talentum®

Talentum® 16561

Stainless Steel Flameproof (Exd) UV/IR^2 Flame Detector

The Talentum® flameproof Ultra-Violet, dual Infra-Red (UV/IR^2) Flame Detector is designed to protect specialist hazardous areas where open fires may be expected and detects almost all flames, including hydrocarbon fires with 4.3µm emissions through to invisible fires such as hydrogen.

The UV/IR^2 Flame Detector is sensitive to flickering, low frequency (1-15Hz) infra-red radiation emitted by flames during combustion.

This detector has a UV sensor and two IR sensors which respond to different wavelengths of both the ultra-violet and the infra-red spectrum. The signals from these sensors are processed by the detector and checked for characteristics of a flame. The simultaneous detection of both the UV and the IR light by the sensors will signal an alarm. False alarms from flickering sunlight, arc welding and lightning are eliminated by a combination of UV and dual IR signal processing techniques. The Talentum® UV/IR^2 detector has selectable output options of relay contacts or 4-20mA signal, as standard.

Features

- Highest immunity to false sources
- Increased environmental protection
- Solar blind
- Tolerant of fumes, vapours, dust and mist
- Suitable for indoor and outdoor areas
- Unaffected by convection currents, draughts or wind
- Proven response to multiple fuel types
- Multi-spectrum detection
- Selectable output options
- Selectable response speed
- Selectable sensitivity levels
- Built in auto and manual test
- Low current consumption
- Fast response to fire

Approvals

ATEX:
II 2GD Ex d IIC T6
[Zones 1, 21, 2 and 22]
SIL 2 rated.
Visit www.ffeuk.com for up to date approvals information.

Applications

- Chemical Plants
- Nuclear Power Sites
- Engine Rooms
- Spray Booths
- Pharmaceutical Production
- Military Applications
- Marine Industry
- Printing

- Refineries
- Fuel loading racks
- Storage tanks
- Aircraft hangers
- Petrochemical onshore/offshore
- Biomass storage and handling
- LNG/LPG production

Accessories

07127 Adjustable Mount Stainless Steel (316)
07310 Weather Shield Stainless Steel (316)

Talentum® 16561

Mechanical Specification

Housing Material	316 Stainless Steel
Housing Colour	Natural
Dimensions	150(H) x 146(W) x 137(D) mm
Weight	6kg
Cable Gland Entries	3 x 20mm
Wiring	1.0 to 4.0mm^2

Electrical Specification

Supply Voltage	14 to 30Vdc
Quiescent Current	8mA, RL2 energised
	4mA, current loop, RL2 off
	3mA, RL2 off
Alarm Current	28mA, RL1 & RL2 energised
	20mA, current loop, RL1 & 2 off
	9mA, RL1 energised
Power Up Time	2 seconds max.
Test Signal Voltage	14 to 30Vdc
Relay Outputs	
- Programmable	Normally Open or Normally Closed
	Latching or Non-latching
- Ratings: Current	1.0A Max.
Voltage	50Vdc Max.
Power	30W Max.
	(Note: Resistive Loads Only)

Environmental

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

Performance

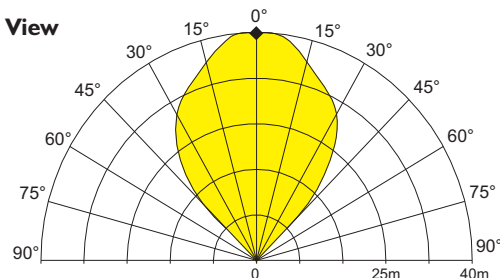|	
Range - Class 1*	0.1m^2 n-heptane at 25m
- Class 3	0.1m^2 n-heptane at 12m
	(see EN54:10 for sensitivity settings)
Field of View	90° min. Cone
Spectral Response	
- UV	185 to 260nm
- IR	1.0 to 2.7μm

Approvals

SIL 2	C127_CT003_(2.0)
ISSeP ATEX	ISSeP03ATEX012X

Response Characteristics – High Sensitivity

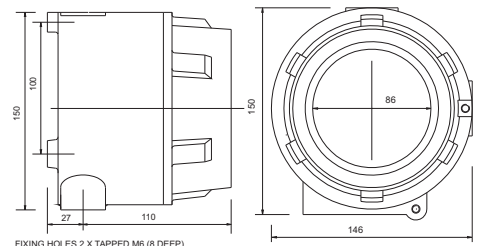| Fuel	Flame Size m (ft)	Distance m (ft)	Average Response time (seconds)
n-Heptane* (Yellow flame)	0.3 x 0.3 (1 x 1)	25 (82)	12
Methylated Spirit* (Clear flame)	0.5 x 0.5 (1.6 x 1.6)	25 (82)	25
Hydrogen (non-visible flame)	0.1 x 0.5 (0.3 x 1.6)	12 (39)	8

* has been tested and approved at Class 1
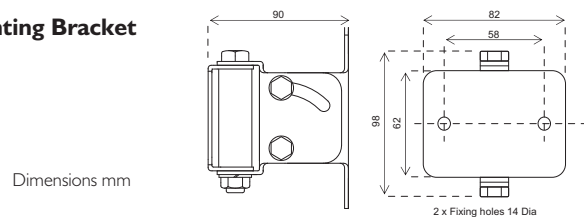
Field of View

To meet the requirements of EN54:10 clause 5.4, where the ratio of the response points Dmax:Dmin should not exceed 1.41, the horizontal and vertical viewing angles αmax should not exceed ±30°.

Flame Detector

FIXING HOLES 2 X TAPPED M6 (8 DEEP)

Mounting Bracket

Dimensions mm

2 x Fixing holes 14 Dia

FFE Limited
9 Hunting Gate, Hitchin
Hertfordshire, SG4 0TJ UK

t +44 (0) 1462 444 740
f +44 (0) 1462 444 789
e sales@ffeuk.com
w www.ffeuk.com

Formerly known as Fire Fighting Enterprises Ltd

Installation Recommendations

Please refer to our User Manual for mounting and wiring instructions. The installation of Talentum® flame detectors should be undertaken in accordance with recognised national or international standards and codes of practice.

Document Part No: 24-0065-02

www.ffeuk.com