MICROPACK
FIRE AND GAS

FLAME DETECTION
Over 20 years of flame detection innovation

micropackfireandgas.com
Intelligent Visual Flame Detection

Visible flame detection using spatially aware near IR camera

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

False Alarms

<table>
<thead>
<tr>
<th>Type</th>
<th>Welding (Electric)</th>
<th>Welding (Gas)</th>
<th>Black bodies (incl. Sun)</th>
<th>Remote Fire</th>
<th>Area</th>
<th>Radiated heat from flare</th>
<th>Combustion exhaust</th>
<th>Oil</th>
<th>Water</th>
<th>Fog</th>
<th>Smoke</th>
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<tbody>
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<td>Visual</td>
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Obscurants Contaminants

- Insensitive
- Reduce sensitivity
- Very sensitive

Key

Diesel Fire
N-Heptane Fire
Methane Fire
Multi Spectrum IR Flame Detection

Hydrocarbon flame detection using 3 IR wavelengths

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

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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.