

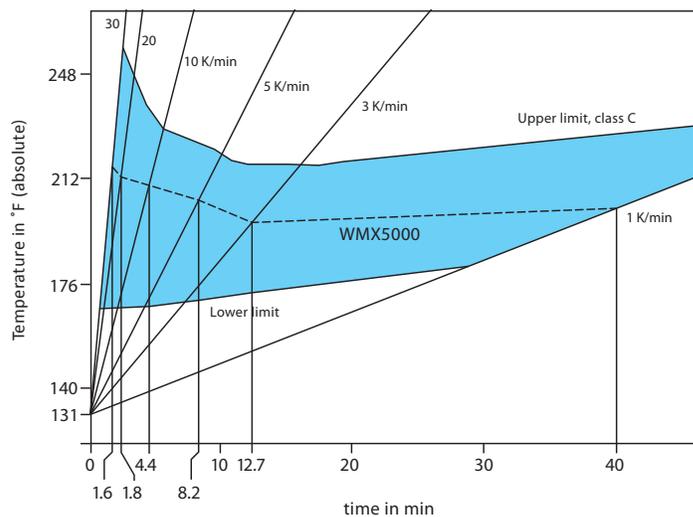
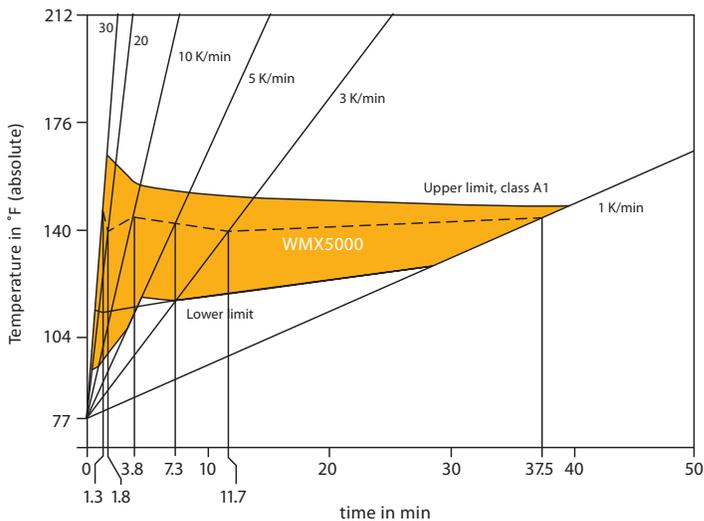
UniVario WMX5000 Heat Detector The New Industrial Standard

Fire Protection Systems

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> Product > Application + Advantages

- > The WMX5000 industrial heat detector detects a rise in temperature from a fire.
- > Dramatic increases in temperature are also detected, resulting in early fire detection.
- > The A1, A2, B and C response classes and the S and R indices according to the EN 54-5 can be configured on the WMX5000 as required.
- > A microprocessor is included to analyze the data.
- > Constantly monitored alarm sensor.
- > The housing is rugged and specifically designed for challenging industrial environments.
- > Stainless steel heat sensor.
- > A quick release mounting attachment makes the WMX5000 well suited for installation on ducts.
- > WMX5000 heat detectors are designed to detect open flames which cause a sharp increase in temperature, e.g.:
 - flammable liquids and gases
 - highly flammable plastics
- > It is designed to be used in outdoor and in indoor industrial environments.
- > Potential areas of use:
 - Production halls
 - Painting facilities
 - Transformers
 - Printing presses
 - Incinerating plants
 - Machine tools
 - Channel monitoring
 - Process industry
- > They can be used in ex-zones 2 and 22.
- + Microprocessor-controlled monitoring of the heat sensor, software and hardware.
- + Early fire detection with low risk of false alarms.
- + Application-specific configuration of signal processing.
- + Supervising typical disturbance variables using intelligent evaluation algorithms.
- + High electromagnetic tolerance.
- + Different installation options.
- + High degree of protection (IP 67), oil-tight impact and vibration-resistant.
- + Optional upgrades:
 - Communication module for use as a ring bus detector
 - Relay module with floating contacts for disturbance and alarm
- + Comprehensive service options.
- + Stainless steel sensor.



Stipulated alarm range according to EN 54-5 class A1

Stipulated alarm range according to EN 54-5 class C

--- WMX5000 response behavior

--- WMX5000 response behavior

- The UniVario WMX5000 is an innovative and intelligent fire detector. Due to its modular design, it can be tailored to meet the unique demands of individual applications based on a uniform platform.
- As the first heat detector suitable for industrial use, the UniVario WMX5000 can be integrated into an Apollo bus system. Individual alarm identification and parameterization is made possible due to the optional UniVario KMX5000 AP communication module.

- The large power supply and an optional module UniVario KMX5000 RK with relay contacts enable the stand-alone mode and application in different danger alarm or control units.
- Because it requires minimal energy, ultra thin cables can be used and multiple sensors can be placed along one line.
- Converting from limit mode to ring bus mode is achieved by simply installing a communication module – there is no need to switch cables.

- The threshold temperatures range from 32 °F (0 °C) to 194 °F (90 °C). The response class and differential and static response can be programmed according to your needs.
- Accessible connections and a standard clamp simplify installation of all products.
- A service unit is available to simplify configuration, diagnosis, function checks and data archiving.

Technical Data

Type	Features	Response threshold	Temperature range of operation	Type of protection	External display	Approval
UniVario WMX5000	Sensor monitored function Alarm/disturbance and function LED Optional upgrades: - Communication module - Relay module Can be configured according to your needs Service interface Data storage Power supply 7.6 V to 30 V DC	Response classes according to EN 54-5 A1, A2, B, C, D* Indices according to EN 54-5 S, R Adjustable between the alarm temperatures of 32 °F (0 °C) and 194 °F (90 °C) 221 °F* (105 °C*) with service unit	- 4 °F to 176 °F - 20 °C to +80 °C	IP 67	Can be connected	VdS G207090 EN 54-5 class A1, A1S, A1R, A2, B, C ATEX zone 2/22 FM approval

*Only the WMX5000 with single-hole installation
Subject to technical modifications

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UniVario WMX5000 Heat Detector FS Heat Detector for High Temperature Ranges

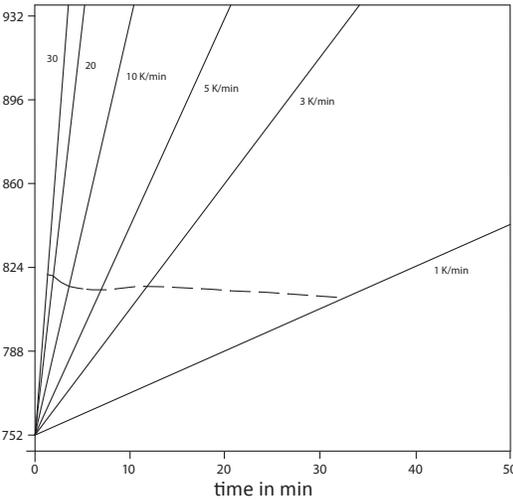
Fire Protection Systems

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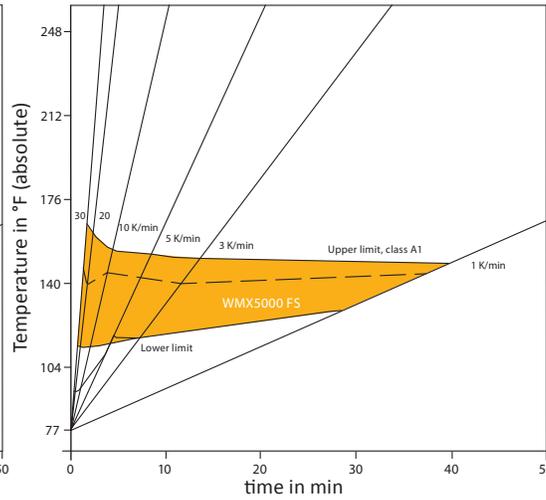
➤ Product ➤ Application + Advantages

- WMX5000 FS heat detectors detect a rise in temperature resulting from a fire and are specially designed for high temperature ranges of up to 1562 °F (850 °C).
- In addition to a maximum temperature reading, a quick increase in temperature can also be detected, resulting in early fire detection.
- Detection is carried out by a protruding sensor under constant monitoring.
- A microprocessor monitors the sensor and analyzes the data.
- All response classes and indices according to EN 54-5 can be configured on the WMX5000 FS as required.
- The casing is very rugged and specially designed for application in heavy industrial environments.
- Stainless steel heat sensor.
- LCD display can be connected if necessary.
- WMX5000 FS heat detectors are designed to detect open flames which cause a quick increase in temperature, e.g.:
 - flammable liquids and gases
 - highly flammable solids
- Designed for use in heavy industrial environments with high temperatures.
- Potential areas of application:
 - Exhaust gas ducts
 - Engine test blocks
 - Machine tools
 - Fibreboard presses
 - Chemical production
 - Drying systems
- They can be used in ex-zones 2 and 22.
- + Heat detector for a wide range of applications in the industrial field with a response temperature of up to 1562 °F (850 °C).
- + Microprocessor-controlled monitoring of the heat sensor, software and hardware.
- + Early fire detection with low risk of false alarms.
- + Application-specific configuration of signal processing.
- + Supervising typical disturbance variables using intelligent evaluation algorithms.
- + High electromagnetic tolerance.
- + Different installation options.
- + Protruding heat sensor for flexible installation.
- + High degree of protection (IP 67), oil-tight, impact and vibration-resistant.
- + Optional upgrades:
 - Communication module for use as a ring bus detector
 - Relay module with floating contacts for disturbance and alarm
- + Comprehensive service options.

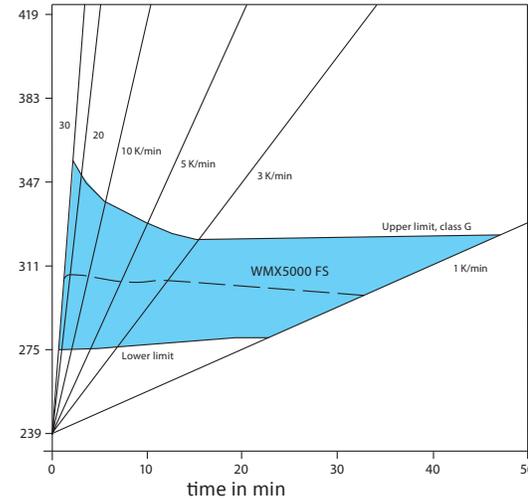
Sample application of a heat detector which can be adjusted to meet the requirements of a customer.



--- WMX5000 FS response behaviour at the threshold temperature of 435 °C



■ Stipulated alarm range according to EN 54-5 class A1
--- WMX5000 FS response behaviour



■ Stipulated alarm range according to EN 54-5 class G
--- WMX5000 FS response behaviour

- The UniVario WMX5000 FS is an innovative, intelligent fire detector which, due to its modular concept, can be tailored to meet the unique demands of individual applications based on a uniform platform.
- As the first high-temperature heat detector suitable for industrial use, the UniVario WMX5000 FS can be integrated into an Apollo bus system because of the optional UniVario KMX5000 AP communication module. Individual alarm identification and parameterization is therefore possible.

- The large range of power supply and an optional module with relay contacts enable the stand-alone mode and application in different danger alarm or control units.
- Because it requires minimal energy, ultra thin cables can be used and multiple sensors can be placed along one line.
- Converting from limit mode to ring bus mode is achieved by installing a communication module – there is no need to switch cables.

- The protruding thermoelectric alarm sensor can be mounted flexibly or as a sensor rod.
- The threshold temperatures and differential response can be configured according to specific requirements.
- The optional LCD display simplifies the function checks and monitoring operating conditions.
- A service device to simplify configuration, diagnosis, function checks and data archiving is available.

Technical data

Type	Features	Response threshold	Temperature range of operation	Type of protection	External display	Approval
UniVario WMX5000 FS	High-temperature detector Protruding sensor, functions monitored	Response class according to EN 54-5 A1, A2, B, C, D, E, F, G Indices according to EN 54-5 S, R	-4 °F to 176 °F -20 °C to +80 °C	IP 67	Can be connected	VdS G207091 EN 54-5 class DS, GS ATEX zone 2/22 FM approval
UniVario WMX5000 FS 3GD	Alarm/disturbance and function LED Optional upgrades: - Communication module ring bus - Relay module Can be configured according to your needs Service interface Data storage Power supply 7.6 V to 30 V DC	Adjustable between the alarm temperatures of 32°F (0 °C) and 752 °F (400 °C) (Special models up to 1562 °F, 850 °C) with a service device				

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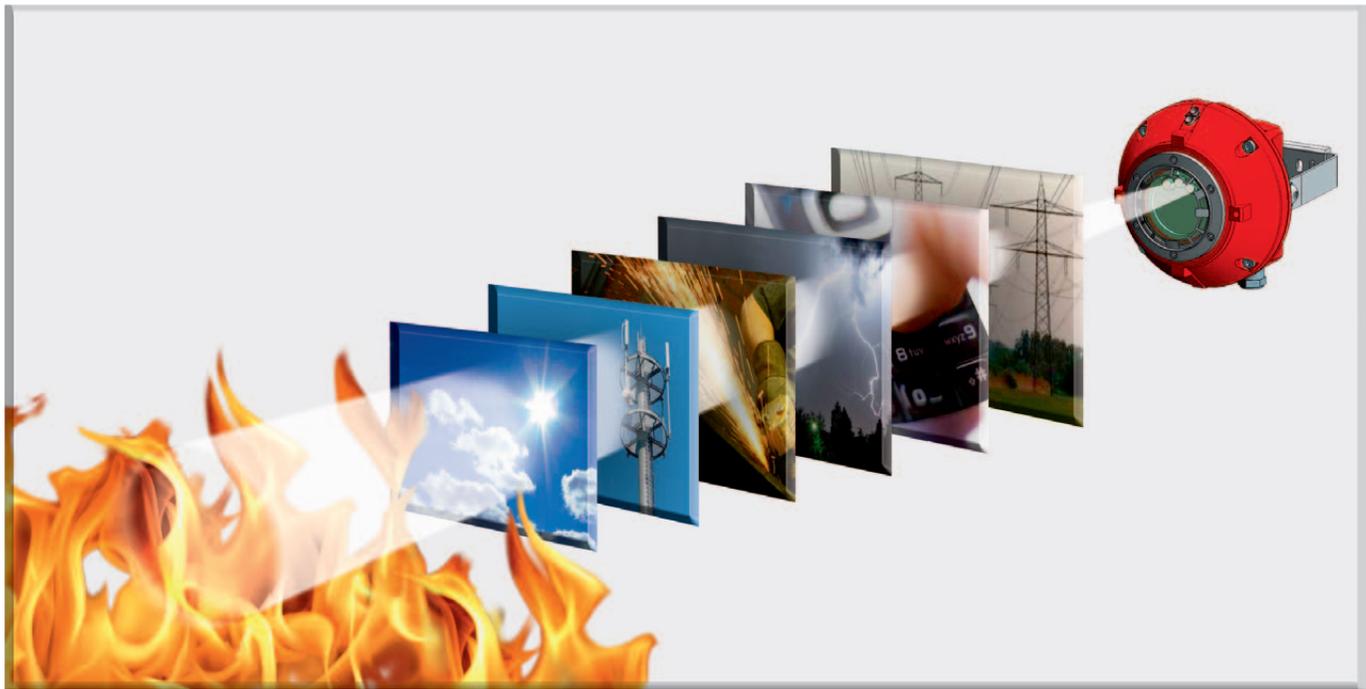
Flame Detector UniVario FMX5000 IR – Superior Triple View

Fire Protection Systems

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➤ Product ➤ Application + Advantages

- The 3 channel flame detector FMX5000 IR evaluates the IR range of the optical spectrum.
 - FMX5000 IR flame detectors meet the highest sensitivity class 1 in accordance with EN 54-10.
 - Fire-specific signals are digitally processed by the microcontroller preventing false alarms (e.g. lightning).
 - The detector window is monitored for optical integrity in the IR spectral range. All 3 sensors are monitored separately.
 - The integrated microcontroller monitors the function of the detector. Faults are displayed on the detector and a signal is sent to the fire control panel.
 - Heavy-duty industrial housing for rough industrial applications.
- FMX5000 IR flame detectors are designed to detect open flames that can be caused by the combustion of solid or liquid materials (e.g. plastics, wood, gases, oil products, etc.).
 - Typical applications include:
 - Tank farm monitoring
 - Heating and coal-fired power plants
 - Motor test benches
 - Large industrial plants
 - Airplane and helicopter hangars
 - Chemical storages and chemical production plants
 - Fuel stores
 - Pump stations
 - Print shops
 - Wood product industry
- + Monitoring of the function of window, sensor, soft- and hardware controlled by microcontroller.
 - + 3 channel infrared analysis with the highest response sensitivity.
 - + Triple optical test monitors full function.
 - + High resistance to interference, due to intelligent evaluation algorithms.
 - + Application parameter is set via DIP switch or service device.
 - + Special oil-tight, chemical-resistant and silicone-free versions available.
 - + Optional upgrades:
 - Communication module for use as a ring bus participant
 - Relay module with floating contacts for disturbance and alarm
 - + Various installation adapters available.
 - + Comprehensive service options.



- As the first flame detector suitable for industrial use, the UniVario FMX5000 IR can be integrated into an Apollo bus system, due to the optional UniVario KMX5000 AP communication module. This makes individual alarm identification and parameterisation possible.
- A separate cable connection port makes installation and maintenance easy and inexpensive.
- The large range of power supply and an optional module with relay contacts enables the stand-alone mode and application in different danger alarm or control units.
- Because the FMX5000 IR requires minimal energy, smaller cross section cables can be used and multiple sensors can be operated on one detection line.
- Converting from conventional type to ring bus mode is achieved by simply installing a communication module – there’s no need to switch cables.
- The new, innovative housing design is extremely robust, seawater-resistant and has an IP 67 rating. The FMX5000 IR is made for the most extreme industrial application environments.
- Due to measures taken on the housing and safety-oriented electronic design, the FMX5000 IR flame detector exceeds modern EMC requirements.
- Failure signals are registered at central position via a separate current increasing line.
- A service device to simplify configuration, diagnosis, function checks and data archiving is available.
- Analysis of internal history memory by using the UniVarioView service software.

Technical Data

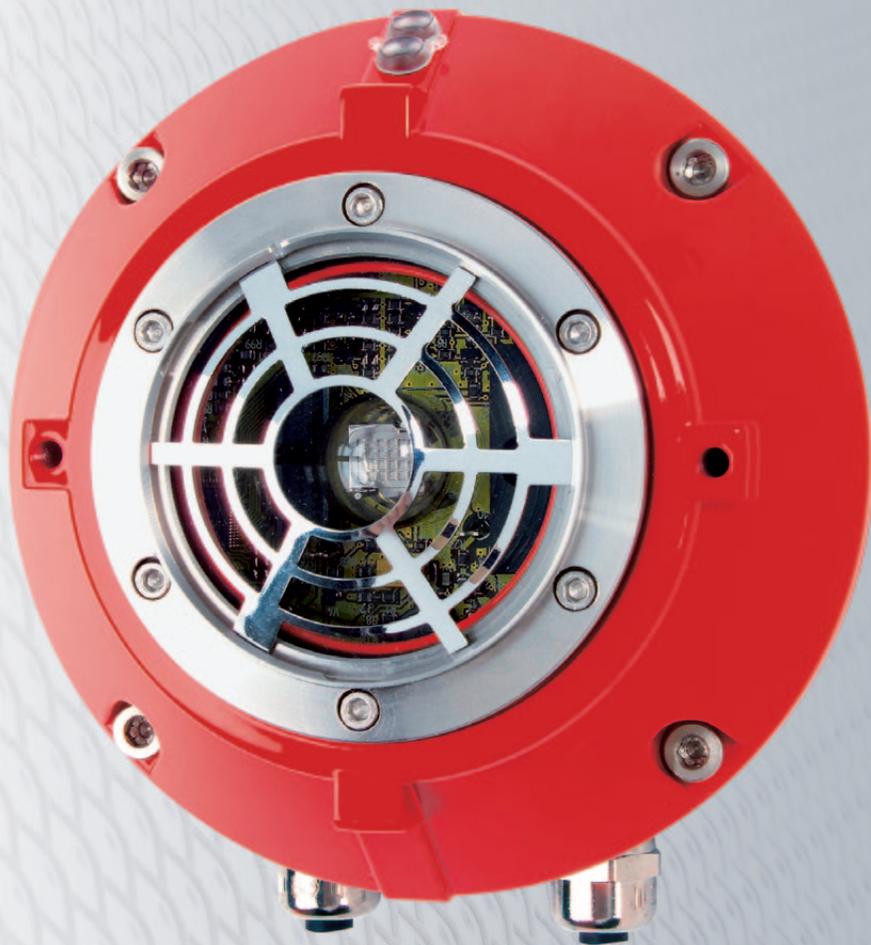
Type	Features	Spectral sensitivity	Temperature range of operation	Type of protection	External display	Approval	Monitoring surface (VdS) rel. to risk m ²
UniVario FMX5000 IR	Alarm/disturbance and function LED Optional extras: – Communication module – Relay module Can be configured according to your needs Service interface Data storage Power supply 7.6 V to 30 V DC	185 nm to 260 nm	- 4 oF to 176 oF - 20 °C to +80 °C	IP 67	Optional	EN 54-10 class 1 VdS G209141 FM 3036782	max. 7,273 ft. sq. (676 m ²) Room height max. 147 ft. (45m)

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UniVario Flame Detector FMX5000 UV The Watchful Eye

Fire Protection Systems

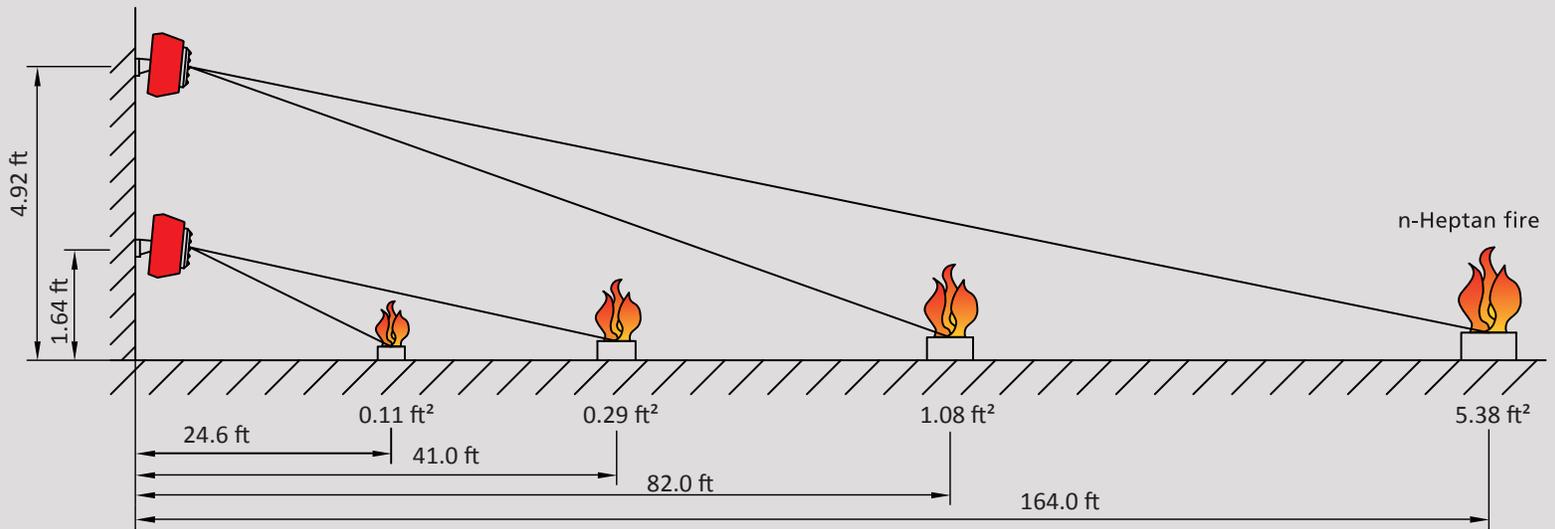
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➤ Product ➤ Application + Advantages

- The FMX5000 UV flame detector evaluates the UV range of the optical spectrum.
- FMX5000 UV flame detectors meet the highest sensitivity (class 1) in accordance with EN 54-10.
- Fire-specific signals are digitally processed by the microcontroller preventing false alarms (e.g. lightning).
- The detector window is monitored for optical integrity in the UV spectral range.
- The integrated microcontroller monitors the function of the detector. Faults are displayed on the detector and a signal is sent to the fire control panel.
- Heavy-duty industrial housing for rough industrial applications.

- FMX5000 UV flame detectors are designed to detect open flames caused by the combustion of solid or liquid materials (e.g. plastics, wood, metals, gases, oil products, etc.).
- Typical applications include:
 - Tank farm monitoring
 - Heating and coal-fired power plants
 - Motor test benches
 - Large industrial plants
 - Airplane and helicopter hangars
 - Chemical storages and chemical production plants
 - Fuel stores
 - Pump stations
 - Magnesium dry treatment (milling)
 - Print shops
 - Wood product industry

- + Monitoring of the function of window, sensor, software and hardware controlled by microcontroller.
- + Maximum response sensitivity.
- + High resistance to interference, due to evaluation algorithms.
- + Application parameter is set via DIP switch or service device.
- + Specific customer evaluation algorithms possible for special applications.
- + Special oil-tight, chemical-resistant and silicone-free versions available.
- + Optional upgrades:
 - Communication module for use as a ring bus participant
 - Relay module with floating contacts for disturbance and alarm
- + Various installation adapters available.
- + Comprehensive service options.



- As the first flame detector suitable for industrial use, the UniVario FMX5000 UV can be integrated into an Apollo bus system, due to the optional UniVario KMX5000 AP communication module. This makes individual alarm identification and parameterization possible.
- A separate cable connection port makes installation and maintenance easy and inexpensive.
- The large range of power supply and an optional module with relay contacts enable the stand-alone mode and application in different danger alarm or control units.
- Because the FMX5000 requires minimal energy, ultra thin cables can be used and multiple sensors can be placed along one line.
- Converting from limit mode to ring bus mode is achieved by simply installing a communication module – there is no need to switch cables.
- The new, innovative housing design is extremely robust, seawater-resistant and has an IP 67 rating. The FMX5000 UV is made for the most extreme industrial application environments.
- Due to measures taken on the housing and safety-oriented electronic design, the FMX5000 UV flame detector exceeds modern EMC requirements.
- Failure signals are registered at a central position via a separate current increasing line.

Technical data

Type	Features	Spectral sensitivity	Temperature range of operation	Type of protection	External display	Approval	Monitoring surface (VdS) rel. to risk m²
UniVario FMX5000 UV	Alarm/disturbance and function LED Optional upgrades: – Communication module – Relay module Can be configured according to your needs Service interface Data storage Power supply 7.6 V to 30 V DC	185 nm to 260 nm	-4 °F to 176 °F -20 °C to +80 °C	IP 67	Can be connected	VdS G206132 EN 54-10 class 1 FM 3030815	max. 7,273 ft. sq. (676 m²) Room height max. 147 Ft. (45 m)

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The UniVario KMX5000 RK Relay Module

Fire Protection Systems

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➤ Product ➤ Application +Advantages

➤ The UniVario KMX 5000 RK Relay Module is a communication module for the operation of UniVario detectors independent of fire detection systems.

➤ One potential-free contact each for fault messages and fire alarm.

➤ Integration in all UniVario detectors.

➤ Typical areas of application:

- stand-alone operation
- hazard alert systems
- fire detection systems
- use in combination with building management systems
- integration in machine tool controls
- processing industry
- wind energy plant

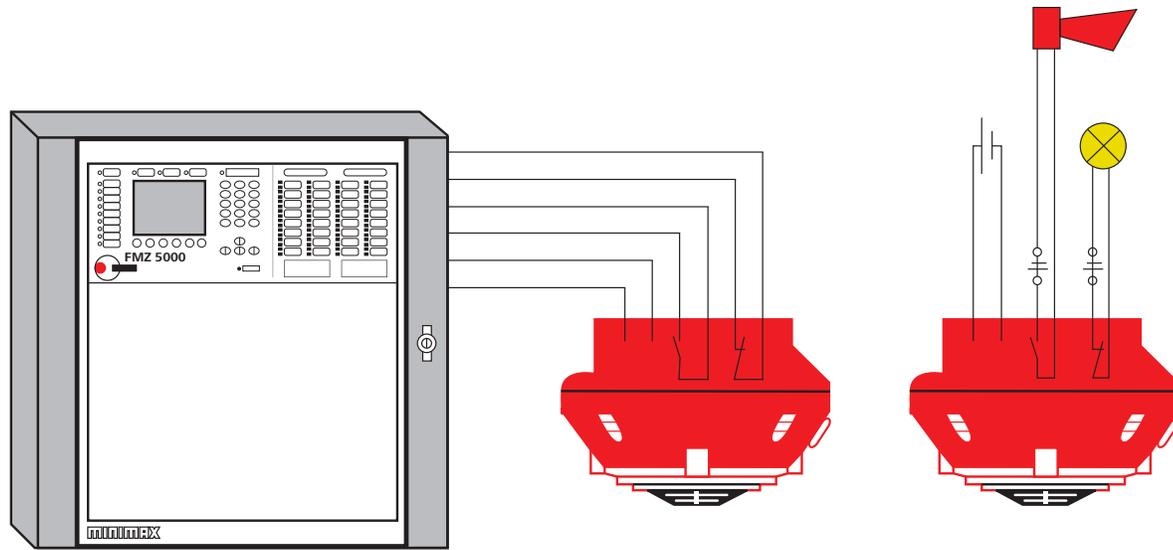
+ Directly integrated into the detector base without need for any separate cabling.

+ Retrofitting possible at any time.

+ Large supply voltage range.

+ Large conductor sizes.

Application with Relay Module



Relay Module KMX5000 RK

Communication module for the operation of UniVario detectors either in fire detection systems or independent of them.

Potential-free contacts for alarm and fault signals allow installation either as a stand-alone detector, within fire detection systems/hazard alert systems or as part of building management systems.

The KMX5000 RK communication module is made to fit into the base of the UniVario MX5000 detector.

Product Features

- Potential-free change-over contacts for alarm and fault signalling
- Integration into the base of the UniVario detectors

Materials Provided

KMX5000 RK relay module
Short-circuiting bridge
Fastening material

Connection/Installation

Cross-section of connecting cable
min. 0.5 mm²
max. 2.5 mm²

Technical data

Connection	6-pole flex conductor
Operating Voltage	24 V (14 V – 29 V) DC
Operating current only KMX5000 RK (without detector current):	
normal operation, fault relay on	approx. 20 mA at 24 V
alarm and fault relay on	approx. 30 mA at 24 V
alarm and fault relay off	approx. 7 mA at 24 V
V oltagte load contacts	max. 60 V DC, 25 V AC
Current load contacts	max. 1 A
Operating temperature	-4 °F to 176 °F (–20 °C to +80 °C)
Relative humidity (IEC721-3-3)	5 to 85 % – no condensation
Specification to	EN 54 part 18
Weight	1.76 oz. (50 g)
Dimensions in Inches	2.52 x 0.94 x 2.24 (L x W x H)

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