

# Ultraviolet Detector UV Flame Detector

Model : UVFD



Protects **Personnel, Plant & Assets**



## ULTRAVIOLET FLAME DETECTOR, A FIRE DETECTION SURVEILLANCE DESIGNED FOR HAZARDOUS ENVIRONMENTS THAT DETECTS FLAMES, ELECTRIC SPARKS & EARLY FIRES

**TECHNOLOGY** It is particularly suitable for use in outdoor applications, because it is not affected by wind or rain and is insensitive to solar radiation. Various models to detect & control the presence or absence of flame are available. Ultra violet radiations are the fastest method of flame / fire detection, because the first energy released from a fire source is the ultra violet. This energy travels through air at the speed of light and it is not dissipated by air currents. Thus HNL's UV detector is the most effective in early detection of fire, before they possibly cause the damage. It scans an area instead of spot detection. UV detectors operate slowly because of the low energy levels emitted at the outbreak of fire. The HNL's

HNL's UV detector is virtually blind to solar radiations, while affording extremely high sensitivity to UV flame. An exclusive windowing technique has been adopted which further accurately discriminates between background UV radiation and UV Flame Energy emitted from an actual flame. This, a very critical aspect of flame detection inherent in HNL's UV detector, assures of 'No-false' alarms.

**Operation:** The signal generated by the UV energy in the operational field of view, is analyzed and processed for its content. As the signal reaches a certain level of intensity, and the flame source is properly identified, a switching mechanism activates an alarm circuit. A response system coupled to this circuit may be interfaced with fire precautionary equipment or fire extinguishing equipments.

### SPECIAL FEATURES

- Highly sensitive - detects cigarette lighter flame from 5 meters
- Flame detection exceeds 50 meters, scans an area instead of spot detection
- Solar and artificial light blindness
- Rugged electronic module, with fast response
- Weather proof/explosion proof housing
- Designed for use in hazardous/non-hazardous locations
- Suitable for areas, where highly combustible material are involved & there is a need for instantaneous response to flame

### APPLICATIONS

- Unsupervised areas, where, there is a large capital investment to be protected & requires automated fire protection
- Typical gasoline transport loading terminals
- Pipeline pumping station, marine engine rooms
- Tank farms, furnace & boilers, fertilizer plants
- Airports, aircraft hangars & refueling areas
- Offshore drilling & production platforms stack
- Flare controls computer rooms gas turbines
- Chemical & Petrochemical plants refineries
- Turbine & rocket engine test facilities
- Underground stores/tunnels system

HNL Systems Pvt. Ltd.

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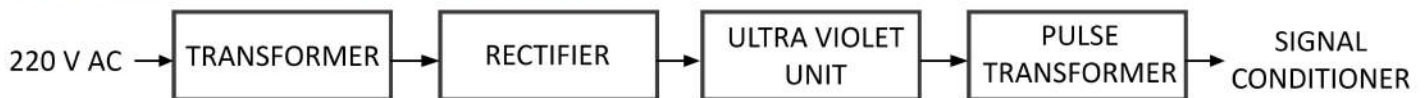


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## UV-FD TRIPODS / STANDS

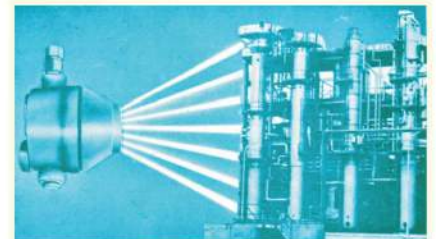


## UV FLAME DETECTOR BLOCK DIAGRAM



## SPECIFICATIONS

Type	:	Portable, wall mounted, tabletop
Features	:	Ultraviolet sensor/detector, bandwidth 185-260 nm solar and artificial light blindness, fast response time SPDT realy 3A, 220V output
Max nos. of sensors / parameters	:	1
Detectable gases / parameters	:	Flame, fire, spark
Electronics / processor	:	Micro-controller
Power supply	:	12 V DC or 220 V AC
Battery life	:	N/A
Display	:	N/A
Alarm	:	Yes
Output	:	SPDT Relay 3A 220 V
Sensor technology	:	Ultraviolet
Range resolution	:	0-50 meters at 120 degree
Accuracy	:	N/A
Response time	:	Instantaneous
Operating temperature	:	-10° C to 50° C
Sampling / input	:	UV radiation
Calibration	:	Auto
Housing / case	:	Explosion / weather proof
Included accessories / features	:	N/A
Applications	:	Areas, where highly combustibile materials are involved
Industries	:	Gasoline, transport loading terminals, pipeline, pumping station, marine, tanks, fertilizer, aircraft hangars etc.



## OTHER SPECIFICATIONS

Mounting dimensions	:	2 Nos. of 9 mm diameter holes, 150 mm apart
Field of view	:	120°
Sensitivity	:	5000 CPM typical
Current consumption	:	30 mA
Electrical connection	:	3/4" BSP
Background	:	10 CPM max

*Note : Specifications and Features will vary with application. Due to HNL's commitment to research, design and product improvement, specifications are subject to change without notice.*

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