



TUN-4043 ADDRESSABLE MULTI-STATE HEAT DETECTOR

Overview

The TUN-4043 universal microprocessor based heat (temperature) detector is designed to detect fire hazard in premises, in which a rapid rise in temperature may occur during the initial phase of a fire or where temperature may exceed a pre-defined danger level.

The TUN-4043 heat detector is universal. It can be programmed (from the control panel level) to a specified operation mode and operates as a fixed or fixed/rate-of-rise heat detector. It is also possible to program a class of the detector, such as A1, A2, B, A2S, BS, A1R, A2R or BR according to the PN-EN 54-5 European standard.

This detector can operate only in addressable lines/loops of the POLON 4100 and POLON 4200 fire alarm panels.

Principles of operation

The TUN-4043 universal heat detector reacts to a rise of temperature during a fire. The detector operates as a fixed temperature detector after exceeding its operation threshold, appropriate for a given class, and as a rate-of-rise detector during a sudden rise of temperature. Temperature changes near the detector are controlled by the detector's electronic unit equipped with measuring thermistors, which react to these changes and transmit an alarm signal to the fire control panel.

The built-in microprocessor device and the appropriate software of the detector guarantee that the entire phenomenon accompanying a fire in a close vicinity to the detector will be quickly analysed and false alarms will be eliminated.

Beside its own address, code type, alarm, and operation modes, the detector also transmits (into the detection loop) information about the servicing mode, a fault of internal devices, and actuation of a short circuit isolator. The alarm mode is indicated by a flashing red (two-colour) LED diode. The fault status of the detector, service alarm and operation of a short circuit isolator are indicated by the same (two colour) LED diode flashing a yellow light.

Coding of the detector address can be done automatically from the control panel – the address code is saved in its non-volatile memory.

This product is equipped with internal short circuit isolators.

The detector operates in the G-40 non-addressable base.

An additional optical alarm signal for a detector or a group of detectors can be obtained by connecting the WZ-31 alarm indicator.

Technical specifications

Operation voltage	16.5 ÷ 24 V
Quiescent current	< 150 µA
Class of the detector (acc. to PN-EN 54-5)	A1, A2, B, A2S, BS, A1R, A2R, BR
Programming detector address	from the level of the control panel
Operation temperature range:	
- class A1, A1R, A2, A2R A2S	from -25 °C up to +50 °C
- class B, BR, BS	from -25 °C up to +65 °C
Fixed alarm temperature	
- class A1, A2	+54 °C ÷ +65 °C
- class B	+69 °C ÷ +85 °C
Dimensions (with base)	Ø 115 x 54 mm
Mass	0.2 kg