



- ◆ The infrared flame sensor is used for the detection of flickering fires with open flames with the involvement of carbon
- ◆ The sensor detects flames based on the flickering and the spectral line of CO₂.
- ◆ **Well suited for detecting:**
Open flames with smoke development
- ◆ **The sensor does not respond to:**
sunlight, light bulbs, fluorescent lights, flying sparks, arcs, hydrogen flames, small flames without flickering, metal fires
- ◆ **Caution! False tripping possible with:**
If radiation sources are within the infrared section, pulsating between 1 – 10 Hertz over longer periods of time, Heat shimmering
- ◆ **Application limits:**
The sensor is less suitable for use in environments with intensive infrared radiation sources or heat haze

Technical data:

Ultraviolet flame sensor IR-10.1

Operating voltage	18...30 VDC	Dimensions without ventilation	98 x 64 x 35mm
Operating current at 24V	< 250 µA	Dimensions with ventilation	98 x 64 x 54mm
Alarm current at 24VDC	45mA	Weight without ventilation	240g
Alarm resistor	560Ω	Weight with ventilation	290g
Alarm pulse without latching	approx. 1 s		
Trigger delay	0,5 s, 1 s, 2 s, 4 s		
		Sensitivity (set to 2 cm gas flame from 3 mm tube, 30%prop. 70%But.)	80 cm < 1 s
Viewing angle without ventilation	approx. 110°		
Viewing angle with ventilation	approx. 35°		
Connection for ventilation	0.1...1bar	Options:	
Temperature range	-20...+60°C		
Housing safety class	IP65		

Special features

- Relay outputs (normally open contact) for faults and alarm
- Internal monitoring of operating voltage, fault with V_b < 16.5VDC

Adjustments:

Sensitivity:

Br1	Br2	Br3	Trigger Time at 3Hz	Trigger Time at 7Hz
off	off	off	approx. 4s	approx. 2s
off	off	on	approx. 2s	approx. 1s
off	on	on	approx. 1s	approx. 0,5s
on	on	on	approx. 0,5s	approx. 0,3s

- Reduce the the time slightly if the flicker frequency is high!

Br4 on: Alarm memory on
Br4 off: Alarm memory off

Br5 on: Operation with fault relay and RE
Br5 off: Operation without fault relay and RE

