firedect IM100
Self-Monitoring Fire Alarm System

firedect offers a fire alarm system that can detect a fire in its earliest stages. It is designed to be retrofit and can be easily installed to monitor the engine, sleeping and luggage compartments, and on-board lavatories. The system is maintenance-free and consists of an alarm display, spot fire detectors for the engine compartment, and smoke detectors for passenger safety.

System Advantages:

- Easy assembly and installation (plug & play)
- Ideal for retrofitting
- Maintenance-free
- Independent of on-board electronics
- Thief and tamper proof
- Cable break alert
- Approved for automotive industry (E-Certificate for 24V model)
- Connects up to 50 sensors
- Visual and audible alarm

E13 certified R10-03

UN/ECE Retrofit Fire Alarm System for Bus and Coach

As of January 1, 2014 all new M2 and M3 category vehicles (bus and coach) must be equipped with fire detectors in the engine compartment that signal a visual and audible alarm immediately to the vehicle operator in the event of a thermal incident. Smoke detectors in lavatories and sleeping compartments are also required for passenger safety. While this regulation only requires installation in new vehicles, the system is also available for retrofit into currently active vehicles.   The fire alarm system operates independently of on-board electrical systems, and can be customized to integrate into an existing system; it is easily assembled and can be installed by your own personnel. The fire alarm system is self-monitoring and operates maintenance-free for up to 10 years.

Application

firedect's fire alarm system **IM100** can be connected to any fire detector e.g. VT-M16 NC A2 / A2/M and various forms of smoke detectors e.g. OSDS65, S65PFU1. It is approved for the automotive sector and has proven effective in local public transport and regular long distance transport service. The **IM100** should be installed within visual range of the vehicle operator and requires 24V DC to operate (12 V DC version available). The **IM100** is also a practical solution for airport buses, aerospace, and maritime industries.

Operation

Upon ignition, the alarm display will light up for approximately 2 seconds. The device is then operational, signaled by the green light.

When the alarm is triggered by a detector, the alarm display will blink continuously and sound an audible alert.

The alarm can be muted at the press of a button, but the indicator lights will stay lit until all detectors are checked and reset.

The function of the alarm display can also be tested. When the button is pressed and held for 6 seconds, the indicator lights will blink and the alarm will sound until released.
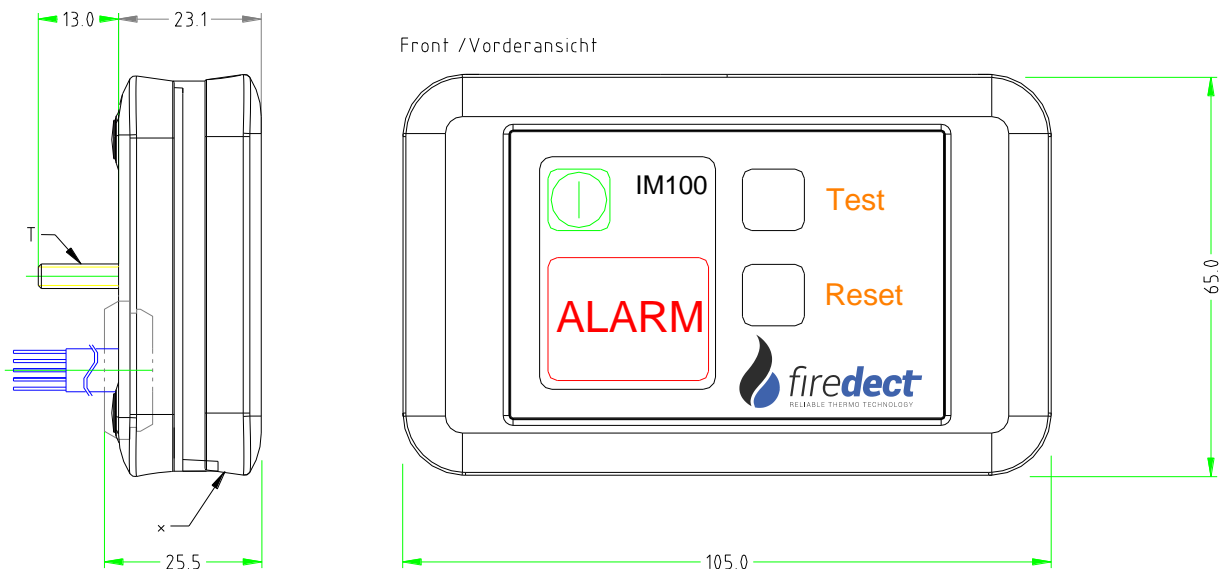
Function

The fire alarm system **IM100** from firedect can transmit warning signals for up to 50 fire and smoke detectors. The small and easy-to-install alarm display has lights and buttons designed to provide ease of use and clear indication of operation and fault monitoring. The alarm display is connected to the system by wires and can be supplied with assembled connectors and extra cable upon request (plug & play).

Dimensions and Installation

At the installation site, drill 3 holes as described in the assembly plan. The alarm display is secured with two M4 nuts and two 4.5mm lock washers screwed tightly onto the two studs on the back of the display unit. Installing the alarm display in the driver's vision field is recommended.

Dimensions are shown below:

Fire Alarm System Technical Data

Supply Voltage	18 V to 32 V DC (12 V DC available)
Power Consumption	25 mA continously, 90 mA intermittent (Alarm)
Connected Load	3 W fuse 0.5 A
Fuse	Semiconductor fuse, self reset
External Alarm Output	Low-side driver max. 0.5 A
Operating Temperature	- 40 °C to + 85 °C
Protection Class	IP51
Service Life	> 30.000 hours
Dimensions (L x B x H in mm)	105 x 65 x 24

Smoke Detectors

Optical Smoke Detector OSDS65-x
    incl. relay socket OSD-45681-245

Available Options:
OSDS65-245_317
- red LED when alarm triggered
OSDS65-245_316
- red LED when alarm triggered
- blinking LED when operational

Optical Smoke Detector S65PU1-x (Self-Monitoring)
    With circuit board OSD-45680-244.3
    incl. 300 mm connecting cable
Higher interference resistance, transient strength, load dump, and ESD.
Any incident (cable break, detector failure) will relay a warning signal.
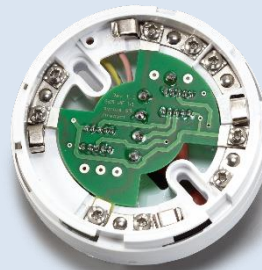
Available Options:
S65PFU1-244_317
- red LED when alarm triggered
S65PFU1-244_316
- red LED when alarm triggered
- blinking LED when operational

Certificate: E13 certified R10-03

Spot Fire Detectors

VT-M16x … A2/M
Spot Fire Detector
Engine Compartment IP68 (NC)
Brass fitting
100°C ± 5°C to 175°C +5/-10°C

VT-M16x … A2
Spot Fire Detector
Engine Compartment IP67 (NC)
PA66 housing
100°C ± 5°C to 120°C +5/-10°C

firedect
RELIABLE THERMO TECHNOLOGY