

# **UVH13**

## **Ultra-Violet Flame**

### **Scanner in IP65**

#### **Weatherproof Enclosure**



#### **Introduction:**

The UVH13 is a self-powered, Ultra-Violet flame scanner for use with compatible Elcontrol simple-UV flame amplifiers, such as the GP320/UVH12, GP320/UV10-NSC etc.

The casework is moulded in polycarbonate and offers ingress protection to IP65 as standard.

Sight tube connection on the UVH13 is via a 2" BSP cap nut. Flame viewing is via a 1" synthetic quartz window, with the option of a 1" lens for increased sensitivity.

The unit is supplied, as standard, fitted with an IP65 gland and 2 m of 7-core screened cable. Other lengths of cable, or cabling options (e.g. a flying plug/socket assembly) may be supplied to order.

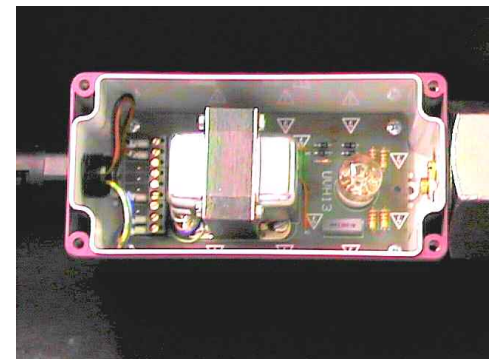


**UVH13 Enclosure**

#### **Operational Description:**

The unit contains an ultra-violet sensitive gas discharge tube supplied from a high-voltage AC supply. When UV radiation is incident on the electrodes within the cell, ionisation takes place, and a current flows. This ionisation is quenched every mains half-cycle, resulting in a theoretical maximum value of 100 ionisation's per second (for 50 Hz mains frequency). This current flow is processed within an electronic circuit, resulting in an output signal consisting of a stream of pulses. This signal is processed within the corresponding trip amplifier to provide a flame ON or flame OFF indication.

Optionally, for situations where the UV signal from the flame may occasionally be unreliable, the UVH13 may be supplied with either a silicon backup cell, sensitive to infra-red/visible-light flicker, or with a PbS infra-red detector. Contact Elcontrol engineering for further information.



**UVH13 Internals**

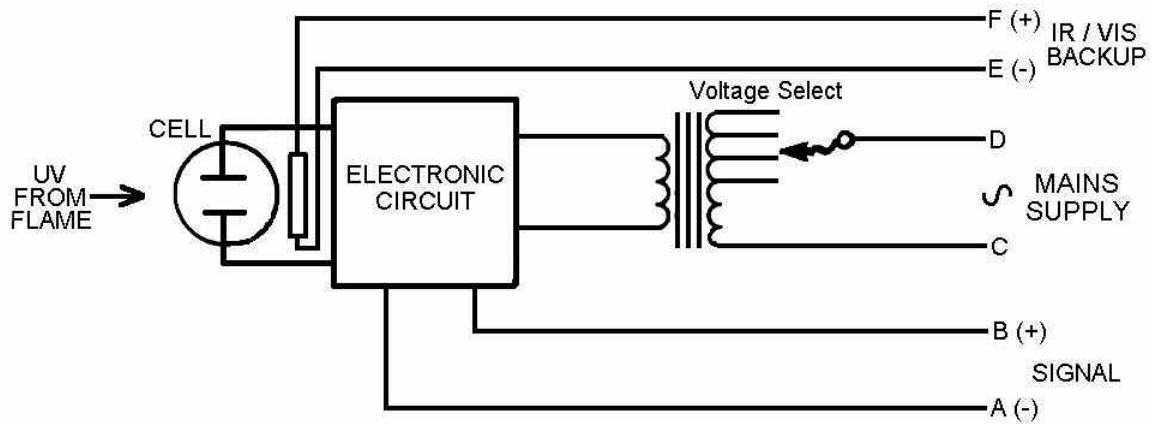
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#### **Technical Specification:**

Enclosure Material:	<i>Polycarbonate</i>
Overall Dimensions: (not including snout or gland)	<i>Width 80 mm, Height 85 mm, Depth 160 mm</i>
Weight:	<i>1.2 Kg approx.</i>
Operating Temperature Range:	<i>-40 to +85 °C</i>
Operating Voltage (factory set):	<i>50 V, 110 V, 220 V, 240 V AC, 50 Hz</i>
Output Signal Current (under maximum UV radiation):	<i>Typically 5 mA DC into 10K load</i>
Cell Life:	<i>10,000 hours typical</i>
Spectral Response:	<i>190 - 270 nm</i>

# **Elcontrol UVH13 Ultra-Violet Flame Scanner** **in IP65 Weatherproof Enclosure**

**Block Diagram of UVH13**



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