



BFD1-ZU Series Self-checking UV flame detector

Integrated integrated design, no additional amplifier and programmer.

Self-test design, suitable for 24-hour continuous operating condition.

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Strong versatility, the output signal is switching quantity, ion current signal, suitable for PLC and program controller.

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Product Overview



BFD1-ZU Series Self-checking UV flame detector, suitable for 24 hours of continuous operation of gas and fuel oil and other single flame combustion applications. The fire inspection adopts the principle of mechanical self-inspection, which can detect the sensor regularly, and can effectively avoid the combustion safety accidents caused by the sensor self-excitation. The UV sensor is designed to ensure that the flame detector does not cause misdetection of background radiation from thermal refractory materials or any other infrared light source.

UV flame detector is an integrated integrated design, including sensors, self-inspection device, amplifier, photoelectric conversion, MCU controller, can achieve a complete fire detection function.

UV flame detector check output is the relay switch signal or ion current signal, which can be used with PLC and DCS, and is also suitable for the vast number of program controllers on the market.

The product meets the requirements of European standard EN298:2012-11 for burner management control unit.

Product Features

- Integrated integrated design, no additional amplifier and programmer.
- Self-test design, suitable for 24-hour continuous operating condition.
- Continuous self-test and timing self-test modes are optional.
- Strong versatility, the output signal is switching quantity, ion current signal, suitable for PLC and program controller.
- Analog volume 1-5V flame intensity output.
- Sensitivity is fine-tuned with a gain regulator.
- Sensitive detection, the spray torch measured can reach more than 3 meters.

- The isolation lens with 015 Kpa effectively prevents water, heat, dust and corrosion inside the furnace.
- Signal isolation design, with a signal processing circuit, strong anti-interference.
- Effectively prevent misdetection.
- Built-in sensor, self-inspection device, amplifier, photoelectric conversion, MCU controller.
- With a fault indicator light, indicating the fault type.
- The internal UV lamp tube can be replaced separately.
- IP65 protection grade.
- CE attestation.

Product Parameter

Power source	AC 230 VAC (-10/+10 %), 50 /60 Hz
Detectable spectral range	185-260nm (Ultraviolet UV)
Applicable fuel	Gas, fuel oil and other ultraviolet occasions
Trial working condition	In 24 hours of continuous operation condition
Signal output type	ION (ion rod) / 1-5V analog / Relay (relay switch)
Failure signal output	Relay (relay switch quantity)
There is a fire response time	<0.5S
Resume response time	3S
Working temperature	- 20°C to 75°C
Levels of protection	IP65
Install the interface	1/2"NPT
Certification	CE

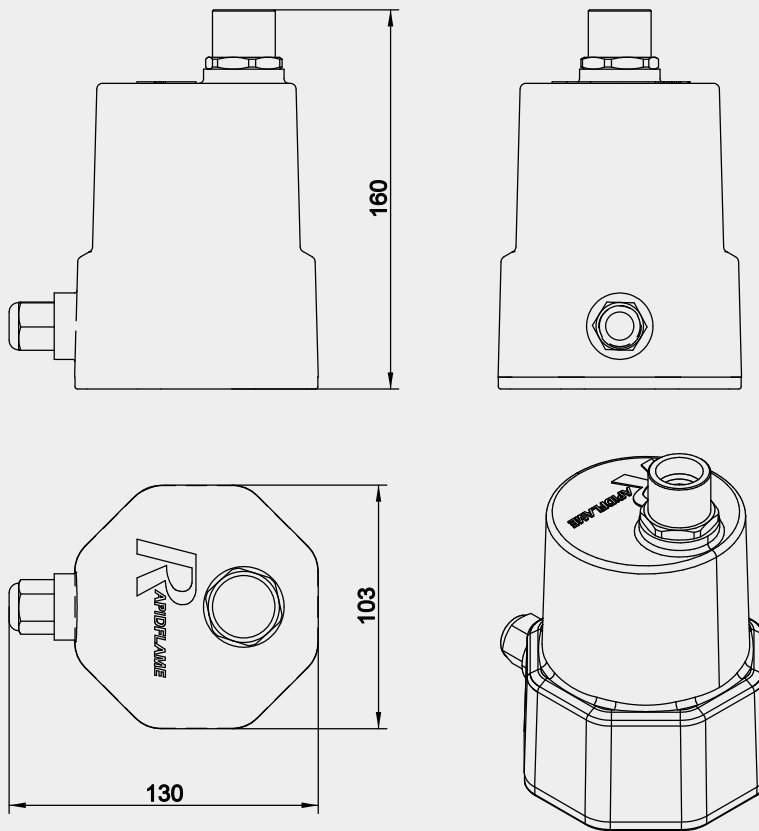
Wiring Diagram

Signal name	Terminal number	Explain
Power supply	L	AC 230 V ~ (-10/+10 %), 50HZ
	N	
	PE	
Flame signal	Run+	Passive relay switch quantity, 220VAC / 3A
	RUN-	
Breakdown signal	FAULT+	Passive relay switch quantity, 220VAC / 3A
	FAULT-	
Flame intensity	AO+	The 1-5V flame intensity signal output
	AO-	

Selection

BFD1-ZU	Self-checking UV flame detector, standard payment
BFD1-ZU-EX	Self-checking UV flame detector, explosion-proof model ExdIICT6

Dimension



Unit: mm

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