

UV/IR & Triple IR (IR3) Flame Detectors

(ZT-30P, ZT-20EX & ZT-500EX)

NEW



ZT-30P



ZT-20EX

ZT-500EX

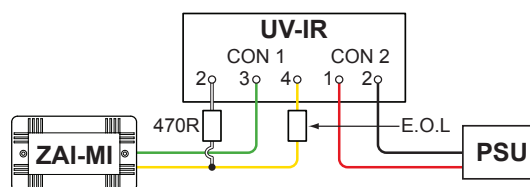
The new range of UV/IR and Triple IR Flame Detectors detect fuel and gas fires at long distances with the highest immunity to false alarms.

The ZT-30P and the ZT-20EX can detect a 0.1m² gasoline pan fire at 30m in less than 5 seconds. The ZT-500EX can detect the same fire at 65m in less than 5 seconds.

New features include RS484/RS232 compatibilities for digital communications; lower power requirements; and a compact, lighter design.

ZT-20EX and ZT-500EX series are approved to ATEX by DNV for explosion-proof.

Connection Diagram



Applications

Non Hazardous (ZT-30P)

- ✓ Non-Hazardous Areas
- ✓ Semiconductor Process Equipments
- ✓ Warehouses
- ✓ Waste disposal facilities
- ✓ Storage facilities
- ✓ Offices

Hazardous (ZT-20EX & ZT-500EX)

- ✓ Offshore Oil & Gas Installations
- ✓ Onshore Oil & Gas Installations and Pipelines
- ✓ Petrochemical plants
- ✓ Chemical plants
- ✓ Shipbuilding facility
- ✓ Automotive industry
- ✓ Storage tank farms
- ✓ Power generation facility
- ✓ Painting industry
- ✓ Warehouse
- ✓ Waste disposal facility
- ✓ Explosive & Munitions

Features

- ✓ UV/IR Spectrum - for medium distance detection and high false alarm immunity (ZT-20EX)
- ✓ Triple IR Spectrum - for longer distance detection and high false alarm immunity (ZT-30P & ZT-500EX only)
- ✓ Compact and lightweight design
- ✓ ZT-20EX & ZT-500EX Enclosure options:
 - Aluminium
 - Stainless (ST 316L) for offshore facilities
- ✓ User Selectable (Sensitivity/Functions)
- ✓ Multiple output options
 - Relays for Alarm and Fault
 - 0-20mA (stepped)
 - RS-485/RS-232 spectrum monitoring
- ✓ Lower power requirement (35mA - standby / 75mA - alarm)
- ✓ Ex cable gland / 2 metre cable assembled & provided for users' easy installation
- ✓ Certifications
 - ATEX approved by DNV for explosion-proof
 - CE marking

Model	ZT-30P		ZT-20EX		ZT-500EX	
Part Number	47-156		47-154		47-153	
Spectrum Response	Three IR Bands (IR3)		UV/IR (Dual Bands)		Three IR Bands (IR3)	
Spectrum Response (at highest sensitivity setting for 0.1m² pan fire)	Fuel	Distance	Fuel	Distance	Fuel	Distance
	n-Heptane	65m	n-Heptane	30m	n-Heptane	65m
	Gasoline	65m	Gasoline	30m	Gasoline	65m
	Diesel	45m	Diesel	20m	Diesel	45m
	LPG*	30m	LPG*	20m	LPG*	30m
	Ethanol	40m	Ethanol	20m	Ethanol	40m
	IPA	40m	IPA	25m	IPA	40m
	Methane**	35m	Methanol	20m	Methanol	35m
*0.5m high/0.2m width plume fire, **30” plume fire						
Response Time	Typically 5 seconds					
Adjustable Time Delay	Up to 20 seconds					
Sensitivity Range	4 sensitivity ranges for 0.1m² n-Heptane pan fire from 15m to 65m					
Field of View	Horizontal / Vertically Typical 120° & 120° Max		Horizontal 90°, Vertical 90°			
Built-in-Test	Automatic self-check to verify the lens cleanliness/ electronic circuits & etc		Manual (optionally Automatic)			
Temperature Range	Operating/Storage:-40°C to 75°C					
Humidity	Up to 95% non-condensing					
Operating Voltage	24VDC nominal (18-32VDC)		24VDC nominal (17-31VDC)			
Power Consumption	Standby: max. 50mA, Alarm: max. 70mA		Standby: max. 35mA, Alarm: max. 75mA			
Cable Entry	1 x Ø6mm		1 x M20 (ISO)			
Wiring	According to the requirements		AWG 16-26 (Str 1.5mm² to 0.13mm²)			
Electromagnetic Compatibility	Complies with EN 61000-6-4 and EN 50130-4		EMI/RFI protected to EN61000 series			
Electrical Interface	4-Wiring relay contact outputs		The detector includes twelve (12) terminals with four (4) wiring options			
Relays	Alarm(N.O.), Fault(N.C) SPST volt-free contacts rated 5A at 30VDC or 250VAC		Alarm, Fault			
0-20mA (stepped)			SPST volt-free contacts rated 5A at 30VDC or 250AC			
			Fault:	0+1mA	Bit Fault:	2mA+/-10%
	N/A		Normal:	4mA+/-10%	Warning:	16mA+/-10%
		Alarm:	20mA+/10%	Resistance Loop:	max. 800 ohms	
RS-485 (option)	RS-485 Modbus compatible communication link that can be used in computer controlled installations					
RS-232C (option)			Three IR channels spectrum monitoring with PC			
Materials	Heavy duty copper free aluminium with white powder coating		- Heavy duty copper free aluminium (less than 1%) with bright grey anodized finish - Stainless Steel 316L with electro polish finish			
Mounting (Tilt Mount)	Heavy duty copper free aluminium with white powder coating		- Heavy duty copper free aluminium (less than 1%) with grey epoxy enamel finish - Stainless Steel 316L with electro polish finish			
Dimensions	Detector 63(D) x 110 (L) mm		83(D) x 126(L) mm			
Weight	Detector & Mounting Bracket (Aluminium): 0.3kg		Detector (aluminium): 1.0kg Detector (ST 316L): 2.7kg Tilt mount (aluminium/ST 316L): 0.3kg/0.5kg		Detector (aluminium): 1.0kg Detector (ST 316L): 2.7kg Tilt mount (aluminium/ST 316L): 0.3kg/0.7kg	
Water and Dust	IP65		IP66 and IP67 per EN60529			
EMI/RFI	EN61000		CE Marking			
Hazardous Area	N/A		ATEX Ex II 2G Exd IIC T6, -40°C to +75°C (DNV 09 ATEX 65127)			
Performance	Designed to meet FM3260 (EN54-10)					