



## PUO-40 and PUO-40Ex flame detectors

### Overview

The PUO-40, PUO-40Ex flame detectors are designed for detection and signalisation of a flame ignition in case of a fire hazard. The PUO-40Ex flame detector is intrinsically safe (IS) to be used in explosion hazard areas. It operates in detection lines connected to POLON-ALFA fire alarm system control panels behind a proper protective barrier or with an appropriate spark proof separator with parameters  $U_o < 28 \text{ V}$ ,  $I_o < 99 \text{ mA}$ . The PUO-40 detector is designed for conventional use.

### Principles of operation

The PUO-40, PUO-40Ex flame detectors react to UV flame radiation with a wavelength of  $\sim 200 \text{ nm}$ . The detectors are resistant to all sources of artificial light, which do not contain UV radiation. Ultra violet radiation falling on a gasfilled electron tube constituting an active surface of the detector causes, as a result of photoemission phenomenon, an increase of the number of impulses counted by the measuring system. The active surface of the detector is made of quartz glass and its cleanliness should be maintained; touching it with bare hands should be avoided.

### Installation

The PUO-40 and PUO-40Ex detectors should be installed in such a manner as to make it impossible for direct sunlight to fall directly on the sensor. The detectors are installed on ceilings or walls in the G-40 bases. An additional optical alarm signal of a detector or a group of detectors can be obtained by connecting the WZ-31 alarm indicator.

### Technical specification

Operating voltage	9 ÷ 28 V
Max. quiescent current	300 $\mu\text{A}$
Alarm current at 20 V	20 mA
Detection distance	25 m (1st class of sensitivity)
View angle	110°
Wave detected	UV
Operation temperature range	from -10°C up to +55°C
Relative humidity	up to 93% at 40°C
Dimensions:	
- PUO-40	Ø 115 x 38 mm
- PUO-40Ex	Ø 115 x 38 mm
Colour	black, white
Mass:	
- PUO-40	0,235 kg
- PUO-40Ex	0,280 kg

### Additional information

The PUO-40Ex detector has the ATEX certificate of Central Mining Institute No. KDB 04ATEXXXXX and has been granted a spark proof feature - II 2G Ex ib IIC T6 Gb.

### Note

The CNBOP-PIB, Notified Body No. 1438 has been issued for the product the national certificate of constancy of performance confirming the possession of technical features / parameters required by EN 54-10:2002 +A1:2005. 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.