



DOR-40 OPTICAL SMOKE DETECTOR

Overview

The DOR-40 optical smoke detector is designed for detection of a visible smoke, concomitant with most fires. It enables detection of fire prior to its ignition, when material starts to smoulder, and therefore, a long time before the appearance of an open flame and a noticeable rise in temperature.

The DOR-40 optical smoke detector is designed to operate indoors, where under normal conditions, smoke, dust and steam condensation are not present. Due to self-compensation for environmental changes, the DOR-40 optical smoke detector offers improved resistance to air pressure, temperature changes and water vapour condensation.

Principles of operation

The DOR-40 is a Tyndall effect based optical smoke detector. Its operation is based on measuring infrared (IR) light scattered by smoke particles (aerosol) entering the measuring chamber which is inaccessible to external light.

The DOR-40 detector contains self-regulating digital system maintaining steady sensitivity during progressing dirt accumulation inside the measuring chamber. After exceeding a pre-set contamination threshold, the detector emits a fault signal denoting the necessity to undertake servicing and cleaning works. The detector has a replaceable optical chamber, which can be cleaned or replaced with a new one.

An additional optical alarm signal of a detector or a group of detectors, in an event they are installed in a hard to access space, can be obtained by connecting the WZ-31 alarm indicator.

The DOR-40 detectors are installed in the G-40 bases.

The DOR-40 detectors meet the requirements of the PN-EN 54-7 European standard.

Technical specifications

Operating voltage	12 ±28 V
Max. quiescent current	≤ 60 µA
Alarm current	20 mA
Detectable test fires	from TF2 to TF5
Operation temperature range	from -25 °C up to +55 °C
Relative humidity	up to 95 % at 40 °C

Dimensions of detectors:

- with base	115 dia. x 54 mm
Mass	0.15 kg

Additional information

The DOR-40 detector does not react to high-energy flammable products and so it can be installed in garages unlike the DOR-40 detector, which reacts to exhaust fumes.