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DK 7338.121

Fire alarm and extinguisher system

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FRIEDHELM LOH GROUP



DK 7338.121 - Fire alarm and extinguisher system DET-AC III master

Compact fire alarm and active extinguisher system with smoke extraction system, built into one height unit for use in security safes and closed server racks.



Features

Model No.	DK 7338.121
Product description	The active extinguisher system includes the smoke extraction system and the extinguisher unit. The smoke extraction system is identical to the one used in the EFD III. The extinguishing process begins automatically when a main alarm is activated. For the extinguishing process, the tank is pressurised via a propellant cartridge. The extinguishing medium FK 5-1-12 evaporates at the extinguisher nozzle and is distributed in the server enclosure.
Benefits	Early fire detection Automatic extinguishing Innovative extinguisher FK 5-1-12: eco-friendly, non-critical for IT components, non-conductive 482.6 mm (19") rack mount with just 1 U Tested by VdS Schadenverhütung GmbH CAN bus interface to the CMC III monitoring system Floating relay outputs (pre-alarm/main alarm/collective fault)
Technical specifications	Extinguisher is emitted via a propellant cartridge, with integral electrical activation unit Integral extinguisher monitoring (indication of >15% loss)
Material	Sheet steel

Features

Colour	Enclosure: RAL 7035 Front: RAL 9005
Extinguisher gas	Type: FK 5-1-12 Fill volume: 1.8 l
Tank	Material: Aluminium Volume: 2 l
Interfaces	4 x/3 x relay outputs for alarms and faults (terminals/RJ12 jacks) 1 x/1 x input for door contact switch (terminal/RJ12 jack) 2 x CAN connections for master-slave networking 2 x connection (external alarm/manual triggering device) 1 x voltage output for DET-AC slave III (24 V DC max. 500 mA) 1 x USB 2 x CAN bus interfaces to CMC III (max. 16 on PU/4 on PU Compact)
Uninterruptible mains electricity operation	approx. 4 h
Note	This system is designed solely for use in closed, non-accessible enclosure systems with a maximum volume of 2.8 m ³ .
Display	Plain-language display with 6 LEDs
Sensors	Optical smoke detector (sensitivity: approx. 3.5%/m light obscuration) Optical smoke detector HS (sensitivity: approx. 0.25%/m light obscuration)
Dimensions	Width: 482.6 mm Height: 44 mm Depth: 660 mm
Operating temperature range	10 °C...40 °C
Storage temperature range	-20 °C...65 °C
Storage temperature range of batteries	-15 °C...40 °C
Relative humidity (non-condensing)	96 %
Rated operating voltage	100 V - 240 V, 1~, 50 Hz/60 Hz
Air flow monitoring	approx. ±10% of total airflow

Features

Packs of	1 pc(s).
Net weight	21 kg
Gross weight	21.5 kg
PCF per pack (cradle-to-gate)	81.9 kg CO2 eq (Cat B)
Note on PCF category	Category B: PCF value (cradle-to-gate) based on the product weight, approximately calculated and self-declared
Customs tariff number	84241000
ETIM 9	EC002685
ECLASS 8.0	40040104
Product description	DET-AC III Master, fire alarm and extinguisher system, active smoke extraction system, early fire detection, automatic extinguishing.

Approvals

Certificates	VDS
Explanations	Declaration of conformity

Tender text

DET-AC III Master fire alarm and extinguisher system

The fire alarm and extinguisher system is able to detect and extinguish fires at an early stage. The compact system occupies 1 U of rack space and is designed for installation in the 19" level of closed server enclosure systems.

An integrated fan continuously draws in air from the protected space via a pipe system. This air passes two smoke detectors. If smoke aerosols are detected, the high-sensitivity smoke detector triggers a pre-alarm state. The second smoke detector triggers the main alarm and activates the extinguishing process. The proper functioning of the smoke detectors is monitored continuously by the evaluation and control electronics on the control board.

The extinguishing agent used is FK 5-1-12, which is held in liquid form in the tank. When extinguishing is activated, the tank is pressurised. The extinguishing agent vaporises at the nozzle and spreads through the protected space.

The extinguishing nozzle is located in the front panel of the unit. The frame for installation of the active extinguishing system is designed as a 19" rack module. The depth of the system is such that it can be installed in 19" server enclosures with an internal depth > 800 mm. The pre-assembled system can be inserted or removed without interrupting operation of the equipment to be protected.

A CAN bus interface enables direct connection to the Rittal CMC III system.

The fire alarm and extinguisher system has been tested by VdS Schadensverhütung GmbH. All tests were completed with a positive result. A USB port offers a possibility to retrieve information on operating states and events, as well as to perform various settings. To this end, a special maintenance program is made available for use by appropriately trained personnel.

The commissioning must be carried out by Rittal.

Technical data:

Width: 482.6 mm (19")

Height: 44 mm (1 U)

Depth: 660 mm

Housing material: Sheet steel

Weight: approx. 15.5 kg

Rated voltage: 100 - 240 V AC, 50/60 Hz

Emergency power supply: approx. 4 h

Max. permissible active current: 1.0 A at 24 V (the sum of all connected devices must not exceed the permissible active current of 1.0 A)

Max. permissible charging current: 350 mA at 24 V

Ambient temperature:

+10 °C to +40 °C (operation)

-20 °C to +65 °C (storage without batteries)

-15 °C to +40 °C (battery storage)

Humidity: up to 96% (relative), non-condensing

Protection category: IP 30

Connections:

Terminal for relay output "Pre-alarm", "Fire alarm", "Extinguishing"

Terminal for relay output "Collective fault"

Terminal for door contact switch

Socket (RJ 12) for connection of door contact switch

3x sockets (RJ 12) for signal outputs "Fault", "Pre-alarm", "Main alarm"

2x CAN connection for system networking

Connection for external alarm device

Connector for manual alarm

Voltage supply (UB), max. 500 mA

USB port

CAN bus interface to CMC III

Displays:

1 plain-language display for status messages

1 LED green, "Operation"

1 LED yellow, "Shutdown"

1 LED red, "Extinguishing system primed"

1 LED red, "Extinguishing system activated"

1 LED yellow, "Blocked"

1 LED yellow, "Fault"

Sensors (2 different scattered-light sensors for 2 alarm thresholds):

Optical smoke detector

(sensitivity: approx. 3.5%/m obscuration)

Optical smoke detector HS

(sensitivity: approx. 0.25%/m obscuration)

Air flow monitoring: approx. +/-10% of overall air flow

Protected space volume: max. 2.8 m³ (protected space must not display any recognisable

openings)

External devices:

Connection for manual alarm

Connection for door contact

Connection for external alarm device
CAN bus interface to Rittal CMC III
Tank material: Aluminium
Empty volume: approx. 2.0 litres
Content: approx. 1.8 litres FK 5-1-12
Extinguishing agent discharged via pressure from propellant cartridge
Integrated electrical activation unit
Integrated extinguishing agent leakage/filling level monitoring
(display from >15% loss)
Model No.: 7338.121
Manufacturer: Rittal GmbH & Co. KG