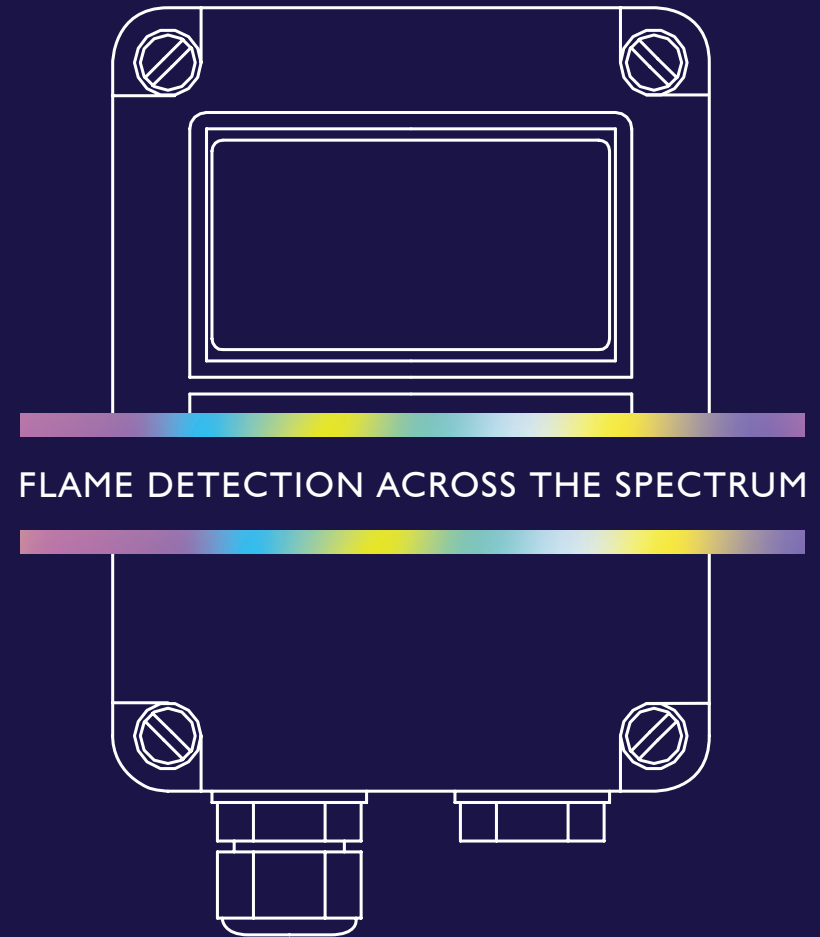


Rapid flame
detection for
high value
industries



FFE Ltd. A global innovator in the design and
manufacture of world class fire detection solutions.

FFEUK.COM



TALENTUM®
 PROVIDES FLAME
 DETECTION WHERE
 YOU NEED IT MOST

TALENTUM®
 WE STRIVE FOR
 EXCELLENCE IN
 EVERYTHING
 WE DO

FFE is a global innovator in the design and manufacture of world class fire detection solutions. Trusted by installers, distributors and organisations for over 40 years, our Talentum®, Fireray®, Aviation Fire Extinguishers and Vibration Switches help to protect high value buildings and assets. Our commitment to fire detection and prevention led to the development of the world's most trusted smoke detection beam, Fireray® the favoured choice of many of the world's leading smoke detection distributors and installers. Our Talentum® range was developed to provide early detection for industries where fast flame detection is critical.

Our solutions are designed and manufactured in the UK and our customers are fully supported by our team of fire protection experts. We provide consultancy, training and full technical support, so that you always have peace of mind in knowing that your assets are given the best possible protection from fire.



CONTENT

03 About FFE	05 Talentum® range of flame detectors	08 Talentum® accessories	14 Worldwide protection
04 Why use Talentum® ?		10 Technical Specifications	

TALENTUM®
WHY USE
OUR FLAME
DETECTORS

Specifying and installing fire protection technology carries significant levels of responsibility. With so many variable risks in so many different industries, it's critical that the chosen technology will offer the very best protection in any given circumstance.

History has taught us that early fire detection is by far the best way to minimise the spread of fire. Identifying a spark, before it produces smoke or becomes an actual fire, can help to minimise the risk of fire damage. Talentum® is a high speed infrared device for

flame detection designed specifically to detect a spark, or a characteristic flicker of a flame, faster and more accurately than a smoke or heat detector, even where dust, steam or smoke are commonplace, Talentum® provides unmatched fire protection for high value industries.

If fast, accurate fire detection is critical, choose Talentum®, because when it comes to fire detection, only the best will do.



IMMUNE TO FILMS OF OIL, WATER, ICE, DUST

Maintains detection capabilities in harsh environments



INGRESSION PROOF

Protection against the ingress of dust, solid objects and moisture into an enclosure making Talentum® suitable for the most extreme wet and dry conditions



DETECTS THROUGH GLASS

Increased capabilities with Talentum looking into secure or hazardous areas



HIGH RESISTANCE TO FALSE ALARMS

Talentum® looks for the typical flickering movement of a flame before triggering an alarm

'Precision flame detection through the spectrum'

HOW DOES
TALENTUM®
WORK

The Talentum® infrared (IR) optical sensing technology can detect flames from almost all fuel types, from Hydrocarbon through to invisible fires such as hydrogen. By looking for characteristic flicker and energy, Talentum® is able to detect a flame through dust, steam, smoke and even glass, or detect flickering, low frequency IR and UV radiation that is emitted by flames during combustion, while discounting false signals induced by wind, draughts and sunlight.

BENEFITS

Can detect a flicker in as little as 27 milliseconds (condition-dependent)

Use in outdoor or indoor applications

Internal self-test capability gives the high immunity to false-flame sources

Detects flames through dust, steam, smoke and even glass.

Flame-proof or explosion-proof and intrinsically safe high ambient temperature options

Universal flame detection for all high risk, high value applications

Detects invisible flames from fuels such as hydrogen and other inorganic fuels

Immune to the effects of wind, draughts and sunlight



TALENTUM®
RANGE OF
FLAME
DETECTORS

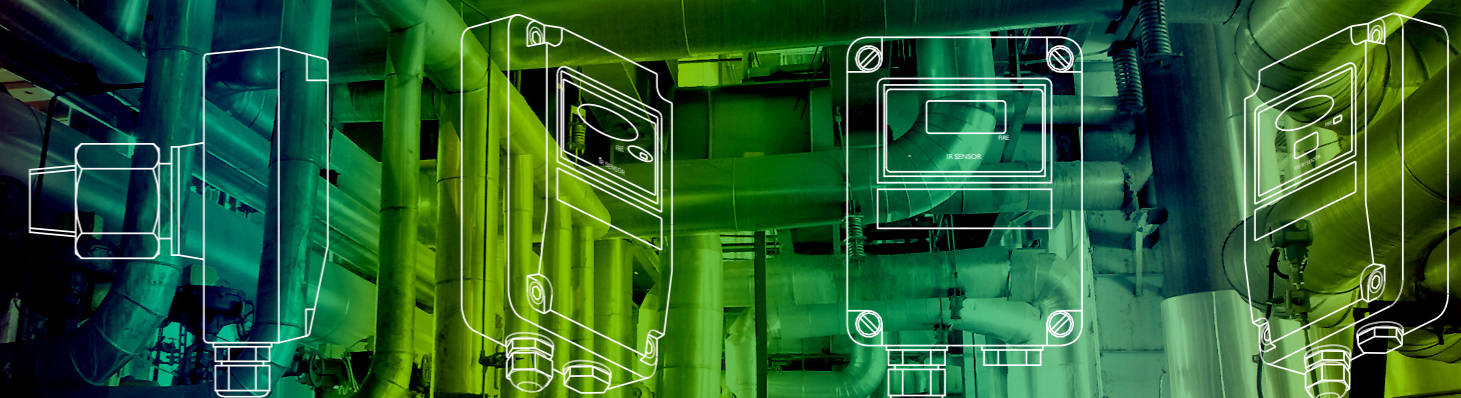
Single IR
Spark Detectors

Dual IR (IR2)
Flame Detectors

Triple IR (IR3)
Flame Detectors

UV/IR2
Flame Detectors

See page 10 for complete range of technical specification



Talentum® Dual IR (IR²) Flame Detectors

These highly sensitive flame detectors can accurately detect low frequency IR radiation (1 to 15Hz) that is emitted by flames during combustion. Using two IR sensors, the IR2 responds to different IR wavelengths, discriminating between flames and other radiation sources.

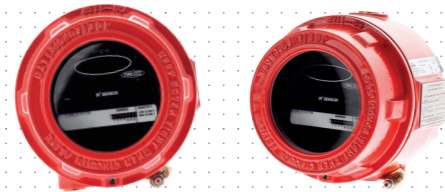
Offering a maximum ambient operating temperature of 55°C (FM: +60°C/140°F), Dual IR2 offers users a choice of alarm currents, response times, latching or non-latching outputs and sensitivity. They also have internal self-test sources that check the detectors operation when used remotely.

KEY FEATURES

- High immunity to false sources
- Ideal for applications with visible light present
- Detects invisible flames from fuels such as Hydrogen and other inorganic fuels
- Selectable operating responses
- Remote self-testing
- Low power consumption
- Approved to EN54 - 10:2002

IDEAL APPLICATIONS

- Aircraft Hangars
- Coal Handling
- Fume Cupboards
- Printing
- Spray Booths
- Textile Manufacturing
- Waste Handling



DETECTS LOW
FREQUENCY
RADIATION FROM
FLAMES DURING
COMBUSTION



DETECTS LOW
FREQUENCY IR AND
UV RADIATION FROM
FLAMES DURING
COMBUSTION



Talentum® UV/IR2 Flame Detectors

Offering the highest immunity to false alarms, the UV/IR2 is designed to accurately detect flickering, low frequency IR and UV radiation (1 to 15Hz) that is emitted by flames during combustion.

Offering a maximum ambient operating temperature of 55°C (FM: +60°C/140°F), the UV/IR2 detector has a UV sensor and two IR sensors that respond to different IR wavelengths from both the UV and the IR spectrum. False alarms from flickering sunlight, arc welding and lighting are eliminated by a combination of UV and dual IR signal processing techniques.

KEY FEATURES

- High immunity to false sources
- Ideal for applications with visible light present
- Detects invisible flames from fuels such as Hydrogen and other inorganic fuels
- Selectable operating responses
- Remote self-testing
- Low power consumption
- Approved to EN54 - 10:2002

IDEAL APPLICATIONS

- Aircraft Hangers
- Engine Rooms
- Engine Test Facilities
- Generators
- High Voltage Equipment
- Nuclear Industry
- Power Plants
- Storage Tanks

Talentum® Triple IR (IR³) Flame Detectors

With high immunity to false flame sources, both indoors or out, these highly sensitive flame detectors can accurately detect low frequency IR radiation (1 to 15Hz) that is emitted by flames during combustion, even under the most difficult conditions. Ideal for indoor or outdoor applications, the IR3 has three sensors that respond to different IR wavelengths, discriminating between flames and other sources of radiation.

Offering a maximum ambient operating temperature of 55°C (FM: +60°C/140°F), Triple IR3 offers users a choice of alarm currents, response times, latching or non-latching outputs and sensitivity. They also have internal self-test sources that check the detectors operation when used remotely.



DETECTS LOW
FREQUENCY
RADIATION FROM
FLAMES DURING
COMBUSTION

KEY FEATURES

- High immunity to false sources
- Ideal for applications with visible light present
- Detects invisible flames from fuels such as Hydrogen and other inorganic fuels
- Selectable operating responses
- Remote self-testing
- Low power consumption
- Approved to EN54 - 10:2002

IDEAL APPLICATIONS

- Atria
- Coal Handling
- Pharmaceuticals
- Printing
- Spray Booths
- Nuclear Industry
- Waste reprocessing
- Storage Tanks
- Tunnels



DESIGNED TO
REJECT STATIC
RADIATION
FROM SUNLIGHT
AND ARTIFICIAL
LIGHTING



Talentum® Single IR Spark Detectors

The Single IR rear viewing specialist flame detector is designed for machine applications to protect enclosed, dark areas where no visible light is present.

Offering extremely high sensitivity to flame and sparks, the detector has a very fast response time. The infrared (IR) sensor, which is selective to low frequency modulated infrared (IR) radiation such as that emitted from flames and sparks, is designed to reject static radiation from sunlight and artificial lighting.

KEY FEATURES

- Operates at temperatures of up to 55°C (FM: +60°C/140°F)
- High sensitivity to embers or sparks
- Detects through layers of dust or dense material flow
- Ideal for use on conductor/extraction ducts, conveyor belts or machinery protection.
- Suitable for enclosed and dark areas
- Intrinsically safe (IS) for hazardous areas.

IDEAL APPLICATIONS

- Conductor ducts
- Extraction ducts
- Conveyor belts
- Enclosed or protected machinery

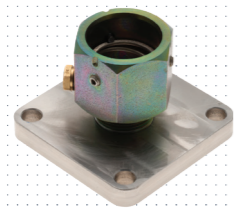
QUALITY All of our Talentum® Flame Detectors are backed with a 3-year warranty. We also provide on-going technical support, from specification and throughout the lifetime of your chosen product. Our solutions undergo rigorous testing procedures and comply with all relevant safety and quality regulations.



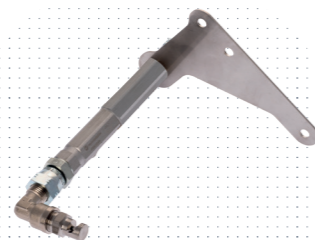
TALENTUM® ACCESSORIES

To complement your Talentum® installation, we also offer a comprehensive range of accessories and tools for your specialist application.

Our standard range of accessories include:



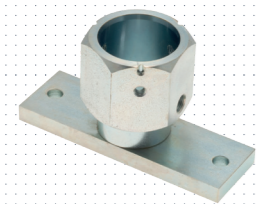
4 Hole Mounting Flange with 1" BSP/NPT – PN: 12561



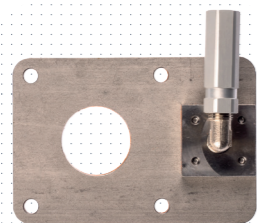
Air Purge for Exd Housings PN: 12555



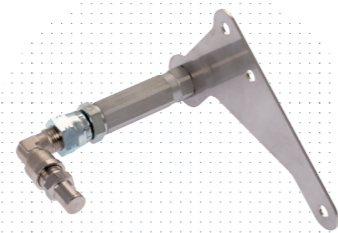
Stainless Steel Weather Shield for Exd Housings PN: 07279



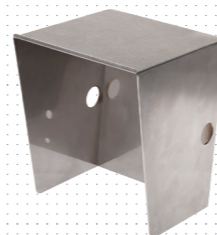
2 Hole Mounting Flange Kit PN: 12564



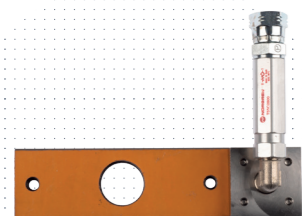
Air Purge Adaptor PN: 12554



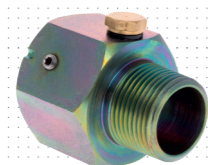
Air Purge for Standard Housings PN: 12556



Stainless Steel Weather Shield for Alloy Housings PN: 12545



Air Purge Adaptor PN: 12543



Bayonet Mount PN: 12290



Adjustable Mounting Bracket PN: 07127

**'TO PROTECT,
CLEAN AND
SECURE'**

Talentum® Flame Detector Tester

This test unit has been designed to generate a wide range of optical output signals. Flame sensors for fire detection and flame monitoring applications can be activated and tested.

Most optical flame sensors respond to Ultra Violet (UV) and or InfraRed (IR) radiation emitted from flames during combustion. Many sensors also use flame flicker techniques to distinguish between flames and other optical false sources.

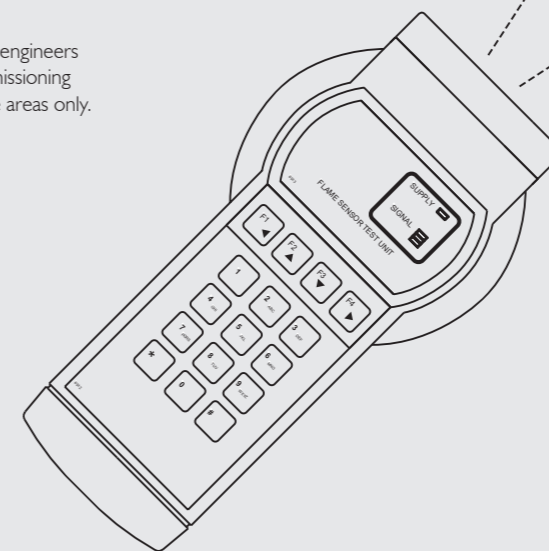
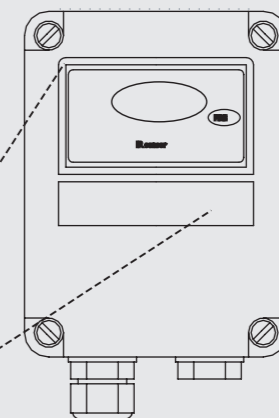
The test unit simulates the flickering flame signal by modulating the output of a filament lamp. The thermal time constant of a filament lamp prevents the generation of a perfect flame flicker signal. The slow response of the filament lamp will mean that some flame sensors may require more time to activate under test than they would with a real flame.

The unit is intended for service engineers to use, when performing commissioning and routine maintenance in safe areas only.

KEY FEATURES

- Wide Spectral Output - UV, Visible, Near IR, Mid-IR
- Suitable to test all Talentum flame detectors
- Portable with Rechargeable NiCd Battery Pack and Charger
- Selectable Optical Output Type
- Constant Illumination
- Regular Flashing Sources (Range of Frequencies)
- Irregular Flickering Sources (Resembling Flames)
- Selectable Optical Output Intensity with LED Bar Graph Indication
- Range typically 3 metres and beyond
- 30 Second Timeout on Each Test
- Auxiliary 24Vdc Supply for Testing

**Flame Detector Tester
PN: 16091**



**Talentum®
Dual IR
(IR²)
Flame
Detectors**


IR2 Flame Detector	IR2 Flame Detector - Intrinsically safe (IS)	IR2 Flame Detector - Flameproof (Exd)	IR2 Flame Detector - Stainless steel	IR2 Flame Detector - Stainless steel flameproof (Exd)
16581	16571	16511	16501	16541

MECHANICAL SPECIFICATION

Housing material	Die Cast Zinc Alloy	Die Cast Zinc Alloy	Copper Free Aluminium Alloy	316 Stainless Steel	316 Stainless Steel
Dimensions	142(H) x 108(W) x 82(D) mm	142(H) x 108(W) x 82(D) mm	150(H) x 146(W) x 137(D) mm	142(H) x 108(W) x 82(D) mm	150 (H) x 146 (W) x 137 (D) mm
Weight	2kg	2kg	2.5kg	2.1kg	6kg
Cable Gland Entries	2 x 20mm	2 x 20mm	3 x 20mm	2 x 20mm	3 x 20mm
Wiring	1.0 to 4.0mm ²	1.0 to 4.0mm ²	1.0 to 4.0mm ²	1.0 to 4.0mm ²	1.0 to 4.0mm ²

ELECTRICAL SPECIFICATION

Supply Voltage	14 to 30Vdc	14 to 30Vdc	14 to 30Vdc	14 to 30Vdc	14 to 30Vdc
Quiescent Current	3mA (min) to 8mA (max)	3mA (min) to 8mA (max)	3mA (min) to 8mA (max)	3mA (min) to 8mA (max)	3mA (min) to 8mA (max)
Alarm Current	9mA (min) - 28mA (max)	9mA (min) - 28mA (max)	9mA (min) - 28mA (max)	9mA (min) - 28mA (max)	9mA (min) - 28mA (max)
Relay Outputs - Programmable	Normally Open or Normally Closed Latching or Non-latching	Normally Open or Normally Closed Latching or Non-latching	Normally Open or Normally Closed Latching or Non-latching	Normally Open or Normally Closed Latching or Non-latching	Normally Open or Normally Closed Latching or Non-latching
Rating: Current Voltage Power	1.0A Max. 50Vdc Max. 30W Max. (Note: Resistive Loads Only)	1.0A Max. 50Vdc Max. 30W Max. (Note: Resistive Loads Only)	1.0A Max. 50Vdc Max. 30W Max. (Note: Resistive Loads Only)	1.0A Max. 50Vdc Max. 30W Max. (Note: Resistive Loads Only)	1.0A Max. 50Vdc Max. 30W Max. (Note: Resistive Loads Only)

ENVIRONMENTAL SPECIFICATION

Operating Temperature	-10°C to +55°C	-10°C to +55°C	-10°C to +55°C	-10°C to +55°C	-10°C to +55°C
Storage Temperature	-20°C to +65°C	-20°C to +65°C	-20°C to +65°C	-20°C to +65°C	-20°C to +65°C
Relative Humidity	95% Non condensing	95% Non condensing	95% Non condensing	95% Non condensing	95% Non condensing
IP Rating	IP66	IP66	IP66	IP66	IP66

PERFORMANCE

Range - Class 1 / Class 3	12m/25m (Approved)	12m/25m (Approved)	12m/25m (Approved)	12m/25m (Approved)	12m/25m (Approved)
Field of View	90° min. Cone	90° min. Cone	90° min. Cone	90° min. Cone	90° min. Cone
Operating Wavelength Band	IR - 1.0 - 2.7µm	IR - 1.0 - 2.7µm	IR - 1.0 - 2.7µm	IR - 1.0 - 2.7µm	IR - 1.0 - 2.7µm

APPROVALS

See colour key, p. 13


**Talentum®
UV/IR2
Flame
Detectors**


UV/IR2 Flame Detector	UV/IR2 Flame Detector - Extended Temperature	UV/IR2 Flame Detector - Flameproof (Exd)	UV/IR2 Flame Detector - Flameproof (Exd), Extended Temperatures	UV/IR2 Flame Detector - Stainless Steel	UV/IR2 Flame Detector - Stainless Steel, Flameproof (Exd)
16591	16291	16521	16221	16531	16561

MECHANICAL SPECIFICATION

Housing material	Die Cast Zinc Alloy	Die Cast Zinc Alloy	Copper Free Aluminium Alloy	Copper Free Aluminium Alloy	316 Stainless Steel	316 Stainless Steel
Dimensions	142(H) x 108(W) x 82(D) mm	142(H) x 108(W) x 82(D) mm	150(H) x 146(W) x 137(D) mm	150(H) x 146(W) x 137(D) mm	142(H) x 108(W) x 82(D) mm	150(H) x 146(W) x 137(D) mm
Weight	2kg	2kg	2.5kg	2.5kg	2.1kg	6kg
Cable Gland Entries	2 x 20mm	2 x 20mm	3 x 20mm	3 x 20mm	2 x 20mm	3 x 20mm
Wiring	1.0 to 4.0mm ²	1.0 to 4.0mm ²	1.0 to 4.0mm ²	1.0 to 4.0mm ²	1.0 to 4.0mm ²	1.0 to 4.0mm ²

ELECTRICAL SPECIFICATION

Supply Voltage	14 to 30Vdc	14 to 30Vdc	14 to 30Vdc	14 to 30Vdc	14 to 30Vdc	14 to 30Vdc
Quiescent Current	3mA (min) to 8mA (max)	3mA (min) to 8mA (max)	3mA (min) to 8mA (max)	3mA (min) to 8mA (max)	3mA (min) to 8mA (max)	3mA (min) to 8mA (max)
Alarm Current	9mA (min) - 28mA (max)	9mA (min) - 28mA (max)	9mA (min) - 28mA (max)	9mA (min) - 28mA (max)	9mA (min) - 28mA (max)	9mA (min) - 28mA (max)
Relay Outputs - Programmable	Normally Open or Normally Closed Latching or Non-latching	Normally Open or Normally Closed Latching or Non-latching	Normally Open or Normally Closed Latching or Non-latching	Normally Open or Normally Closed Latching or Non-latching	Normally Open or Normally Closed Latching or Non-latching	Normally Open or Normally Closed Latching or Non-latching
Rating: Current Voltage Power	1.0A Max. 50Vdc Max. 30W Max. (Note: Resistive Loads Only)	1.0A Max. 50Vdc Max. 30W Max. (Note: Resistive Loads Only)	1.0A Max. 50Vdc Max. 30W Max. (Note: Resistive Loads Only)	1.0A Max. 50Vdc Max. 30W Max. (Note: Resistive Loads Only)	1.0A Max. 50Vdc Max. 30W Max. (Note: Resistive Loads Only)	1.0A Max. 50Vdc Max. 30W Max. (Note: Resistive Loads Only)

ENVIRONMENTAL SPECIFICATION

Operating Temperature	-10°C to +55°C (FM: -20°C to 60°C / -4°F to 140°F)	-20°C to +55°C	-10°C to +55°C	-20°C to +55°C	-10°C to +55°C	-10°C to +55°C
Storage Temperature	-20°C to +65°C	-20°C to +65°C	-20°C to +65°C	-20°C to +65°C	-20°C to +65°C	-20°C to +65°C
Relative Humidity	95% Non condensing	95% Non condensing	95% Non condensing	95% Non condensing	95% Non condensing	95% Non condensing
IP Rating	IP66	IP66	IP66	IP66	IP66	IP66

PERFORMANCE

Range - Class 1 / Class 3	12m/25m (Approved)	12m/25m (Approved)	12m/25m (Approved)	12m/25m (Approved)	12m/25m (Approved)	12m/25m (Approved)
Field of View	90° min. Cone	90° min. Cone	90° min. Cone	90° min. Cone	90° min. Cone	90° min. Cone
Operating Wavelength	UV - 185 - 260nm IR - 1.0 - 2.7µm	UV - 185 - 260nm IR - 1.0 - 2.7µm	UV - 185 - 260nm IR - 1.0 - 2.7µm	UV - 185 - 260nm IR - 1.0 - 2.7µm	UV - 185 - 260nm IR - 1.0 - 2.7µm	UV - 185 - 260nm IR - 1.0 - 2.7µm

APPROVALS

See colour key, p. 13



**Talentum®
Triple IR
(IR³)
Flame
Detectors**


IR3 Flame Detector	IR3 Flame Detector - Intrinsically safe (IS)	IR3 Flame Detector - Extended Temperature	IR3 Flame Detector - Flameproof (Exd)	IR3 Flame Detector - Flameproof (Exd), Extended Temperature	IR3 Flame Detector - Stainless Steel	IR3 Flame Detector - Stainless steel flameproof (Exd)
16589	16579	16289	16519	16219	16509	16549

MECHANICAL SPECIFICATION

Housing material	Die Cast Zinc Alloy	Die Cast Zinc Alloy	Die Cast Zinc Alloy	Copper Free Aluminium Alloy	Copper Free Aluminium Alloy	316 Stainless Steel	316 Stainless Steel
Dimensions	142(H) x 108(W) x 82(D) mm	142(H) x 108(W) x 82(D) mm	142(H) x 108(W) x 82(D) mm	150(H) x 146(W) x 137(D) mm	150(H) x 146(W) x 137(D) mm	142(H) x 108(W) x 82(D) mm	150(H) x 146(W) x 137(D) mm
Weight	2kg	2kg	2kg	2.5kg	2.5kg	2.1kg	6kg
Cable Gland Entries	2 x 20mm	2 x 20mm	2 x 20mm	3 x 20mm	3 x 20mm	2 x 20mm	3 x 20mm
Wiring	1.0 to 4.0mm ²	1.0 to 4.0mm ²	1.0 to 4.0mm ²	1.0 to 4.0mm ²	1.0 to 4.0mm ²	1.0 to 4.0mm ²	1.0 to 4.0mm ²

ELECTRICAL SPECIFICATION

Supply Voltage	14 to 30Vdc	14 to 30Vdc	14 to 30Vdc	14 to 30Vdc	14 to 30Vdc	14 to 30Vdc	14 to 30Vdc
Quiescent Current	3mA (min) to 8mA (max)	3mA (min) to 8mA (max)	3mA (min) to 8mA (max)	3mA (min) to 8mA (max)	3mA (min) to 8mA (max)	3mA (min) to 8mA (max)	3mA (min) to 8mA (max)
Alarm Current	9mA (min) - 28mA (max)	9mA (min) - 28mA (max)	9mA (min) - 28mA (max)	9mA (min) - 28mA (max)	9mA (min) - 28mA (max)	9mA (min) - 28mA (max)	9mA (min) - 28mA (max)
Relay Outputs Programmable	Normally Open or Normally Closed Latching or Non-latching	Normally Open or Normally Closed Latching or Non-latching	Normally Open or Normally Closed Latching or Non-latching	Normally Open or Normally Closed Latching or Non-latching	Normally Open or Normally Closed Latching or Non-latching	Normally Open or Normally Closed Latching or Non-latching	Normally Open or Normally Closed Latching or Non-latching
Rating: Current Voltage Power	1.0A Max. 50Vdc Max. 30W Max. (Note: Resistive Loads Only)	1.0A Max. 50Vdc Max. 30W Max. (Note: Resistive Loads Only)	1.0A Max. 50Vdc Max. 30W Max. (Note: Resistive Loads Only)	1.0A Max. 50Vdc Max. 30W Max. (Note: Resistive Loads Only)	1.0A Max. 50Vdc Max. 30W Max. (Note: Resistive Loads Only)	1.0A Max. 50Vdc Max. 30W Max. (Note: Resistive Loads Only)	1.0A Max. 50Vdc Max. 30W Max. (Note: Resistive Loads Only)

ENVIRONMENTAL SPECIFICATION

Operating Temperature	-10°C to +55°C (FM: -20°C to 60°C / -4°F to +140°F)	-10°C to +55°C	-30°C to +55°C	-10°C to +55°C (FM: -20°C to 60°C / -4°F to +140°F)	-30°C to +55°C (FM: -20°C to 60°C / -4°F to +140°F)	-10°C to +55°C	-10°C to +55°C (FM: -20°C to 60°C / -4°F to +140°F)
Storage Temperature	-20°C to +65°C	-20°C to +65°C	-20°C to +65°C	-20°C to +65°C	-20°C to +65°C	-20°C to +65°C	-20°C to +65°C
Relative Humidity	95% Non condensing	95% Non condensing	95% Non condensing	95% Non condensing	95% Non condensing	95% Non condensing	95% Non condensing
IP Rating	IP66	IP66	IP66	IP66	IP66	IP66	IP66

PERFORMANCE

Range - Class 1/Class 3	12m/25m (Approved)	12m/25m (Approved)	12m/25m (Approved)	12m/25m (Approved)	12m/25m (Approved)	12m/25m (Approved)	12m/25m (Approved)
Field of View	90° min. Cone	90° min. Cone	90° min. Cone	90° min. Cone	90° min. Cone	90° min. Cone	90° min. Cone
Operating Wavelength	IR - 1.0 - 2.7µm	IR - 1.0 - 2.7µm	IR - 1.0 - 2.7µm	IR - 1.0 - 2.7µm	IR - 1.0 - 2.7µm	IR - 1.0 - 2.7µm	IR - 1.0 - 2.7µm

APPROVALS

See colour key on p.13


**Talentum®
Single IR
Spark
Detectors**


Single IR Spark Detector for Bayonet Mounting	Single IR Intrinsically Safe Spark Detector for Bayonet Mounting
16580	16570

MECHANICAL SPECIFICATION

Housing material	Die Cast Zinc Alloy	Die Cast Zinc Alloy
Dimensions	142(H) x 108(W) x 82(D) mm	142(H) x 108(W) x 82(D) mm
Weight	2.4kg	2.4kg
Cable Gland Entries	2 x 20mm	2 x 20mm
Wiring	1.0 to 4.0mm ²	1.0 to 4.0mm ²

ELECTRICAL SPECIFICATION

Supply Voltage	14 to 30Vdc	14 to 30Vdc
Quiescent Current	3mA (min) to 8mA (max)	3mA (min) to 8mA (max)
Alarm Current	9mA (min) - 28mA (max)	9mA (min) - 28mA (max)
Relay Outputs Programmable	Normally Open or Normally Closed Latching or Non-latching	Normally Open or Normally Closed Latching or Non-latching
Rating: Current Voltage Power	0.250A Max. 30Vdc Max. 3.0W Max. (Note: Resistive Loads Only)	0.250A Max. 30Vdc Max. 3.0W Max. (Note: Resistive Loads Only)

ENVIRONMENTAL SPECIFICATION

Operating Temperature	-10°C to +55°C	-10°C to +55°C
Storage Temperature	-20°C to +65°C	-20°C to +65°C
Relative Humidity	95% Non condensing	95% Non condensing
IP Rating	IP66	IP66

PERFORMANCE

Operating Wavelength	IR - 1.0 to 3.0µm	IR - 1.0 to 3.0µm
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APPROVALS
APPROVALS KEY:

- AFNOR
- BASEEFA
- BASEEFA ATEX
- BASEEFA IECEx
- BAS02ATEX1001/3X
- CCCF
- CPR
- CSFM
- FM
- LPCB
- SIL 2
- VdS

**SPECIALIST
APPLICATIONS**

As manufacturers of high speed flame detection technology, our experts can provide you with fire protection technology for any type of application. In addition to our design consultation service, we can also provide you with a complete technical design service, along with drawings to assist you with your installation.

HELP FROM FFE

As additional support, we provide comprehensive training programmes for the Talentum® range, tailored to suit your own specific requirements. We are happy to train individuals or your entire installation team.

Contact us at:
e technical@ffeuk.com

**PROTECTING LIVES
WORLDWIDE**

**BURGAN CAPE TERMINALS,
SOUTH AFRICA**

Our IR3 Intrinsically safe Talentum® units were chosen to protect Cape town's first independent oil storage and distribution terminal which offers a storage capacity of 122,000 m³ in 12 tanks.

GLADSTONE DOCKS, LIVERPOOL, UK

With such a large presence of combustible material in one place the biomass conveyor required a fire detection system that could quickly and efficiently detect fires. The FFE Talentum® IR3 was chosen as the ideal detector for this environment due to its false alarm immunity and speed of flame detection.

**HELICOPTER REPAIR FACILITY,
RZESZOW POLAND**

Helicopter support company Heli-One has installed FFE's Talentum® flame detectors as part of a foam extinguishing system as its helicopter repair and overhaul facility in Rzeszow.

**GUARDIAN JET CENTER,
ONTARIO, USA**

A fixed base operation located at the Ontario Intl Airport, FFE's Talentum® units protects the 43,200 sq.ft. hangar.

MALTA INTERNATIONAL AIRPORT

With the increase in the number of aircraft landing in Malta, the demand for Jet A1 (kerosene) for jet engines use increased and three new tanks were built in order to supply and store fuel. FFE's IR3 Intrinsically safe Talentum® units have been installed to protect these assets.

**SENOKO POWER STATION,
SINGAPORE**

Being the largest and most technically advanced power station in Singapore, finding the right flame detector was crucial to protect the electrical capacitor units. FFE's Talentum® IR3 Exd Units were installed protecting a total of 8 capacitor units.



**'PROVEN
FAST FIRE
DETECTION'**

INSTALLATIONS

- **Trouw Nutrition**
Ireland
- **E.ON Energy Biomass Facility**
Shropshire
- **Rolls Royce Motor Cars**
Chichester
- **DP World**
Southampton Docks
- **Robinson Healthcare Limited**
Workshop, UK
- **Cambridge International Airport**
- **Ruwais Refinery,**
Al Ruwais, Abu Dhabi
- **DEWA**
Dubai
- **Qatar Petroleum Oil Refinery**
Qatar
- **The Department of Space**
Bangalore
- **Yen So Pumping station Hanoi**
Vietnam
- **Goodman Logistics**
Hong Kong
- **Wood River Power Station**
Illinois, USA
- **Pyco Cotton Seed Processing Plant**
Lubbock, TX
- **Sasolburg Refinery**
South Africa

TECHNICAL SUPPORT

FFE Ltd is proud to be able to offer a high level of Technical Support to all our customers, from distributors to end-users. We can advise with any aspect of our Fireray® Optical Beam Smoke Detectors and Talentum® Flame Detectors.

Our Technical Support includes:

Reviewing and advising on correct installation and alignment of FFE Beam Detectors and Flame Detectors.

Troubleshooting problems during the operation of Beam and Flame Detectors after correct installation and alignment Advising the attributes of various types of Beam and Flame Detectors to suit different applications. Explaining good installation and operation practice for Beam and Flame Detectors.

On a proactive level, Fireray® or Talentum® product training is available to any FFE customer including installers, distributors and end users and can be arranged with your FFE Sales Manager or by contacting FFE directly. Each training course is modular and the duration can be agreed according to the customer's requirements.

These personalised training courses can be targeted to all levels; Directors, Sales & Marketing or Technical, and are tailored for mixed audiences too. They include information on Technical Support as well as Troubleshooting for advanced users.

In the UK, courses are typically delivered at the FFE Headquarters in Hitchin, Herts. For other venues, including overseas, please discuss with your Sales Manager.

Certificates



OHSAS 18001:2017 OHS 580021

RMA Request

Should you need to return a product to us, please email warranty@ffeuk.com



A Halma company

Worldwide Technical Support

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