

# Advanced Intelligent Photoelectric Smoke Detector FCO731 / FCOI731

#### **Overview**

- 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
- Three-colour LED detector status indicator
- Wide operating voltage 15 to 32VDC
- Rotary decade address switches
- 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 EN54-7:2000+A1:2002+A2:2006
   EN54-17:2005+AC:2007(for isolator)







G214043

#### **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 FCO731 photoelectric smoke detector has a comletely new detection chamber design, the result of many years of research and design. This delivers improved responsiveness, reduced sensitivity changes caused by settling dust and reduced false alarms resulting from insect ingress and other debris. The plug-in unit uses sophisticated processing circuitry that incorporates smoothing filters to help eliminate transient encironmental noise conditions that can be the cause of unwanted alarm. The devices are managed by embedded software running complex algorithms that further improve res resilience to false alarms and improve detection speed.

'Drift compensation' algorithms are one of the key features of the FCO731 detector. These algorithms are ensure a consistent alarm sensitivity threshold for periods between service intervals. 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 FCO731 has two integral tri-colour LEDs that provide 360° local visual indication of the device status.

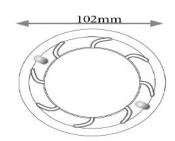
All ADEVA detectors are environmentally friendly and meet the WEEE and RoHS legislative requirements, minimising end of life disposal costs, and are mechanically and electrically backwards compatible.

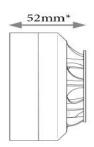




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### Architect/Engineer Specifications





All ADEVA products are covered by our extended 5 years monufacturer warranty.

### Electrical Specifications - Standard Product (FCO731)

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

### Electrical Specifications - Isolator Product (FCOI731)

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

## **Environmental Specifications**

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

#### **Mechanical Information**

Height	52mm installed in B501 base	
Diameter	102mm installed in B501 base	
Weight	97g (inc base)	
Max Wire Gauge for Terminals	2.5mm <sup>2</sup>	
Colour	White	
Meterial	PC/ABS	

### **Product Range**

Compatible	B500 Series (B501, B5010	B500 Series (B501, B501DG, B524RTE, B524HTR, B524IEFT-1) B501AP		
Bases	B501AP			
Other Devices in range	FCOT721 / FCOTI721	FCHF741 / FCHFI741	7251	
	FCOTI781 / FCOII781	FCHH761 / FCHHI761	DNRE	
	FCHR751 / FCHRI751	2251CTLE	FTX-P1	
Other Colours in Range	Ivory			

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