

## UV/IR FLAME DETECTOR

Ultra-Violet and Infrared  
Detection Technology



- Two radiation wavelengths necessary for alarm—minimize false alarm events
- Manual and automatic testing of optical surfaces—monitors internal electronics
- Compact and lightweight for ease of installation
- Fully adjustable swivel mount is included
- 3 Year Electronics and 2 Year Sensor Warranty
- 120 Degree Field of View!
  - Operating Range of -50°C to +75°C
  - Wide Voltage Range—Lower installation cost, Voltage drop is nonissue

Net Safety's Ultra-violet/Infrared ( UV/IR ) flame detector delivers high performance security with functions and features that set it apart. The detector reacts to both UV and IR flame radiation delivering accurate and reliable fire monitoring, yet is immune to arc welding, hot body radiation, lightning or sunlight. Two spectrums of radiation must be recognized and confirmed by precisely tuned sensors for the UV/IR to initiate a fire condition, greatly reducing false alarms while providing critical safety performance to your site and personnel.

Enclosed in a rugged, explosion-proof housing, the Net Safety UV/IR flame detector uses the latest in modular microprocessor and UV/IR sensor technology — delivering accurate and reliable monitoring for hydrocarbon fires. It's capable of stand-alone operation or can be connected to a variety of control devices to create a dependable fire monitoring system. The user can define sensitivity and time delay settings and the built-in testing routines ensure continuous operation.

The UV/IR Flame Detector has a extra wide field of view - up to 120 degrees, it has one of the lowest power consumption levels available on the market and wide voltage range - all of these factors can lower your overall cost of ownership during design, installation and power draw requirements. This can add up to thousands of dollars PER DETECTOR over it's installation.

**Net Safety has engineered a superior and affordable, UV/IR flame detector that is simple to operate and maintain while delivering all the security and performance required for high-risk, industrial installations!**

# UV/IR FLAME DETECTOR

Ultra-violet / Infrared Flame Detector

BCR-0005-00-009

## SPECIFICATIONS

### ANALOG - "A" Version

### ANALOG/ RELAY - "AR" Version

Operating Voltage Range	10 to 32 Vdc	
Power Consumption (at 24 Vdc) *with Heater	Nom 45 mA / 1.1 W   Max 115 mA / 2.76 W * Nom 90 mA / 2.16 W   Max 165 mA / 3.96 W	Nom 45 mA / 1.1 W   Max 115 mA / 2.76 W * Nom 90 mA / 2.16 W   Max 165 mA / 3.96 W
Power Consumption (at 10 Vdc) *with Heater	Nom 95 mA / 0.95 W   Max 225 mA / 2.25 W * Nom 200 mA / 2.0 W   Max 345 mA / 3.45 W	Nom 95 mA / 0.95 W   Max 225 mA / 2.25 W * Nom 200 mA / 2.0 W   Max 345 mA / 3.45 W
Temperature Range	Certified -40°C to +75°C (-40°F to +167°F) / Operational -50°C to +75°C (-58°F to +167°F)	
Field of View	120 degrees horizontal / 95 degrees vertical	
Spectral Range	UV Radiation 185 to 260 nanometres (1850 to 2600 angstroms)   IR Radiation in the 4.4 micron range	
Time Delay	DIP switch selectable to 0, 3, 5, 7 seconds	
Sensitivity Settings	DIP switch selectable to 8, 16, 24 or 32 counts per second	
Typical Response Time	<6 seconds depending on fuel source, fire size and distance	
Enclosure Material	Red powdercoat with clear anodizing, copper-free aluminum (optional stainless steel), factory sealed housing	
Humidity Range	0 to 95% RH, non-condensing	
Weight (with swivel)	2.1 Kg/4.5 lb (Stainless Steel option 3.4 Kg/7.5 lb)	
Outputs	0 to 20 mA - Into a maximum loop impedance of 800 Ohms at 32 V dc or 150 Ohms at 11.0 V dc. Non-isolated loop supply	Form C contacts rated 1 Amp at 30 Vdc, 0.5 Amp at 125 Vac Selectable energized/de-energized, latching/non-latching Fire relay Fault relay factory set as energized/non-latching, cannot be modified
Certifications/Approvals	<b>CSA</b> - Class I, Division 1, Groups B, C and D - Temperature code T5 - CANADA: Class 1, Zone 1, Ex d IIB + H2 T5 <b>ANSI/UL</b> - Class I, Division 1, Groups B, C and D - Temperature code T5 - UNITED STATES: Class 1, Zone 1, AEx d IIB + H2 T5 <b>ATEX</b> - EEx d II B+H2 T5 <b>GOST-R</b> - 1Ex d II BT5/H2 <b>INMETRO</b> - BR-Ex d II B+H2 T5 <b>Factory Mutual (FM) 3260</b> Performance Certification <b>NEMA Type 4X • IP66</b> - Enclosure ratings	
Warranty	3 Years Electronics / 2 Years Sensors	

## PERFORMANCE

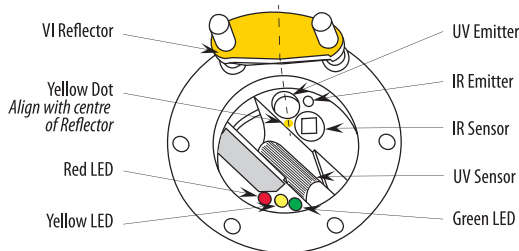
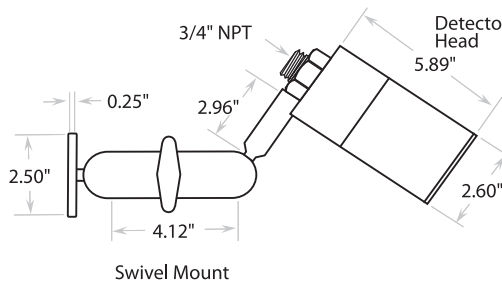
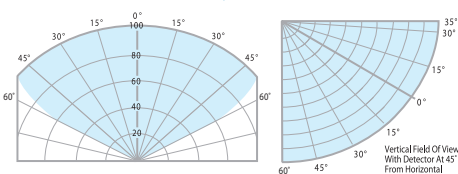
### Summary of Distances

Fuel	Fire Size	Typical Response
n-heptane	1' x 1'	< 11sec @ 140 ft.
gasoline	1' x 1'	< 6sec @ 120 ft.
methane	30" plume	< 6sec @ 100 ft.

### Immunity False Alarm Source (Modulated)

Stimuli	Immunity Range
Direct/indirect sunlight	total
1500W heater	10 ft
halogen, incandescent light	3 ft
florescent light	10 ft
arc welding	30 ft

### Field of View - Methane (32" plume - distances indicated in feet)



## ORDERING INFORMATION

**UV/IRS-A** 0 to 20 mA Analog output

**UV/IRS-AR** 0 to 20 mA Analog output with a Fire and Fault alarm relay (includes junction box)

**OPTIONS** -X (ATEX), H- (Heated Optics), -SS (Stainless Steel)

**NOTE:** Specify flammable source when ordering

## ACCESSORIES

**JB-MPS-A** - Junction Box (NEMA 4, IP67) c/w connector board (MVI switch) (Stainless Steel model available - JB-MPS-SS)

**JB-MPNS-A** - Junction Box (NEMA 4, IP67) c/w connector board (No MVI switch) (Stainless Steel model available - JB-MPNS-SS)

**TL-UV/IR-KIT** - Test Lamp Kit

**LAT-120** - Laser Alignment Tool.

**AIR-SHIELD** - Air Shield (device protects lens from dirt build-up)

**SSK-4** - Sunshade Kit

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