

Fire detection and evacuation solutions that save lives.

Orbis Intrinsically Safe – Optical Smoke Detector

Features

- Responds well to slow-burning, smouldering fires
- Good performance in both black and white smoke
- Transient rejection algorithms reduce false alarms
- Automatic drift compensation with DirtAlert, a yellow flashing LED, to easily identify dirty detectors
- Red flashing LED at StartUp confirms the device is operating. SensAlert, yellow flashing LED, indicates faulty operation
- FasTest takes just four seconds to test and confirm detectors are functioning correctly
- DustDefy system prevents dust ingress while maintaining airflow

Description

The Orbis Intrinsically Safe Optical Smoke Detector operates on the well established light scatter principle. The sensing technology used is radically different from previous optical detectors and significantly reduces false alarms.

The remarkable optical design of the Orbis optical smoke detector allows it to respond to a wide spectrum of fires. The sensing chamber of the Orbis optical smoke detector contains an optical sensor which measures back-scattered light as well as the more usual forward scattered light. As a result sensitivity to black smoke is greatly improved.

The detector is calibrated so that Orbis is highly reliable in detecting fires but is much less likely to generate false alarms than ionisation smoke detectors.

The stability of the detectors high reliability and low false alarm rate is further increased by the use of algorithms to decide when the detector should change to the alarm state. This removes the likelihood of a detector producing an alarm as a result of smoke from smoking materials or from another non-fire source. The sensing chamber has also been designed to keep out dust and other airborne contaminants.

Classification

II 1G Ex ia IIC $-40^{\circ}\text{C} < \text{Ta} < +40^{\circ}\text{C} (\text{T5})$
 $-40^{\circ}\text{C} < \text{Ta} < +60^{\circ}\text{C} (\text{T4})$



I.S. Optical Smoke Detector

Specifications

Operating Voltage	14 to 28V DC
Quiescent current	85µA at 24V DC
Dimensions	100mm Dia x 50mm H inc base
Operating temperature	-40°C to +70°C (no icing) Class T5: - 40°C to +40°C Class T4: - 40°C to +60°C
Relative humidity	0 to 98% (non condensing)
IP rating	IP23D (indoor use)
Weight	75 grams (135g inc base)
Approvals	EN54-7

For further information refer respective Product Guide MAN3041.

Item Numbers

Australia	
201-0604	Orbis I.S. Optical Smoke Detector
International	
ORB-OP-52027-APO	Orbis I.S. Optical Smoke Detector

BASEEFA Certificate Number

ATEX - Baseefa 06 ATEX 0007X
 IECEx - IECEx BAS 06.0002X