



Spark detectors FUX 3001 DL FUX 3001 DL Ex Dust

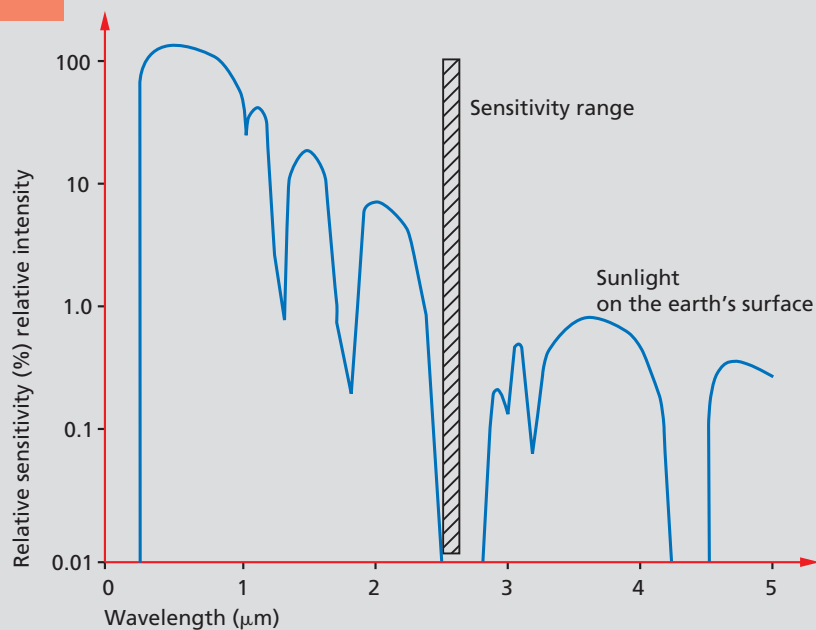
*Cool down.
Fire Protection by*

MINIMAX

► Product ► Use + Advantages

- ▶ The FUX 3001 DL belongs to the spark detector range designed for a special spectrum that allows its use in daylight. This characteristic means that in case of light incidence no false alarm is released in the typical application areas of spark detectors.
- ▶ The sensor of the detector evaluates infrared radiation in a wave range that barely exists in normal daylight. Sparks and glowing particles emit an IR radiation of approx. >250 °C in the spectral range. The rapid response of the sensor ensures the safe detection of sparks.
- ▶ The mechanical structure and mounting is standardised, as is the case with all spark detectors. The detectors can therefore be easily extended to suit specific customer conditions.
- ▶ The construction of the detectors has been designed to comply with the demanding industrial environments in which it has to operate.
- ▶ The FUX 3001 DL spark detector is mainly used in monitored areas where daylight incidence can be expected. These are conveyor belts, spiked conveyors, flatbed vibrators, etc. A further field of application includes the transfer points and return stations of conveyor belt systems and loading areas.
- ▶ Typical applications include:
 - timber and chipboard industry
 - recycling plants
 - mills
 - food industry
 - coal conveying plants
 - chemical industry
 - fertiliser industry
 - drying systems
 - tobacco industry
 - cotton processing
 - textile industry
- + High functional safety against fault disturbances
- + Relative insensitivity to the affects of daylight
- + Automatic adaptation to ambient brightness
- + Due to the modular system, practically usable for every application
- + "Fast Maintenance Device" assembly and maintenance-friendly stainless steel fixed adapter
- + Rapid checking of the operational readiness via the LED integrated in the detector housing
- + Contamination of the detector window can be reduced significantly using an air purge device
- + Ex-classification in accordance with ATEX 94/9/EG for zones 20/22

Function



- ▶ The FUX 3001 DL spark detector differs from the FUX 3001 in that it is suitable for use in daylight within a limited range. This is achieved with a sensor that evaluates a detection spectrum, which is far less evident in daylight than that utilised for evaluating the FUX3001. Despite this characteristic, the detector is designed for dark installation applications. Direct exposure of the detector window to the sun, a halogen lamp or pocket lamp is not permitted.
- ▶ The sensing element is located behind the black glass that, in addition to the mechanical protection of the sensor, also has the task of absorbing as much daylight as possible.

- ▶ If the sensing element receives a signal, it is amplified and transmitted internally to the electronic evaluation system. The detector is fitted with a single-hole installation device for easy verification of the detector and/or cleaning of the detector window.
- ▶ Contamination of the detector lens can be prevented by fitting an air jet device at particularly critical positions.
- ▶ The maximum operating temperature is limited to +50 °C.

Technical data

Housing	Cast aluminium, RAL5009 blue
Dimensions / mm	80 x 75 x 57 mm
Weight	0.65 kg
IP rating	IP65
Line voltage	9 V
Operating voltage	7.6 to 13.2 V DC
Quiescent current	approx. 1 mA at 9 V
Alarm current	approx. 20 mA at 9 V
Alarm display	LED, red
Ambient temperature	-25 °C to +50 °C
Viewing angle	100° 60° with air jet
Fire evaluation	1 optical channel
Spectral sensitivity	1,300 nm - 2,700 nm
Detection criterion	intensity change develops rapidly
Sensitivity	Spark detection
Detection time	≤ 5 ms
Line connection	without analysis period, as with spark extinguishing system, interrupt jumpers
Max. number of detectors per line	5
Max. cable length	max. 280 m, at 0.5 mm ² wire cross section
Cable type (rec.)	5 x 0.5mm ² LIYCY (electrostatic shielding required)
Compatible with control panels	Minimax FMZ 4100 series / FMZ 5000 Reflex
VdS approval	G208191

Versions

Version	Art.-No.	Installation
FUX 3001 DL	904116	Bracket mounting
FUX 3001 DL Ex Dust	905102	Bracket mounting

Subject to technical alterations.

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