



Spark/Flame detectors FUX 3200 L1 UEWA FUX 3200 L1 UEWA Ex

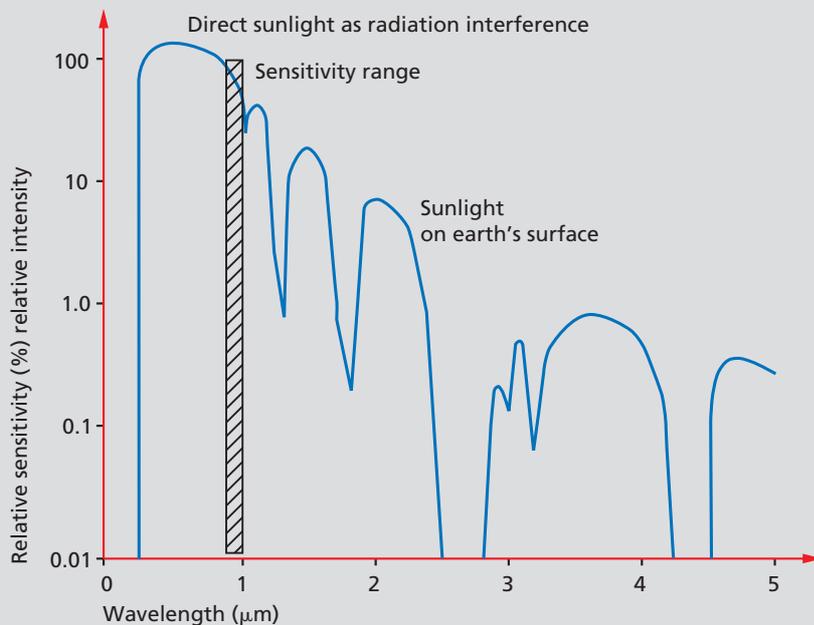
*Cool down.
Fire Protection by*

MINIMAX

► Product ► Use + Advantages

- ▶ The FUX 3200 L1 UEWA spark detector range is utilised to detect sparks and flames in applications where particularly difficult operating conditions prevail. This has been achieved by isolating the detector housing with its complete electronics from the optical window using fiber optic cable.
 - ▶ This design ensures that the function of the electronics, sensor, fiber optic cable and lens, including the transmission is monitored. Due to this patented solution an absolutely safe monitoring of sparks and flames within machine components and conveying systems is ensured.
 - ▶ The detector window consists of special glass developed for both extreme conditions and the monitoring of functions.
 - ▶ The short reaction time of <math>< 5\text{ ms}</math> is also impressiv.
 - ▶ The protective jacket of the fiber optic cable is available in different materials such as stainless steel, plastic or a coated version.
- ▶ The FUX 3200 L1 UEWA spark detector range is used mainly for machine protection, particularly within machine components.
 - ▶ Typical applications include:
 - timber processing industry
 - panel board presses
 - electrostatic painting systems
 - painting robots
 - motor test benches
 - machine tools
 - pellet mills in biomass power stations
 - food industry
 - ▶ Aproximately 200 chipboard presses worldwide are effectively protected by a combination of FUX 3200 L1 UEWA and the Minifog PressProtect fine spray water system from Minimax.
 - ▶ These detectors have been used with great success in gas turbines, as even small oil leakage fires can be safely detected, independently of the extremely varying temperatures in the exhaust bearing tunnel.

- + The unique isolation of the electronics from the optical window by a fiber optic cable ensures an operating temperature range from -20 °C up to $+200\text{ °C}$ and supersedes a costintensive detector cooling system
- + Patented optics visibility monitoring against dirt
- + Patented function monitoring for all sensors and evaluation electronics
- + Highest functional safety ensured by this monitoring system. High reliability whilst simultaneously reducing operating costs
- + For object monitoring, reaction times in the ms range can be achieved
- + Ex-classification in accordance with ATEX 94/9/EG Category 1 D and 3D for the zones 20 and 22
- + Special installation device for rapid cleaning of window, even during operation
- + Practically flush installed optics
- + HV-proof up to 110 kV for electrostatic painting systems
- + Applications with high continuous operating temperatures up to 200 °C and strong environmental conditions



- ▶ The FUX 3200 L1 UEWA spark detector range is ideal for all applications where sparks can cause fires and where fires involving solid and liquid organic materials must be expected. The sensor in the detector reacts to IR radiation. By using a special glass only a narrow spectral transmission range is evaluated.
- ▶ The detectors are insensitive to over-exposure from strong, continuous IR radiation. Optimal use in light reduced applications, in areas difficult to access and for continuous service temperatures.

▶ Monitoring of the function

A second fibre optic integrated in the fiber optic cable transmits an IR signal to the sensor head where, with the aid of a patented process, it is transmitted to the receiver. A malfunction has occurred if the received value lies outside a defined scale.

This malfunction can be caused by the contamination of the optical window, breakage of the fibre optics, defective detector electronics or removal of the window. These malfunctions are

- signalled by a yellow LED on the detector,
- transmitted to the fire control panel via a fault line.

Technical data

Spectral sensitivity	780 to 1180 nm
Detection criterion	Intensity fluctuation
Detection time	≤ 5 ms
Viewing angle	60°
Housing dimensions (H x W x D)	125 x 80 x 57 mm
Weight without fibre optics	700 g
Housing colour	RAL 5009
Explosion proof	Category 1D/3D
Rated voltage of detector and fault line	9 V DC
Operating voltage	7.6 to 13.2 V DC
Quiescent current	2.5 mA
Alarm current	20 mA
Alarm display	LED, red
Fault display	LED, yellow
Maximum no. of detectors per line	4
Ambient temperature	- 20 °C to +70 °C
Ambient temperature optical window	- 20 °C to +200 °C
Protection degree	IP 65
Detector version	also silicone-free
VdS approval	G208192
Approval	FM pending, VNIPO (Russia)
Electrical connection	only with shielded cable (e.g. type LiYCY...)
Length of optical fibre cable	acc. to customer specification Standard length 3 m, 5,5 m, max. 13 m
Minimal fibre optic bending radius	150 mm

Versions

Version	Art. No.	Installation
FUX3200 L1 UEWA 3 m	902557	Bracket mounting
FUX3200 L1 UEWA 5,5 m	902556	Bracket mounting
FUX3200 L1 UEWA HS 3 m	907560	Bracket mounting
FUX3200 L1 UEWA HS 5,5 m	907559	Bracket mounting
FUX3200 L1 UEWA 3 m TS	900860	Bracket mounting
FUX3200 L1 UEWA 8,5 m TS	902554	Bracket mounting
FUX3200 L1 UEWA SF 3 m	800088	Bracket mounting, silicone-free
FUX3200 L1 UEWA SF 8 m	800073	Bracket mounting, silicone-free
FUX3200 L1 UEWA SF 13 m	800075	Bracket mounting, silicone-free
FUX3200 L1 Ex Dust 3 m	905079	Bracket mounting
FUX3200 L1 Ex Dust 5,5 m	905073	Bracket mounting

Subject to technical alterations.

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