# **Detectors for Hazardous Areas** Series ORBIS

- Conventional technology
- Optical smoke detector
- Optical-thermal detector
- Thermal fire detectors classes A1R and A1S
- ATEX certified



# **Optical Smoke Detector OP-52027**

The smoke detector OP-52027 in conventional technology is designed for use in hazardous areas. It contains an optical sensing chamber based on the scattered light principle and has been developed for the detection of different kinds of smoke particles.

Intelligent evaluation algorithms compensate for the contamination of the optical measurement system and keep the response sensitivity of the detector constant for a long time. In this way, false alarms can be avoided to a great extent.

The multicoloured status LED indicates the activated condition of the detector in red. If the contamination of the optical measurement system is too high or if the detector experiences a fault, this will be indicated by a yellow blinking of the LED.

For the connection to the conventional line, a compatible safety barrier (e.g., ES58-2, Art. No. 228003) is required. The relevant country-specific regulations have to be observed.

## **Specifications**

Operating voltage	Supply through the detector line voltage	
Ignition protection	intrinsically safe	
Ex classification	Ex II 1 G Ex ia IIC	
Current consumption	typ. 85μA (quiescent)	
Ambient temperature	-40°C to +40°C (class T5, no icing) -40°C to +60°C (class T4, no icing)	
Relative humidity	0 – 98% (no condensation)	
Dimensions Ø × H	100 × 31 (mm)	
Colour	white	
Weight	75g	
Approvals	Baseefa 06 ATEX 0007X VdS G207027 2531-CPR-CSP11158	
Order number	241062	
Order name	Optical Smoke Detector/Orbis/IS OP-52027	





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### **Optical-Thermal Detector OH-53027**

The Optical-Thermal Detector OH-53027 in conventional technology is designed for use in hazardous areas. It contains both an optical sensing chamber based on the scattered light principle as well as a temperature sensor. The evaluation of the measured values of both detection units and the integrated comparison of characteristics of fire ensure safe fire detection.

Intelligent evaluation algorithms compensate for the contamination of the optical measurement system and keep the response sensitivity of the detector constant for a long time. In this way, false alarms can be avoided

to a great extent.

The multicoloured status LED indicates the activated condition of the detector in red. If the contamination of the optical measurement system is too high or if the detector experiences a fault, this will be indicated by a yellow blinking of the LED.

For the connection to the conventional line, a compatible safety barrier (e.g., ES58-2, Art. No. 228003) is required. The relevant country-specific regulations have to be observed.

#### **Specifications**

Operating voltage	Supply through the detector line voltage	
Ignition protection	intrinsically safe	
Ex classification	Ex II 1 G Ex ia IIC	
Current consumption	typ. 85µA (quiescent)	
Ambient temperature	-40°C to +40°C (class T5, no icing) -40°C to +60°C (class T4, no icing)	
Relative humidity	0 – 98% (no condensation)	
Dimensions Ø × H	100 × 42 (mm)	
Colour	white	
Weight	80g	
Approvals	Baseefa 06 ATEX 0007X VdS G207028 2531-CPR-CSP11157	
Order number	241063	
Order name	Optical-Thermal Detector/Orbis/IS OH-53027	

#### Thermal fire detectors HT-51145 / HT-51157

The thermal fire detectors HT-51145 and HT-51157 in conventional technology are designed for use in hazardous areas.

- The Thermal RoR Detector HT-51145 according to EN 54-5 Class A1R reacts to temperature changes within defined periods of time as well as a maximum temperature of 57°C.
- to EN 54-5 Class A1S reacts to a maximum tempe- of 7.5m. rature of 57°C.

The multicoloured status LED indicates the activated condition of the detector in red. A fault of the detector is indicated by a yellow blinking of the LED.

For the connection to the conventional line, a compatible safety barrier (e.g., ES58-2, Art. No. 228003) is required. The relevant country-specific regulations have to be observed.

• The Thermal Max Detector HT-51157 according Both detectors are suitable for a maximum room height



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Operating voltage	Supply through the detector line voltage	
Ignition protection	intrinsically safe	
Ex classification	Ex II 1 G Ex ia IIC	



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Current consumption	typ. 85µA (quiescent)	
Alarm temperature	57°C (maximum temperature)	
Application temperature	max. +50°C	
Ambient temperature	-40°C to +40°C (class T5, no icing) -40°C to +60°C (class T4, no icing)	
Relative humidity	0 – 98% (no condensation)	
Dimensions $\emptyset \times H$	100 × 42 (mm)	
Colour	white	
Weight	70g	
Thermal RoR Detector HT-51145		
Approvals	Baseefa 06 ATEX 0007X VdS G207020 2531-CPR-CSP11149	
Order number	242037	
Order name	Thermal RoR Detector/Orbis/A1R/IS HT-51145	
Thermal Max Detector HT-51157		
Approvals	Baseefa 06 ATEX 0007X VdS G207026 2531-CPR-CSP11155	
Order number	242038	
Order name	Thermal Max Detector/Orbis/A1S/IS HT-51157	

# **Detector Base MB-50018**

The Detector Base MB-50018 is designed to accommodate an intrinsically safe fire detector Series Orbis in hazardous areas.

Due to its robust multi-wire screw terminals, the detectors can be wired with ease, thus achieving a secure and durable connection.

The base is designed for indoor surface mounting. A mechanical theft protection of the detector can optionally be activated in the detector base.



# **Specifications**



Ambient temperature	-40°C to +70°C (no icing)
Relative humidity	0 – 98% (no condensation)
Dimensions $\emptyset \times H$	100 × 23 (mm)
Colour	white
Weight	60g
Order number	246043
Order name	Detector Base/Orbis/IS MB-50018



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