OneU ac tive extinguishing system

Inc. front plate

19" x 1.73" (1U) x 24.41"
483mm x 44mm (1U) x 620mm

OneU DD smoke aspiration system

19" x 1.73" (1U) x 19"
483mm x 44mm (1U) x 480mm

OneU ED extinguishing module

19" x 1.73" (1U) x 20.87"
483mm x 44mm (1U) x 530mm

Weight 33.07lbs (15 kg) (including ridge with propellant)

17.64 lbs (8 kg) 38.48 lbs (17 kg) (including ridge with propellant)

50 ° to 95 °F (10 to 35 °C)

50 ° to 95 °F (10 to 35 °C)

50 ° to 95 °F (10 to 35 °C)

IP 20

IP 20

IP 20

Number of connectable

4

5

–

Number of controlled cabinets max.

5

5

–

7.05 lbs (3.2 kg) Novec™ 1230

6.39 lbs (2.9 kg) Novec™ 1230

Sensors

light sensors

for 2 alarm thresholds

light sensors

for 2 alarm thresholds

–

Door contacts

Door contacts

–

24 V DC/0.5 A

24 V DC/0.5 A

–

Emergency power supply

(accumulator)

2 x 12 V, 2.2 Ah

approx. 4 hours

2 x 12 V, 2.2 Ah

approx. 4 hours

–

100/240 V AC, 50/60 Hz

100/240 V AC, 50/60 Hz

24 V DC

ADVANTAGES

Compact and Flexible

The OneU ac tive extinguishing system is a compact and independent unit designed to detect and extinguish a fire in closed cabinets.

A sensitive smoke aspiration system with two fire detectors (permanently monitored for operational reliability) continuously takes air samples from within the cabinet. It detects an incipient fire and reacts in two stages:

 When a pre-alarm occurs, power circuits can be switched off, simultaneously with the alarm signal, to cut off supporting energy to an early stage fire.

 If the fire continues to develop, the fire alarm on the extinguishing system is activated along with the connected OneU DD extinguishing modules. The Novec™ 1230 extinguishing agent vaporizes at the nozzle and is distributed throughout the cabinet to effectively extinguish a fire. The fire is thus extinguished rapidly without leaving any agent residue.

The status of the alarm and fault are shown on the display and can be routed to higher level alarm systems if necessary. Audible and visual alarms can also be activated.

Function

The OneU ac tive extinguishing system should be utilized when needing to protect electronic installations. These include:

 IT, server and network technology
Ensures round-the-clock availability of essential company data

 Production controls
Controls and monitors production processes

 Telecommunications installation
Ensures fault-free communication for the company

 Power supply and control systems
Ensures adequate power at the right time and in the right place in the company

Areas of Use

OneU Fire Protection Systems for 19" Racks

OneU monitors another cabinet in which the connected OneU ED extinguishing module is installed.

Early fire detection combined with an automatic extinguishing system minimizes potential downtime and damage resulting from technical malfunctions.

Minimax Fire Products reserves the right to make any necessary changes.
IT systems once occupied an entire area of a computer center but now are typically combined into a single IT rack. These systems are distinguished by per-rack cooling and power, compact and modular configuration and high accessibility. The OneU system offers the perfect fire protection solution for specialized IT areas.

The OneU system distinguishes itself

➤ Per-rack fire detection and extinguishing capabilities
➤ Slimline 1 unit (1U) space requirements
➤ Modular extendibility with slave systems
➤ High availability through redundant components
➤ Integrated battery buffering

OneU sets the new standard for 19" extinguishing systems.

The OneU fire protection systems are designed for installation in closed 19" switch cabinets, a major step forward in space requirements and features.

OneU systems are unrivaled in size while maintaining function, quality and reliability. The slim height of OneU systems allows for problem-free and space-saving installation. Also, a power pack with an integrated emergency power supply is included to ensure continuous operation.

The OneU product family

➤ OneU active extinguishing system
➤ OneU DD smoke aspiration system
➤ OneU ED extinguishing module

The OneU product family

OneU active extinguishing system

Agent container with release mechanism and discharge nozzle
Smoke aspiration system with two sensors
Power supply
Battery buffer

Despite its compact design, the OneU active extinguishing system includes agent to protect up to 106 cu. ft. (3 m³). The innovative agent container and release mechanism was designed specifically for small dimensions. When combined with the groundbreaking agent, Novec™ 1230, OneU is the most efficient and effective cabinet system to date.

The OneU smoke aspiration system and OneU DD extinguishing module are also available with the OneU active extinguishing system.

OneU DD smoke aspiration system

Using the OneU DD smoke aspiration system, up to five switch cabinet systems can be monitored via a sampling pipe system. Up to four OneU ED extinguishing modules may be connected.

OneU ED extinguishing module

The OneU ED extinguishing module contains extinguishing agent for 106 cu. ft. (3 m³) protected volume and it is prepared for connection to the OneU active extinguishing system or OneU DD smoke aspiration system. Four or five devices may be connected to and monitored by these units.

The OneU fire protection systems are designed for installation in closed 19" switch cabinets, a major step forward in space requirements and features.

OneU systems are unrivaled in size while maintaining function, quality and reliability. The slim height of OneU systems allows for problem-free and space-saving installation. Also, a power pack with an integrated emergency power supply is included to ensure continuous operation.

The OneU product family

➤ OneU active extinguishing system
➤ OneU DD smoke aspiration system
➤ OneU ED extinguishing module.
The OneU Product Family

OneU active extinguishing system

The integrated smoke aspiration system continuously takes air samples from the entire cabinet through a sampling pipe with several openings installed in the cabinet. The smoke aspiration system is usually equipped with a high-sensitive and a normal-sensitive smoke detector. Thus, two different alarm thresholds are provided for the graduated combination of device shutdown and fire. A microcontroller continuously takes measurements, greatly minimizing error when detecting a fire. Additionally, the OneU active extinguishing system can be connected to an external fire alarm for manual activation.

The integrated extinguishing system primarily consists of

➤ Light metal container that holds the extinguishing agent Novec™ 1230.
➤ Release mechanism with a valve and cartridge containing propellant.
➤ Loss monitoring capabilities for the extinguishing agent and the OneU discharge nozzle.

When activated, the cartridge containing the propellant is opened and the liquid agent flows to the OneU nozzle. Specialized geometry ensures that the agent is vaporized when exiting.

Integrated battery buffering guarantees that the OneU system can operate up to four hours, uninterrupted, upon power outage.

A comprehensive self-monitoring system will immediately notify if operations are interrupted. The two-line LCD display and additional LED lights quickly communicate a variety of information to the user, including operation status, alarm status and system failures. Dry contacts are available for further notification of alarms and failures, e.g. central control technology or fire detection system installed in the building as well as device shutdown.

OneU active extinguishing system

1. Agent container with release mechanism and discharge nozzle
2. Smoke aspiration system with two sensors
3. Power supply
4. Battery buffer
FLEXIBLE

Up to five devices are cascadable to be able to simultaneously control and protect interconnected switch cabinets.

One unit contains:

➤ A sensitive smoke aspiration system
➤ An extinguishing agent container with loss-monitoring capability and a discharge nozzle
➤ A battery-buffered emergency power supply
➤ Evaluation and control systems
➤ Connections for external alarm equipment and for shutting down circuits
➤ A clear, user-friendly control panel

Despite its compact design, the OneU active extinguishing system includes agent to protect up to 106 cu. ft. (3 m³). The innovative agent container and release mechanism was designed specifically for small dimensions. When combined with the groundbreaking agent, Novec™ 1230, OneU is the most efficient and effective cabinet system to date.

Flexibility of the OneU fire protection system

The OneU smoke aspiration system and OneU DD extinguishing module are also available with the OneU active extinguishing system.

OneU DD smoke aspiration system

Using the OneU DD smoke aspiration system, up to five switch cabinet systems can be monitored via a sampling pipe system. Up to four OneU ED extinguishing modules may be connected.

OneU ED extinguishing module

The OneU ED extinguishing module contains extinguishing agent for 106 cu. ft. (3 m³) protected volume and it is prepared for connection to the OneU active extinguishing system or OneU DD smoke aspiration system. Four or five devices may be connected to and monitored by these units.
### Function

The OneU active extinguishing system is a compact and independent unit designed to detect and extinguish a fire in closed cabinets.

A sensitive smoke aspiration system with two fire detectors (permanently monitored for operational reliability) continuously takes air samples from within the cabinet. It detects an incipient fire and reacts in two stages:

- When a pre-alarm occurs, power circuits can be switched off, simultaneously with the alarm signal, to cut off supporting energy to an early stage fire.

- If the fire continues to develop, the fire alarm on the extinguishing system is activated along with the connected OneU DD extinguishing modules. The Novec™ 1230 extinguishing agent vaporizes at the nozzle and is distributed throughout the cabinet to effectively extinguish a fire. The fire is thus extinguished rapidly without leaving any agent residue.

The status of the alarm and fault are shown on the display and can be routed to higher level alarm systems if necessary. Audible and visual alarms can also be activated.

### Areas of Use

The OneU active extinguishing system should be utilized when needing to protect electronic installations. These include:

- **IT, server and network technology**
  Ensures round-the-clock availability of essential company data

- **Production controls**
  Controls and monitors production processes

- **Telecommunications installations**
  Ensures fault-free communication for the company

- **Power supply and control systems**
  Ensures adequate power at the right time and in the right place in the company

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![Diagram](image_url)

1. OneU active extinguishing system monitors another cabinet in which the connected OneU ED extinguishing module is installed.
### ADVANTAGES

**Compact and Flexible**

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Fax 480.553.5701
sales@minimaxfp.com
www.minimaxfp.com

Minimax Fire Products reserves the right to make any necessary changes

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**Technical data**

<table>
<thead>
<tr>
<th></th>
<th>OneU active extinguishing system</th>
<th>OneU DD smoke aspiration system</th>
<th>OneU ED extinguishing module</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fitting dimensions (W x H x D) in mm incl. front plate</td>
<td>19” x 1.73” (1U)x 24.41” 483mm x 44mm (1U) x 620mm</td>
<td>19” x 1.73” (1U) x 19” 483mm x 44mm (1U) x 480mm</td>
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<td>Operating temperature</td>
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</tr>
<tr>
<td>Protection class</td>
<td>IP 20</td>
<td>IP 20</td>
<td>IP 20</td>
</tr>
<tr>
<td>Permitted protected volume</td>
<td>max. 106 ft³ (3 m³) (for tight cabinets)</td>
<td>–</td>
<td>max. 106 ft³ (3 m³) (for tight cabinets)</td>
</tr>
<tr>
<td>Number of connectable extinguishing modules</td>
<td>4</td>
<td>5</td>
<td>–</td>
</tr>
<tr>
<td>Number of controlled cabinets</td>
<td>max. 5</td>
<td>max. 5</td>
<td>–</td>
</tr>
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<td>Extinguishing agent</td>
<td>7.05 lbs (3.2 kg) Novec™ 1230</td>
<td>–</td>
<td>6.39 lbs (2.9 kg) Novec™ 1230</td>
</tr>
<tr>
<td>Sensors</td>
<td>2 different sensitive scattered light sensors for 2 alarm thresholds</td>
<td>2 different sensitive scattered light sensors for 2 alarm thresholds</td>
<td>–</td>
</tr>
<tr>
<td>Input manual actuation</td>
<td>Available</td>
<td>Available</td>
<td>–</td>
</tr>
<tr>
<td>Input extinguishing blocking</td>
<td>Door contacts</td>
<td>Door contacts</td>
<td>–</td>
</tr>
<tr>
<td>Outputs pre-alarm, fire, extinguish, collective fault max. contact load</td>
<td>24 V DC/0.5 A</td>
<td>24 V DC/0.5 A</td>
<td>–</td>
</tr>
<tr>
<td>Emergency power supply (accumulator)</td>
<td>2 x 12 V, 2.2 Ah approx. 4 hours</td>
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<td>–</td>
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<tr>
<td>Operating voltage</td>
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