



Overview

The ADC-4001M adapter works in detector lines/loops of the POLON 4000 control panels. It is designed to transfer information about the status of the detector line connected to the adapter, so called 'side line' (conventional), as well as about the status of the POLON-ALFA produced non-addressable double-status 30 or 40 model range detectors installed in this line.

The ADC-4001M unit also enables the following:

- creation of an intrinsically safe detector line by installing in an side line intrinsic detectors or call points behind an intrinsically safety barrier;
- connection of additional, atypical equipment (e.g. gas detectors, cable detectors), to the fire alarm system installation as well as creating hierarchical systems for small satellite panels.

Principles of operation

The ADC-4001M adapter transfers information about a fire detected by elements installed in its side line to the inter-operating control panel, and confirms this fact by a red flicker of a two-colour flashing LED diode. Information about a damage in the side line (break, short circuit, removal of a detector from the housing) is sent to the control panel and signalled by the adapter with a yellow flashing LED. The side line is finished with an end-of-line resistor.

The ADC-4001M unit is equipped with internal short-circuit isolator. The activation of the isolator is signalled by the LED's yellow flashing light.

The ADC-4001M adapter has six operating modes allowing optimization of power consumption from the addressable line. Operation modes are declared in the control panel during its programming. Modes 1, 2 and 3 enable connecting various number (determined by the power consumption) of dual sensor detectors of the 30 and 40 conventional detectors' model range resulting from power consumption. Mode 4 enables to connect additional potential free connectors of other units or installations for information or controlling purposes. Mode 5 enables an additional connection of the DOP-40 smoke beam detector. The end-of-line (EOL) resistor is not used in this situation. Mode 6 enables an additional connection of the 40 model range detectors manufactured after 15.06.2002.

Coding of the adapter's address is carried out automatically from the control panel – the address code is saved in its non-volatile memory.

ADC-4001M ADAPTER

Operation mode of the unit	Max. power consumption from an addressable line	Available current (on the side line)	End of line resistor	Alarm resistor
1.	6,8 mA	1 mA	about 1 kΩ	13 kΩ
2.	16 mA	2 mA	about 1 kΩ	5,6 kΩ
3.	2,5 mA	0,15 mA	about 1 kΩ	47 kΩ
4.	0,5 mA	-	8,2 kΩ	13 kΩ
5.	2,2 mA	-	-	-
6.	1,33 mA	0,3 mA	about 1 kΩ	33 kΩ

Design and installation

The ADC-4001M adapter consists of two elements made of plastic: a base with an affixed electronic system printed module and a cover. There is a two-colour LED diode built-in in the cover, signalling the current status of the adapter.

The ADC-4001M adapter is installed in the G-40 base. Taking the unit out is possible only by using a special key to release the fastening clasp on the mechanism.

Technical specifications

Operating voltage	from 16.5 to 24.6 V
Max. power consumption from side line (per choice)	0.15 mA or 0.3 mA or 1 mA or 2 mA
Power consumption (depending on the selected operation mode)	from 0.5 mA up to 16 mA
Resistance of side detector line	max 2 x 25 Ω
Operating temperature range*	from -25°C up to +55°C
Ingress protection	IP 40
Dimensions (with base)	Ø 115 x 54 mm
Mass (with base)	0.19 kg

*according to EN 54-18 (CPR approval) from -10°C to +55°C

Note

The CNBOP-PIB, Notified Body No. 1438 has been issued for the product the certificate of constancy of performance confirming the possession of technical features / parameters required by EN 54-17:2005 + AC:2007, EN 54-18:2005 + AC:2007.

The features / technical parameters above that exceeds the requirements of the aforementioned standards and other features / parameters specified in this datasheet that are not specified in the mentioned standards are confirmed by the Manufacturer. For the product the manufacturer has issued a declaration of performance.