



PUO-35, PUO-35EX FLAME DETECTORS

Overview

The PUO-35, PUO-35Ex flame detectors are designed for detection and signalisation of a flame ignition in case of a fire hazard.

The PUO-35Ex 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 with an appropriate spark proof separator.

The PUO-35 detector is designed for conventional use.

Principles of operation

The PUO-35, PUO-35Ex flame detectors react to UV flame radiation with a wavelength of ~200 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. An electronic circuit of the detector transfers an alarm signal to the interoperating fire alarm control panel after counting a set number of impulses.

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-35 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. Depending on the type of system used, the detectors can be installed in conventional or addressable bases.

The PUO-35Ex detectors are to be installed only in the G-33 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 specifications

Operating voltage	17 ÷ 24 V
Max. quiescent current	100 µA
Alarm current at 20 V DC	20 mA
Detection distance	17 m max. (2nd class of sensitivity)
View angle	120 °
Wave detected	UV
Operation temperature range	from -25 °C up to +55 °C
Relative humidity	up to 95 % at 40 °C
Dimensions:	
PUO-35	107 dia. x 54 mm
PUO-35Ex	107 dia. x 60 mm
Colour	black
Mass	0.45 kg

Additional information

The PUO-35Ex detector has the ATEX certificate of Central Mining Institute No. KDB 04ATEX170X and has been granted a spark proof feature - II 2G EEx ib IIC T6.