



## UNIVERSAL DETECTOR SMOKE AND HEAT WITH ACOUSTIC SIGNALER DUT-6046AD

### Destiny

The DUT-6046AD universal addressable smoke and heat detector with acoustic siren is designed to detect the initial stage of fire development, during which smoke appears and/or temperature increases. It is characterized by significant resistance to the influence of air movement and pressure changes. The use of a double smoke detection system and a double heat detection system ensures increased resistance to false alarms caused by e.g. water vapor and dust, while maintaining small dimensions and high aesthetics of the detector.

The detector has a built-in acoustic siren.

The universal addressable smoke and heat detectors with the DUT-6046AD sounder are intended for operation in addressable detection lines of fire alarm control panels of the POLON 4000 and POLON 6000 systems.

### Principle of operation

The basis of operation of the DUT-6046AD detector smoke detector is the Tyndal principle - scattering of a light ray on smoke particles. Smoke particles penetrating the measuring chamber reflect the light emitted by the transmitting diode. The scattered light reaches the photodiode causing a photocurrent. The heat entering the detector causes changes in the resistance of the thermistors. Information on fire factors from four detectors is subjected to advanced signal analysis by a microprocessor that assesses the degree of fire hazard.

Communication between the POLON 4000/ POLON 6000 system control panel and the DUT-6046AD detectors takes place via an addressable, two-wire detection line. The unique, fully digital communication protocol enables the transfer of any information from the control panel to the detector and from the detector to the control panel, e.g. assessment of the environment (smoke, temperature), its change tendency and the current analog value of temperature and smoke density.

The DUT-6046AD detector is an analog detector with a digital self-adjustment mechanism, i.e. it maintains constant sensitivity when the measuring chamber is getting dirty. 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 personnel about the need to take appropriate actions.

The detector is equipped with an internal short-circuit isolator which cuts off the efficient part of the detection line from the adjacent part

damaged, which enables further uninterrupted operation of the detector. The detector's alarming state is signaled by a pulsed red light of two LEDs located on opposite sides of the detector housing. The states of fault, technical alarm and activation of the short-circuit isolator are signaled by yellow flashes of the LED.

The acoustic signaling device in the detector is activated on the command sent from the cooperating control panel.

The detector has 127 combinations of operating modes (except for the alarming variants in the control panel), which enable the user to best adjust its characteristics to work in a specific environment.

### Technical data

working voltage	16.5 ÷ 24.6V
Current consumption during actuation	≤ 1 mA
The number of basic operating modes	7
Detected test fires	from TF1 to TF9
Address programming	panel
sound pattern	4kHz: 0.5s signal; 0.5 s pause
Maximum acoustic signal level:	
	> 85 dB/m from one direction
	> 70 dB/m from other directions
Temperaturework	from -10°C to +55°C
Detector dimensions (with socket)ø	115x56mm
Weight	0.2kg

### Attention

The product was issued by CNBOP-PIB, notified body No. 1438, with a certificate of constancy of performance confirming the possession of technical features/parameters required by the standards EN 54-3:2001 + A1:2002 + A2:2006, EN 54-5: 2000 + A1:2002, EN 54-7:2000 + A1:2002 + A2:2006, EN 54-17:2005 + AC:2007.

The possessed features/technical parameters exceeding the requirements of the listed standards and other features/parameters of the product given in this catalog card not specified by the mentioned standards are confirmed by the Manufacturer.

The product has a certificate of admission issued by CNBOP-PIB. The manufacturer has issued a declaration of performance for the product.