



# talentum<sup>®</sup>

Flame detection across the spectrum



Range Brochure

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# Talentum® - Why use our Flame Detectors...

Talentum® Flame Detectors are ideal for applications where fast acting and accurate detection of fire is essential. Using infra-red (IR) sensing technology they can detect flames from all fuel types, from hydrocarbon fires with  $4.3\mu\text{m}$  emissions through to invisible fires such as hydrogen. Talentum® detectors can detect flames through such elements as dust, steam and smoke; they are also immune to the effects of wind or draughts of air. With the addition of an ultra-violet (UV) sensor Talentum® detectors are highly immune to false signals such as sunlight.

The detectors use advanced infrared (IR) and ultraviolet (UV) technologies, making Talentum® one of the fastest, most reliable and accurate flame detectors in the world. Its technology is truly unique, looking at both the characteristic flicker and energy produced by flames.

Talentum® is the detector of choice for high value, high risk applications - varying from nuclear power plants, waste disposal plants to supersonic cars, Talentum® provides detection you can trust.



## Product Support

FFE offer design assistance for Talentum® flame detection applications, ensuring that you have the correct detectors for the application, as well as providing drawings to assist you with installation. In addition, training programmes for the Talentum® range are available. This can be tailor-made to suit you and your company, and are held typically at the FFE head office in Hitchin, UK by our in-house technical support team.

## Warranty

FFE include an industry-leading 3-year warranty as standard on all of the Talentum® Flame Detectors.



# Product Range

## IR<sup>2</sup> Flame Detector

(Dual Infra-red)

High immunity to false sources  
(for indoor areas)



## IR<sup>3</sup> Flame Detector

(Triple Infra-red)

Excellent immunity to false sources  
(for indoor or outdoor areas)



## UV / IR<sup>2</sup> Flame Detector

(Ultra-Violet, Dual Infra-red)

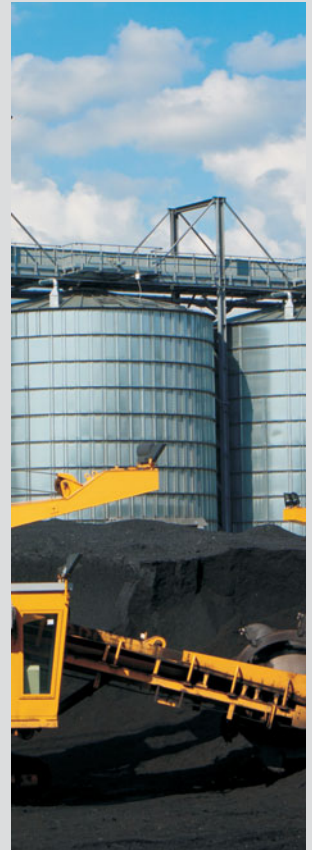
Highest immunity to false sources  
(for indoor or outdoor areas)



## IR Rear Facing Flame Detector

(Single Infra-red)

Specialist applications  
(for enclosed and dark areas)



### Applications

- Compressor Stations
- Chemical Plants
- Tunnels
- Waste Recycling
- Nuclear Power Plants
- Engine Rooms
- Spray Booths
- Pharmaceutical Production
- Military & Marine
- Coal Handling
- Printing
- LNG/LPG Production

### Applications

- Refineries
- Compressor Stations
- Fuel Loading Racks
- Chemical Plants
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- Waste Recycling
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- Storage Tanks
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- Biomass Storage & Dandling
- LNG/LPG Production

### Applications

- Refineries
- Generators
- Compressor Stations
- High Voltage Equipment
- Power Plants
- Fuel Loading Racks
- Chemical Plants
- Tunnels
- Nuclear Power Plants
- Storage Tanks
- Engine Rooms
- Aircraft Hangers
- Pharmaceutical Production
- Military & Marine
- Petrochemical
- LNG/LPG Production

### Applications

- Agriculture
- Bed Fillings
- Coal Milling
- Dryers
- Dust Collection & Filters
- Felt Manufacture
- Wallpaper Production
- Woodworking

# Dual IR (IR<sup>2</sup>) Flame Detectors

These detectors are sensitive to flickering, low frequency (1 to 15Hz) infra-red (IR) radiation emitted by flames during combustion. Should the lens become contaminated by a layer of oil, dust, water, vapour or ice, the unit will remain an effective flame detector. The detector has two infra-red (IR) sensors which respond to different infra-red (IR) wavelengths in order to discriminate between flames and spurious sources of radiation. They are ideal for applications where visible light is present.

## IR<sup>2</sup> Flame Detector (Part No. 16581)

- Die cast zinc alloy housing
- High optical interference immunity
- SIL 2 certified



## IR<sup>2</sup> Flame Detector - Intrinsically Safe (IS) (Part No. 16571)

- Die cast zinc alloy housing
- High optical interference immunity
- SIL 2 certified



## IR<sup>2</sup> Flame Detector - Flameproof (Exd) (Part No. 16511)

- Copper free aluminium alloy housing
- High optical interference immunity
- SIL 2 certified



# Triple IR (IR<sup>3</sup>) Flame Detectors

These detectors have high immunity to false alarms. They are sensitive to flickering, low frequency (1 to 15Hz) infra-red (IR) radiation emitted by flames during combustion. They will continue to function under the most difficult of conditions, even if the lens is contaminated by a layer of oil, dust, water, vapour or ice. The detector has three infra-red (IR) sensors which respond to different infra-red (IR) wavelengths in order to discriminate between flames and spurious sources of radiation. They are ideal for indoor or outdoor applications.

## IR<sup>3</sup> Flame Detector (Part No. 16589)

- Die cast zinc alloy housing
- Excellent optical interference immunity
- SIL 2 certified



## IR<sup>3</sup> Flame Detector - Intrinsically Safe (IS) (Part No. 16579)

- Die cast zinc alloy housing
- Excellent optical interference immunity
- SIL 2 certified



## IR<sup>3</sup> Flame Detector - Flameproof (Exd) (Part No. 16519)

- Copper free aluminium alloy housing
- Excellent interference immunity
- SIL 2 certified



# UV / IR<sup>2</sup> Flame Detectors

These detectors give the highest immunity to false alarms. They are sensitive to flickering, low frequency (1 to 15Hz) infra-red (IR) radiation along with ultra-violet (UV) emitted by flames during combustion. The detector has a ultra-violet (UV) sensor and two infra-red (IR) sensors that respond to different wavelengths from both the ultra-violet (UV) and the infra-red (IR) spectrum. False alarms from flickering sunlight, arc welding and lightning are eliminated by a combination of ultra-violet (UV) and dual infra-red (IR) signal processing techniques. They are ideal for indoor or outdoor applications.

## UV / IR<sup>2</sup> Flame Detector (Part No. 16591)

- Die cast zinc alloy housing
- Highest optical interference immunity
- SIL 2 certified



## UV / IR<sup>2</sup> Flame Detector - Flameproof (Exd) (Part No. 16521)

- Copper free aluminium alloy housing
- Highest optical interference immunity
- SIL 2 certified



# Single IR Rear Viewing Specialist Flame Detectors

The Single IR Rear Viewing specialist flame detector is designed for machine applications to protect enclosed, dark areas where visible light is not present. This detector has high sensitivity to flame and sparks and has a very fast response time. The detector has one infra-red (IR) sensor, which is selective to low frequency modulated infra-red (IR) radiation such as that emitted from flames and sparks. The detector rejects static radiation from sunlight and artificial lighting.

## Single IR Rear Viewing Flame & Spark Detector for Bayonet Mounting (Part No. 16580)

- Continues operation at temperatures up to 55°C
- Die cast zinc alloy housing
- Ideal for use on machinery protection applications
- Suitable for enclosed and dark areas



## Single IR Intrinsically Safe Rear Viewing Flame & Spark Detector for Bayonet Mounting (Part No. 16570)

- Intrinsically safe (IS) for hazardous areas.
- Die cast zinc alloy housing
- Ideal for use on machinery protection applications
- Suitable for enclosed and dark areas



# Specialist Application Detectors

## **IR<sup>2</sup> Flame Detector - Stainless Steel** (Part No. 16501)

- Stainless steel 316 housing
- SIL 2 certified



## **IR<sup>2</sup> Flame Detector - Stainless Steel, Flameproof (Exd)** (Part No. 16541)

- Stainless steel 316 housing
- SIL 2, ATEX & IECEx certified



## **IR<sup>3</sup> Flame Detector - Stainless Steel** (Part No. 16509)

- Stainless steel 316 housing
- SIL 2 certified



## **IR<sup>3</sup> Flame Detector - Stainless Steel, Flameproof (Exd)** (Part No. 16549)

- Stainless steel 316 housing
- SIL 2, ATEX & IECEx certified



## **IR<sup>3</sup> Flame Detector - Flameproof (Exd), High Ambient Temperatures** (Part No. 16219)

- Copper free aluminium alloy housing
- Continuous operation at temperatures up to 85°C, short term operation at temperatures up to 125°C
- ATEX & IECEx certified



## **UV / IR<sup>2</sup> Flame Detector - Stainless Steel** (Part No. 16531)

- Stainless steel 316 housing
- SIL 2 certified



## **UV / IR<sup>2</sup> Flame Detector - High Ambient Temperatures** (Part No. 16291)

- Die cast zinc alloy housing
- Continuous operation at temperatures up to 85°C, short term operation at temperatures up to 125°C



## **UV / IR<sup>2</sup> Flame Detector - Flameproof (Exd), High Ambient Temperatures** (Part No. 16221)

- Copper free aluminium alloy housing
- Continuous operation at temperatures up to 85°C, short term operation at temperatures up to 125°C
- ATEX certified



## **UV / IR<sup>2</sup> Flame Detector - Stainless Steel, Flameproof (Exd)** (Part No. 16561)

- Stainless steel 316 housing
- SIL 2 & ATEX certified



# Talentum® Accessories

## Adjustable Mounting Bracket (Part No. 07127)

- Stainless steel 316
- Suitable for all front viewing detectors



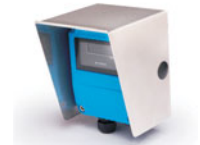
## Electrical Isolation Mount for Brackets (Part No. 07296)

- Quick release clips
- Marine grade materials



## Stainless Steel Weather Shield (Part No. 12545)

- For all alloy housings



## Stainless Steel 316 Weather Shield (Part No. 07310)

- For all Exd housings



## Flame Detector Test Unit (Part No. 16091)

- Portable with rechargeable battery pack and charger
- Wide spectral output; UV, visible, near-IR, mid-IR
- Selectable output; constant, regular flash, irregular flicker
- Includes transport case



# Rear Viewing Detectors Accessories

## Bayonet - Mount 1" BSP/NPT Male (Plated Steel) (Part No. 12290)

## Bayonet - Blanking Plug (Solid) (Part No. 12453)



## 2 Hole Mounting Flange Kit (Part No. 12564)

- 1" BSP/NPT (No window)
- For use with bayonet mount 12290



## 4 Hole Mounting Flange with 1" BSP/NPT (Part No. 12561)

- Pyrex window 5.5mm thick
- High temperature gaskets and fixings
- For use with bayonet mount 12290



## Purge Air Adaptor (Part No. 12543)

- 1/4" BSP air inlet to keep viewing window clear from heavy dust contamination
- For use with 2 hole mount 12564



## Purge Air Adaptor (Part No. 12544)

- 1/4" BSP air inlet to keep viewing window clear from heavy dust contamination
- For use with 4 hole mount 12561







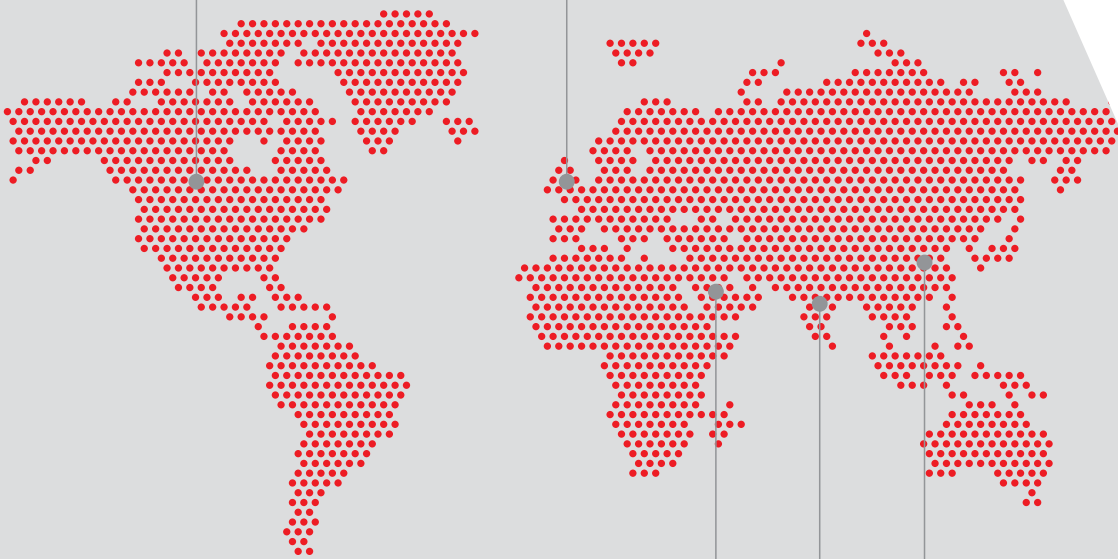
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