ADEVA®

Advanced Intelligent PTIR (Photoelectric Smoke/Temperature/IR) Detector FCOTI781 / FCOTII781

Description

- Advanced intelligent detection functionality
- Fully digital adressing technology
- Includes Advanced ADEVA protocol
- New mechanical platform with revolutionary chaber offering improved false alarm immunity
  - Improved detection across multiple fire types
  - Improved resilience to false alarms through insects
  - Removed ris of false alarms through insects
- Available with or without single pole short circuit isolation with status control through the ADEVA protocol
- Optional inbuilt short circuit isolator
- Unique, true three sensor multi - criteria fire detector incorporating photoelectric, thermal and IR sensing elements
- Fully integred infrared sensing to support the fire alarm decision
- Three-colour LED detector status indicator
- Wide operating voltage 15 to 32VDC
- Rotary decade address switche
- Automatic drift compensation
- Pure white colour to compliments modern buildings
- %100 mechanical and electrical backwards compatibility
- New base design to compliment the detector
- Tested and approved to EN54-5:2000+A1:2002
  EN54-7:2000+A1:2002+A2:2006

CE VdS

G 214041
G 214035

Description

The revolutionary Advanced Intelligent ADEVA range delivers a totally new detector platform that incorporates the new digital Advanced Intelligent ADEVA protocol.The new protocol delivers more devices on the loop and gives greater control, configurability and device management whilst enabling the overall system to be optimised to the location and use of the building with far greater flexibility than ever before.

The FCOTI781 multi - criteria, multi - sensor Photo Thermal Infra Red (PTIR) detector is the environmentally friendly alternative to the ionisation detector, a technology that is now over sixty years old. The PTIR offers comparable speed of response to the ionisation technology for a fast flaming fire and is less susceptible to false alarms. It can be deployed with confidence in locations where the main risk is from fast-developing flaming fires. PTIR moves the goalposts in the fight against fasle alarm in the core detector space by delivering anhanced false alarm immunity. In addition to being an effective alternative to ionisation units, PTIR offers better performance over the alternative technologies of dual angle or dual wavelenght optical detectors and photo- thermal detector.

'Drift compensation' algorithms are one of the key features of the FCO731 detector. sensitivity threshold for periods between service intervals.

These algorithms are ensure a consistent alarm.This provides the user with both a reduction in the frequency of nuisance alarms and maintenance savings by extending the period before cleaning of the detector chamber is reuired.

The integration of continual monitoring for all three major elements of a fire enables the FCOIT781 respond far more quickly to an actual fire and has the highest immunity to nuisances. Based upon the program is dynamically changing sensor thresholds, changing sensor gain, changing time delays, changing combination, changing sampling rates, changing averaging rates and, if any sensor fails, changing sensitivity of the remaining sensors as well as indicating a fault condition.

The sensing elements of the FCOTI721 are panel controllable so the sensitivity thresholds of each element can be charged by the panel offering the ability to customise the device for the changing use of the area it is protecting. The FCOT721 has two integral tri-colour LEDs that provide 360^0 local visual indication of the device status

All ADEVA detectors are environmentally friendly and meet the WEEE and RoHS legislative requirements, minimising end of life disposal costs, and are mechanically and electrically backwards compatible.

Architect/Engineer Specifications
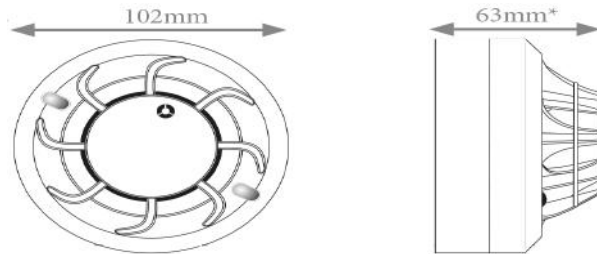
All ADEVA products are covered by our extended 5 years monufacturer warranty.

Electrical Specifications - Standard Product (FCOTI781)

Operating Voltage Range	15 to 32VDC
Maximum Standby	200μA at 24VDC (no communications) / 300μA at 24VDC (LED blink enabled, once every 5s)
Current Led	Red: 3.5mA at 24VDC
	Green: 7.0mA at 24VDC
	Yellow: 10.mA at 24VDC
Remote Output Voltage	22.5VDC at 24VDC
Remote Output Current	10.8mA at 24VDC
Additional Loop Resistance Using the B501AP	typ 20mohm (max 30mohm)

Electrical Specifications - Isolator Product (FCOTII781)

Operating Voltage Range	15 to 28.5VDC
Isolation Current	15mA at 24VDC
Maximum Continuons	1A (Switch Closed)
Additional loop resistance	typ 80mohm @24V (max 170mohm @15V)

Environmental Specifications

Temperature Range	-30^0C to $+70^0$C
Humidity	5 to 93% Relative Humidity (non condensing)

Mechanical Information

Height	63mm installed in B501 base
Diameter	102mm installed in B501 base
Weight	102g (inc base)
Max Wire Gauge for Terminals	2.5mm^2
Colour	White
Meterial	PC/ABS

Sensitivity Settings

Alarm Level 1	Low false alarm resistance, high photoelectric only sensitivity. 1%/ft
Alarm Level 2	Medium false alarm resistance, medium photoelectric only sensitivity. 2%/ft
Alarm Level 3	Standard false alarm resistance, low photoelectric only sensitivity.3%/ft
Alarm Level 4	High false alarm resistance, low photoelectric only sensitivity. 3%/ft
Alarm Level 5	Very high false alarm resistance, low photoelectric only sensitivity. 3%/ft smoke
Alarm Level 6	ClassAIR

Product Range

Note The panel threshold should be chosen according to the specific environment.The following would be ADEVA's recommendations. Ultra-clean applications use Level 1 for pre alarm or al arm. Clean applications use Level 1 for pre alarm and Level s 2 & 3 for al arm moderate environments use Level 1, 2 or 3 for pre alarm and Level 4 for al arm harsh environments use Level 2 or 3 for pre alarm and Level s 5-6 f or al arm.

Compatible Bases	B500 Series (B501, B501DG, B524RTE, B524HTR, B524IEFT-1) B501AP			
Other Devices in range	FCO731 / FCOI731 FCOT721 / FCOTI721 FCHR751 / FCHRI751	FCHF741 / FCHFI741 FCHH761 / FCHHI761 2251CTLE	7251 DNRE FTX-P1	2251EIS 6500
Other Colours in Range	Ivory			

Note * When installed in a B501AP base
† Do not install detectors in locations where normal ambient tempera tu re exceeds 50℃

ADEVA LTD. Fire Alarm Systems

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