

MICROPACK

FIRE AND GAS



FLAME DETECTION

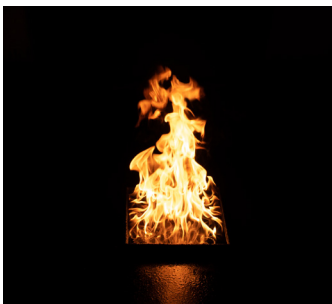
Over 20 years of flame
detection innovation

Intelligent Visual Flame Detection

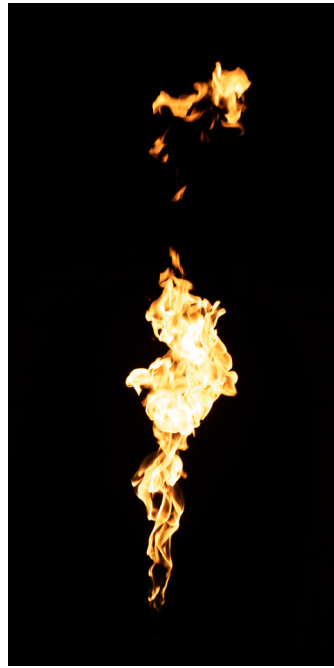
Visible flame detection using spatially aware near IR camera



Diesel Fire



N-Heptane Fire



Methane Fire

Benefits

- Extended range - Pizza slice field of view
- Detects all visible fires
- No mirror optical check
- Unrivalled false alarm immunity, including to exhaust emissions and flare reflections
- Fixed sensitivity - spatial detection using machine vision
- Not desensitized by sunlight or hot process equipment
- Performance Approvals – FM3260, EN54-10
- Hazardous Area Approvals – ATEX, IECEx, FM
- Marine approved
- Heated optics
- SIL 2 capable



| Type | False Alarms | | | | | | Obscurants Contaminants | | | |
|--------|--------------------|---------------|--------------------------|------------------|--------------------------|--------------------|-------------------------|-------|-----|-------|
| | Welding (Electric) | Welding (Gas) | Black bodies (incl. Sun) | Remote Fire Area | Radiated heat from Flare | Combustion exhaust | Oil | Water | Fog | Smoke |
| Visual | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |



Key

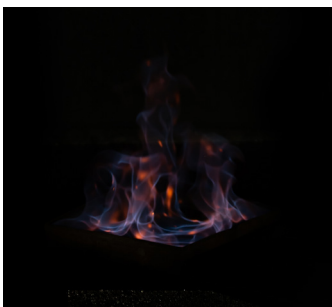
- Insensitive
- Reduce sensitivity
- Very sensitive

Multi Spectrum IR Flame Detection

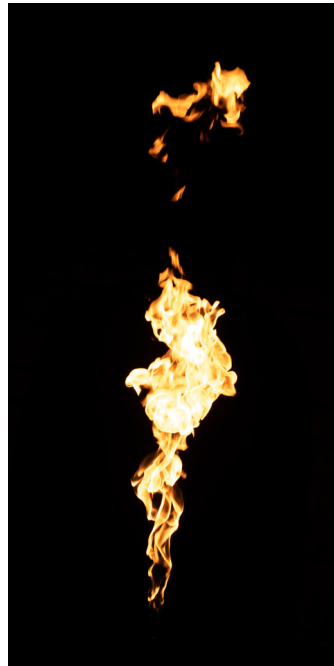
Hydrocarbon flame detection using 3 IR wavelengths



Diesel Fire



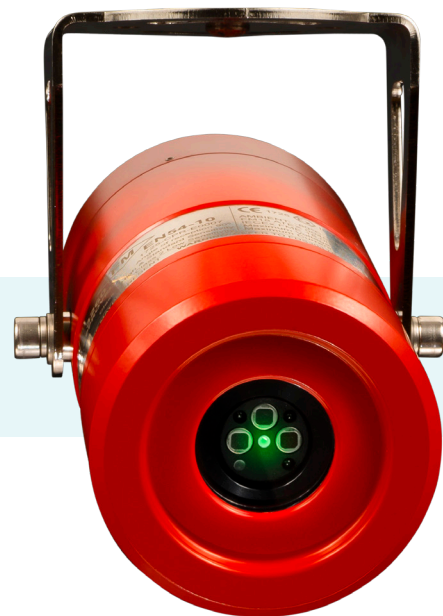
Methanol Fire



Methane Fire

Benefits

- Long range - Tear drop field of view
- Detects all hydrocarbon Fires
- No mirror optical check
- Excellent immunity to false alarms
- Adjustable sensitivity:
 - For application flexibility
 - Ensure detectors do not cross vote
- Performance Approvals – FM3260, EN54-10
- Hazardous Area Approvals – ATEX, IECEx, FM
- Heated optics
- SIL 2 capable



| Type | False Alarms | | | | | | Obscurants Contaminants | | | |
|------------|--------------------|---------------|--------------------------|------------------|--------------------------|--------------------|-------------------------|-------|-----|-------|
| | Welding (Electric) | Welding (Gas) | Black bodies (incl. Sun) | Remote Fire Area | Radiated heat from Flare | Combustion exhaust | Oil | Water | Fog | Smoke |
| IR (Multi) | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |



- Key**
- Insensitive
 - Reduce sensitivity
 - Very sensitive

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CONSULTING

Formed in 1996, the Scottish company Micropack (Engineering) Ltd is one of the world's leading flame detection manufacturers and suppliers of fire and gas mapping services, which includes providing F&G software, training, engineering and consultancy.

To find out how we could support your business with your fire and gas detection needs, please get in touch.

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