



## EKS-6000 INPUT/OUTPUT ELEMENT TYPE

### Overview

Input-output elements type EKS-6000 are dedicated for activation (using its relay contacts) of fire protection and fire alarm devices after receiving an order from the control panel. It enables to monitor efficiency of controlled devices and its proper operation. It can be used for monitoring of any device without relation to its former control.

Input-output elements type EKS-6000 are available in the following configuration:

- EKS-6040 – 4 low voltage inputs,
- EKS-6004 – 4 outputs,
- EKS-6022 – 2 low voltage inputs, 2 outputs,
- EKS-6044 – 4 low voltage inputs, 4 outputs,
- EKS-6202 – 2 high voltage inputs, 2 outputs,
- EKS-6400 – 4 high voltage inputs.

Elements type EKS-6000 can operate in addressable detection lines of POLON 6000 series panels only.

### Principle of operation

Activation of the EKS module relay follows by the order from the control panel and is indicated with red flashes of LED indicator which enables fast location of the element. Reset of the fire alarm on the control panel causes return change of the relay. Mode of operation of this element can be programmed using the control panel in it is based on the following settings:

- operation type of the relay output (off, continuous, impulse, cyclic, cyclic finite),
- the possibility to monitoring the continuity of the wire connected to the relay output (monitoring is on or off),
- “fails safe” function – without change, triggered, not triggered,
- input function – monitoring, alarm,
- mode of operation of low voltage input – NO, NC,
- mode of operation of high voltage input; voltage – quiescent mode, lack of voltage – active,
- time programming: triggering delay, triggering duration, reset delay and reset duration,

EKS-6000 type elements are equipped with short circuit insulator. Addressing of the element can be made automatically by the control panel – the address is stored in element’s non-volatile memory.

### Design

EKS-6000 elements consist of printed board with electronic components, connectors and housing. Housing is equipped with holes on each corner to screw it to the wall. Housings have high IP rate and can be used in hard environmental conditions or outdoor. It is equipped with appropriate cable glands separate for detection line and input/output lines.

### Technical specifications

Operation voltage	from 16.5 to 24.6 V DC
Current consumption in quiescent mode by individual elements:	
- EKS-6040	< 210 $\mu$ A
- <b>EKS-6022</b>	< 220 $\mu$ A
- EKS-6004, EKS-6044	< 240 $\mu$ A
- EKS-6202	< 250 $\mu$ A
- EKS-6400	< 230 $\mu$ A
The current load of relay contacts	2 A / 250 V AC
Controlled device power supply voltage	from 6 to 220 V DC, 230 V AC
Relay activation delay time	max 1270 s
Control output fail-safe state	without change, triggered, not triggered
Activation of monitoring input	- potential free contact NO or NC - under voltage contact (EKS-6400, EKS-6202)
Operation temperature range	from -40 °C to +85 °C
IP rate	IP 66
Dimensions:	
- EKS-6040	max 202 x 152 x 74 mm
- <b>Others</b>	<b>max 202 x 180 x 74 mm</b>
Types of cable glands:	
- detection lines cables, low voltage	type M12
- control and high voltage cables	type M16
Mass	< 0.5 kg