



- ◆ The infrared spark sensors are used for the detection of sparks and flames in closed systems
- ◆ The maximum of spectral sensitivity is at approx. 830 nm
- ◆ **Well suited for detecting:**
sparks/flames with a temperature > 800°C
- ◆ **Caution! False tripping possible:**
The spark sensor is suitable for installation in parts of the system where it is dark and where no parts, where it is dark and where no extraneous light is expected. Daylight also has infrared portions, whose influence can also get a response from spark sensors.
- ◆ **Typical Examples:**
In electronic spark extinguishing units for early detection of fire or explosions. Everywhere that flammable or smoldering materials are transported mechanically or pneumatically and a risk of fire or explosion exists.

Technical data:

Infrared spark sensor IR-11.1 / IR-13.1

Operating voltage	18...30 VDC	Control module dimensions without optical fiber	125 x 80 x 57mm
Operating current without fault relay	< 250 µA	Optical fiber dimensions (standard) (other lengths available on request)	1 m, 1.5 m, 2 m, 3 m Ø: 7mm
Alarm current two-wire technology	45mA	Weight with optical fiber 1 m	950g
Alarm resistor two-line technology	560Ω		
Alarm resistor three- or four-wire technology	390Ω or. 10k		
Alarm pulse without latching	approx. 0,3 s		
Trigger delay	< 1ms	Sensitivity (set with sparks with a temperature of approx. 800°C)	200mm
Spectral sensitivity	approx. 700...1000		
Range (spark temperature 800°C)	200mm		
Viewing angle	approx. 80°		
Control module temperature range	-20...+70°C	Options:	
Fiber optic temperature range	-20...+200°C	Stainless steel weld-on flange with air flush connection	
Housing safety class	IP65		

Special features

- IR-11.1: 1-arm optical fiber, IR-13.1: 3-arm optical fiber
- ATEX Certification for Category 3GD (control module), fiber optics for Zone 0/20
- Control unit: II 3 GD Ex nA tc IIB IIIC IP65 T4 T80°C Gc Dc
- Relay outputs (potential-free changeover contact - Photo-MOS-relay) for fault and alarm
- Internal monitoring of operating voltage, fault with Vb < 16.5VDC

