



- ◆ The ultraviolet flame sensor is used for the detection of fires with open flames and arcs
- ◆ The sensor responds to the ultraviolet portion of the flame radiation mainly contained in the flame borders, in the range 185 to 235 nm (UV-C radiation)
- ◆ **Well suited for detecting:**  
Open flames without smoke development, arcs, for example, on insulators
- ◆ **The sensor does not respond to:**  
Sunlight, light bulbs, fluorescent lights, flying sparks
- ◆ **Caution! False tripping possible with:**  
UV radiating light sources, e.g., halogen and mercury vapor lamps, lightning, arcs during welding work and reflections of the above radiation sources
- ◆ **Application limits:**  
Smoke, dust and water vapor, as well as contamination of the UV panes on the sensor absorb ultraviolet radiation and therefore negatively effect the response behavior of the sensor.

**Technical data:**

**Ultraviolet flame sensors UV-02**

<b>Operating voltage</b>	18...30 VDC	<b>Dimensions without ventilation</b>	125 x 80 x 57 mm
<b>Operating current two-wire technology</b>	< 400µA	<b>Dimensions with ventilation</b>	125 x 80 x 75 mm
<b>Alarm current at 24VDC</b>	45mA	<b>Weight without ventilation</b>	560g
<b>Alarm resistor two-line technology</b>	560Ω	<b>Weight with ventilation</b>	610g
<b>Alarm resistor multi-wire technology</b>	10 k		
<b>Alarm pulse without latching</b>	approx. 1 s		
<b>Trigger delay</b>	20 ms, 200 ms, 2 s		
<b>Spectral sensitivity</b>	185...235 nm	<b>Sensitivity (set to 2 cm gas flame from 3 mm tube, 30%prop. 70%But.)</b>	300cm <10 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**

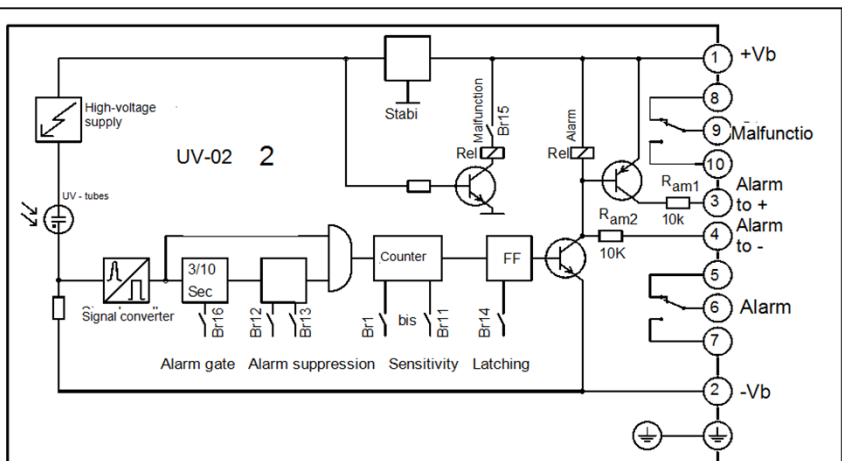
- Broad setting range for sensitivity, very short reaction time can be set
- potential-free changeover contact for fault / alarm, suitable for two- and four-wire systems

Detectors are equipped with special glasses with outstanding oil ,water and dust repellent characteristic, in most cases an air flushing is unnecessary.A32

Tripping by number of ignitions		Sensitivity setting										
Quantity		1	2	3	4	5	6	7	8	9	10	11
2	100%	0	0	0	0	0	0	0	0	0	0	0
4	50%	1	0	0	0	0	0	0	0	0	0	0
8	25%	0	1	0	0	0	0	0	0	0	0	0
16	12%	0	0	1	0	0	0	0	0	0	0	0
32	6%	0	0	0	1	0	0	0	0	0	0	0
64	3%	0	0	0	0	1	0	0	0	0	0	0
128	1,5%	0	0	0	0	0	1	0	0	0	0	0
256	0,8%	0	0	0	0	0	0	1	0	0	0	0
512	0,4%	0	0	0	0	0	0	0	1	0	0	0
1024	0,2%	0	0	0	0	0	0	0	0	1	0	0

**Attention!**  
After setting the sensitivity check the triggering of the sensor

Trip delay The flame must be detected within this time uninterrupted	20 ms	Br12 OFF and Br13 ON
	200 ms	Br12 ON and Br13 OFF
	2 s	Br12 OFF and Br13 OFF
Alarm latching	with	Br14 OFF
	without	Br14 ON



Fault relay	Br15 ON
	Br15 OFF
Alarm gate	3 s Br16 ON
	10 s Br16 OFF

