



POLON 3000 FIRE ALARM CONTROL PANEL

Purpose

Fire alarm control panel is dedicated for signalling of fire danger after receiving information from connected detectors or manual call points. The control panel coordinates operation of all devices in the system and makes decisions regarding fire alarm, control of alarm and fire protection devices and transmitting the information about fire to the monitoring centre or supervising system.

POLON 3000 control panel is designed for fire protection of various building structures in particular small and medium-sized ones, e. g. small hotels, office buildings, commercial buildings, historic with a small number of cooperating fire automation devices. It can be easily integrated into many existing facility security management systems on the market.

The control panel comes in three versions, differing in the number of line elements that can operate in the system.

The available varieties are:

- POLON 3064: 2 lines, up to 64 elements in one control panel,
- POLON 3128: 2 lines, up to 128 elements in one control panel,
- POLON 3256: 2 lines up to 256 elements in one control panel.

Each of the varieties has 2 detection lines. The maximum number of elements on a line depends on the type of line elements used.

Design and functionality

The control panel has a compact design. Most of the control panel components, except for the power supply unit, have been integrated into one main PSO 30 panel consisting of several modules.

The panel consists of:

- main control panel controller - MSO-30 module,
- user interface in the form of a front control panel,
- detection loop module MLD-30,
- digital communication module MK-30 (optional).

POLON 3000 control panel consists of 2 parts – a metal body and a removable front cover. The cover can be removed by unscrewing the screws in the upper part of the casing with a screwdriver and pulling them out in the upper direction to disconnect the side hooks.

The MSO-30 module is the main managing unit of the control panel. Includes configuration memory, RAM and program memory. It ensures data exchange between the modules, controls the efficiency of all circuits, analyses and processes received signals. It controls outputs and user interface.

Allows to upload configurations and read events using an application installed on the PC.

The MLD-30 detection loop module is the communication interface between the control panel and line elements. Loops are powered with 24 V. The module allows to connect 2 detection lines (loops). The module supports the connected loops both in a loop system - type A and in a radial system - type B.

MK-30 module is used to monitor the control panel via Modbus TCP and Modbus RTU. Information about system status is available in Modbus TCP or Modbus RTU protocol. In order to connect the control panel with Modbus TCP or Modbus RTU protocol it is necessary to configure MK-30 module with POLON Studio application.

Technical data

Power supply:

- main 88 ÷ 264 V AC, 50 Hz
- battery 2 pcs. 7 ÷ 9 Ah internal
17 ÷ 18 Ah external

Line elements installed in the detection loops

Type 6000:

- multi-state detectors range 6046 and 4046,
- manual call points ROP-4001M(H),
- conventional line interface ADC-4001M and ACR-4001,
- acoustic, optical-acoustic sounders SAW-6006, SAW-6001, SAB-6001, SAB-6006, SAL-4001,
- inputs/outputs elements EKS-6000 range
- devices containing MKA-type addressable modules
- AKC-6000

Line elements installed in the detection loops

Type 4000:

- multi-state detectors range 404x, 604x,
- manual call points ROP-4001M(H),
- conventional line interface ADC-4001M and ACR-4001,
- acoustic sounders SAL-4001
- UCS 6000

Maximum current consumption from the detection line by line elements:

- with resistance 2 x 100 Ω 20 mA

Maximum capacity of detection line wires 300 nF

Current consumption from the detection loop

by 6000 range element:

- DUO-6043/6046 detector 150 µA
- DUO-6046AD detector 150 - 1000 µA
- DUO-6046K duct detector 150 µA
- DUT-6046 detector 150 µA
- DUT-6046AD detector 150 - 1000 µA
- TUN-6043/6046 detector 150 µA
- DOP-6001 line detector 300 µA
- DOT-6043/6046 detector 150 µA
- EKS-6040 line module 210 µA
- EKS-6022 line module 220 µA
- EKS-6004, EKS-6044 line modules 240 µA
- EKS-6202 line module 250 µA
- EKS-6400 line module 230 µA
- EKS-6222P line module 610 µA
- SAW-6001, SAW-6006 sounders 150 µA
- SAB-6001, SAB-6006 optical-acoustic sounders 150 µA
- EKS-6080 line module 210 µA
- EKS-6008 line module 400 µA
- IGNIS 2500 600 µA
- CDG 6000, mCDG 6000 150 µA
- UCS 6000 600 µA
- PZB 6000 600 µA

Current consumption from the detection loop by 4000 range element:

- DIO-4043 detector 150 µA
- DOR-4043 detector 150 µA
- DIO-4046 detector 150 µA
- DOR-4046 detector 150 µA
- TUN-4043 detector 150 µA
- TUN-4046 detector 120 µA
- DOT-4046 detector 150 µA
- DPR-4046 detector 170 µA
- DUR-4043 detector 150 µA
- DUR-4046 detector 150 µA
- manual call points ROP-4001M, ROP-4001MH 140 µA
- acoustic sounder SAL-4001 150 ÷ 600 µA
- EWS-4001 line module 150 µA
- EWK-4001 line module 150 µA
- EKS-4001 line module 165 µA
- EKS-4001W line module 250 µA
- ADC-4001M side line element from 0,5 mA to 16 mA (depending on the chosen operation mode)
- adapter for wireless detectors ACR-4001 max 6 mA

Detection lines types:

- loop
- radial

Event memory ≥ 4000

Programmable outputs:

- 3 potential – free relay outputs with max load 1 A / 30 V
- 2 universal outputs:
alternatively signalling lines with 0,5 A / 24 V
or monitoring lines
- 1 output to power auxiliary devices (0,5 A / 24 V)

Max number of detection zones 254

Operating temperature range from -5 °C to +40 °C

Case tightness IP 30

Dimensions (W/H/D) Standard case 339 x 402 x 90 mm

Weight (without batteries) < 6 kg

Note

Batteries are not a part of the control panel and need to be ordered separately. Detailed information for installers and maintenance services are in the manual an user handbook.

The product has been issued by CNBOP-PIB, notified body No. 1438, a certificate of constancy of performance confirming the possession of technical characteristics/parameters required by the standards EN 54-2:2002+AC:2007, EN 54-4:1997+A1:2002+A2:2006.

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

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