



Fire Detection

10.8 to 10.14



Fire detection

Space-optimised fire protection for 19" server racks



The "earliest" detection for the fastest possible reaction can make the difference between total destruction and maximum damage limitation. Knürr focuses on smoke detection for early alertness to guarantee this.

The smoke is detected using optical systems. Knürr uses patented smoke aspiration systems for highly-sensitive detection of even the smallest amount of smoke particles.

EDP, server and control racks are among the most important technical components in every company. They manage the internal and external data flow or control production processes, among other functions. However in many cases these racks are not centrally situated, and not only insufficiently integrated into existing safety systems. Use in concentrated data centers for local detection and, where applicable, only partial intervention, is also an indispensable factor. The compact earliest smoke detection system is the solution for both areas.

The easy to handle and space-saving 19-inch slot-in (1 HU) detects fires and enables automatic countermeasures in server racks - reliably and efficiently. An integrated smoke aspiration system detects potential fire as early as possible. The subsequent automatic power-off takes the energy for spreading away from the fire. A fire extinguishing system is also an optional control. The new system, which is suitable for all EDP, server and control racks in 19-inch versions, unites optimum space-saving and the best possible fire detection and fire extinguishing qualities for the first time.

An exceptional feature is provided by the tried, tested and proven unrestricted use in circulated air-cooled systems (CoolTherm).

Should you have any questions, please contact: fire-protection@knuerr.com

19" Fire Protection System – “Earliest Smoke Detection”

Strong points

Smoke is always the first to appear

When a fire starts smoke, heat and light are generated (fire characteristics). Smoke appears in an early phase of the fire in high amounts and can be safely detected by optical sensors. Smoke is therefore the optimum fire characteristic for earliest possible detection.

Being quick means minimizing damages

The earliest possible detection of a fire enables maximum damage limitation, as countermeasures can be started a good deal earlier. People protection, availability assurance of important technical systems and protection of ir-retrievable data are guaranteed. A fire must be safely detected in its development phase so that effective countermeasures can be introduced immediately.

Quicker and better than point type detectors

In detecting smoke, Knürr puts its money on smoke aspiration systems! The smoke aspiration system actively takes air samples from the ambient air and takes them to a sensitive optical sensor.

False alarm detection

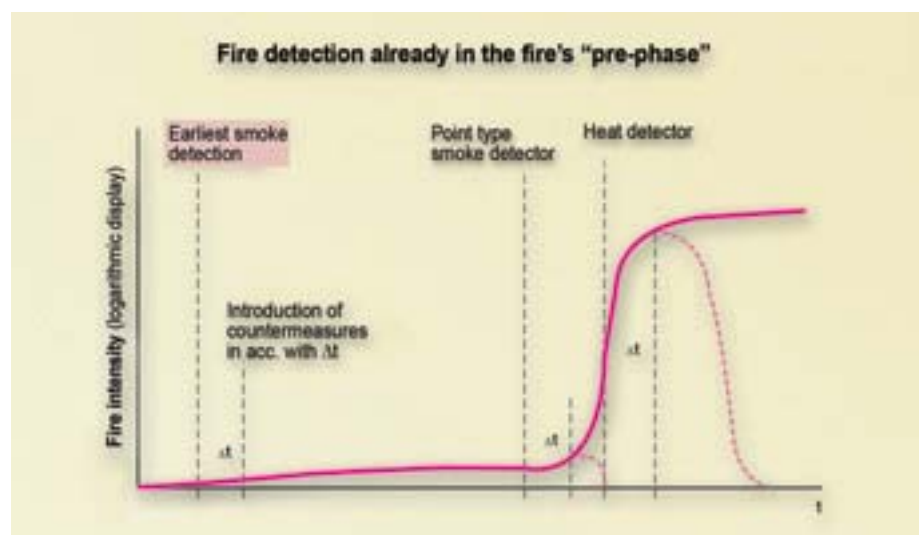
While the function of point type detectors that are common on the market can be impaired by diverse disturbance variables, the construction of the smoke aspiration system awards it higher sensitivity, and compared with point type detectors, it can detect significantly quicker and free of false alarms at the same time!

Especially suitable for difficult situations

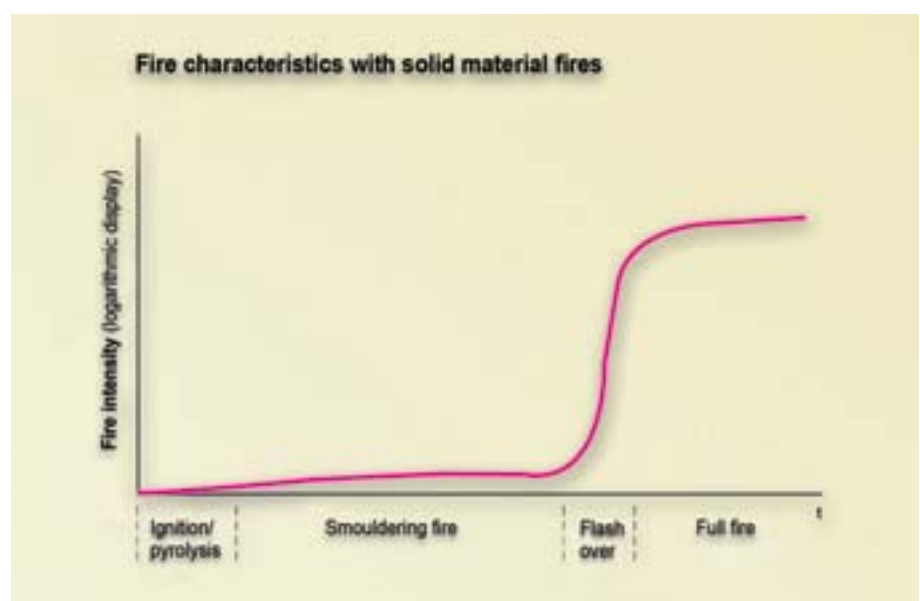
In difficult situations such as those with variable air speeds, extreme temperatures and the highest conceivable requirements for availability, reliable fire detection can only be guaranteed with a smoke aspiration system.

Disturbance variables blanked out

All kinds of disturbance variables are blanked out by intelligent technology (filters, prof. engineering, mature accessories) and false alarms are effectively prevented. Sensors can consequently be equipped with a significantly higher sensitivity that is appropriate for the respective application, and can therefore achieve optimum results.



RMS20???



RMS20???



RMS20???



RMS20???

19" Fire Protection System

- Ultra-flat 19" earliest smoke detection system for protecting 19" racks (Miracel®).
- The integrated smoke aspiration unit has also been developed and tested for circulating air-cooling systems (CoolTherm®).

Applications

- EDP, server and control racks in 19" version

Main features

- Earliest smoke detection
- False alarms ruled out by intelligent signal processing
- Safe and secure equipment monitoring
- Easy installation and start-up with Plug & Play

Features

- Integrated system for fire detection and extinguishing
- Up to 400 times more sensitive in detecting fires than conventional smoke detectors
- High certainty that false alarms will not occur with fire pattern detection
- No unnecessary wastage of server space with 1 HU installation height
- Vertical and horizontal installation possible
- Individual response behaviour adjustment
- Simple and straightforward mounting
- Maintenance with interactive diagnostics without operation interruption
- Central monitoring, remote diagnostics and remote maintenance with networking
- Optional use of two detector modules for two sensor dependence
- Optional control of a fire extinguishing system

Technical data

Detection:	Earliest smoke detection
Sensitivity:	0.1 - 2.0 % light obscuration/m
Displays:	Operation, faults, pre-alarm, main alarm, reset
Control elements:	Reset button, key switch for separation
Dimensions:	Height 1 HU Width 19" Depth 320mm
Weight:	Approx. 4 kg
Inst. position:	Vertical or horizontal
Voltage:	24 V DC
Power consumption:	105 mA (guarding)
Power consumption:	110 to 140 mA (alarm)
Terminals:	10 x 0.5 mm to 2.5 mm
Alarm levels:	2 levels (pre-alarm, main alarm)
Fault signal:	Potential-free contacts max. contact rating, 1A/30VDC
Potential-free contacts:	Alarm, pre-alarm, fault, reset
Event recorder:	Yes

Colour

Control panel: RAL 7021 dark-grey

Supply schedule

1 19" earliest smoke detection system
Operating instructions

W	H	D	HU	Power supply	Order no.	UP
19"	44	320	1	24 V DC / 140 mA	08.099.081.8	1 unit

Dimensions in mm: W = Width
H = Height
D = Depth
h = Installation height
d = Useable depth
L = Length

HU = Standard height unit
1 HU = 44.45 mm
UP = Unit of packaging
kg = Weight

 = Express item

Conversion: 1 mm = 0.03937 inch 1 kg = 2.2046 pound