

TPE-1 Activator

1. APPLICATION

The electrical heat activator TPE-1 is used in aerosol fire extinguishing systems as an activator for the extinguishing generators. The TPE-1 activator is meant for producing or transmitting the electrical pulse in case the surrounding temperature exceeds the activation temperature of the heat lock in the sprinkler head installed in the TPE-1 activator. The TPE-1 activator is designed for a continuous (24 hours a day) functioning and is used in heated and unheated closed rooms in buildings with various functions. The following type is available:

- Regular TPE-1 B

The TPE-1 is being delivered a battery; the letter 'B' in the type designation refers to the battery.

2. TECHNICAL DATA

- 2.1 Dimensions:
- Height, mm 120
 - Width, mm 58
- 2.2 Mass of the TPE-1 activator in kg.:
- TPE-1 0,46

The surface that can be controlled by 1 TPE-1 unit (in a room not higher than 10 meters): max. 18 m²

Voltage:
TPE-1 B 3 Volt
Current 0,6 A (at 5 Ohm resistance)
Temperature range for continuous use -50°C to +80°C

The nominal temperature range for the activation and the relative time for starting the TPE-1 activator are shown in the below table:

Table 1

Nominal temperature for activating the heat lock of the sprinkler in °C		The relative time for activation, no more than... sec.	Color of the glass bulb of the sprinkler head
Nominal	Variance		
57	±3	300	Orange
68	±3	300	Red
72	±3	330	Red
79	±3	330	Yellow
93	±3	380	Green

3. COMPOSITION AND OPERATION PRINCIPLE

The heat activator TPE-1 is composed of a casing with electrical contacts, a socket in which a lithium battery is fixed and a cover, on which the sprinkler is fixed. A plate in the sprinkler keeps the contacts in a switched off position.

The bulb or heat lock in the sprinkler is the initiator. When the temperature increases to the activation level of the bulb, it will burst and a spring in the TPE will force the plate into a position where it connects the electrical contacts. In this way the electrical circuit will be closed and current starts to run through the electrical contacts. The electrical pulse reaches the starter of the extinguishing generator and will activate it.

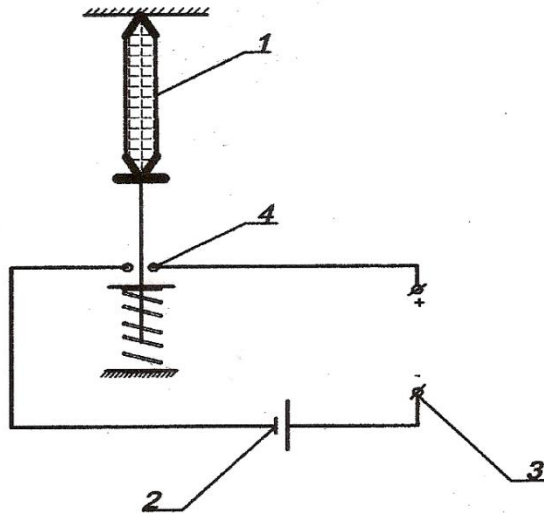
4. FIXING RULES AND DIRECTIONS FOR USE

Before the TPE-1 activator is fixed, the following must be checked:

- The bulb in the sprinkler must be intact.
- The electrical contacts must be checked.
- The nominal temperature must conform the activation temperature on the label.
- There must be no current on the contacts.

The TPE-1 activator is to be fixed to the ceiling or under the penthouse in the room to be protected. When multiple TPE-1 activators are fixed, the fixing plan, the location of the TPE-1 activators and the connections will be determined by the design conforming the rules and standards in force.

Drawing



1. Heat lock (bulb) in sprinkler
2. Battery
3. Connectors to the starter of the generators
4. Contacts

5. MARKING

At the side of the TPE-1 activator there must be a label with the following contents:

- Name and type of the activator
- Nominal temperature of activation
- Poles of the connectors
- Term of life
- Trademark of the manufacturer
- Protection class IP for TPE-1 G
- Batch number and production date

The transport packing will be marked: *take care – breakable*



6. PACKING, STORAGE AND TRANSPORT

The TPE-1 activator is packed in a cardboard box. The spaces in the box are to be filled with filling material, to avoid the dragging of the product during transport.

The goods are to be stored in original packing at a temperature between 5°C and 50°C, and should not be exposed to humidity or aggressive materials.

The goods can be moved in original packing by any means of transport, with no restrictions.

7. GUARANTEE

The guarantee term for the TPE-1 activator is 2 years, including 1 year storage.

Functioning term for the TPE-1 activator is 5 years, including 1 year in storage. After 5 years the TPE-1 activator needs to be serviced by the manufacturer of its representative.

When the functioning term expires, the manufacturer must be contacted for an eventual prolongation of the term.