



- ◆ 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 CO<sub>2</sub>.
- ◆ **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**

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

**Special features**

- Relay outputs (normally open contact) for faults and alarm
- Internal monitoring of operating voltage, fault with V<sub>b</sub> < 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

