



## IR3 Flame Detector

### DESCRIPTION

The CS-TIE-C30P has three IR sensors and these detect three specific wavelength bands within the IR spectral range of a fire. Due to its variety of detection ranges, their immunity to false alarms to minimize malfunctions and increase reliability have been greatly improved.



**CS-TIE-C30P (Explosion-proof)**

### FEATURES

- ◆ Alarm and warning function in case of abnormal temperature and voltage (optional)
- ◆ Highly immune to false alarms
- ◆ Various fire output signals (optional)
- ◆ Lead wire-integrated type -Easy installation
- ◆ Compact in size therefore can be installed in small space – Mainly used for cultural heritage made of wood, indoor gyms, multi-story car parks, High Speed Response to fire
- ◆ FM 3260 / EN 54-10 (2809-CPR-E0012)
- ◆ CCCF
- ◆ IECEx / ATEX / Dust Explosive /Nepsi

### ELECTRICAL SPECIFICATIONS

Operating Voltage	19.2Vdc ~ 28.8Vdc
Power Consumption	On stand-by : 30mA Alarm : 75mA
Wiring	15 to 24AWG
Electrical Interface	Relay dry contact: NO Fault dry contact: NC

### OUTPUT SIGNALS

Relays	Alarm relay (SPST) Fault relay (SPST) 4-20mA RS-485
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### GENERAL SPECIFICATIONS

Detection Range	Fuel	ft/m	Fuel	ft/m
-Sensitivity Setting 1ft x 1ft Fan Fire *20"(0.5M) Plume Fire	Heptane	197 / 60	Kerosene	138 / 42
	Gasoline	197 / 60	Alcohol	118 / 36
	Jet A	138 / 42	*Methane	89 / 27
	JP 4	138 / 42	*Propane	89 / 27
	Diesel	138 / 42	Paper	69 / 21
	Field of View	Horizontal 90° Vertical 90°		
Response Time	Normally 10 Seconds (Maximum 30 Seconds)			
Temperature Range	Operating: -40°F ~ 167°F (-40°C ~ 75°C) Storage: -40°F~176°F (-40°C ~80°C)			
Humidity	Relative humidity of up to 93% ± 2% for the operational temperature range			



### MECHANICAL SPECIFICATIONS

Enclosure	Stainless Steel (316L) Aluminum (AL6061)
Dimensions	Cylinder 61.5(H)mm x 75(Ø) mm
Weight (Approx.)	Stainless 316L: 3.0kg (6.61lbs) Aluminum: 0.49kg (1.08lbs)
Water and Dust Tight	IP67, NEMA 4X

### HAZARDOUS AREA ZONES

- ◆ IECEx Ex db IIC T6 Gb ( -40°C ≤ Ta ≤ +75 °C )
- ◆ ATEX Ex db IIC T6 Gb, (IP66/67)
- ◆ Ex tb IIIC T6 Db (ZONE 21) IP66/67 T85°

### APPLICATIONS

- ◆ Industrial Fires
- ◆ Oil & Gas Industries
- ◆ Airport
- ◆ Military Base
- ◆ Cultural Heritage Made of Wood
- ◆ Indoor Gyms
- ◆ Multi-Story Car Parks

### CERTIFICATION & APPROVAL

- ◆ Dust Explosive
- ◆ IECEx
- ◆ ATEX
- ◆ Nepsi
- ◆ FM 3260
- ◆ EN54-10
- ◆ SIL2 (Pending)
- ◆ CCCF

### ORDERING GUIDE

#### ◆ Accessories

#### Cable Length

- 2M (standard)

#### Cable Gland

- For Stainless Steel Enclosure
- For Aluminum Enclosure

#### Bracket

- 1.  Aluminum (160mm)
- 2.  Stainless Steel long leg (134mm)
- Stainless Steel short leg (83mm)



#### Cable Gland

#### For Stainless Steel Enclosure

A2FRC-20b  
(1/2" NPT) IP67  
(Stainless Steel)



#### For Aluminum Enclosure

16C (1/2")  
(Brass)

