire alarm system.

Principles of operation

DUT-3000AD basis of operation smoke is established by Tyndal's principle - scattering of a light ray on smoke particles. Penetrating into the measuring chamber smoke particles reflect the light emitted by the diode broadcasting. The scattered light reaches the photodiode, generating a photocurrent.

The heat entering the detector causes changes in the resistance of the thermistors. Information about fire factors from four detectors are subjected to advanced signal analysis by a microprocessor that evaluates the degree of fire hazard.

Communication between the POLON 3000 system control panel and the DUT-3000AD detectors takes place via addressable, two-wire detection line. Unique, fully digital communication protocol allows the transfer of any information from the control panel to the detector and from the detector to the control panel, e.g.: rating condition of the environment (smoke, temperature), its tendency changes and the current analog value of temperature and smoke density.

The DUT-3000AD detector is an analog detector with a digital self-regulation mechanism, i.e. it maintains constant sensitivity at progressive contamination of the measuring chamber. After exceeding the set threshold the detector sends information to the control panel about partial contamination of the measuring chamber in order to inform the service about need to take the appropriate actions.

The detector is equipped with an internal short-circuit isolator that cuts off the functional part of the detection line from the adjacent part damaged which enables continued uninterrupted operation of the detector.

The detector's alarm status is signaled by a pulse, red light from two diodes located on opposite sides of the detector housing. Fault and alarm states technical and activation of the short-circuit isolator are signaled yellow flashes of the LED.

The acoustic alarm in the detector is turned on command from the control panel. The detector has 127 combinations of operating modes (except alarming variants in the control panel) that enable the user to set the best characteristic of the device in a specific environment.

Technical specifications

Addressable detector operating voltage	16.5 ÷ 24.6 V
Current consumption during control	≤ 1 mA
Number of basic operating modes	7
Detected test fires	TF1 to TF 9
Adress programming	from the panel
Sound pattern	4 kHz tone: 0.5 s beep; 0.5 s break
Maximum accoustic signal level	> 85 dB/m from one direction > 70 dB/m from other directions
Operating temperature range:	
For modes with the heat sensor on:	-10 °C to +50 °C
For modes with the heat sensor off:	-10 °C to +55 °C
Dimensions (with the base)	ø 115 x 56 mm
Mass	0.2 kg

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Note

The product was issued by CNBOP-PIB, a notified body No. 1438, certificate of constancy of performance, confirming possession of technical features/parameters required by EN 54-3:2001 + A1:2002 + A2:2006 standards, EN 54-5:2017 + A1:2018, EN 54-7:2018, EN 54-17:2005 + AC:2007.
Features/technical parameters exceeding the requirements mentioned standards and others given herein product features/parameters not specified on the catalog card the mentioned standards are confirmed by the Manufacturer.
The product has approval certificate issued by CNBOP-PIB.
The manufacturer has issued a declaration of performance for the product.

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